

Jiaju Zhou · Guirong Xie · Xinjian Yan

# Encyclopedia of Traditional Chinese Medicines

Molecular Structures, Pharmacological Activities,  
Natural Sources and Applications

## Vol.1

Isolated Compounds A-C

 Springer

Encyclopedia of Traditional Chinese Medicines  
Molecular Structures, Pharmacological Activities,  
Natural Sources and Applications



Jiaju Zhou • Guirong Xie • Xinjian Yan

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Traditional Chinese Medicines  
Molecular Structures, Pharmacological  
Activities, Natural Sources and Applications

Vol. 1: Isolated Compounds A-C

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# Encyclopedia of Traditional Chinese Medicines

Molecular Structures, Pharmacological Activities, Natural Sources and Applications

## Contents

Preface .....	vii
Introduction .....	ix
How to Use This Book .....	xix
Abbreviations and Symbols .....	xxv
Cancer Cell Codes .....	xxix
<b>Volume 1 Isolated Compounds (A-C)</b>	
A (entries 1~2071) .....	3
B (entries 2072~2835) .....	241
C (entries 2836~4594) .....	327
<b>Volume 2 Isolated Compounds (D-G)</b>	
D (entries 4595~6656) .....	3
E (entries 6657~7700) .....	225
F (entries 7701~8043) .....	343
G (entries 8044~9185) .....	383
<b>Volume 3 Isolated Compounds (H-M)</b>	
H (entries 9186~10927) .....	3
I (entries 10928~11806) .....	187
J (entries 11807~11990) .....	283
K (entries 11991~12399) .....	308
L (entries 12400~13280) .....	356
M (entries 13281~15227) .....	459
<b>Volume 4 Isolated Compounds (N-S)</b>	
N (entries 15228~15880) .....	3
O (entries 15881~16484) .....	73
P (entries 16485~18281) .....	142
Q (entries 18282~18455) .....	350
R (entries 18456~19091) .....	375
S (entries 19092~20574) .....	453

**Volume 5 Isolated Compounds (T-Z)**

T (entries 20575~22170) .....	3
U (entries 22171~22301) .....	184
V (entries 22302~22625) .....	201
W (entries 22626~22742) .....	238
X (entries 22743~22856) .....	254
Y (entries 22857~22960) .....	270
Z (entries 22961~23033) .....	284
References for Isolated Compounds .....	293
TCM Plants and Congeners (entries T0001~T6926) .....	347

**Volume 6 Indexes**

Compound Pharmacological Activity Index .....	3
Compound Molecular Formula Index .....	65
Compound Name Synonym Index .....	285
TCM Plant English Name Index .....	347
TCM Plant PIN-YIN/Chinese Name Index .....	458
TCM Plant Traditional Effect Index .....	580
TCM Plant Traditional Indication Index .....	624

# Preface

A significant preoccupation of modern traditional Chinese medicine (TCM) research has been the characterization of TCM components, such as pertain to their isolation, purification, structural determination, and pharmacological activity. As a reference tool, this *Encyclopedia of Traditional Chinese Medicines* presents a comprehensive and integrative work on surveying TCM plant sources, chemistry, pharmacology and medicinal effects and indications in a systematic manner.

This encyclopedia is an integrated achievement of a long-term TCM research project by the authors at the Chinese Academy of Sciences<sup>[1-4]</sup>, involving three parts and now organized in six volumes:

Part I (Volumes 1 to 4 and part of Volume 5) provides structural, physical, pharmacological and natural source information on 23,033 isolated chemicals captured from 5,535 references, basically up to year 2005. A great deal of effort has been paid on overlapping or contradictory data in order to provide readers with an accurate and reliable resource.

Part II (last part of Volume 5) describes 6,926 TCM plants and congeners, together with their medicinal effects and indications. The contents of Part I and Part II are all organized in alphabetical order.

Part III (Volume 6) includes seven indexes produced by a computer program. Based on the indexes, users can readily find concerned contents in multiple ways.

With this encyclopedia, the authors attempt to provide a bridge for the communication between the TCM system and Western medicinal systems, and a platform with multiple-subjects in support of research and development of the health sciences.

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Sep, 2010, Beijing

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# Introduction

This encyclopedia mainly consists two parts - compound and plant. Its core content is the structural and pharmacological information of 23,033 phytochemicals, as well as medical effects and indications of 6,926 plant species from which the phytochemicals were isolated. The compounds, i.e. phytochemicals, are ordered alphabetically, and their ordinal numbers are used as compound unique codes. The plant species are coded from T0001 to T6926. With this code system, the complicated “many to many” relationship between compounds and plants can be clearly expressed, and any individual compound or plant could be located easily in this 6 volumes book.

## 1. Compound Entry

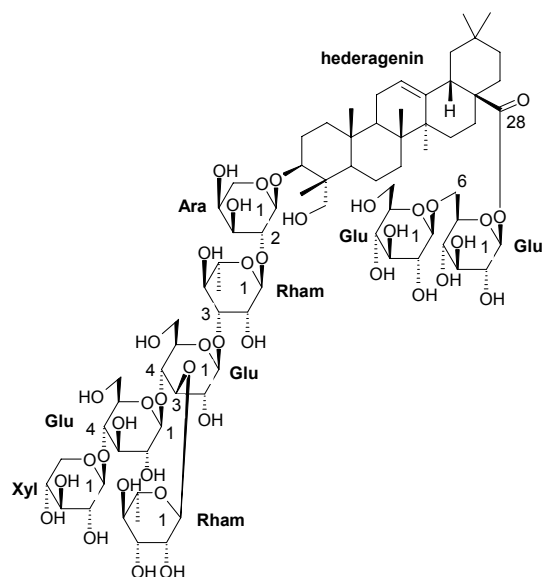
**Format of Compound Entry.** A compound entry starts with a title line, in which there are two items: the compound’s unique code and main name. Following the title line is the compound physical, pharmacological and source information, which may include 8 items:

**Title line (code number, main name)**

- A. Synonyms of the compound (if any);
- B. CASRN number (if any);
- C. Formula (relative molecular mass);
- D. Physicochemical properties;
- E. Pharmacological data (if any);
- F. Source(s);
- G. Reference(s);
- H. Graphic structure.

**Chemical Names and Synonyms.** Generally, a compound may have one scientific name and several trivial names. In the encyclopedia, based on original articles, we select one name as the “main name” (appeared at the title line of each compound entry), and use it to alphabetically order the 23,033 compounds in the first 5 volumes. The main name is either a scientific name or a trivial name. All of other names of each compound, if any, are presented after the title line.

**Stereochemistry of Chemical Structure.** We protracted all compound structures down to atom-bond level including complicated glycosides, with stereo-chemical information based on the data in the original papers. For example, the structure with full stereochemistry of compound 22,834 (isolated from CHUAN XU DUAN *Dipsacus asperoides*) is:



3-*O*-[ $\beta$ -*D*-Xylopyranosyl(1 $\rightarrow$ 4)]- $\beta$ -*D*-glucopyranosyl(1 $\rightarrow$ 4)]  
 [ $\alpha$ -*L*-rhamnopyranosyl(1 $\rightarrow$ 3)]- $\beta$ -*D*-glucopyranosyl(1 $\rightarrow$ 3)-  
 $\alpha$ -*L*-rhamnopyranosyl(1 $\rightarrow$ 2)- $\alpha$ -*L*-arabinopyranosyl hederagenin-  
 28-*O*- $\beta$ -*D*-glucopyranosyl(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranoside

**Normalization of Pharmacological Data.** More than 8,000 TCM components in this encyclopedia have a variety of pharmacological data, which are valuable not only for the study of TCM, but also for the development of Western medicine. Because different expressions are used for the same kind of data in different articles, we have to define and normalize thousands pharmacological terms, so that the data could be expressed by a unified way, and be easily understood by readers.

The pharmacological terms in the encyclopedia are presented by a multi-layered structure. In the top layer, there are around 20 types of pharmacological activity terms, they are cytotoxic (*in vitro* anticancer), antineoplastic (*in vivo* anticancer), antibacterial, antifungal, antiviral, anti-HIV, anti-inflammatory, antioxidant, antimalarial, enzyme inhibitors, NO production inhibitors, cardiovascular activity, smooth muscle relaxant and stimulant, toxin and medium lethal dose LD<sub>50</sub>, and so forth. For each term there is a regulation about how to describe related pharmacological data. The following is an example:

**Term name** (*in vitro/in vivo*,  
 target cell **1**, quantitative data,  
 control Compound, control's data;  
 target cell **2**, quantitative data,  
 control Compound, control's data;  
 target cell **3**, quantitative data,  
 control Compound, control's data;  
 terse description of related mechanism if any).

Under the subtitle “Pharm:” of compound entry 248 (17-Acetoxyabda-7,12(*E*),14-triene), a set of bio-data is presented as follows:

Pharm: **Cytotoxic** (*in vitro*,  
 BT474 human galactophore cancer cell,  $IC_{50} = 4.7\mu\text{g/mL}$ ,  
 control Doxorubicin hydrochloride,  $IC_{50} = 0.08\mu\text{g/mL}$ ;  
 CHAGO human undifferentiated lung cancer cell,  $IC_{50} = 5.7\mu\text{g/mL}$ ,  
 control Doxorubicin hydrochloride,  $IC_{50} = 2.3\mu\text{g/mL}$ ;  
 HepG2 human liver cancer cell,  $IC_{50} = 6.5\mu\text{g/mL}$ ,  
 control Doxorubicin hydrochloride,  $IC_{50} = 0.9\mu\text{g/mL}$ ;  
 Kato3 human gastric cancer cell,  $IC_{50} = 5.3\mu\text{g/mL}$ ,  
 control Doxorubicin hydrochloride,  $IC_{50} = 1.7\mu\text{g/mL}$ ;  
 SW620 human colorectal adenocarcinoma cell,  $IC_{50} = 5.6\mu\text{g/mL}$ ,  
 control Doxorubicin hydrochloride,  $IC_{50} = 1.1\mu\text{g/mL}$ ).

In order to standardize abbreviations of cancer cells, such as BT474, CHAGO, etc., we defined and used 270 cancer cell codes (CCC) in the encyclopedia. For explanations of these codes, please see “Cancer Cell Codes in the Pharmacological Models” in Volume 1 of the encyclopedia.

By means of the formatted and structuralized methods, we normalized expressions of most pharmacological data appeared in the encyclopedia. For complete information of all 3367 normalized pharmacological activity terms, please see “Compound Pharmacological Activities Index” in Volume 6.

## 2. Plant Entry

**One Species One Entry.** Conventionally, a TCM name may include more than one plant species that have the same medical functions; therefore, a plant may not have an independent TCM entry and may be described under a TCM name. In this book, modern botany classification regulation is adopted and each plant species has an independent entry.

For example, traditional Chinese medicine DAN SHEN includes three species. They are equivalent in both effects and indications in TCM practice. In this encyclopedia, we defined three plant entries for each one of them.

T5680 *Salvia miltiorrhiza* (Lamiaceae); DAN SHEN; Danshen;  
 T5681 *Salvia miltiorrhiza* f. *alba* (Lamiaceae); BAI HUA DAN SHEN; Whiteflower Danshen;  
 T5688 *Salvia przewalskii* (Lamiaceae); GAN XI SHU WEI CAO; Przewalsk Sage.

With this method, we are able to smoothly link TCM information with that of modern botany.

**Simplified Latin Name.** For each TCM plant or TCM congener, four names are used in the encyclopedia. They are Latin name, English name, PIN-YIN name and Chinese

name, while the Chinese name only appears in TCM Plants PIN-YIN/Chinese Names Index” not in the main part of the book. For plant Latin name (e.g. scientific name), we use a simplified nomenclature, in which the nomenclator(s) information is not included. For example the Latin name of Chinese Angelica (DANG GUI) in the encyclopedia is “*Angelica sinensis*”, not “*Angelica sinensis* (Oliv.) Diels”.

**Family Name.** According to the “International Code of Botanical Nomenclature” (2007), the following eight authoritative family names are used in the encyclopedia. The family names of long usage, which are not used in are the encyclopedia, indicated in parentheses:

Apiaceae (Umbelliferae);  
 Arecaceae (Palmae);  
 Asteraceae (Compositae);  
 Brassicaceae (Cruciferae);  
 Clusiaceae (Guttiferae);  
 Fabaceae (Leguminosae);  
 Lamiaceae (Labiatae) and  
 Poaceae (Gramineae).

**PIN-YIN Name and Chinese Name.** A simplified PIN-YIN name system is used in the encyclopedia. That is not to include the four-tone mark. However, there are exceptions. Among the thousand PIN-YIN names in the book, there are seven confusing cases. For each mistakable name, a superscript is attached to the name for indicating its four-tone in order to distinguish it from other plant species. For example: BAI MAO GEN<sup>(1)</sup> and BAI MAO GEN<sup>(4)</sup> are two different TCM plants:

T3416 *Imperata cylindrica* var. *major* (Poaceae); BAI MAO GEN<sup>(1)</sup>; Lalang Grass Rhizome.  
 T3309 *Hydrastis canadensis* (Ranunculaceae); BAI MAO GEN<sup>(4)</sup>; Golden-seal.

Other six cases are:

T1449 *Cirsium japonicum* (Asteraceae); DA JI<sup>(4)</sup>; Japanese Thistle.  
 T2608 *Euphorbia pekinensis* (Euphorbiaceae); DA JI<sup>(3)</sup>; Peking Euphorbia.  
 T4124 *Matricaria chamomilla* [Syn. *Matricaria recutita*] (Asteraceae); MU<sup>(3)</sup> JU; Mayweed.  
 T0197 *Aegle marmelos* (Rutaceae); MU<sup>(4)</sup> JU; Sepiaria.  
 T1039 *Bruguiera gymnorrhiza* (Rhizophoraceae); MU LAN<sup>(3)</sup>; Common Bruguiera.  
 T3423 *Indigofera tinctoria* (Fabaceae); MU LAN<sup>(2)</sup>; True Indigo.  
 T6798 *Vitis vinifera* (Vitaceae); PU<sup>(2)</sup> TAO; European Grape.  
 T6267 *Syzygium jambos* (Myrtaceae); PU<sup>(3)</sup> TAO; Roseapple.  
 T2107 *Dendrobium nobile* (Orchidaceae); SHI HU<sup>(4)</sup>; Noble Dendrobium.  
 T2646 *Evodia rutaecarpa* var. *officinalis* (Rutaceae); SHI HU<sup>(3)</sup>; Official Evodia.  
 T1221 *Caryopteris divaricata* (Verbenaceae); YOU<sup>(2)</sup>; Divaricate Bluebeard.  
 T1478 *Citrus grandis* (Rutaceae); YOU<sup>(4)</sup>; Pummelo.

**Translation of TCM Effects Terms.** In the Volume 5 of the encyclopedia, 6,926 TCM Plant entries list in alphabetical order of *Latin names*, including 2,923 original TCM plants (including few of animals)<sup>[R01-R04]</sup> and 4,003 congeners (including a few of non-TCM medicinal plants). For each TCM plant, two most important features are traditional TCM effects and indications.

For preparing this encyclopedia, one of the greatest challenges is how to correctly translate each TCM term into correspondent English, so that Western readers are able to understand the true meaning of the content in the book. After comparing several translation systems, we decided to use Wiseman's terminological system<sup>[R05-R07]</sup> for this book.

Wiseman's system obeys two most important principles: (1). The English-language terms should be faithful to the original concepts in traditional Chinese medicine. (2). The English-language TCM terminology should be flexible enough to allow modifications and extensions so that derivative effects can be described by a structuralized manner. For instance, the term "quicken blood" describes a general effect meaning "activating blood flow" or "promoting blood circulation". Elaboration of this term produces "quicken blood and transform stasis", "quicken blood and relieve pain", "quicken blood and regulate menstruation", and so on. The following illustrations are an example of the structuralized expressions related to the term "quicken blood":

quicken blood and disinhibit water  
 quicken blood and dispel stasis  
 quicken blood and dispel wind  
 quicken blood and disperse swelling  
 quicken blood and disperse welling abscess  
 quicken blood and dissipate binds  
 quicken blood and dissipate stasis  
 quicken blood and free menstruation  
 quicken blood and free network vessels  
 quicken blood and free vessels  
 quicken blood and joint bones  
 quicken blood and move *qi*  
 quicken blood and move stasis  
 quicken blood and nourish heart  
 quicken blood and promote milk  
 quicken blood and quiet spirit  
 quicken blood and regulate menstruation  
 quicken blood and relieve pain  
 quicken blood and resolve toxin  
 quicken blood and settle pain  
 quicken blood and soothe sinews  
 quicken blood and stanch bleeding  
 quicken blood and strengthen sinews  
 quicken blood and transform stasis  
 quicken blood and vessels

**Translation of TCM Indications Terms.** Based on Wiseman's terminological system, "Chinese-English Dictionary of Traditional Chinese Medicine" compiled by Guangzhen Gao *et al.*<sup>[R08]</sup>, "An English-Chinese Medical Dictionary, Second Edition" compiled by Weiyi Chen *et al.*<sup>[R09]</sup>, and other reference dictionaries, we defined over 3,800 standard indication terms for translating TCM indications terms from Chinese to English. Among the 3,800 terms, 2,526 terms are actually used in the encyclopedia, in which 85% terms are traditional TCM terms and the rest 15% are common modern medicinal terms. Some typical examples of traditional TCM indication terms are as follows:

*yin* vacuity internal heat  
*yin* vacuity lung dryness  
*yin* vacuity tidal fever  
 chest impediment  
 chest impediment and heart pain  
 chest impediment and heart pain over back  
 chest oppression and pain  
 chest oppression with breathe hard  
 distention pain in rib-side  
 distention pain in stomach duct  
 distention pain in stomach duct and abdomen  
 externally contracted summer heat-damp  
 externally contracted wind evil  
 externally contracted wind-cold  
 externally contracted wind-heat  
 knocks and falls  
 sores  
 sores clove boil  
 swelling of sores and boils  
 sore scab and lichen  
 toxin swelling of sores

In summary, this encyclopedia provides a collection of more than 23,000 TCM chemical components isolated from natural resources and a large number of pharmacological activity data of these components. It may be used not only as a handbook to look for structures and pharmacological activities of TCM chemical components and source plant information, but also a fundamental platform for studying TCM with a systematic and integrative approach.

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# How to Use the Books

## 1. Three Kinds of “Many to Many” Relationships

To help readers effectively search and use of the books, authors strongly suggest readers being familiar with the structure of the encyclopedia and certain important linkers or pointers between different data sets.

Firstly, in order to avoid confusing cases, please keep in mind the following three features of the book:

(a) In the encyclopedia, all of pharmacological data belong to compounds, not to plants. In other words, the encyclopedia doesn't include plants' pharmacological data.

(b) All effect and indication terms belong to TCM plants, not to compounds. And almost all of effect terms as well as 85% indication terms are pure Chinese traditional concepts.

(c) In the encyclopedia, there are three kinds of “many to many” relationships: (i), compounds to plants, which is the most important relationship. (ii), pharmacological data to compounds in the molecular level only. (iii), plants to effects/indications in the species level.

Pharm. data ↔ Compound 1		Plant T0001 ↔ effects, indications
Pharm. data ↔ Compound 2		Plant T0002 ↔ effects, indications
Pharm. data ↔ Compound 3	↔	Plant T0003 ↔ effects, indications
.....		.....
Pharm. data ↔ Compound 23032		Plant T6925 ↔ effects, indications
Pharm. data ↔ Compound 23033		Plant T6926 ↔ effects, indications
(Molecular level)		(Species level)

### Sketch Map of Three Important “Many to Many” Relationships

## 2. Seven Useful Indexes

In Volume 6, there are seven indexes for data searching.

The indexes 1-3 are tools to search compounds from different starting-points:

**Index 1** (Compound Pharmacological Activity Index) links pharmacological terms

with related compound codes. For example, if there is a question as:

“Which compounds have *in vitro* cytotoxic activity against human breast cancer cells?”

From the index 1, the answer can easily be obtained as follows:

Cytotoxic, BC hmn breast cancer cells 24, 349, 526, 2244, 3416, 3429, 3708, 4775, 5095, 6759, 6759, 6759, 12453, 12454, 15494, 15495, 18515, 20671.

Cytotoxic, BC-1 hmn breast cancer cells 1277, 2260, 5064, 5327, 6759, 6759, 8220, 8221, 8222, 8235, 10250, 10297, 10511, 11353, 13489, 13490, 13491, 13492, 13493, 13494, 13495, 15919, 17008, 18866, 20809.

Cytotoxic, BCA-1 hmn breast cancer cells 6759, 13468, 13469, 13470, 15739.

Cytotoxic, Bcap37 hmn breast cancer cells 843, 11392, 13123, 16183, 17717, 18499.

Then, from compounds code numbers, one can get detailed data for each compound.

**Index 2** (Compound Molecular Formula Index) connects a molecular formula to its all isomers. For example, there are five isomers with formula  $C_{45}H_{76}O_{18}$ :

$C_{45}H_{76}O_{18}$

Abutiloside F, 40

Asp-IV, 1905

Asp-V, 1906

Trigoneoside IIIa, 21669

Trigoneoside IIIb, 21670

**Index 3** (Compound Synonym Index) is useful for searching a compound from a known name. A strong suggestion to readers is that when searching a compound from a known name, to search twice probably is necessary: firstly from entry title in the encyclopedia text and then from the index 3.

The indexes 4–7 are tools to search TCM plants:

**Index 4** (TCM Plant English Name Index) links a Plant English Name to other names of the plant, for example:

Chinese Angelica = T0495 *Angelica sinensis* = DANG GUI

Siberian Phlojodicarpus = T4804 *Phlojodicarpus sibiricus* = ZHANG GUO QIN

Dahurian Angelica = T0478 *Angelica dahurica* [Syn. *Angelica porphyrocaulis*] = BAI ZHI

Gigantic Angelica = T0483 *Angelica gigas* = CHAO XIAN DANG GUI

Narrowleaf Angelica = T0476 *Angelica anomala* = XIA YE DANG GUI

**Index 5** (TCM Plant PIN-YIN and Chinese Name Index) links PIN-YIN name to Latin name and/or English name, for example:

BAI HUA QIAN HU = T4768 *Peucedanum praeruptorum* = Whiteflower Hogfennel

BAI HUA SHE GAN = T3457 *Iris dichotoma* = Vesper Iris

BAI HUA SHE SHE CAO = T4485 *Oldenlandia diffusa* [Syn. *Hedyotis diffusa*] = Spreading Hedyitis

**Index 6** (TCM Plant Traditional Effects Index) and **Index 7** (TCM Plant Traditional Indications Index) connect specific effect and/or indication to related plants.

For example, to search all plants with effect “nourish heart and quiet spirit”, the result is:

**nourish heart and quiet spirit:**

T0944 *Biota orientalis* [Syn. *Thuja orientalis*; *Platyclusus orientalis*],  
 T1292 *Celastrus orbiculatus* [Syn. *Celastrus articulatus*],  
 T1381 *Choerospondias axillaris*,  
 T4194 *Menyanthes trifoliata*,  
 T4400 *Nelumbo nucifera*,  
 T4902 *Pimpinella thelungiana*,  
 T5108 *Polygonum multiflorum*,  
 T5497 *Rhodiola kirilowii*,  
 T5701 *Salvia yunnanensis*.

If searching all plants with indication “angina pectoris” (a modern medicinal term), “externally contracted wind-cold” (a TCM term), and “externally contracted wind-heat” (a TCM term), you will obtain the following results:

**angina pectoris:** T1215 *Carthamus tinctorius*, T1395 *Chrysanthemum morifolium* [Syn. *Dendranthema morifolium*], T1775 *Crataegus pinnatifida*, T1778 *Crataegus pinnatifida* var. *major*, T2274 *Dryobalanops aromatica*, T2389 *Epimedium acuminatum*, T2390 *Epimedium brevicornum*, T2392 *Epimedium davidii*, T2394 *Epimedium elongatum*, T2398 *Epimedium koreanum*, T2401 *Epimedium pubescens*, T2402 *Epimedium sagittatum*, T2404 *Epimedium sutchuenense*, T2406 *Epimedium wushanense*, T2846 *Ganoderma japonicum* [Syn. *Ganoderma sinense*], T2848 *Ganoderma lucidum*, T2964 *Ginkgo biloba*, T3388 *Ilex chinensis* [Syn. *Ilex purpurea*], T3396 *Ilex pubescens*, T3397 *Ilex pubescens* var. *glaber*, T3875 *Liriope spicata* var. *prolifera*, T3925 *Loranthus parasiticus* [Syn. *Loranthus chinensis*; *Taxillus chinensis*], T3926 *Loropetalum chinense*, T4303 *Moschus moschiferus*; *Moschus berezovskii*; *Moschus sifanicus*, T4507 *Ophiopogon japonicus*, T4608 *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*], T4953 *Piper longum*, T5312 *Pueraria edulis*, T5313 *Pueraria lobata* [Syn. *Pueraria thunbergiana*; *Pueraria pseudohirsuta*], T5316 *Pueraria omeiensis*, T5318 *Pueraria phaseoloides*, T5320 *Pueraria thomsonii*, T5680 *Salvia miltiorrhiza*, T5681 *Salvia miltiorrhiza* f. *alba*, T5688 *Salvia przewalskii*, T6510 *Trichosanthes kirilowii*, T6513 *Trichosanthes rosthornii* [Syn. *Trichosanthes uniflora*], T6584 *Typha angustata*, T6585 *Typha angustifolia*, T6587 *Typha latifolia*.

**externally contracted wind-cold:** T4039 *Magnolia grandiflora*, T4445 *Notopterygium forbesii* [Syn. *Notopterygium franchetii*], T4446 *Notopterygium incisum*, T4956 *Piper mullesua*, T5727 *Saposhnikovia divaricata* [Syn. *Ledebouriella seseloides*].

**externally contracted wind-heat:** T0480 *Angelica decursiva* [Syn. *Peucedanum decursivum*], T1395 *Chrysanthemum morifolium* [Syn. *Dendranthema morifolium*], T1933 *Cyclea sutchuenensis*, T2798 *Fritillaria verticillata* var. *thunbergii* [Syn. *Fritillaria thunbergii*], T3819 *Ligusticum brachylobum*, T4413 *Nepeta cataria*, T4761 *Peucedanum longshengens*, T4768 *Peucedanum praeruptorum*, T4769 *Peucedanum rubricaulis*, T6791 *Vitex rotundifolia* [Syn. *Vitex trifolia* var. *simplicifolia*], T6793 *Vitex trifolia*.

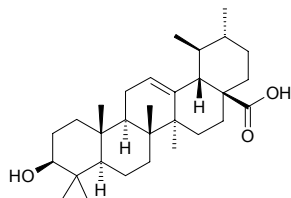
### 3. Data Survey Example of Compound Entry

At last, we would like to take Ursolic acid (compound code 22270 in the books) as a data survey example. Under this compound there are a quite number of data as follows:

**22270 Ursolic acid**

$\beta$ -Ursolic acid [77-52-1] C<sub>30</sub>H<sub>48</sub>O<sub>3</sub> (456.72).

White solid powder (chloroform–methanol), mp 298~294°C, 265~267°C.

**Pharm: (27 items)**

**Cytotoxic** (KB, ED<sub>50</sub> > 25µg/mL, control Doxorubicin, ED<sub>50</sub> = 0.12µg/mL; Hep3B, ED<sub>50</sub> > 25µg/mL, control Doxorubicin, ED<sub>50</sub> = 0.14µg/mL; Colon205, ED<sub>50</sub> > 25µg/mL, control Doxorubicin, ED<sub>50</sub> = 0.10µg/mL; HeLa, ED<sub>50</sub> > 25µg/mL, control Doxorubicin, ED<sub>50</sub> = 0.11µg/mL)<sup>[4369]</sup>;

**cytotoxic** (*in vitro*, HONE-1 cell, IC<sub>50</sub> = (8.8±1.5)µmol/L, control Etoposide, IC<sub>50</sub> = (0.5±0.2)µmol/L, *cis*-Platin, IC<sub>50</sub> = (3.2±0.5)µmol/L; KB cell, IC<sub>50</sub> = (8.2±2.7)µmol/L, Etoposide, IC<sub>50</sub> = (0.9±0.3)µmol/L, *cis*-Platin, IC<sub>50</sub> = (4.4±0.9)µmol/L; HT29 cell, IC<sub>50</sub> = (4.7±1.5)µmol/L, Etoposide, IC<sub>50</sub> = (2.4±0.5)µmol/L, *cis*-Platin, IC<sub>50</sub> = (5.7±1.1)µmol/L)<sup>[5254]</sup>;

**antineoplastic** (liver cancer cells *in vitro*, mus ascites carcinoma *in vivo*, life was prolonged);

**antibacterial** (*Escherichia coli*, IZD = 13~15mm, control Chloramphenicol, IZD = 16~20mm, control DMSO (4%), IZD < 10mm; *Staphylococcus aureus*, IZD = 10~12mm, control Chloramphenicol, IZD = 16~20mm, control DMSO (4%), IZD < 10mm; *Bacillus subtilis*, IZD = 13~15mm; control Chloramphenicol, IZD = 16~20mm, control DMSO (4%), IZD < 10mm)<sup>[5315]</sup>;

**antibacterial** (*Staphylococcus* spp. *in vitro*, MIC = 300µg/mL, gram-positive bacteria *in vitro*, MIC = 50~400µg/mL, gram-negative bacteria *in vitro*, MIC = 200~800µg/mL, microzyme *in vitro*, MIC = 100~700µg/mL);

**antitubercular** (*Mycobacterium tuberculosis*, MIC = 41.9µg/mL, cytotoxic, Vero cells, IC<sub>50</sub> = 46.5µg/mL, SI (IC<sub>50</sub>/MIC) = 1.11, positive control Rifampin, MIC = 0.03µg/mL, IC<sub>50</sub> = 98.3µg/mL, SI = 3277)<sup>[4986]</sup>;

**anticonvulsant** (induced by corazol);

**anti-inflammatory** (rat, induced by embedding woolball, 12.5mg/(kg·d) ip, 7 days, effective);

**anti-inflammatory** (*in vitro*, murine macrophage RAW264.7 Cells, inhibits LPS-induced NO and PGE<sub>2</sub> release)<sup>[5016]</sup>;

**COX-2 enzyme selective inhibitor** (mean IC<sub>50</sub> of isomers = 130µmol/L)<sup>[4415]</sup>;

**COX-2 enzyme inhibitor** (PMA-treated hmn mammary and oral epithelial cells, molecular mechanisms is mediated by a cAMP response element in the COX-2 promoter, associated with inhibition of protein kinases)<sup>[4415]</sup>;

**antipyretic** (clearly reduces normal body temperature of rat);

**reduces serum transaminase** (animal, 100mg/kg);

**antitrypanosomal** (epimastigotes of *Trypanosoma cruzi*, MLC = 6.2µmol/L, control Gentian violet, MLC = 6.2µmol/L)<sup>[2579]</sup>;

**mucin release stimulator** (acts directly on airway mucin-secreting cells, increased mucin release (40~50)% above control at the highest concentrations 0.00001~0.001mol/L, possible use to treatment of chronic airway diseases)<sup>[4084]</sup>;

**platelet aggregation inhibitor** (2~5mg/mL collagen-induced, IC<sub>50</sub> = (511±4)µmol/L, control ASA, IC<sub>50</sub> = (420±3)µmol/L; 1~4µmol/L epinephrine-induced with 0.8~1.0mg/mL collagen, IC<sub>50</sub> = (82.6±2.8)µmol/L, ASA, IC<sub>50</sub> = (53.0±4.5)µmol/L; 10~40µmol/L Sodium arachidonate-induced with 0.8~1.0mg/mL collagen, IC<sub>50</sub> =

(669±12)μmol/L, ASA, IC<sub>50</sub> = (66.0±2.1)μmol/L; 1~5μmol/L PGH<sub>2</sub>/TXA<sub>2</sub> receptor agonist U46619-induced with 0.8~1.0mg/mL collagen, IC<sub>50</sub> > 1000μmol/L, ASA, IC<sub>50</sub> = (340±12)μmol/L)<sup>[4994]</sup>;

**tissue factor inhibitor inactive**<sup>[5387]</sup>;

**antirheumatic**<sup>[5341]</sup>;

**anti-diabetic**<sup>[5341]</sup>;

**antiulcer**<sup>[5341]</sup>;

**hypolipidemic**<sup>[5341]</sup>;

**anti-atherosclerotic**<sup>[5341]</sup>;

**anti-HIV**<sup>[5341]</sup>;

**TGF-β1 antagonist** (inhibits the binding of <sup>125</sup>I-TGF-β1 to its receptor in Balb/c 3T3 cell, IC<sub>50</sub> = (6.9±0.8)μmol/L, suggests TGF-β1 antagonistic activity is responsible, at least in part, for therapeutic efficacy of *Clerodendranthus spicatus* to treat humans with renal disease)<sup>[5496]</sup>;

**glucocorticoid** (enhances glycogen in liver, reduces glycogen in heart and striated muscles);

**LD<sub>50</sub>** (mus, ip) = 680mg/kg.

### Sources: (52 species)

BAI HUA SHE SHE CAO *Oldenlandia diffusa* [Syn. *Hedyotis diffusa*] (whole herb: mean content of 16 origins = 0.211%)<sup>[5508]</sup>;

BI LU GOU TENG *Uncaria tomentosa*,

CHE QIAN *Plantago asiatica* (whole herb: content scope = 0.28%~2.32%, mean content = 0.97%)<sup>[5508]</sup>;

CHI NAN *Syzygium buxifolium*,

CHONG YA YAO *Isodon ternifolius*,

CI WU JIA YE *Acanthopanax senticosus* [Syn. *Eleutherococcus senticosus*],

DA CHE QIAN *Plantago major*,

DA ZAO *Ziziphus jujuba* (ripe fruit: mean content = 0.016%)<sup>[5508]</sup>,

DAN SHEN *Salvia miltiorrhiza*,

DIAN NAN HONG HOU KE *Calophyllum polyanthum* (seed: yield = 0.0064%dw),

DONG LING CAO *Rabdosia rubescens* (whole herb: mean content = 0.414%)<sup>[5508]</sup>; leaf: mean content = 0.573%)<sup>[5508]</sup>;

DU ZHONG *Eucommia ulmoides*,

DUAN TING SHAN MAI DONG *Liriope muscari* (tuber),

GOU GU YE *Ilex cornuta* (leaf: mean content = 0.96%)<sup>[5508]</sup>,

GUANG JING QIAN CAO *Rubia wallichiana* (stem),

HONG HUA LU TI CAO *Pyrola incarnata* (whole herb: content = 2.06%)<sup>[5508]</sup>,

HU BEI SHAN ZHA *Crataegus hupehensis* (dried ripe fruit: mean content = 0.455%),

JIAN YE TOU WU GEN *Ligularia sagitta*,

LIAN QIAN CAO *Glechoma lungituba*,

LIAN QIAO *Forsythia suspensa*,

LIU QIU SHE GEN CAO *Ophiorrhiza liukiensis* (whole herb),

MA BIAN CAO *Verbena officinalis* (whole herb: mean content of 5 batch samples = 0.227%)<sup>[5508]</sup>,

MAO CAO LONG *Ludwigia octovalvis* (whole herb: yield = 0.00012%dw),

MAO PAO TONG *Paulownia tomentosa*,

MAO XU CAO *Clerodendranthus spicatus*,

MU GUA *Chaenomeles sinensis*,

NV ZHEN ZI *Ligustrum lucidum*,

PI PA YE *Eriobotrya japonica* (dried leaf: mean content = 0.677%)<sup>[5508]</sup>,

PI PA YE *Eriobotrya japonica* (stem and leaf),

PING CHE QIAN *Plantago depressa* (whole herb: mean content = 0.276%)<sup>[5508]</sup>,

RI BEN LU TI CAO *Pyrola japonica*,



RONG SHU *Ficus microcarpa* (aerial root),  
 SHAN DI XIANG CHA CAI *Isodon oresbia*,  
 SHAN LI HONG *Crataegus pinnatifida* var. *major*,  
 SHAN ZHA *Crataegus pinnatifida* (fruit: content scope = 0.31%~0.56%)<sup>[5501]</sup>,  
 SHAN ZHU YU *Cornus officinalis* [Syn. *Macrocarpium officinale*] (dried ripe fruit: content  
 scope = 0.24%~0.32%)<sup>[5501]</sup>, mean content = 0.263%)<sup>[5508]</sup>,  
 SHI NAN *Photinia serrulata* (leaf: mean content = 1.50%)<sup>[5508]</sup>,  
 SHI SHENG BIAN LEI *Gentianopsis paludosa*,  
 SHI YE *Diospyros kaki* (dried leaf: mean content = 0.784%)<sup>[5508]</sup>,  
 SHU HUA JIE CAO *Valeriana laxiflora* (aerial parts and root),  
 SUAN ZAO *Ziziphus jujuba* var. *spinosa* (ripe fruit: content = 0.030%)<sup>[5508]</sup>,  
 SUO YANG *Cynomorium songaricum* (fleshy stem: content = 0.78%)<sup>[5508]</sup>,  
 WEI LING CAI *Potentilla chinensis*,  
 WU GENG WU JIA PI *Acanthopanax sessiliflorus* (fruit),  
 XIA KU CAO *Prunella vulgaris* (dried spike: content = 0.780%)<sup>[5508]</sup>,  
 YANG MEI SHU PI *Myrica rubra* (bark: content = 0.027%),  
 YE SHAN ZHA *Crataegus cuneata* (dried ripe fruit: mean content of 3 origins =  
 0.399%)<sup>[5508]</sup>,  
 YI LANG QING LAN *Dracocephalum kotschyi*,  
 ZHI ZI *Gardenia jasminoides* [Syn. *Gardenia florida*] (dried ripe fruit: mean content =  
 0.041%)<sup>[5508]</sup>,  
 ZHOU YE LU TI CAO *Pyrola rugosa* (whole herb: content = 3.00%)<sup>[5508]</sup>,  
*Cussonia bancoensis*,  
 Occurs in many plants.

**Ref:** 4, 367, 428, 454, 501, 592, 595, 600, 658, 660, 2579, 3005, 3061, 4084, 4163, 4369,  
 4415, 4527, 4767, 4772, 4986, 4994, 5016, 5254, 5315, 5382, 5387, 5341, 5496, 5501,  
 5508.

# Abbreviations and Symbols

12(S)-HETE	12(S)-Hydroxy-5,8,10,14-EicosaTetraEnoic acid	cAMP-PDE	cAMP-phosphodiesterase
<sup>125</sup> I-TGF- $\beta$ 1	<sup>125</sup> I-Transforming Growth Factor- $\beta$ 1	CAPE	Caffeic Acid Phenethyl Ester
5-FU	5-FluoroUracil	CB	cytochalasin B
5-HT	5-HydroxyTryptamine (serotonin)	CC	macrophage inflammatory protein (MIP-1 $\beta$ ), monocyte chemotactic protein (MCP-2), and C lymphotactin (Itn) (a chemokine family)
95%FL (=CI <sub>95</sub> )	95% Fiducial Limits (=95% Confidence Interval)	CC <sub>0</sub>	Minimum cytotoxic concentration
AA	Arachidonic Acid	CC <sub>50</sub>	IC <sub>50</sub> of cytotoxicity (concentration of the 50% cytotoxic effect)
AAPH	2,2'-Azo-bis-(2-AmidinoPropane)-diHydrochloride	CCR1	chemokine receptor 1
ABTS <sup>+</sup>	2,2'-Azino-Bis-(3-ethylbenzThiazoline 6-Sulphonic acid), radical	CD	concentration required to double enzyme (induction) activity
ACAT	Acyl-CoA Cholesterol acyltransferase	CD	Concentration required to double quinone reductase (induction) activity
ACE	Angiotensin Converting Enzyme	CD <sub>50</sub>	medium Convulsive Dose
Ach	Acetylcholine	cGMP	cyclic guanosine monophosphate
AChE	Acetylcholinesterase	cGMP-PDE	cGMP-phosphodiesterase
ACTH	AdrenoCorticoTropic Hormone	CGN	<i>cis</i> -Golgi network
AD	Alzheimer's disease	CGRP	Calcitonin gene-related peptide
ADM	adriamycin	CHO	Chinese hamster ovarian
ADP	adenosine diphosphate	CI	Chemopreventive index (=IC <sub>50</sub> /CD)
AG	aminoguanidine	CI <sub>95</sub> (=95%FL)	95% Confidence Interval (=95% Fiducial Limits)
AggRt	aggregation rate	CIC	complete inhibiting concentration
AIDS	acquired immunodeficiency syndrome	CIMC	complete inhibiting minimum concentration
ALS	amyotrophic lateral sclerosis	CINC-1	cytokine-induced neutrophil chemoattractant 1
ALT	alanine aminotransferase	CMV	Cytomegalovirus
AMP	adenosine monophosphate	CNQX	6-Cyano-7-nitroquinoxaline-2,3-dione (non-NMDA receptor antagonist)
AMV	avian myeloblastosis virus	CNS	central nervous system
AP	angina pectoris	ConA	concanavalin A
AP-1	activator protein-1	COX	cyclooxygenase
APN	Aminopeptidase N	COX-1	cyclooxygenase-1
APV	<i>dl</i> -2-Amino-5-phosphonovaleric acid (a competitive antagonist of the NMDA receptor)	COX-2	cyclooxygenase-2
aq.	aqueous solution	CPT	camptothecin
ASA	AcetylSalicylic Acid	CRF	corticotrophin releasing factor
AST	aspartate transaminase; aspartate aminotransferase	CRH-1	corticotrophin releasing hormone-1
AT-III	Antithrombase-III	CRP	C-reactive protein
ATPase	Adenosine triphosphatase	CV-3988	<i>rac</i> -3-( <i>N</i> -octadecylcarbomoyloxy)-2-methoxypropyl 2-thiazoliethyl phosphate
AZT	3'-azido-3'-deoxythymidine	CVS	cardiac vascular system
BACE1	$\beta$ -Secretase	CXC	Stromal cell-derived factor (SDF)-1 $\alpha$ and IL-8 (a chemokine)
BChE	Butyrylcholinesterase	CYP1A	Cytochrome P450 1A
bFGF	basic Fibroblast Growth Factor	CYP2D6	Cytochrome P450 2D6
BHA	Butylated HydroxyAnisole; 3- <i>tert</i> -Butyl-4-HydroxyAnisole	CYP3A4	Cytochrome P450 3A4
BHT	Butylated HydroxyToluene	d	day
bid	bis in die (Latin)	DCFH	2',7'-dichlorodihydrofluorescein dye
BLM	bleomycin	DDDP	DNA-dependent DNA polymerase
bp	boiling point	dec	decomposition
BST	Brine Shrimp lethality bioassay = Brine Shrimp Test	<i>D</i> -GalN	<i>D</i> -galactosamine
<i>c</i>	concentration		
C5a	complement 5a		
cAMP	cyclic adenosine monophosphate		

DGAT	Diacylglycerol acyltransferase	GSH	Glutathione; <i>N</i> -( <i>N</i> - <i>L</i> - $\gamma$ -Glutamyl- <i>L</i> -cysteinyl)glycine
dil.	dilute	GTP	Guanosine TriPhosphate
DIZ	Diameter of Inhibitory Zone	GVHR	Graft-Versus-HostReaction
DMBA	9,10-dimethyl-1,2-benzanthracene (carcinogen); 7,12-dimethylbenz[ <i>a</i> ]anthracene (carcinogen)	h	hour
DMDP	(2 <i>R</i> ,3 <i>R</i> ,4 <i>R</i> ,5 <i>R</i> )-2,5-DihydroxyMethyl-3,4-Dihydroxy-Pyrrolidine	HAD	hmn immunodeficiency virus associated dementia
DMSO	DiMethyl SulphOxide	HBeAg	hmn type B Hepatitis, e Antigen
DNA	deoxyribonucleic acid	HBsAg	hmn type B Hepatitis, Surface Antigen
DNJ	1-Deoxynojirimucin (one kind of polyhydroxy alkaloid, glucosidase inhibitor)	HBV	Hepatitis B Virus
DOX	doxorubicin	HC <sub>50</sub>	medium Hemolytic Concentration
DPI	Diphenyleneiodonium	HCoV-229E	hmn coronavirus strain 229E
DPPH	1,1-DiPhenyl-2-PicrylHydrazyl free radical	HD	Huntington's disease
DS8000	Dextran sulphate, prepared from average Mr 8000	HER rat	Hypertensive Essential Rat
DSCG	DiSodium ChromoGlycate (anti-allergic agent)	HIV	hmn immunodeficiency virus
dw	dried weight	HIV-1	hmn immunodeficiency virus type 1
E.A.	Enzyme Activity	HIV-1 IN	hmn immunodeficiency virus type 1 integrase
EBV-EA	Epstein-Barr Virus Early Antigen	HIV-1 RT	hmn immunodeficiency virus type 1 reverse transcriptase
EC	Effective Concentration	HIV-RT	hmn immunodeficiency virus reverse transcriptase
EC <sub>50</sub>	medium Effective Concentration	hmn	human
ED	Effective Dose	HSV-1	herpes simplex virus 1
ED <sub>25</sub>	Effective Dose for 25%	HSV-2	herpes simplex virus 2
ED <sub>50</sub>	medium Effective Dose (in some cases for the medium Effective Concentration)	HVA	homovanillic acid
EGCG (EGCg)	(-)-Epigallocatechin gallate	hydroxyl radical	OH <sup>•</sup>
EGF	Epidermal Growth Factor (it protects MPP <sup>+</sup> -induced cell death)	ia	intra-arterial injection
EGFR	Epidermal Growth Factor Receptor	IAA	indole-3-acetic acid
ELAM-1	Endothelial-Leukocyte Adhesion Molecule-1	IC	Inhibiting Concentration
ELISA	Enzyme-Linked ImmunoSorbent Assay	IC <sub>50</sub>	median Inhibiting Concentration
eotaxin	eosinophilous cytotoxin	IC <sub>100</sub>	Absolute Inhibiting Concentration
ERK	Extracellular signal-Regulated Kinase	ICAM-1	Intercellular Cell Adhesion Molecule-1
ET	experimental times	ICR	Imprinting Control Region mouse
FAG	Fagomine (one kind of polyhydroxy alkaloid, glucosidase inhibitor)	id	intra-dermal injection
FCA	Freund's complete adjuvant	ID	Inhibiting Dose
FI	Feeding Index (= ((C-T)/(C+T)×100)	ID <sub>50</sub>	Median Inhibiting Dose
Flu-A	influenza virus type A	IFN	interferon
fMLP	<i>N</i> -formyl- <i>L</i> -Methionyl- <i>L</i> -Leucyl- <i>L</i> -Phenylalanine	IFN- $\gamma$	Interferon- $\gamma$
fp	freezing point	IgE	Immunoglobulin E
FR <sub>50</sub>	Feeding ratio when the consumed area of control disc (CCD) is 50% [FR = CTD(consumed area of treated disc)/CCD]	IgG	Immunoglobulin G
fw	fresh weight	IL	interleukin
G6PD	Glucose-6-Phosphate Dehydrogenase	IL-1	Interleukin-1
GABA	$\gamma$ -aminobutyric acid	IL-1 $\alpha$	interleukin-1 $\alpha$
GaIN	galactosamine	IL-1 $\beta$	interleukin-1 $\beta$
GI	growth inhibition	IL-2	Interleukin-2
GI <sub>50</sub>	the concentration of sample necessary to inhibit the growth to 50% of the control	IL-4	Interleukin-4
Glu	glutamate	IL-6	Interleukin-6
GOT	Glutamate-Oxaloacetate Transaminase	IL-8	Interleukin-8
Gp	Gastro protective effect	IL-10	Interleukin-10
gpg	guinea pig	IL-12	Interleukin-12
GPT	GlutamicPyruvic Transaminase	im	intramuscular injection
GRO	Growth-Related Oncogene	<i>in vitro</i>	<i>in vitro</i>
		<i>in vivo</i>	<i>in vivo</i>
		Indo	indomethacin
		iNOS	inducible Nitric Oxide Synthase
		InRt	inhibitive rate
		ip	intraperitoneal injection

i.t.	intrathecal injection	MMP	Matrix MetalloProteinases
iv	intravenous injection	MMP-2	Matrix MetalloProteinase-2
IZA	Inhibition Zone Area (mm <sup>2</sup> )	mp	melting point
IZD	Inhibition Zone Diameter (mm)	mPGES	microsomal ProstaGlandin E Synthase
J774.A1	murine monocyte/macrophage cell J774.A1	MPP+	1-methyl-4-phenylpyridinium ion (neurotoxin)
JNK	c-Jun NH <sub>2</sub> -terminal kinase	MRSA	Methicillin-Resistant <i>Staphylococcus aureus</i>
KD <sub>50</sub>	Dose required to Knock down 50% of the population of insects	MSSA	Methicillin-Sensitive <i>Staphylococcus aureus</i>
LC <sub>50</sub>	concentration at which only 50% of the cell are viable	MTC	Minimal Toxic Concentration
LC <sub>50</sub>	concentration of inhibiting luminous intensity 50%	MTT	A Cytotoxicity measurement method (tetrazolium-based colorimetric assay used for cytotoxicity bioassay, see Rubinstein L. V., et al., <i>Nat. Cancer Inst.</i> , 82, 1113-1118, 1990)
LCIC	Lowest Complete Inhibition Concentration	mus	mouse
LD	Lethal Dose	<i>n</i>	number of parallel experiments
LD <sub>100</sub>	100% Lethal Dose	nAChR	neuronal nicotinic AcetylCholine Receptor
LD <sub>50</sub>	medium Lethal Dose	NADH	reduced nicotinamide adenine dinucleotide
LDH	lactate dehydrogenase	NADPH	cytochrome C reductase
LDL	Low Density Lipoprotein	NCCLS	A standard antibacterial activity test method (see Wayne P. A., "National Committee for Clinical Laboratory Standards Performance Standards for Antimicrobial Disk Susceptibility Tests," 6th ed., Approved standards M2-A6. NCCLS, 1997)
L-NA	N <sup>ω</sup> -L-nitroarginine	NDGA	Nordihydroguaiaretic acid
L-NMMA	N <sup>G</sup> -monomethyl-L-arginine	NEP	Neutral EndoPeptidase
LOX	Lipoxygenase	NF	Nuclear Factor
LPO	lipid peroxidation	NF-κB	Nuclear Factor κB
LPS	lipopolysaccharide	NFAT	Nuclear Factor of Activated T cell
LTB <sub>4</sub>	Leukotriene B <sub>4</sub>	NGF	Nerve Growth Factor
LTC <sub>4</sub>	Leukotriene C <sub>4</sub>	NMDA	N-methyl-D-aspartate
LTD <sub>4</sub>	Leukotriene D <sub>4</sub>	NO	nitric oxide
MA	maytenfolic acid	non-oral	paraoral
MA	maslinic acid	NOR1	(+/-)-(E)-4-methyl-2-[(E)-hydroxyimino]-5-nitro-6-methoxy-3-hexenamid
MA	minimal amount	NOS-2	Nitric oxide synthase type-2
MABA	Microplate Alamar Blue Assay	OCIF	OsteoClastogenesis-Inhibitory Factor
MAC-1	integrin MAC-1	oral	oral
MAO-A	Monoamine oxidase A	OVA	ovalbumin
MAO-B	Monoamine oxidase B	oxazolone	oxazolone
MAPK	Mitogen-Activated Protein Kinase	OZ	opsonized zymosan
MCC	Minimum Cytocidal Concentration	P450	Cytochrome P450
MCP	Monocyte Chemotactic Protein	PAF	Platelet Activating Factor
MCTHBE	Minimum Concentration for Total Haemolysis of Bovine Erythrocytes (µg/mL)	PAF	Platelet Aggregation Factor
MDA	Methylene Dihydroxy Amphetamine	PAI-1	Plasminogen Activator Inhibitor type 1
MDA	Malondialdehyde	Para-3 (=PIV3)	Parainfluenza type 3 virus
MDR	MultiDrug Resistance	PBMC	hmn Peripheral Blood Mononuclear Cell
MED	Minimal Effective Dose	PCA reaction	Passive Cutaneous Anaphylaxis reaction
MFC	Minimal Fungicidal Concentration	PD	Parkinson's Disease
MIA	Minimal Inhibitory Amounts (µg/disc)	PD	a cytotoxic model
MIC	Minimum Inhibitory Concentration	pD2 (=pEC <sub>50</sub> )	negative logarithm (-logM) of the concentration required to produce 50% of the maximum response (EC <sub>50</sub> )
MIC <sub>80</sub>	Minimal Inhibitive Concentration for 80%	PDE	phosphodiesterase
MIC <sub>90</sub>	Minimal Inhibitive Concentration for 90%	PDTC	pyrrolidine dithiocarbamate
min	minute	PEBP2αA	polyoma enhancer binding protein 2αA
MIP-1α/β	macrophage inflammatory protein	pEC <sub>50</sub>	negative logarithm (-logM) of the concentration required to produce 50% of the maximum response (EC <sub>50</sub> )
MIQ	Minimum inhibitory quantity (µg)		
MK-801	dizocipline maleate (a non-competitive antagonist of the NMDA receptor)		
MLC	Minimum Lethal Concentration		
MLD	Minimum Lethal Dose		
MMDC	Minimal Morphological Deformation Concentration		
MMOC	Mouse Mammary Organ Culture model		

PEG	PolyEthylene Glycol	Singlet oxygen	$^1\text{O}_2$
PEP	Prolyl endopeptidase (a serine protease)	SIZ	sulfisoxazole
pet. ether	petroleum ether	SNP	sodium nitroprusside
PFTase	farnesylprenyltransferase	SOD	Superoxide dismutase
PGD <sub>2</sub>	prostaglandin D <sub>2</sub>	sp.	species
PGE <sub>2</sub>	prostaglandin E <sub>2</sub>	SP-A	pulmonary surfactant Protein A
PGF <sub>2<math>\alpha</math></sub>	prostaglandin F <sub>2<math>\alpha</math></sub>	spp.	species (plural)
PGH <sub>2</sub>	prostaglandin H <sub>2</sub>	SRSA	Slow-Reacting Substance of Anaphylaxis
PGI <sub>2</sub>	prostacyclin (prostaglandin I <sub>2</sub> )	StRt	Stimulatory Rate
PHA	phytohemagglutinin	STZ	streptozotocin
Phe	Phenylephrine	superoxide anion	$\text{O}_2^{\bullet-}$
pIC <sub>50</sub>	negative logarithm (-logM) of IC <sub>50</sub>	SuRt	survival rate
PK	protein kinase	Syn.(= ‡)	Synonym
PKC	protein kinase C	T/C	survival ratio
PLA <sub>2</sub>	phospholipase A <sub>2</sub>	TACE	$\alpha$ -Secretase (a serine protease)
PMA (=TPA)	Phorbol-12-Myristate-13-Acetate	TBARS	ThioBarbituric Acid Reactive Substance assay
PMNs	polymorphonuclear cell	TC <sub>50</sub>	50% cytoToxic Concentration
pNPPase	<i>p</i> -nitrophenylphosphate enzyme	TCM	Traditional Chinese Medicines
POA	pentacyclic oxindole alkaloids	TFP	Trifluoperazine (calmodulin antagonist)
PPase1	Protein serine/threonine Phosphatase	TGF- $\beta_1$	Transforming Growth Factor- $\beta_1$
PRA	Plaque Reduction Assay	TGI	Total Growth Inhibition, concentration at which no growth was observed
PTH	parathyroid hormone	TI	Therapeutic Index (=IC <sub>50</sub> /EC <sub>50</sub> )
PTN	parthenolide	TNF- $\alpha$	Tumor Necrosis Factor- $\alpha$
PTP1B	Protein Tyrosine Phosphatase 1B	TOA	tetracyclic oxindole alkaloids
QR	quinone reductase	topo II	DNA topoisomerase II
RA	rheumatoid arthritis	TP	Thymidine phosphorylase
Raji	EBV-transformed B cell line	tPA	tissue Plasminogen Activator
rat	white rat	TPA (=PMA)	12- <i>O</i> -tetradecanoyl phorbol 13-acetate
rbt	rabbit	TrkA	proto-oncogene TrkA
RDDP	RNA-dependent DNA polymerase	TXA <sub>2</sub>	thromboxane A <sub>2</sub>
RDS	Respiratory Distress Syndrome	TXB <sub>2</sub>	thromboxane B <sub>2</sub>
rel-InRt	relative inhibitive rate (taking the control compound as 100%)	UDP-MurNac	UDP- <i>N</i> -acetylmuramic acid
RM	Relative Mobility	VCAM-1	Vascular Cell Adhesion Molecule-1
RNA	ribonucleic acid	VCR	vincristine
RNase H	inherent ribonuclease H	VEGF	Vascular Endothelial Growth Factor
ROS	reactive oxygen species (they are involved in the genesis of various cancers, arteriosclerosis, rheumatism and ageing)	Veraguensin	veraguensin
RSV	Respiratory Syncytial Virus	VHR DS-PTPase	VHR Dual-Specificity Protein Tyrosine Phosphatase
RT	Reverse Transcriptase	VHR protein	Vaccinia open reading-frame H1-Related protein phosphatase
RT-PCR	reverse-transcribed polymerase chain reaction	VP-16	A positive control for cytotoxic assay (Sigma product)
sALT	serum alanine transaminase	VRE	Vancomycin-Resistant <i>Enterococci</i> sp
sAST	serum aspartate transaminase	VSE	Vancomycin-Sensitive <i>Enterococci</i> sp
sc	subcutaneous injection	VSV	Vesicular Stomatitis Virus
SC <sub>50</sub>	Half-maximal radical Scavenging Concentration	ww	wet weight
SC <sub>50</sub>	50% Scavenging Concentration	XTT	sodium 3'-[1-(phenylaminocarbonyl)-3,4-tetrazolium] bis(4-methoxy-6-nitrobenzene)sulfonic acid
ScRt	scavenging rate	†	homonym mark
SDF	Stromal cell-Derived Factor	‡ (=Syn.)	synonym mark
SGOT	serum Glutamic Oxalacetic Transaminase	*	the name is given by the authors of the books
SGPT	serum Glutamic Pyruvic Transaminase		
SHR rat	Spontaneously Hypertensive Rats		
SI	Selective index = cytotoxic CC <sub>50</sub> /target EC <sub>50</sub>		
SI	Selective index = cytotoxic IC <sub>50</sub> /target IC <sub>50</sub>		
SI	Selective index = cytotoxic IC <sub>50</sub> /target MIC		

# Cancer Cell Codes

This set of codes for 270 cancer cells, named as **CCC code**, are defined and tried out in the books for the first time by the authors.

<b>1A9</b>	hmn ovarian cancer (cell).	<b>CaEs-17</b>	hmn esophageal cancer (cell).
<b>212</b>	inducible <i>Ha-ras</i> oncogene transformed from the NIH/3T3 cell line.	<b>CAKI</b>	hmn renal cancer (cell).
<b>308</b>	cultured mouse epidermal cells.	<b>CAKI-1</b>	hmn renal cancer (cell).
<b>3LL</b>	mus Lewis lung cancer (cell).	<b>Calu1</b>	hmn lung cancer (cell).
<b>3PS</b>	mouse leukemia (cell).	<b>Capan1</b>	pancreas cancer (cell).
<b>780-6</b>	renal cancer (cell).	<b>Capan2</b>	pancreas cancer (cell).
<b>9KB</b>	hmn epidermoid nasopharyngeal carcinoma (cell).	<b>CaSki</b>	hmn cervical carcinoma (cell).
<b>9L</b>	rat glioma (cell).	<b>CEM</b>	leukemia (cell).
<b>9PS</b>	mouse lymphocytic leukemia (cell).	<b>CHAGO</b>	hmn undifferentiated lung cancer (cell).
<b>A2780</b>	hmn ovarian cancer (cell).	<b>CNE</b>	hmn nasopharyngeal carcinoma (cell).
<b>A375</b>	hmn melanoma (cell).	<b>Col1</b>	hmn colorectal cancer (cell).
<b>A431</b>	hmn epidermic cancer (cell).	<b>Col2</b>	hmn colorectal cancer (cell).
<b>A498</b>	hmn renal cancer (cell).	<b>COLO320DM</b>	hmn colorectal cancer (cell).
<b>A549</b>	hmn non-small cell lung cancer (cell).	<b>Colon205</b>	colorectal cancer (cell).
<b>ACHN</b>	hmn renal cancer (cell).	<b>Colon26-L5</b>	mus colorectal cancer (cell).
<b>AGS</b>	gastric adenocarcinoma (cell).	<b>COS-7</b>	monkey kidney cells.
<b>APM1840</b>	hmn leukemia (cell).	<b>CPAE</b>	calf pulmonary arterial endothelial cells.
<b>B16</b>	mouse melanoma (cell).	<b>CT-26</b>	mus colorectal cancer (cell).
<b>B16(F-10)</b>	mouse melanoma (cell).	<b>CTV1</b>	hmn leukemia (cell).
<b>BAEC</b>	bovine aortic endothelial cells.	<b>CXF94L</b>	hmn tumor (cell).
<b>BC</b>	hmn breast cancer (cell).	<b>DLD</b>	hmn colorectal adenocarcinoma (cell).
<b>BC-1</b>	hmn breast cancer (cell).	<b>DLD-1</b>	hmn colorectal adenocarcinoma (cell).
<b>BCA-1</b>	hmn breast cancer (cell).	<b>DMS114</b>	hmn lung cancer (cell).
<b>Bcap37</b>	hmn breast cancer (cell).	<b>DMS273</b>	hmn lung cancer (cell).
<b>Bel7402</b>	hmn liver cancer (cell).	<b>DU145</b>	prostatic cancer (cell).
<b>Bel7405</b>	hmn liver cancer (cell).	<b>EAC</b>	Ehrlich ascites cancer (cell).
<b>BGC823</b>	hmn gastric cancer (cell).	<b>EJ-1</b>	hmn bladder cancer (cell).
<b>BIU87</b>	bladder cancer (cell).	<b>FM3A</b>	mus breast cancer (cell).
<b>BL6</b>	mouse melanoma (cell).	<b>H.Ep.-2</b>	hmn cutis cancer cells in throat.
<b>Bowes</b>	skin cancer cells.	<b>H116</b>	hmn colorectal cancer (cell).
<b>Bre04</b>	hmn breast cancer (cell).	<b>H9</b>	lymphocytes.
<b>BSY1</b>	breast cancer (cell).	<b>HBC4</b>	breast cancer (cell).
<b>BT474</b>	hmn galactophore cancer (cell).	<b>HBC5</b>	breast cancer (cell).
<b>BT549</b>	hmn galactophore cancer (cell).	<b>HCC2998</b>	hmn colorectal cancer (cell).
<b>BXPC3</b>	pancreas cancer (cell).	<b>HCT</b>	hmn colorectal cancer (cell).
<b>C6</b>	rat glioma (cell).	<b>HCT116</b>	hmn colorectal cancer (cell).
<b>CA</b>	hmn liver cancer (cell).	<b>HCT15</b>	hmn colorectal cancer (cell).

**HCT8** hmn colorectal cancer (cell).  
**HEK-293** hmn epithelial kidney cell.  
**HEL** hmn embryonic lung fibrocytes.  
**HeLa** culture cervical epithelial cancer (cell) from Henrietta Lack.  
**HeLa ATCC-17** hmn cervical epithelial cancer (cell).  
**HeLa-S3** hmn cervical epithelial cancer (cell).  
**HELFL** normal hmn embryo lung fibroblasts.  
**Hep2** hmn liver cancer (cell).  
**Hep2,2,15** hmn liver cancer (cell) transfected with hepatitis B virus.  
**Hep3B** hmn liver cancer (cell).  
**Hepa** hmn liver cancer (cell).  
**Hepa1c1c7** mus liver cancer (cell).  
**Hepa59T/VGH** hmn liver cancer (cell).  
**HepG2** hmn liver cancer (cell).  
**HEPZ** hmn epithelial cancer (cell).  
**HFF** hmn foreskin fibroblasts.  
**HGF** normal hmn gingival fibroblast cells.  
**HL-60** hmn acute promyelocytic leukemia (cell).  
**HM02** hmn melanoma (cell).  
**HMC-1** hmn leukemic mast cells.  
**HMEC** hmn microvascular endothelial cells.  
**HO-8910** hmn ovarian cancer (cell).  
**HOG.R5** green fluorescent protein (GFP)-based reporter cell.  
**HONE-1** hmn nasopharyngeal carcinoma (cell).  
**HOP-62** non-small cell lung cancer (cell).  
**Hs578T** hmn breast cancer (cell).  
**Hs740T** hmn gastric cancer (cell).  
**Hs742T** hmn breast cancer (cell).  
**Hs756T** hmn gastric cancer (cell).  
**HSC-2** hmn oral squamous cell carcinoma cells.  
**HSG** hmn salivary gland tumor (cell).  
**HT** sarcoma (cell).  
**HT1080** hmn fibrosarcoma (cell).  
**HT29** hmn colorectal cancer (cell).  
**HT3** hmn cervical carcinoma (cell).  
**hTERT-RPE1** hmn telomerase reverse transcriptase-retinal pigment epithelial cells.  
**Huh7** hmn hepatoma (cell).  
**HUVEC** hmn umbilical vein endothelial cell.  
**Jurkat-T** hmn T-cell leukemia (cell).  
**K562** hmn leukemia (cell).  
**K562/ADM** hmn leukemia (cell) of adriamycin-resistant.  
**Kato3** hmn gastric cancer (cell).  
**KB** hmn nasopharyngeal carcinoma (cell).  
**KB15** hmn nasopharyngeal carcinoma (cell).  
**KB16** hmn nasopharyngeal carcinoma (cell).  
**KB3** hmn nasopharyngeal carcinoma (cell).  
**KBV200** MDR nasopharyngeal carcinoma (cell).  
**KB-VIN** vincristine-resistant nasopharyngeal carcinoma (cell).  
**Ketr3** hmn renal cancer (cell).  
**KG-1** hmn leukemia (cell).  
**KM12** hmn colorectal cancer (cell).  
**KM20L2** hmn colorectal cancer (cell).  
**KU-1** hmn bladder cancer (cell).  
**L<sub>1210</sub>** Lymphocytic leukemia (cell).  
**L5178Y** lymphosarcoma (cell).  
**L-6** rat skeletal myoblasts.  
**L<sub>615</sub>** mouse spleen leukemia (cell).  
**L<sub>7212</sub>** mouse leukemia (cell).  
**L-929** fibrosarcoma (cell).  
**LLC** mouse Lewis lung cancer (cell).  
**LMTK** mouse fiber cells.  
**LNCaP** hmn prostatic cancer (cell).  
**LNCaP-FGC** hmn prostatic cancer (cell).  
**LO2** hmn liver cell.  
**LoVo** hmn colorectal cancer (cell).  
**LoVo/Doxo** hmn colorectal cancer cell, drug-resistant subclone.  
**LOX** melanoma (cell).  
**LOX-IMVI** melanoma (cell).  
**LS174T** colorectal cancer (cell).  
**Lu04** hmn lung cancer (cell).  
**Lu1** hmn lung cancer (cell).  
**LXFL529L** hmn large cell lung cancer (cell).  
**M1** mus myelocytic leukemia (cell).  
**M14** melanoma (cell).  
**M4BEU** hmn melanoma (cell).  
**M5076** ovarian sarcoma (cell).  
**Ma7373** mus breast cancer (cell).  
**MALME-3M** melanoma (cell).  
**MBT-2** mus bladder cancer (cell).  
**MCF7** hmn breast cancer (cell).  
**MCF7/6** hmn breast cancer (cell).  
**MCF7/ADR-RES** hmn breast cancer (cell).  
**MCF7-ras** hmn breast cancer (cell).  
**MDA231** hmn breast cancer (cell).  
**MDA-MB-231** hmn breast cancer (cell).  
**MDA-MB-435** hmn breast cancer (cell).  
**MDCK** Madin-Darby Canine.  
**MEL-28** hmn melanoma cell.  
**Meth-A** Meth-A sarcoma (cell).  
**MGe803** hmn gastric adenocarcinoma (cell).  
**MH-60** mus leukemia (cell).  
**MI4** melanoma (cell).  
**MIA-PaCa-2** hmn pancreas cancer (cell).  
**MK1** hmn gastric cancer (cell).  
**MKN1** hmn gastric cancer (cell).  
**MKN28** hmn gastric cancer (cell).  
**MKN45** hmn gastric cancer (cell).  
**MKN7** hmn gastric cancer (cell).  
**MKN74** hmn gastric cancer (cell).  
**MM1** highly invasive clone isolated from parental rat ascites hepatoma AH130 cells.  
**Molt4** hmn lymphoma (cell).  
**Mono-Mac-6** mononuclear cells.  
**MQc80-3** gastric adenocarcinoma (cell).  
**MRC-5** hmn diploid embryonic cells.

**MS301** mus breast cancer (cell).  
**MS310** mus breast cancer (cell).  
**N04** hmn neuroma (cell).  
**NCI-H1417** hmn small cell lung cancer (cell).  
**NCI-H187** hmn small cell lung cancer (cell).  
**NCI-H226** hmn non-small cell lung cancer (cell).  
**NCI-H23** hmn lung cancer (cell).  
**NCI-H460** hmn lung cancer (cell).  
**NCI-H522** hmn lung cancer (cell).  
**NK/LY** ascites cancer (cell).  
**NSCLC-N6** hmn non-small cell lung cancer (cell).  
**NUGC** hmn gastric cancer (cell).  
**NUGC-3** hmn gastric cancer (cell).  
**NUGC-4** hmn gastric cancer (cell).  
**OVCAR-2780** ovarian adenocarcinoma (cell).  
**OVCAR-3** ovarian adenocarcinoma (cell).  
**OVCAR-4** ovarian adenocarcinoma (cell).  
**OVCAR-5** ovarian adenocarcinoma (cell).  
**OVCAR-8** ovarian adenocarcinoma (cell).  
**P1534** mus, transplanted leukemia (cell).  
**P<sub>388</sub>** mouse lymphocytic leukemia (cell).  
**P<sub>388</sub>/ADM** mouse lymphocytic leukemia (cell) of adriamycin-resistant.  
**PACA-2** hmn pancreas cancer (cell) .  
**PANC1** pancreas cancer (cell).  
**PBMC** peripheral blood mononuclear cells.  
**PC12** hmn lung cancer (cell).  
**PC3** hmn prostatic cancer (cell).  
**PC-6** hmn lung cancer (cell).  
**PLC/PRF/5** hmn liver cancer (cell).  
**PSN1** hmn pancreas cancer (cell).  
**PTX10** ovarian cancer cells with  $\beta$ -tubulin mutation.  
**QGY-7703** hmn liver cancer (cell).  
**RAW264.7** mouse macrophages.  
**RBL-2H3** rat basophilic cells.  
**RL33** rbt lung cancer (cell).  
**RPMI-7951** melanoma (cell).  
**RPMI-8226** leukemia (cell).  
**RXF-393** renal cancer (cell).  
**RXF-631L** renal cancer (cell).  
**S<sub>180</sub>** mouse sarcoma (cell).  
**S37** mouse sarcoma (cell).  
**Sea7901** hmn gastric adenocarcinoma (cell).  
**SCL** hmn gastric cancer (cell).  
**SCL-37'6** hmn gastric cancer (cell).  
**SCL-6** hmn gastric cancer (cell).  
**SCL-9** hmn gastric cancer (cell).  
**SF268** hmn brain tumor (cell).  
**SF295** hmn brain tumor (cell).  
**SF539** hmn brain tumor (cell).  
**SGC** hmn gastric cancer (cell).  
**SGC7901** hmn gastric cancer (cell).  
**SiHa** hmn cervical carcinoma (cell).  
**SKBR3** hmn breast cancer (cell).  
**SKCO1** colorectal cancer (cell).  
**SK-MEL** hmn caucasian melanoma (cell).  
**SK-MEL-2** hmn melanoma (cell).  
**SK-MEL-28** hmn melanoma (cell).  
**SK-MEL-5** hmn melanoma (cell).  
**SK-MES-1** bronchogenic carcinoma cell.  
**SK-OV-3** ovarian adenocarcinoma (cell).  
**SMMC-7721** hmn liver cancer (cell).  
**SNB75** hmn brain tumor (cell).  
**SNB78** hmn brain tumor (cell).  
**SNU638** hmn gastric adenocarcinoma (cell).  
**SR** leukemia (cell).  
**St4** gastric cancer (cell).  
**SVR** mouse endothelial cells.  
**SW620** hmn colorectal adenocarcinoma (cell).  
**T24** hmn liver cancer (cell).  
**T24S** hmn bladder cancer (cell).  
**T47D** hmn breast cancer (cell).  
**T98G** hmn caucasian glioblastoma (cell).  
**TK10** renal cancer (cell).  
**Tmolt3** hmn leukemia (cell).  
**U14** mouse cervical carcinoma (cell).  
**U251** brain tumor (cell).  
**U373** caucasian glioblastoma (cell).  
**U4** mouse cervical carcinoma (cell).  
**U-87-MG** caucasian glioblastoma (cell).  
**U937** hmn monocytic leukemia (cell).  
**UACC62** melanoma (cell).  
**UO-31** renal cancer (cell).  
**Vero** green monkey kidney tumour (cell).  
**W<sub>256</sub>** rat Walker sarcoma (cell).  
**WEHI-164** mus fibrosarcoma (cell).  
**WHCO1** hmn esophageal cancer (cell).  
**WI-38** hmn lung fibrocyte (normal hmn diploid fibrocyte).  
**WiDr** colorectal adenocarcinoma (cell).  
**Wish** transformed epithelial tumour (cell).  
**XF-498** hmn tumor (cell).  
**ZR-75-1** hmn breast cancer (cell).





# Volume 1 Isolated Compounds (A-C)

The Isolated Compounds part of the books lists in alphabetical order all 23033 isolated compounds key names isolated from 6926 TCM original plants and congeners. Following symbols in prefix are ineffective in ordering: *D-*, *L-*, *dl*, *R-*, *S-*, *E-*, *Z-*, *O-*, *N-*, *C-*, *H-*, *cis-*, *trans-*, *ent-*, *meso-*, *rel-*, *erythro-*, *threo-*, *sec-*, *chiro-*, *para-*, *exo-*, *m-*, *o-*, *p-*, *n-*, *α-*, *β-*, *γ-*, *δ-*, *ε-*, *κ-*, *ξ-*, *ψ-*, *ω-*, (+), (-), (±) etc., and: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, {, }, [, ], (, ), ,, ;, \*, ', ", "", →, etc.

For each compound entry, data terms are listed as following format:

**Title line:** **compound code** **main name**

**Data body:** other name(s) [CASRN] formula (relative molecular mass). Physico-chemical properties. **Pharm:** a sequence of formatted pharmacological activity data. **Source:** a sequence of combination of plant PIN-YIN name and Latin name. **Ref:** a sequence of reference numbers.

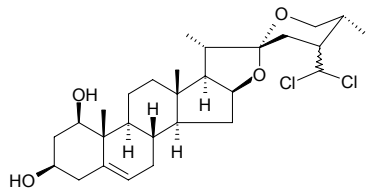
STRUCTURE DIAGRAM



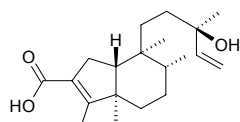
## A

**1 Abamagenin**

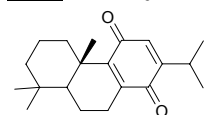
[38094-55-2] C<sub>28</sub>H<sub>42</sub>Cl<sub>2</sub>O<sub>4</sub> (513.55). Source: HU WEI LAN *Sansevieria trifasciata*. Ref: 1552.

**2 (+)-(4→2)-Abeo-kolaveolol-3-oic acid**

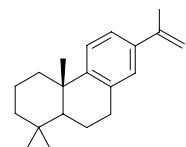
C<sub>20</sub>H<sub>34</sub>O<sub>3</sub> (320.48). Colorless amorphous solid,  $[\alpha]_D^{25} = +23.8^\circ$  ( $c = 0.04$ , CHCl<sub>3</sub>). Source: BA XI MA DOU LING *Aristolochia chamissonis*. Ref: 1904.

**3 Abieta-8,12-dien-11,14-dione**

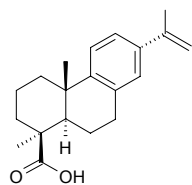
12-Deoxyroyleanone C<sub>20</sub>H<sub>28</sub>O<sub>2</sub> (300.44).  $[\alpha]_D^{20} = -60.0^\circ$  ( $c = 0.05$ , CHCl<sub>3</sub>). Source: TU ER QI SHU WEI CAO *Salvia cilicica*. Ref: 1930.

**4 (+)-8,11,13,15-Abietatetraene**

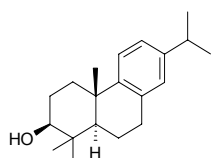
C<sub>20</sub>H<sub>28</sub> (268.45).  $[\alpha]_D^{24} = +48.2^\circ$  ( $c = 0.22$ , MeOH). Source: MIN WAN BA JIAO *Illicium minwanense* (pericarp; yield = 0.00011%dw). Ref: 4697.

**5 8,11,13,15-Abietatetraen-19-oic acid**

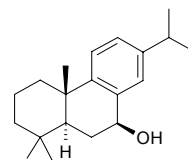
C<sub>20</sub>H<sub>26</sub>O<sub>2</sub> (298.43). White amorphous powder. Source: JIA DI FENG PI *Illicium jiadifengpi* (bark). Ref: 4560.

**6 Abietatriene-3β-ol**

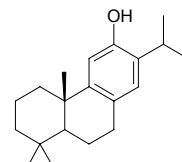
[78078-41-8] C<sub>20</sub>H<sub>30</sub>O (286.46). mp 109~111°C, (nat.), 136.5~138°C (syn.),  $[\alpha]_D = +50.4^\circ$  (CHCl<sub>3</sub>). Source: MAN JING ZI *Vitex trifolia*. Ref: 746, 1521.

**7 Abieta-8,11,13-trien-7β-ol**

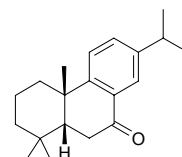
C<sub>20</sub>H<sub>30</sub>O (286.46).  $[\alpha]_D^{25} = +34.2^\circ$  ( $c = 1.0$ , CHCl<sub>3</sub>). Source: CHANG GENG CU FEI *Cephalotaxus harringtonia* var. *drupacea*. Ref: 5401.

**8 (+)-8,11,13-Abietatrien-12-ol**

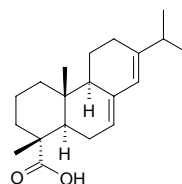
C<sub>20</sub>H<sub>30</sub>O (286.46). Orange gum,  $[\alpha]_D^{26.7} = +20.7^\circ$  ( $c = 10.15$ , CHCl<sub>3</sub>). Pharm: Antiplasmodial (*Plasmodium falciparum* K1 *in vitro*, IC<sub>50</sub> = (0.63±0.05)μg/mL, control Chloroquine, IC<sub>50</sub> = (0.18±0.01)μg/mL; D10, IC<sub>50</sub> = (0.95±0.08)μg/mL, Chloroquine, IC<sub>50</sub> = (0.012±0.001)μg/mL); cytotoxic (CHO, *in vitro*, IC<sub>50</sub> = (51.69±2.67)μg/mL; control Daunorubicin IC<sub>50</sub> = (1.53±0.15)μg/mL; HepG2 IC<sub>50</sub> = (43.71±6.07)μg/mL, Daunorubicin IC<sub>50</sub> = (1.46±0.20)μg/mL). Source: NAN FEI GOU MA *Harpagophytum procumbens*. Ref: 5438.

**9 Abieta-8,11,13-trien-7-one**

C<sub>20</sub>H<sub>28</sub>O (284.45). Pharm: 12(S)-LOX inhibitor inactive (hmn platelets, 100μg/mL, 12(S)-HETE Production inhibitor inactive). Source: OU ZHOU CI BAI *Juniperus communis* (wood), YUAN BAI *Sabina chinensis*. Ref: 4980.

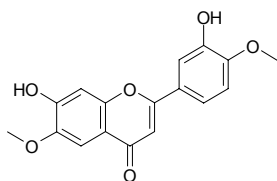
**10 Abietic acid**

7,13-Abietadien-18-oil acid; Sylvic acid [514-10-3] C<sub>20</sub>H<sub>30</sub>O<sub>2</sub> (302.46). Lamellar crystals (ethanol), mp 171~173°C,  $[\alpha]_D^{15} = -102^\circ$  (ethanol); mp (-) 171~173°C, (±) 148~150°C. Pharm: Antibacterial (*Streptococcus* var., MIC = 25mg/L; *Staphylococcus aureus*, MIC = 100mg/L; *Corynebacterium acnes*, MIC = 25μg/mL); antineoplastic (S<sub>180</sub>); antithrombotic; Na<sup>+</sup>, K<sup>+</sup>-ATP inhibitor; antiulcerative; promotes growth of bacteria producing butyric and lactic acids; topical protectant; toxin (pulmonary toxicity). Source: SONG XIANG *Pinus massoniana*. Ref: 6, 631, 900.

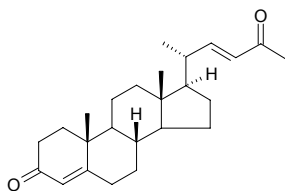


**11 Abrectorin**

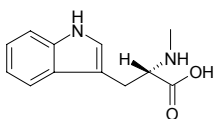
3',7-Dihydroxy-4',6-dimethoxyflavone C<sub>17</sub>H<sub>14</sub>O<sub>6</sub> (314.30). Crystals, mp 229~230°C, 273~274°C. Source: XIANG SI TENG *Abrus precatorius*. Ref: 660.

**12 Abridin**

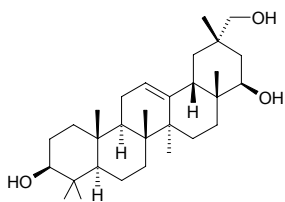
C<sub>25</sub>H<sub>36</sub>O<sub>2</sub> (368.56). Crystals (MeOH), mp 67~68°C. Source: XIANG SI ZI *Abrus precatorius*. Ref: 660.

**13 Abrine**

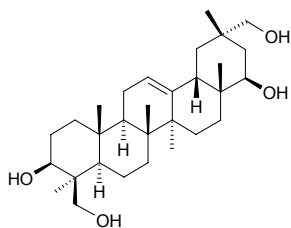
*N*-Methyl-*L*-tryptophan [526-31-8] C<sub>12</sub>H<sub>14</sub>N<sub>2</sub>O<sub>2</sub> (218.26). Prismatic crystals (water), mp 295°C (dec). Source: JI GU CAO *Abrus fruticosus* [Syn. *Abrus cantoniensis*] (dried whole herb: content = 0.0317%<sup>[5508]</sup>), XIANG SI ZI *Abrus precatorius*. Ref: 1, 5, 6, 5508.

**14 Abrisapogenol A**

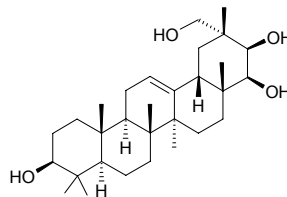
C<sub>30</sub>H<sub>50</sub>O<sub>3</sub> (458.73). Source: JI GU CAO *Abrus fruticosus* [Syn. *Abrus cantoniensis*]. Ref: 1523.

**15 Abrisapogenol B**

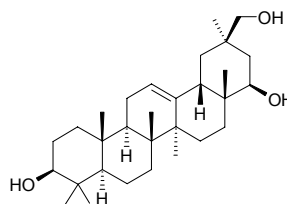
[121994-06-7] C<sub>30</sub>H<sub>50</sub>O<sub>4</sub> (474.73). Source: JI GU CAO *Abrus fruticosus* [Syn. *Abrus cantoniensis*]. Ref: 1524.

**16 Abrisapogenol C**

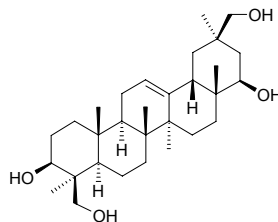
C<sub>30</sub>H<sub>50</sub>O<sub>4</sub> (474.73). Source: JI GU CAO *Abrus fruticosus* [Syn. *Abrus cantoniensis*], SHAN DOU GEN *Sophora subprostrata* [Syn. *Sophora tonkinensis*]. Ref: 1523, 1525.

**17 Abrisapogenol D**

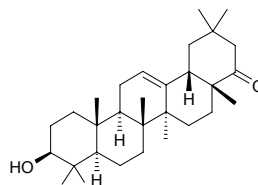
[10379-65-4] C<sub>30</sub>H<sub>50</sub>O<sub>3</sub> (458.73). Source: JI GU CAO *Abrus fruticosus* [Syn. *Abrus cantoniensis*], SHAN DOU GEN *Sophora subprostrata* [Syn. *Sophora tonkinensis*]. Ref: 1524, 1525.

**18 Abrisapogenol E**

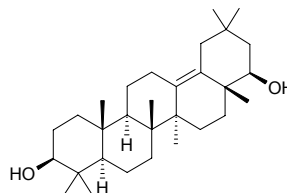
[121994-07-8] C<sub>30</sub>H<sub>50</sub>O<sub>4</sub> (474.73). Source: JI GU CAO *Abrus fruticosus* [Syn. *Abrus cantoniensis*], SHAN DOU GEN *Sophora subprostrata* [Syn. *Sophora tonkinensis*]. Ref: 1524, 1525.

**19 Abrisapogenol F**

[121994-08-9] C<sub>30</sub>H<sub>48</sub>O<sub>2</sub> (440.72). Source: JI GU CAO *Abrus fruticosus* [Syn. *Abrus cantoniensis*]. Ref: 1524.

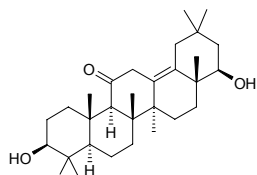
**20 Abrisapogenol G**

[121994-09-0] C<sub>30</sub>H<sub>50</sub>O<sub>2</sub> (442.73). Source: JI GU CAO *Abrus fruticosus* [Syn. *Abrus cantoniensis*]. Ref: 1524.

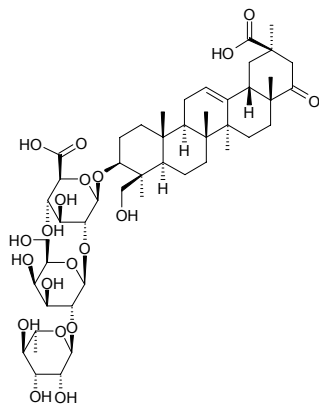


**21 Abrisapogenol J**

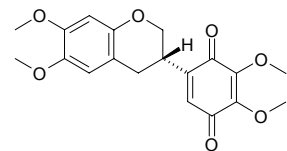
$C_{30}H_{48}O_3$  (456.72). Source: XIANG SI ZI *Abrus precatorius*. Ref: 1527.

**22 Abrisaponin I**

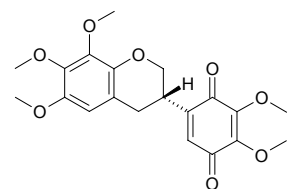
$C_{48}H_{74}O_{20}$  (971.11). Source: JI GU CAO *Abrus fruticulosus* [Syn. *Abrus cantoniensis*], SHAN DOU GEN *Sophora subprostrata* [Syn. *Sophora tonkinensis*]. Ref: 1521, 1526.

**23 Abruquinone A**

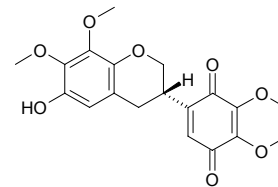
[71593-10-7]  $C_{19}H_{20}O_7$  (360.37). Pharm: Platelet aggregation inhibitor; antiallergic and anti-inflammatory (inhibits formation of peroxide,  $IC_{50} < 0.3 \mu\text{g/mL}$ , inhibits rat neutrophilic cell,  $IC_{50} < 1 \mu\text{g/mL}$ , inhibits release of  $\beta$ -glucuronidase, lysozym and histamine in mastocyte,  $IC_{50} < 1 \mu\text{g/mL}$ ); reduces plasma's exsmosis (normal or treated mus, bradykinin-induced or P substance-induced). Source: XIANG SI ZI *Abrus precatorius*. Ref: 1528, 1687.

**24 Abruquinone B**

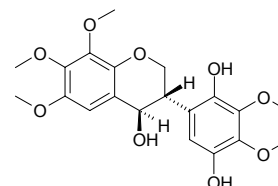
[71593-09-4]  $C_{20}H_{22}O_8$  (390.39). Brown viscous liquid,  $[\alpha]_D^{25} = +128.6^\circ$  ( $c = 0.25$ , MeOH). Pharm: platelet aggregation inhibitor (rbt, caused by arachidonic acid,  $IC_{50} < 5 \mu\text{g/mL}$ , caused by collagen,  $IC_{50} < 5 \mu\text{g/mL}$ )<sup>[1528]</sup>; antituberculosic (MIC =  $(12.5 \pm 0.0) \mu\text{g/mL}$ )<sup>[4956]</sup>; antimalarial (antiplasmodial,  $IC_{50} = (1.5 \pm 0.2) \mu\text{g/mL}$ )<sup>[4956]</sup>; cytotoxic (Vero cells,  $IC_{50} > 50 \mu\text{g/mL}$ ; KB cells,  $IC_{50} = (9.9 \pm 0.3) \mu\text{g/mL}$ ; BC cells,  $IC_{50} = (5.7 \pm 0.2) \mu\text{g/mL}$ )<sup>[4956]</sup>. Source: XIANG SI ZI *Abrus precatorius*, XIANG SI TENG *Abrus precatorius* (aerial parts). Ref: 1528, 4956.

**25 Abruquinone C**

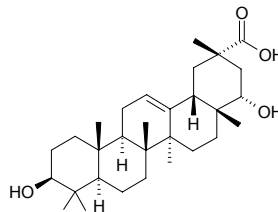
[71593-11-8]  $C_{19}H_{20}O_8$  (376.37). Source: XIANG SI ZI *Abrus precatorius*. Ref: 1528.

**26 Abruquinone G**

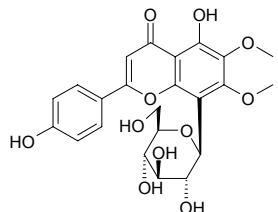
$C_{20}H_{24}O_9$  (408.41). White needles,  $[\alpha]_D^{25} = -56.3^\circ$  ( $c = 0.64$ , MeOH). Pharm: Antiviral ( $IC_{50} = 20\text{--}50 \mu\text{g/mL}$ ); cytotoxic (Vero cell,  $IC_{50} = 30\text{--}40 \mu\text{g/mL}$ ). Source: XIANG SI TENG *Abrus precatorius* (aerial parts). Ref: 4956.

**27 Abrusgenic acid**

Maytenfolic acid;  $3\beta,22\alpha$ -Dihydroxyolean-12-en-29-oic acid [84108-17-8]  $C_{30}H_{48}O_4$  (472.71). Colorless acicular crystals, mp  $320\text{--}322^\circ\text{C}$ ,  $[\alpha]_D = 34.2^\circ$  ( $c = 1.2$ , pyridine). Pharm: Antineoplastic ( $P_{388}$ , 6.25mg/kg, biotic prolonged rate = 148%)<sup>[1207]</sup>; anti-HIV (inhibits HIV replication, H9 lymphocytes,  $IC_{50}$  (concentration that inhibits uninfected H9 cell growth by 50%)  $> 25 \mu\text{g/mL}$ ,  $EC_{50} = 5.65 \mu\text{g/mL}$ , TI =  $4.40 \mu\text{g/mL}$ , control AZT,  $IC_{50} = 500 \mu\text{g/mL}$ ,  $EC_{50} = 0.0007 \mu\text{g/mL}$ , TI = 737207)<sup>[4267]</sup>; anti-inflammatory<sup>[1207]</sup>; DPPH scavenger inactive (for  $40 \mu\text{mol/L}$  DPPH radical,  $SC_{50} > 40 \mu\text{mol/L}$ )<sup>[4378]</sup>. Source: HEI MAN *Tripterygium regelii*, KUN MING SHAN HAI TANG *Tripterygium hypoglaucum*, LEI GONG TENG *Tripterygium wilfordii*, SI MIAN MU *Euonymus bungeanus*, SUO LA MU *Salacia prinoides* [Syn. *Salacia chinensis*] (stem), XIANG SI TENG *Abrus precatorius*, XIANG SI ZI *Abrus precatorius*, NAN TOU QIU HAI TANG *Begonia nantoensis* (rhizome). Ref: 1207, 1300, 4267, 4378.

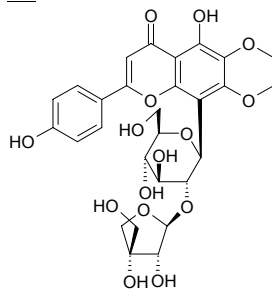
**28 Abrusin**

[120727-02-8]  $C_{23}H_{24}O_{11}$  (476.44). Source: XIANG SI ZI *Abrus precatorius*. Ref: 1527.

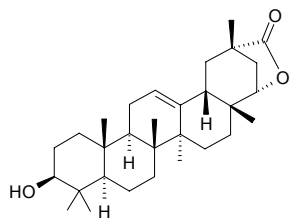


**29 Abrusin-2''-O-apioside**

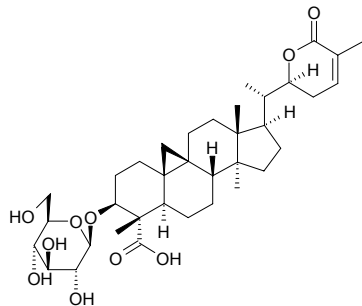
[120727-04-0] C<sub>28</sub>H<sub>32</sub>O<sub>15</sub> (608.56). Source: XIANG SI ZI *Abrus precatorius*.  
Ref: 1527.

**30 Abruslactone A**

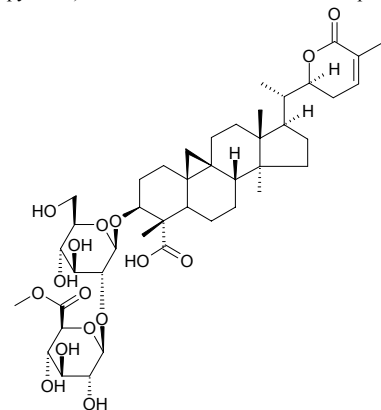
[84104-71-2] C<sub>30</sub>H<sub>46</sub>O<sub>3</sub> (454.70). Source: BAO XING WEI MAO *Euonymus mupinensis*, LEI GONG TENG *Tripterygium wilfordii*, XIANG SI TENG *Abrus precatorius*, XIANG SI ZI *Abrus precatorius*. Ref: 2, 278, 1300.

**31 Abrusoside A**

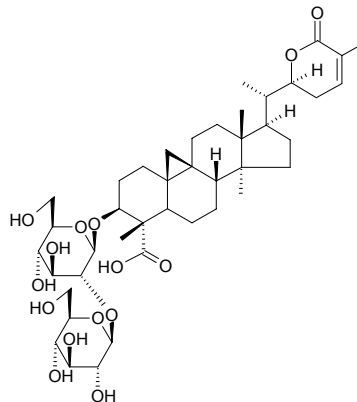
[124962-06-7] C<sub>36</sub>H<sub>54</sub>O<sub>10</sub> (646.83). Pharm: Sweetener. Source: JI GU CAO *Abrus fruticulosus* [Syn. *Abrus cantoniensis*], XIANG SI ZI *Abrus precatorius*. Ref: 658.

**32 Abrusoside B**

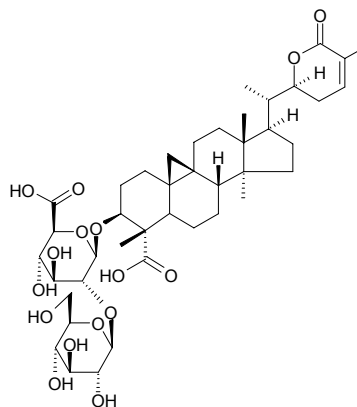
C<sub>43</sub>H<sub>64</sub>O<sub>16</sub> (836.98). Crystals, mp 243~245°C, [α]<sub>D</sub> = +5.8° (c = 0.35, pyridine). Source: XIANG SI TENG *Abrus precatorius*. Ref: 660.

**33 Abrusoside C**

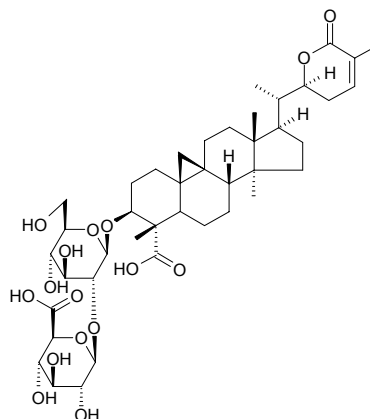
C<sub>42</sub>H<sub>64</sub>O<sub>15</sub> (808.97). Crystals, mp 260~262°C, [α]<sub>D</sub> = +31.4° (c = 0.34, pyridine). Source: XIANG SI TENG *Abrus precatorius*. Ref: 660.

**34 Abrusoside D**

C<sub>42</sub>H<sub>62</sub>O<sub>16</sub> (822.95). Crystals, mp 237~239°C, [α]<sub>D</sub> = +9.9° (c = 0.31, pyridine). Source: XIANG SI TENG *Abrus precatorius*. Ref: 660.

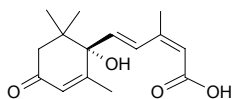
**35 Abrusoside E**

C<sub>42</sub>H<sub>62</sub>O<sub>16</sub> (822.95). Amorphous powder, mp 265°C (dec), [α]<sub>D</sub> = +2° (c = 0.2, pyridine). Source: XIANG SI TENG *Abrus precatorius*. Ref: 1521.

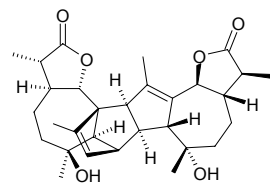


**36 Abscisic acid**

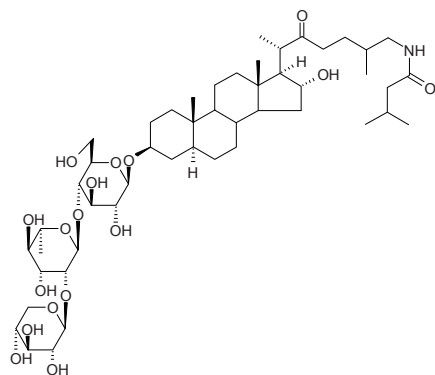
[21293-29-8]  $C_{15}H_{20}O_4$  (264.32). mp 160~163°C, soluble in diethyl ether. **Pharm:** Hormone of defoliation; germination inhibitor (seed and ball root). **Source:** LU DI MIAN *Gossypium hirsutum* [Syn. *Gossypium mexicanum*], SHAN YAO *Dioscorea batatas* [Syn. *Dioscorea opposita*], WAN DOU *Pisum sativum* (in 1967, the compound was isolated from the plant by Y. Isogaya, et al.)<sup>[5505]</sup>, XIANG SI ZI *Abrus precatorius*. **Ref:** 2, 658, 5505.

**37 Absinthin**

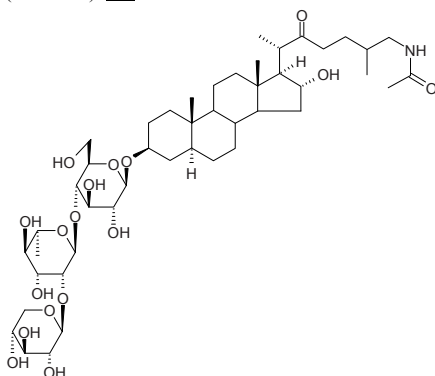
[1362-42-1]  $C_{30}H_{40}O_6$  (496.65). Orange acicular crystals (anhydrous ether), mp 179~183°C (dec). **Pharm:** Anti-inflammatory (rat, orl, experimental gastric ulcer, also promotes gastric wall regeneration); supertoxic agent (causes tension, hyperspasmia, and even death after aspiration). **Source:** ZHONG YA KU HAO *Artemisia absinthium*, BAI HAO *Artemisia sieversiana*. **Ref:** 1, 6.

**38 Abutiloside A**

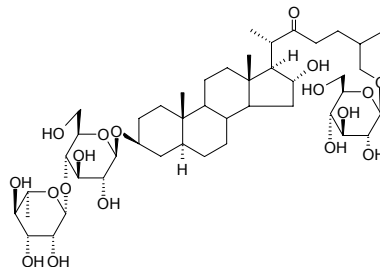
$C_{49}H_{83}NO_{17}$  (958.20). **Source:** MA ZHUANG QIE *Solanum abutiloides* (fresh root). **Ref:** 4166.

**39 Abutiloside B**

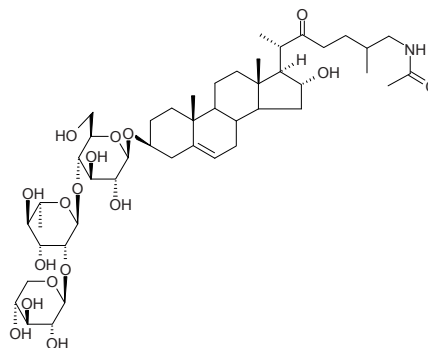
$C_{46}H_{77}NO_{17}$  (916.12). **Source:** MA ZHUANG QIE *Solanum abutiloides* (fresh root). **Ref:** 4166.

**40 Abutiloside F**

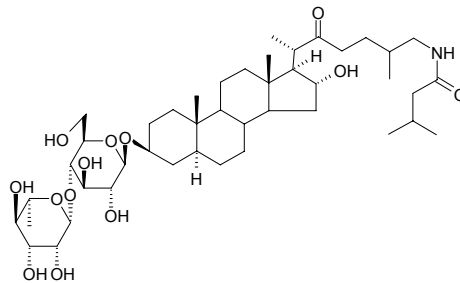
$C_{45}H_{76}O_{18}$  (905.10). **Source:** MAZHUANG QIE *Solanum abutiloides* (fresh root). **Ref:** 4166.

**41 Abutiloside H**

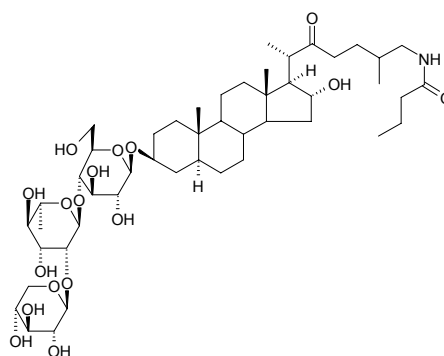
26-Acetylamino-3 $\beta$ ,16 $\alpha$ -dihydroxy-cholest-5-en-22-one-3-O- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-glucopyranoside  $C_{46}H_{75}NO_{17}$  (914.11). White powder,  $[\alpha]_D^{25} = -107.0^\circ$  ( $c = 0.20$ , MeOH). **Source:** MA ZHUANG QIE *Solanum abutiloides* (fresh root). **Ref:** 4166.

**42 Abutiloside I**

$C_{44}H_{75}NO_{13}$  (826.09). White powder,  $[\alpha]_D^{25} = -38.7^\circ$  ( $c = 0.15$ , MeOH). **Source:** MA ZHUANG QIE *Solanum abutiloides* (fresh root). **Ref:** 4166.

**43 Abutiloside J**

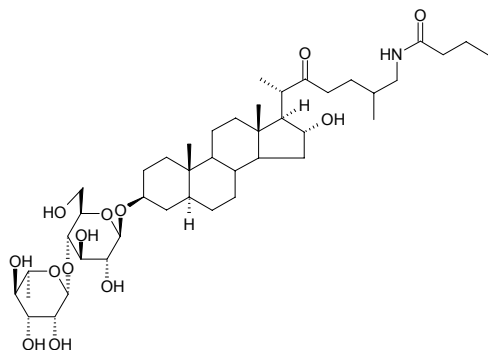
$C_{48}H_{81}NO_{17}$  (944.18). White powder,  $[\alpha]_D^{25} = -54.1^\circ$  ( $c = 0.95$ , MeOH). **Source:** MA ZHUANG QIE *Solanum abutiloides* (fresh root). **Ref:** 4166.



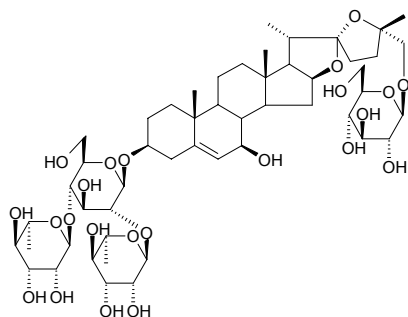


**44 Abutiloside K**

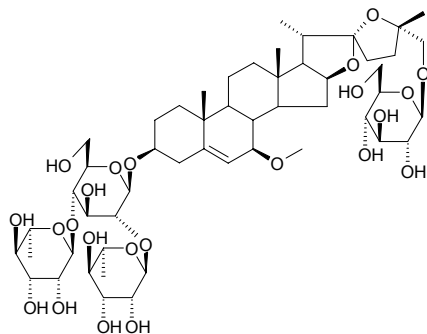
$C_{43}H_{73}NO_{13}$  (812.06). White powder,  $[\alpha]_D^{25} = -50.4^\circ$  ( $c = 0.25$ , MeOH). Source: MA ZHUANG QIE *Solanum abutiloides* (fresh root). Ref: 4166.

**45 Abutiloside L**

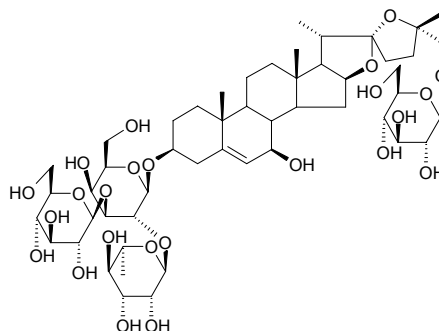
(22*S*,25*S*)-26-*O*- $\beta$ -*D*-Glucopyranosyl-22,25-epoxy-furost-5-ene-3 $\beta$ ,7 $\beta$ ,26-triol 3-*O*- $\beta$ -chacotrioside  $C_{51}H_{82}O_{23}$  (1063.21). White powder,  $[\alpha]_D^{25} = -107.1^\circ$  ( $c = 1.15$ , MeOH). Source: MA ZHUANG QIE *Solanum abutiloides* (fruit). Ref: 3496.

**46 Abutiloside M**

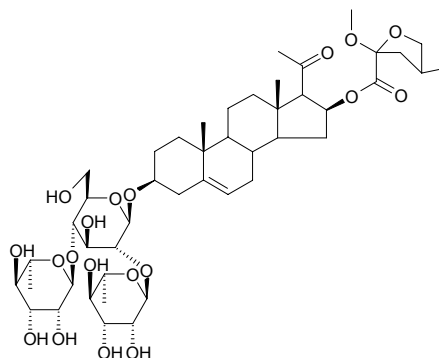
(22*S*,25*S*)-26-*O*- $\beta$ -*D*-Glucopyranosyl-22,25-epoxy-7 $\beta$ -methoxy-furost-5-ene-3 $\beta$ ,26-diol 3-*O*- $\beta$ -chacotrioside  $C_{52}H_{84}O_{23}$  (1077.24). White powder,  $[\alpha]_D^{25} = -110.9^\circ$  ( $c = 0.37$ , MeOH). Source: MA ZHUANG QIE *Solanum abutiloides* (fruit). Ref: 3496.

**47 Abutiloside N**

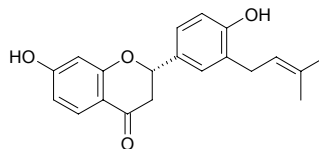
(22*S*,25*S*)-26-*O*- $\beta$ -*D*-Glucopyranosyl-22,25-epoxy-furost-5-ene-3 $\beta$ ,7 $\beta$ ,26-triol 3-*O*- $\beta$ -soltatrioside  $C_{51}H_{82}O_{24}$  (1079.21). White powder,  $[\alpha]_D^{25} = -84.8^\circ$  ( $c = 0.24$ , MeOH). Source: MA ZHUANG QIE *Solanum abutiloides* (fruit). Ref: 3496.

**48 Abutiloside O**

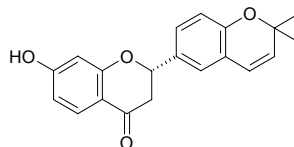
3-*O*- $\beta$ -*D*-Chacotriosyl-3 $\beta$ ,16 $\beta$ -dihydroxy-pregn-5-en-20-one-16-*O*-(2,5-epoxy-2-methoxy-4-methyl-pentanoic acid)-ester  $C_{46}H_{72}O_{19}$  (929.08). White powder,  $[\alpha]_D^{25} = -46.5^\circ$  ( $c = 0.34$ , MeOH). Source: MA ZHUANG QIE *Solanum abutiloides* (fruit). Ref: 3496.

**49 (2*R*)-Abyssinone**

$C_{20}H_{20}O_4$  (324.38). Source: GUANG GUO GAN CAO *Glycyrrhiza glabra*. Ref: 2431.

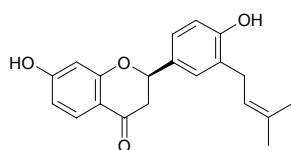
**50 (2*R*)-Abyssinone I**

[77263-07-1]  $C_{20}H_{18}O_4$  (322.36). Pharm: Antibacterial (*Staphylococcus aureus*, MIC = 25  $\mu$ g/mL; *Bacillus subtilis*, MIC = 25  $\mu$ g/mL; *Sclerotinia libertiana*, MIC = 12.5  $\mu$ g/mL; *Mucor mucedo*, MIC = 50  $\mu$ g/mL). Source: A BI XI NI YA CI TONG *Erythrina abyssinica*. Ref: 1551.

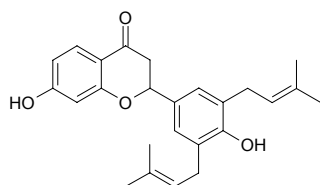


**51 (2S)-Abyssinone II**

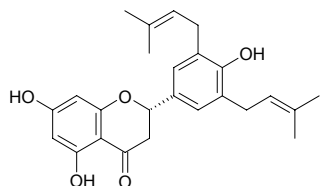
4',7-Dihydroxy-3'-prenylflavanone C<sub>20</sub>H<sub>20</sub>O<sub>4</sub> (324.38). **Pharm:** Aromatase inhibitor (*in vitro*, IC<sub>50</sub> = 0.4μmol/L; control Aminoglutethimide, IC<sub>50</sub> = 6.4μmol/L)<sup>[3090]</sup>; cytotoxic (aromatase inhibitor, a promising lead as potential cancer chemopreventive agent)<sup>[5038]</sup>; antibacterial (*Escherichia coli*, MIA = 10.00μg, control Chloramphenicol, MIA = 0.001μg; *Staphylococcus aureus*, MIA = 0.50μg, Chloramphenicol, MIA = 0.0001μg; *Bacillus subtilis*, MIA = 0.50μg, Chloramphenicol, MIA = 0.0001μg)<sup>[5247]</sup>; antifungal (*Candida mycoderma*, MIA = 0.01μg, control Miconazole, MIA = 0.0001μg)<sup>[5247]</sup>; antioxidant (DPPH scavenger, TLC, MIA = 0.5μg, IC<sub>50</sub> = 630μg/mL; control Quercetin, MIA < 0.05μg, IC<sub>50</sub> = 7μg/mL, Gallic acid, MIA < 0.05μg, IC<sub>50</sub> = 4μg/mL; Ascorbic acid, MIA < 0.10μg, IC<sub>50</sub> = 18μg/mL)<sup>[5247]</sup>. **Source:** GOU SHU *Broussonetia papyrifera*, JI KUAN CI TONG *Erythrina latissima* (stem wood). **Ref:** 3090, 5038, 5247.

**52 Abyssinone IV**

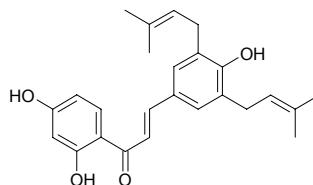
C<sub>25</sub>H<sub>28</sub>O<sub>4</sub> (392.50). **Pharm:** Antimalarial (*Plasmodium falciparum* D6 strain, IC<sub>50</sub> = (5.4±1.5)μg/mL, control Chloroquine, IC<sub>50</sub> = (0.009±0.002)μg/mL, Quinine, IC<sub>50</sub> = (0.04±0.01)μg/mL; *Plasmodium falciparum* W2 strain, IC<sub>50</sub> = (5.9±1.8)μg/mL, Chloroquine, IC<sub>50</sub> = (0.08±0.003)μg/mL, Quinine, IC<sub>50</sub> = (0.21±0.01)μg/mL)<sup>[3879]</sup>; antimalarial (antiplasmodial *in vitro*, *Plasmodium falciparum*, W2 strain, IC<sub>50</sub> = (7.7±1.6)μmol/L, control Quinine, IC<sub>50</sub> = (0.21±0.01)μmol/L; D6 strain, IC<sub>50</sub> = (9.0±2.1)μmol/L, Quinine, IC<sub>50</sub> = (0.042±0.002)μmol/L)<sup>[5420]</sup>. **Source:** A BI XI NI YA CI TONG *Erythrina abyssinica* (stem bark, root bark). **Ref:** 3879, 5420.

**53 Abyssinone V**

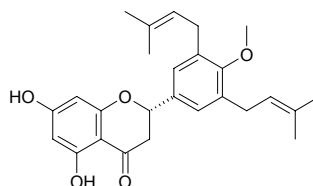
[77263-11-7] C<sub>25</sub>H<sub>28</sub>O<sub>5</sub> (408.50). **Pharm:** Antimalarial (*Plasmodium falciparum* D6 strain, IC<sub>50</sub> = (4.9±0.8)μg/mL, control Chloroquine, IC<sub>50</sub> = (0.009±0.002)μg/mL, Quinine, IC<sub>50</sub> = (0.04±0.01)μg/mL; *Plasmodium falciparum* W2 strain, IC<sub>50</sub> = (6.1±1.3)μg/mL, Chloroquine, IC<sub>50</sub> = (0.08±0.003)μg/mL, Quinine, IC<sub>50</sub> = (0.21±0.01)μg/mL)<sup>[3879]</sup>; antibacterial (*Staphylococcus aureus*, *Bacillus subtilis* and *Micrococcus lysodeikticus*)<sup>[658]</sup>. **Source:** A BI XI NI YA CI TONG *Erythrina abyssinica*. **Ref:** 658, 3879.

**54 Abyssinone VI**

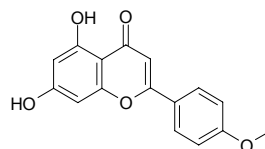
[77263-12-8] C<sub>25</sub>H<sub>28</sub>O<sub>4</sub> (392.50). **Pharm:** Platelet aggregation inhibitor (rbt). **Source:** A BI XI NI YA CI TONG *Erythrina abyssinica*. **Ref:** 658.

**55 Abyssinone V-4'-methyl ether**

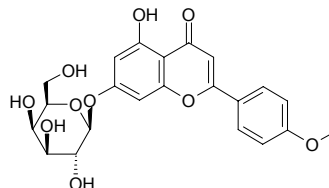
C<sub>26</sub>H<sub>30</sub>O<sub>5</sub> (422.53). **Pharm:** Antimalarial (*Plasmodium falciparum* D6, IC<sub>50</sub> = (11.3±2.1)μg/mL, control Chloroquine, IC<sub>50</sub> = (0.009±0.002)μg/mL, Quinine, IC<sub>50</sub> = (0.04±0.01)μg/mL; *Plasmodium falciparum* W2, IC<sub>50</sub> = (11.1±2.4)μg/mL, Chloroquine, IC<sub>50</sub> = (0.08±0.003)μg/mL, Quinine, IC<sub>50</sub> = (0.21±0.01)μg/mL)<sup>[3879]</sup>. **Source:** A BI XI NI YA CI TONG *Erythrina abyssinica* (stem bark), KEN NI YA CI TONG *Erythrina burttii*. **Ref:** 1521, 3879.

**56 Acacetin**

5,7-Dihydroxy-4'-methoxyflavone [480-44-4] C<sub>16</sub>H<sub>12</sub>O<sub>5</sub> (284.27). Yellow acicular crystals (95% alcohol), mp 263°C, soluble in ethanol. **Pharm:** Anti-inflammatory (mus, orl 25~100mg/kg, reduces formaldehyde edema; mus, orl, 50~100mg/kg, reduces intestinal vascular permeability and brittleness); antispasmodic; similar action with vitamin P (quercetin-like action); LD<sub>50</sub> (mus) = 933mg/kg. **Source:** CI HUI HUA *Robinia pseudoacacia*, FENG JIAO *Apis mellifera ligustica*, HUO XIANG *Agastache rugosus*, JIAN QIU LUO MAO RUI HUA *Verbascum lychnites*, JU HUA *Chrysanthemum morifolium* [Syn. *Dendranthema morifolium*], LI ZHI HAO *Ajuga forrestii*, MI MENG HUA *Buddleja officinalis*, YE JU HUA *Chrysanthemum indicum*, *Nuxia sphaerocephala* (leaf). **Ref:** 1, 7, 319, 369, 463, 4419, 5501.

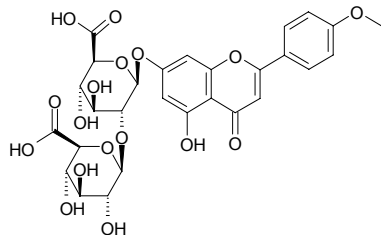
**57 Acacetin-7-O-β-D-galactopyranoside**

C<sub>22</sub>H<sub>22</sub>O<sub>10</sub> (446.41). Crystals (MeOH-Me<sub>2</sub>CO), mp 259°C (dec), [α]<sub>D</sub><sup>25</sup> = -36.6° (c = 0.55, DMF), [α]<sub>D</sub><sup>25</sup> = -60° (MeOH). **Source:** YE JU HUA *Chrysanthemum indicum*. **Ref:** 660.

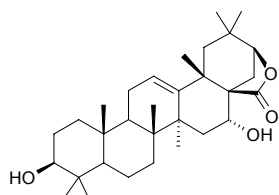


**58 Acacetin-7-glucurono-(1→2)-glucuronide**

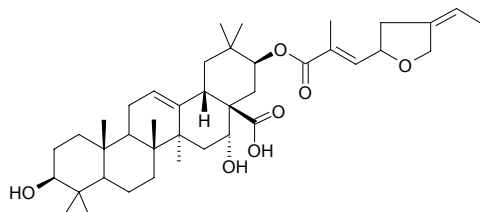
$C_{28}H_{28}O_{17}$  (636.53). mp 191~205°C (dec). Source: CHOU WU TONG *Clerodendron trichotomum*. Ref: 6.

**59 Acacic acid lactone**

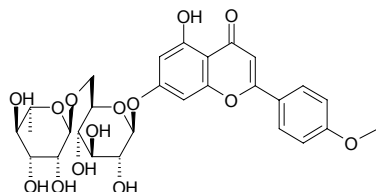
$C_{30}H_{46}O_4$  (470.70). Needles (EtOH), mp 255~257°C,  $[\alpha]_D^{25} = +4.2^\circ$  (CHCl<sub>3</sub>). Source: HE HUAN PI *Albizia julibrissin*, *Acacia* spp. Ref: 660, 1521.

**60 Acacigenin B**

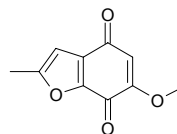
$C_{40}H_{60}O_7$  (652.92). Source: HE HUAN PI *Albizia julibrissin*. Ref: 660.

**61 Acaciin**

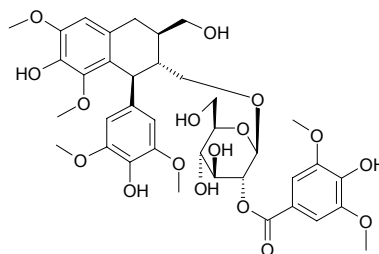
Acacetin 7-*O*-(6''-*α*-*L*-rhamnopyranosyl)-*β*-*D*-glucopyranoside [480-36-4]  $C_{28}H_{32}O_{14}$  (592.56). mp 263°C. Pharm: Phosphodiesterase inhibitor (selectively inhibits phosphodiesterase in cerebrum, cardiac muscle and EAC cell); aldose reductase inhibitor (mus, eye lens, IC<sub>50</sub> = 0.75 μmol/L); antihepatotoxin (1.0g/mL, inhibits the rise of GPT caused by CCl<sub>4</sub> and galactosamine). Source: BEI YE JU *Chrysanthemum boreale*, CI HUAI HUA *Robinia pseudoacacia*, LING *Trapa bispinosa*, HUO XIANG *Agastache rugosus*, MI MENG HUA *Buddleja officinalis*, YE JU HUA *Chrysanthemum indicum* (capitulum: content scope of 14 origins = 0.01%~2.33%, mean content = 0.70%<sup>[5508]</sup>), ZHI ZHU XIANG *Valeriana jatamansii* [Syn. *Valeriana wallichii*]. Ref: 2, 6, 369, 388, 660, 1286, 1606, 1607, 4214, 5501, 5508.

**62 Acamelin**

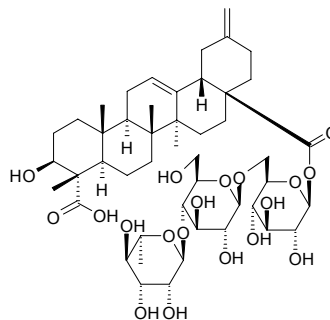
[74161-27-6]  $C_{10}H_8O_4$  (192.17). Pharm: Allergen (Effective component in *Acacia melanoxylon* (HEI MU JIN HE HUAN) known to cause contact dermatitis). Source: HEI MU JIN HE HUAN *Acacia melanoxylon*. Ref: 658.

**63 Acanfolioside**

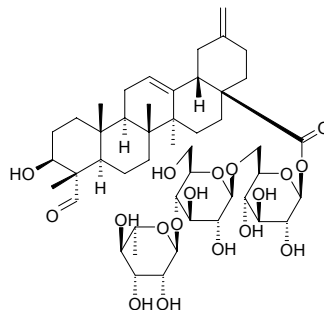
(+)-Lyoniresinol-3*α*-[2-(3,5-dimethoxy-4-hydroxy)-benzoyl]-*O*-*β*-glucopyranoside  $C_{37}H_{46}O_{17}$  (762.77). Amorphous powder,  $[\alpha]_D^{22} = +28.3^\circ$  ( $c = 2.7$ , MeOH). Source: LAO SHU LE *Acanthus ilicifolius* (aerial parts). Ref: 5135.

**64 Acanjaposide A**

$C_{47}H_{72}O_{19}$  (941.09). White powder,  $[\alpha]_D^{25} = +24.8^\circ$  ( $c = 0.60$ , MeOH) Source: RI BEN WU JIA *Acanthopanax japonicus*. Ref: 1989.

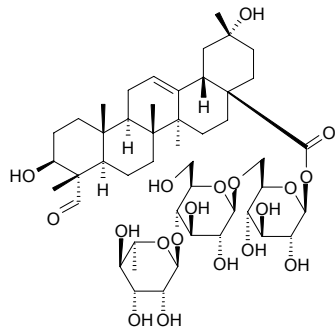
**65 Acanjaposide B**

$C_{47}H_{72}O_{18}$  (925.09). White solid,  $[\alpha]_D^{25} = +18.9^\circ$  ( $c = 0.82$ , MeOH) Source: RI BEN WU JIA *Acanthopanax japonicus*. Ref: 1989.

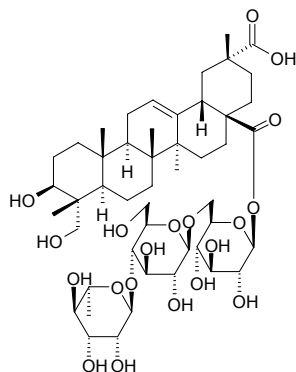


**66 Acanjaposide C**

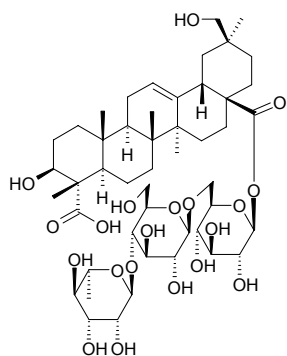
$C_{47}H_{74}O_{19}$  (943.10). White powder,  $[\alpha]_D^{25} = +6.5^\circ$  ( $c = 0.85$ , MeOH). Source: RI BEN WU JIA *Acanthopanax japonicus*. Ref: 1989.

**67 Acanjaposide D**

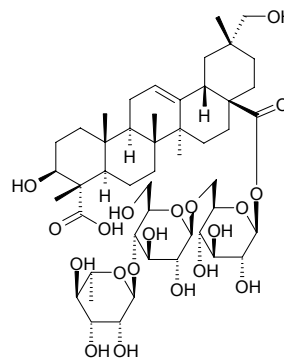
$3\beta,23$ -Dihydroxy-olean-12-ene-28,29-dioic acid 28-*O*- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 6)]- $\beta$ -*D*-glucopyranoside  $C_{48}H_{76}O_{20}$  (973.13). White powder,  $[\alpha]_D^{25} = -12.0^\circ$  ( $c = 0.61$ , MeOH). Source: RI BEN WU JIA *Acanthopanax japonicus* (leaf). Ref: 4505.

**68 Acanjaposide E**

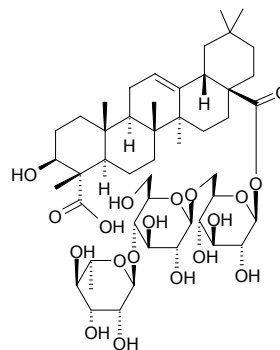
$3\beta,30$ -Dihydroxy-olean-12-en-23,28-dioic acid 28-*O*- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 6)]- $\beta$ -*D*-glucopyranoside  $C_{48}H_{76}O_{20}$  (973.13). White powder,  $[\alpha]_D^{25} = -3.6^\circ$  ( $c = 1.08$ , MeOH). Source: RI BEN WU JIA *Acanthopanax japonicus* (leaf). Ref: 4505.

**69 Acanjaposide F**

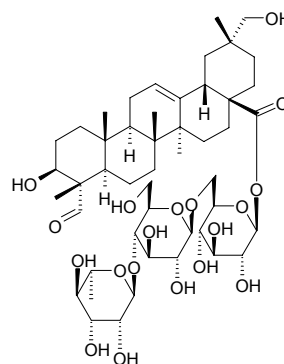
$3\beta,29$ -Hydroxy-olean-12-en-23,28-dioic acid 28-*O*- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 6)]- $\beta$ -*D*-glucopyranoside  $C_{48}H_{76}O_{20}$  (973.13). White powder,  $[\alpha]_D^{25} = +1.9^\circ$  ( $c = 0.60$ , MeOH). Source: RI BEN WU JIA *Acanthopanax japonicus* (leaf). Ref: 4505.

**70 Acanjaposide G**

Gypsogenic acid 28-*O*- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 6)]- $\beta$ -*D*-glucopyranoside  $C_{48}H_{76}O_{19}$  (957.13). White powder,  $[\alpha]_D^{25} = +1.5^\circ$  ( $c = 1.15$ , MeOH). Source: RI BEN WU JIA *Acanthopanax japonicus* (leaf). Ref: 4505.

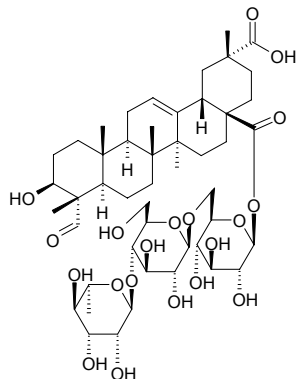
**71 Acanjaposide H**

$3\beta$ -Hydroxyl-23-oxo-olean-12-en-28-oic acid 28-*O*- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 6)]- $\beta$ -*D*-glucopyranoside  $C_{48}H_{76}O_{19}$  (957.13). White powder,  $[\alpha]_D^{25} = +3.4^\circ$  ( $c = 0.54$ , MeOH). Source: RI BEN WU JIA *Acanthopanax japonicus* (leaf). Ref: 4505.

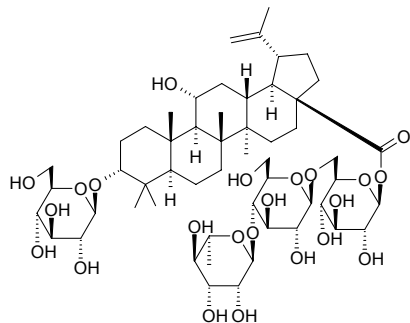


**72 Acanjaposide I**

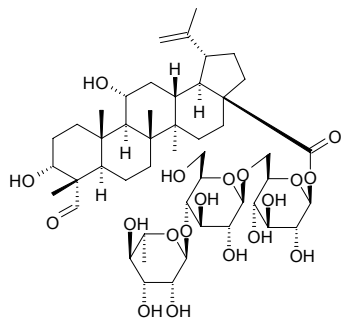
3 $\beta$ -Hydroxyl-olean-12-en-28,29-dioic acid 28-*O*- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranoside C<sub>48</sub>H<sub>74</sub>O<sub>20</sub> (971.11). White powder,  $[\alpha]_D^{25} = +3.6^\circ$  ( $c = 0.56$ , MeOH). Source: RI BEN WU JIA *Acanthopanax japonicus* (leaf). Ref: 4505.

**73 Acankoreoside C**

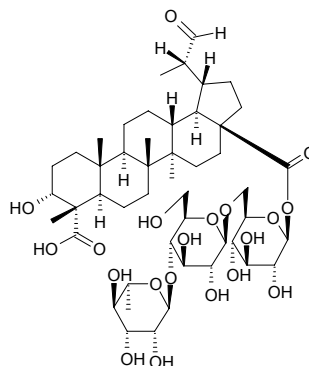
3-*O*- $\beta$ -*D*-Glucopyranosyl 3 $\alpha$ ,11 $\alpha$ -dihydroxylup-20(29)-en-28-oic acid 28-*O*- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranosyl ester C<sub>54</sub>H<sub>88</sub>O<sub>23</sub> (1105.29). White powder, mp 247~249°C (dil. MeOH),  $[\alpha]_D^{26} = -44.6^\circ$  ( $c = 0.36$ , EtOH). Source: CHAO XIAN WU JIA *Acanthopanax koreanum*. Ref: 1877.

**74 Acankoreoside D**

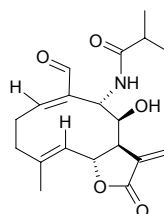
3 $\alpha$ ,11 $\alpha$ -Dihydroxylup-23-al-20(29)-en-28-oic acid 28-*O*- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranosyl ester C<sub>48</sub>H<sub>76</sub>O<sub>19</sub> (957.13). White powder, mp 222~225°C (dil. MeOH),  $[\alpha]_D^{26} = -40.8^\circ$  ( $c = 0.37$ , EtOH). Source: CHAO XIAN WU JIA *Acanthopanax koreanum*. Ref: 1877.

**75 Acankoreoside E**

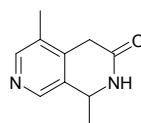
(20*S*)-3 $\alpha$ -Hydroxy-30-oxolupan-23,28-dioic acid 28-*O*-[ $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranosyl]-ester C<sub>48</sub>H<sub>76</sub>O<sub>20</sub> (973.13). White powder, mp 223~227°C,  $[\alpha]_D^{26} = -20.4^\circ$  ( $c = 0.49$ , MeOH). Source: CHAO XIAN WU JIA *Acanthopanax koreanum*. Ref: 2533.

**76 Acanthamolide**

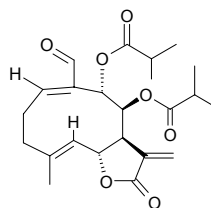
[64852-96-6] C<sub>19</sub>H<sub>25</sub>NO<sub>5</sub> (347.41). Colorless trapezoid crystals (benzene-methanol), mp 249~251°C. Pharm: Cytotoxic (KB *in vitro*, ED<sub>50</sub> = 2.2 $\mu$ g/mL). Source: GUANG CI BAO JU *Acanthospermum glabratum*. Ref: 1, 5, 661.

**77 Acanthifoline**

C<sub>10</sub>H<sub>12</sub>N<sub>2</sub>O (176.22). Source: LAO SHU LE *Acanthus ilicifolius*. Ref: 2080.

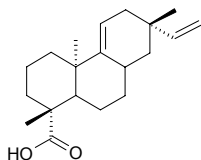
**78 Acanthoglabrolide**

[75744-66-0] C<sub>23</sub>H<sub>30</sub>O<sub>7</sub> (418.49). Pharm: Cytotoxic (KB *in vitro*, ED<sub>50</sub> = 3.1 $\mu$ g/mL). Source: GUANG CI BAO JU *Acanthospermum glabratum*. Ref: 1, 5.

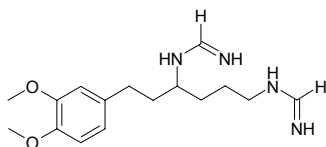


**79 Acanthoic acid**

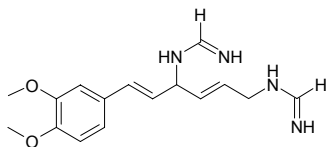
$C_{20}H_{30}O_2$  (302.46). Amorphous powder, mp 135~136°C,  $[\alpha]_D^{20} = -55.7^\circ$  ( $c = 1.0$ , MeOH). **Pharm:** IL-8 secretion inhibitor (TNF- $\alpha$ -stimulated hmn colon adenocarcinoma cell line HT29, 1, 10 and 100 $\mu$ mol/L, InRt = 23.9%, 37.1% and 72.1%, respectively); TNF- $\alpha$  secretion inhibitor (trypsin-stimulated hmn leukemic mast cell line HMC-1, 1, 10 and 100 $\mu$ mol/L, InRt = 3.1%, 65.0% and 74.1%, respectively). **Source:** CHAO XIAN WU JIA *Acanthopanax koreanum* (root). **Ref:** 4346.

**80 Acanthoidine**

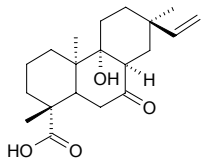
$C_{16}H_{26}N_4O_2$  (306.41). **Pharm:** Antihypertensive. **Source:** JIE MAO FEI LIAN *Carduus acanthoides*, FEI LIAN *Carduus crispus*. **Ref:** 6, 658.

**81 Acanthoine**

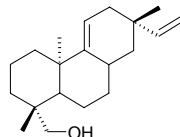
$C_{16}H_{22}N_4O_2$  (302.38). **Source:** FEI LIAN *Carduus crispus*. **Ref:** 6.

**82 Acanthokoreoic acid A**

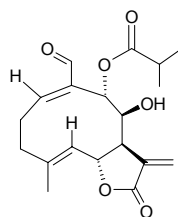
$C_{20}H_{30}O_4$  (334.46). White powder, mp 60~62°C,  $[\alpha]_D^{20} = +3.5^\circ$  ( $c = 1.0$ , MeOH). **Pharm:** IL-8 secretion inhibitor (TNF- $\alpha$ -stimulated hmn colon adenocarcinoma cell line HT29, 1, 10 and 100 $\mu$ mol/L, InRt = 12.7%, 18.6% and 3.9%, respectively)<sup>[4346]</sup>; TNF- $\alpha$  secretion inhibitor (trypsin-stimulated hmn leukemic mast cell line HMC-1, 1, 10 and 100 $\mu$ mol/L, InRt = 0.6%, 2.1% and 9.2%, respectively)<sup>[4346]</sup>. **Source:** CHAO XIAN WU JIA *Acanthopanax koreanum* (root). **Ref:** 4346.

**83 Acanthol**

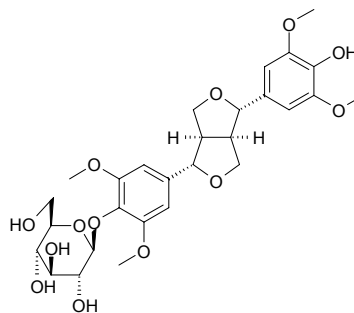
$C_{20}H_{32}O$  (288.48). White powder, mp 73~74°C,  $[\alpha]_D^{20} = -14.9^\circ$  ( $c = 0.2$ , MeOH). **Pharm:** IL-8 secretion inhibitor (TNF- $\alpha$ -stimulated hmn colon adenocarcinoma cell line HT29, 1 $\mu$ mol/L, 10 $\mu$ mol/L and 100 $\mu$ mol/L, InRt = 0.4%, 0.6% and 1.1%, respectively); TNF- $\alpha$  secretion inhibitor (trypsin-stimulated hmn leukemic mast cell line HMC-1, 1 $\mu$ mol/L, 10 $\mu$ mol/L and 100 $\mu$ mol/L, InRt = 0.9%, 12.1% and 18.2%, respectively). **Source:** CHAO XIAN WU JIA *Acanthopanax koreanum* (root). **Ref:** 4346.

**84 Acantholide**

[72548-16-4]  $C_{19}H_{24}O_6$  (348.40). Colorless acicular crystals, mp 208°C. **Pharm:** Cytotoxic (KB *in vitro*, ED<sub>50</sub> = 2.2 $\mu$ g/mL). **Source:** GUANG CI BAO JU *Acanthospermum glabratum*. **Ref:** 1, 5.

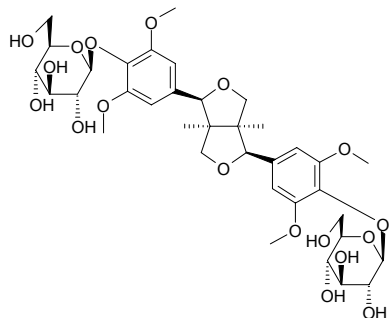
**85 Acanthoside B**

Syringaresinol-4'-*O*- $\beta$ -*D*-glucopyranoside; (+)-Syringaresinol *O*- $\beta$ -*D*-glucopyranoside [7374-79-0]  $C_{28}H_{36}O_{13}$  (580.59). Amorphous powder, mp 150°C,  $[\alpha]_D^{26} = -23.8^\circ$  ( $c = 0.08$ , MeOH). **Pharm:** Immunomodulator; aldose reductase inhibitor (IC<sub>50</sub> > 100 $\mu$ mol/L, 100 $\mu$ mol/L InRt = 38%, control Epalrestat, IC<sub>50</sub> = 0.072 $\mu$ mol/L). **Source:** DU ZHONG *Eucommia ulmoides*, HOU PO *Magnolia officinalis*, HUANG HUA REN *Sida acuta*, HUO YAN HUA *Phlogacanthus curviflorus* (root: yield = 0.0011%dw), JIA HUI SE JIU LI XIANG PO PO NA *Veronica thymoides* ssp. *pseudocinerea*, LAN SHAI PIAO *Sambucus sieboldiana* (leaf), SHUI MU XUE LIAN HUA *Saussurea medusa* (whole plant), WU GENG WU JIA PI *Acanthopanax sessiliflorus*, XI JING SHI HU *Dendrobium moniliforme* (stem: yield = 0.002%dw<sup>[4717]</sup>), XIAO LONG YE KUO BAO JU *Baccharis dracunculifolia* (aerial parts). **Ref:** 2, 6, 540, 658, 660, 3846, 4184, 4192, 4530, 4717, 4799.

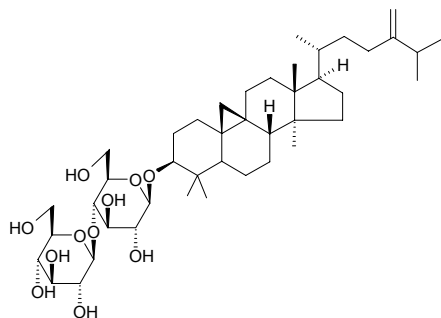


**86 Acanthoside D**

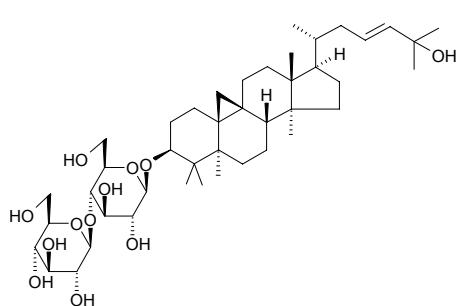
Eleutheroside E [96038-87-8]  $C_{34}H_{46}O_{18}$  (742.73). Colorless acicular crystals (dil. methanol), mp 245–247°C,  $[\alpha]_D = -33^\circ$ ; mp 235°C,  $[\alpha]_D = 0^\circ$  ( $c = 5.0$ , 50% methanol); mp 265–272°C,  $[\alpha]_D^{20} = -5^\circ$  ( $c = 0.5$ , methanol). **Pharm:** Sedative; anti-stress; prevents atrophy of prostate and spermary. **Source:** WU GENG WU JIA PI *Acanthopanax sessiliflorus*. **Ref:** 6, 235, 658, 660, 661.

**87 Acanthoside K<sub>2</sub>**

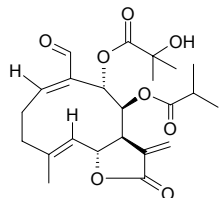
$C_{43}H_{72}O_{11}$  (765.05). **Source:** WU GENG WU JIA PI *Acanthopanax sessiliflorus* (root). **Ref:** 660.

**88 Acanthoside K<sub>3</sub>**

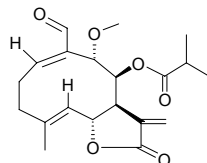
$C_{42}H_{70}O_{12}$  (767.02). **Source:** WU GENG WU JIA PI *Acanthopanax sessiliflorus* (root). **Ref:** 660.

**89 Acanthospermal A**

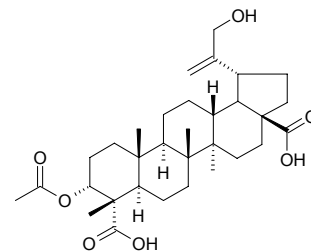
[56689-33-9]  $C_{23}H_{30}O_8$  (434.49). **Pharm:** Cytotoxic (KB *in vitro*,  $ED_{50} = 211\mu\text{g/mL}$ ). **Source:** GUANG CI BAO JU *Acanthospermum glabratum*. **Ref:** 1, 5.

**90 Acanthospermolide**

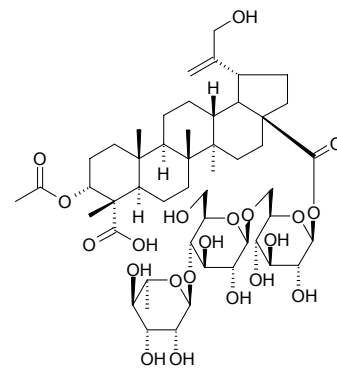
[75744-64-8]  $C_{20}H_{26}O_6$  (362.43). mp 154°C. **Pharm:** Cytotoxic (KB *in vitro*,  $ED_{50} = 0.54\mu\text{g/mL}$ ,  $P_{388}$  *in vivo*,  $ED_{50} = 12.5\text{mg/kg}$ ). **Source:** GUANG CI BAO JU *Acanthospermum glabratum*. **Ref:** 1, 5.

**91 Acantrifoisic acid A**

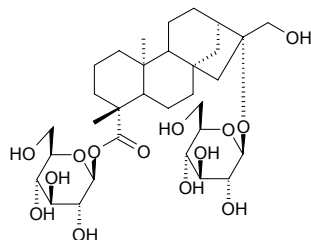
3 $\alpha$ -Acetoxy-30-hydroxylup-20(29)-ene-23,28-dioic Acid  $C_{32}H_{48}O_7$  (544.74). White crystals, mp 278–279°C,  $[\alpha]_D^{25} = -12.9^\circ$  ( $c = 0.51$ , MeOH). **Source:** CI SAN JIA *Acanthopanax trifoliatum* (leaf). **Ref:** 4412.

**92 Acantrifoiside C**

3 $\alpha$ -Acetoxy-30-hydroxylup-20(29)-ene-23,28-dioic Acid 28-*O*- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl ester  $C_{50}H_{77}O_{21}$  (1015.17). White powder, mp 217–218°C,  $[\alpha]_D^{25} = -19.5^\circ$  ( $c = 0.51$ , MeOH). **Source:** CI SAN JIA *Acanthopanax trifoliatum* (leaf). **Ref:** 4412.

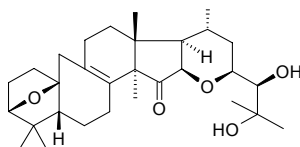
**93 Acantrifoiside D**

16 $\alpha$ ,17-Dihydroxy-*ent*-kauran-19-oic acid 16-*O*- $\beta$ -D-glucopyranoside 19-*O*- $\beta$ -D-glucopyranosyl ester  $C_{32}H_{52}O_{14}$  (660.76). White powder, mp 167–170°C,  $[\alpha]_D^{25} = -45^\circ$  ( $c = 0.50$ , MeOH). **Source:** CI SAN JIA *Acanthopanax trifoliatum* (stem bark). **Ref:** 4957.

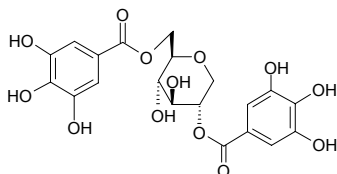


**94 Acerionol**

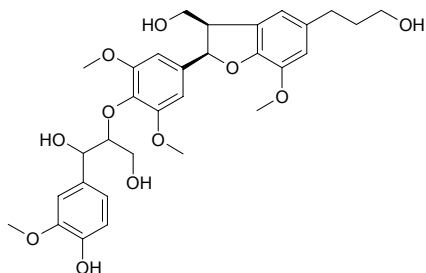
[59665-59-7] C<sub>30</sub>H<sub>46</sub>O<sub>5</sub> (486.70). mp 248~249.5°C. Source: SAN MIAN DAO *Cimicifuga acerina*. Ref: 1521.

**95 Aceritannin**

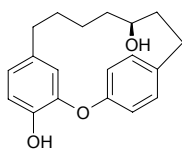
[76746-56-0] C<sub>20</sub>H<sub>20</sub>O<sub>13</sub> (468.37). Source: CHA TIAO QI *Acer ginnala*. Ref: 1521.

**96 Acernikol**

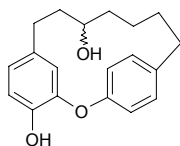
C<sub>31</sub>H<sub>38</sub>O<sub>11</sub> (586.64). White powder, [α]<sub>D</sub><sup>22</sup> = +4.7° (c = 0.20, EtOH). Source: MAO GUO QI *Acer nikoense* (stem bark: yield = 0.0020%). Ref: 4304.

**97 Acerogenin A**

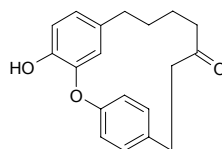
C<sub>19</sub>H<sub>22</sub>O<sub>3</sub> (298.39). Pharm: β-Hexosaminidase inhibitor (RBL-2H3 cells, inhibits release of β-Hexosaminidase, 100μmol/L, InRt = (40.0±1.1)%, p<0.01). Source: MAO GUO QI *Acer nikoense* (stem bark). Ref: 4304.

**98 Acerogenin B**

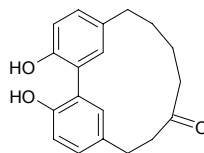
C<sub>19</sub>H<sub>22</sub>O<sub>3</sub> (298.39). Pharm: β-Hexosaminidase inhibitor (RBL-2H3 cells, inhibits release of β-hexosaminidase, IC<sub>50</sub> = 50μmol/L, control antiallergic Tranilast, IC<sub>50</sub> = 490μmol/L, Ketotifen fumarate, IC<sub>50</sub> = 220μmol/L). Source: MAO GUO QI *Acer nikoense* (stem bark). Ref: 4304.

**99 Acerogenin C**

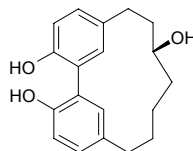
C<sub>19</sub>H<sub>20</sub>O<sub>3</sub> (296.37). Pharm: Antibacterial (disk susceptibility tests, standard NCCLS method, 50μg/disk (control 30μg/disk), gram-positive bacteria: *Staphylococcus aureus*, 9mm/diameter, positive control Kanamycin, 10mm/diameter; *Bacillus subtilis*, 9mm/diameter, positive control Kanamycin, 18mm/diameter; *Bacillus sphaericus*, 8mm/diameter, positive control Kanamycin, 20mm/diameter; gram-negative bacteria: *Chromobacterium violaceum*, 9mm/diameter, positive control Kanamycin, 17mm/diameter; *Klebsiella aerogenes*, 10mm/diameter, positive control Kanamycin, 15mm/diameter; *Pseudomonas aeruginosa*, 9mm/diameter, positive control Kanamycin, 27mm/diameter; *Pseudomonas fluorescens*, 7mm/diameter, positive control Kanamycin, 15mm/diameter). Source: TUO YUAN YE RU XIANG SHU *Boswellia ovalifoliolata* (stem). Ref: 4380.

**100 Acerogenin E**

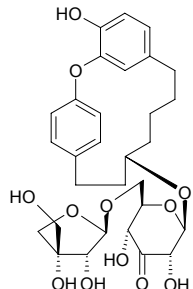
C<sub>19</sub>H<sub>20</sub>O<sub>3</sub> (296.37). Pharm: β-Hexosaminidase inhibitor (RBL-2H3 cells, inhibits release of β-Hexosaminidase, 100μmol/L, InRt = (47.9±1.1)%, p<0.01). Source: MAO GUO QI *Acer nikoense* (stem bark). Ref: 4304.

**101 Acerogenin K**

C<sub>19</sub>H<sub>22</sub>O<sub>3</sub> (298.39). Pharm: β-Hexosaminidase inhibitor (RBL-2H3 cells, inhibits release of β-hexosaminidase, IC<sub>50</sub> = 33μmol/L, control antiallergic Tranilast, IC<sub>50</sub> = 490μmol/L, Ketotifen fumarate, IC<sub>50</sub> = 220μmol/L). Source: MAO GUO QI *Acer nikoense* (stem bark). Ref: 4304.

**102 Aceroketoside**

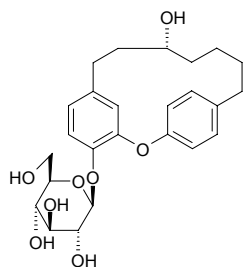
C<sub>30</sub>H<sub>38</sub>O<sub>12</sub> (590.63). Source: MAO GUO QI *Acer nikoense* (stem bark). Ref: 4304.



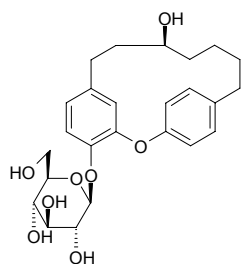


**103 Aceroside B<sub>1</sub>**

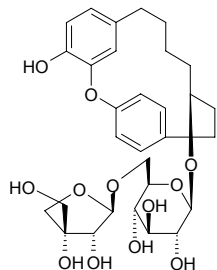
$C_{25}H_{32}O_8$  (460.53). Source: MAO GUO QI *Acer nikoense* (stem bark). Ref: 4304.

**104 Aceroside B<sub>2</sub>**

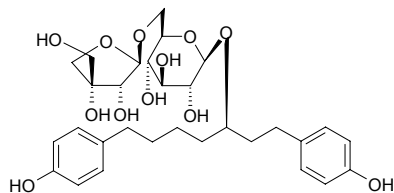
$C_{25}H_{32}O_8$  (460.53). Source: MAO GUO QI *Acer nikoense* (stem bark). Ref: 4304.

**105 Aceroside III**

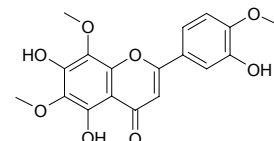
$C_{30}H_{40}O_{12}$  (592.65). Source: MAO GUO QI *Acer nikoense* (stem bark: yield = 0.0075%). Ref: 4304.

**106 Aceroside VIII**

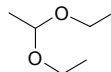
$C_{30}H_{42}O_{12}$  (594.66). Source: MAO GUO QI *Acer nikoense* (stem bark: yield = 0.0038%). Ref: 4304.

**107 Acerosin**

$C_{18}H_{16}O_8$  (360.32). Pharm: Spermaticidal (causes breakdown of dog sperm during last period of formation). Source: LIN DI XIANG RI KUI *Helianthus strumosus*, HUANG JING YE *Vitex negundo*, *Gardenia* sp. Ref: 658.

**108 Acetal**

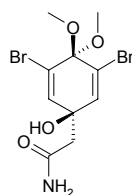
1,1-Diethoxyethane [105-57-7]  $C_6H_{14}O_2$  (118.18). bp 103.2°C/761mmHg. Source: CU vinegar. Ref: 6.

**109 Acetamide**

Acetic acid amide [60-35-5]  $C_2H_5NO$  (59.07). mp 82–83°C. Source: XIANG XUN *Lentinus edodes*. Ref: 6.

**110 Acetamide-3,5-dibromo-1-hydroxy-4,4-dimethoxy-2,5-cyclohexadiene**

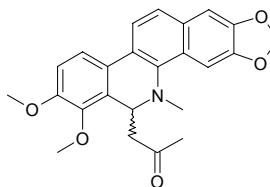
$C_{10}H_{13}Br_2NO_4$  (371.03). White granular crystals, mp 191–192°C. Source: *Pseudoceratina purpurea* (from the South China Sea). Ref: 4888.

**111 Acetoin**

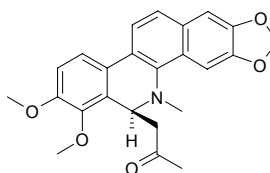
3-Hydroxy-2-butanone [513-86-0]  $C_4H_8O_2$  (88.11). mp (±) –72°C, bp (+) 142–144°C, (–) 143°C, (±) 148°C. Source: CU vinegar. Ref: 6.

**112 (±)-6-Acetyldihydrochelerythrine**

$C_{24}H_{23}NO_5$  (405.45). Colorless prisms, mp 194–197°C,  $[\alpha]_D^{24} = 0^\circ$  ( $c = 2.14$ ,  $CHCl_3$ ). Pharm: Anti-HIV (H9 lymphocytes,  $EC_{50} = 1.77\mu g/mL$ , TI (Therapeutic Index) = 14.6; control AZT,  $IC_{50} = 500\mu g/mL$ ,  $EC_{50} = 0.0317\mu g/mL$ , TI = 15,800). Source: JI YING SU *Argemone mexicana*. Ref: 5364.

**113 6-Acetyldihydrochelerythrine**

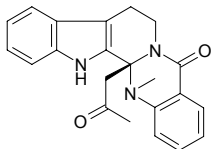
$C_{24}H_{23}NO_5$  (405.45). White needles, mp 192–194°C,  $[\alpha]_D^{23} = -135^\circ$  ( $c = 0.1$ ,  $CHCl_3$ ). Pharm: Antioxidant (TLC-based assay, DPPH scavenger, MIQ = 10 $\mu g$ ; control Quercetin, MIQ = 1 $\mu g$ ). Source: *Fagara xanthoxyloides*. Ref: 5385.



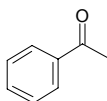
**114 Acetonylevodiamine**

$C_{22}H_{21}N_3O_2$  (359.43). Colorless rhombus lamellar crystals, mp 163~164°C.

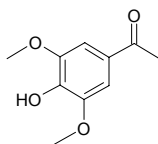
Source: WU ZHU YU *Evodia rutaecarpa*. Ref: 2482.

**115 Acetophenone**

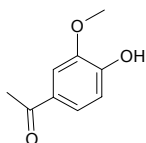
Phenylethanone [98-86-2]  $C_8H_8O$ . (120.15). Pharm: Hypnotic. Source: ZHI YANG *Populus balsamifera*, YI ZHU QIAN MA *Urtica dioica*, SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. Ref: 2, 658.

**116 Acetosyringone**

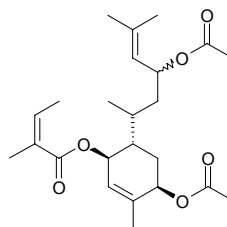
[2478-38-8]  $C_{10}H_{12}O_4$  (196.20). Pharm: Causes plant to be infected by *Agrobacterium tumefaciens*. Source: YAN CAO *Nicotiana tabacum*. Ref: 658.

**117 Acetovanillone**

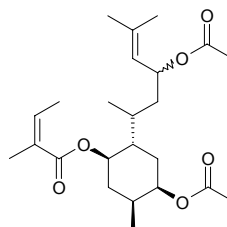
1-(4-Hydroxy-3-methoxyphenyl)-ethanone [498-02-2]  $C_9H_{10}O_3$  (166.18). Tiny acicular crystals (water), mp 115°C, bp 295~300°C. Pharm: Choleric (rbt); uterine stimulant (rat); inhibits contraction of heart (frog heart); anti-inflammatory inactive (no significant inhibitory effects on mast cells and neutrophils stimulated with various inducers; no significant inhibitory effects on TNF- $\alpha$  formation from RAW264.7 stimulated with LPS and N9 microglial cells stimulated with LPS/IFN- $\gamma$ )<sup>[3054]</sup>. Source: BAI WEI *Cynanchum atratum* (root)<sup>[3054]</sup>, DIAN DI MEI YE CHA YE HUA *Apocynum androsaemifolium*, HU HUANG LIAN *Picrorhiza kurrooa*, JIA ZHU TAO MA *Apocynum cannabinum*, MIAN HUA GEN *Gossypium herbaceum*, *Iris* sp. Ref: 6, 658, 661, 3054.

**118 (1R\*,3S\*,4R\*,6S\*)-9-(Acetoxy)-4-acetoxy-1-[(2Z)-2-methylbut-2-enyloxy]bisabol-2(3),10(11)-diene**

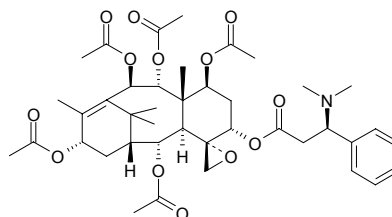
$C_{24}H_{36}O_6$  (420.55). Pharm: Leukotriene biosynthesis Inhibitor (*in vitro*,  $IC_{50}$  = 10.1  $\mu$ mol/L,  $p < 0.05$ ; control Zileuton,  $IC_{50}$  = 10.4  $\mu$ mol/L,  $p < 0.05$ )<sup>[5037]</sup>; anti-inflammatory (anti-oedema, control oedema = (7.8 $\pm$ 0.3)mg, 100  $\mu$ g/cm<sup>2</sup>, oedema = (5.2 $\pm$ 0.4)mg,  $p < 0.05$ , reduction = 33%, Indomethacin oedema = (3.4 $\pm$ 0.3)mg,  $p < 0.05$ , reduction = 56%)<sup>[4985]</sup>; effect on leukocytes infiltration (control E.A. at 6h = (24.6 $\pm$ 1.6)U/(mL·min), 100  $\mu$ g/cm<sup>2</sup>, E.A. at 6h = (22.8 $\pm$ 3.3)U/(mL·min), Reduce = 7%)<sup>[4985]</sup>. Source: GAO SHAN HUO RONG CAO *Leontopodium alpinum* (root). Ref: 4985, 5037.

**119 (1R\*,3S\*,4R\*,6S\*)-9-(Acetoxy)-4-acetoxy-1-[(2Z)-2-methylbut-2-enyloxy]bisabol-10(11)-ene**

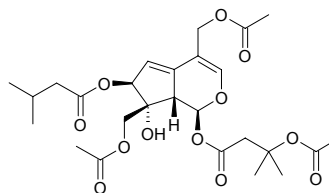
$C_{24}H_{38}O_6$  (422.57). Pharm: Leukotriene biosynthesis Inhibitor (*in vitro*,  $IC_{50}$  = 7.7  $\mu$ mol/L,  $p < 0.05$ ; control Zileuton,  $IC_{50}$  = 10.4  $\mu$ mol/L,  $p < 0.05$ )<sup>[5037]</sup>; anti-inflammatory (anti-oedema, control oedema = (7.8 $\pm$ 0.3)mg, 100  $\mu$ g/cm<sup>2</sup>, oedema = (4.2 $\pm$ 0.4)mg,  $p < 0.05$ , reduction = 46%, Indomethacin oedema = (3.4 $\pm$ 0.3)mg,  $p < 0.05$ , reduction = 56%)<sup>[4985]</sup>; effect on leukocytes infiltration (control E.A. at 6h = (24.6 $\pm$ 1.6)U/(mL·min), 100  $\mu$ g/cm<sup>2</sup>, E.A. at 6h = (19.4 $\pm$ 0.6)U/(mL·min), Reduce = 25%,  $p < 0.05$ )<sup>[4985]</sup>. Source: GAO SHAN HUO RONG CAO *Leontopodium alpinum* (root). Ref: 4985, 5037.

**120 7 $\beta$ -Acetoxy-9-acetylspicataxine**

$C_{41}H_{55}NO_{13}$  (769.89). Source: MEI LI HONG DOU SHAN *Taxus mairei*. Ref: 662.

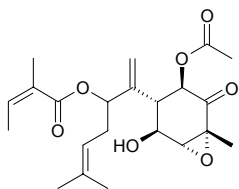
**121 10-Acetoxy-1-acevaltrate hydrin**

$C_{26}H_{36}O_{12}$  (540.57). Oil,  $[\alpha]_D^{24}$  = +194.6° (c = 0.01, MeOH). Source: ZHI ZHU XIANG *Valeriana jatamansii* [Syn. *Valeriana wallichii*] (rhizome and root; yield = 0.000007%dw)<sup>[4672]</sup>. Ref: 4672.



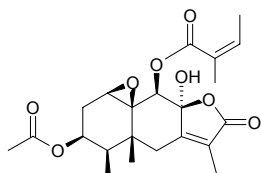
**122 (1R,3R,4R,5S,6S)-1-Acetoxy-8-angeloyloxy-3,4-epoxy-5-hydroxy-bisabola-7(14),10-dien-2-one**

$C_{22}H_{30}O_7$  (406.48). Colorless oil,  $[\alpha]_D^{23} = -32.0^\circ$  ( $c = 0.4$ ,  $CHCl_3$ ). Source: KUAN DONG HUA *Tussilago farfara* (flower bud). Ref: 3531.



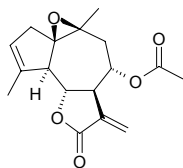
**123 3β-Acetoxy-9β-angeloyloxy-1β,10β-epoxy-8α-hydroxyeremophil-7(11)-en-8β(12)-olide**

$C_{22}H_{28}O_8$  (420.46). White columns (MeOH), mp 212~214°C,  $[\alpha]_D^{25} = -71^\circ$  ( $c = 0.41$ , acetone). Pharm: Antibacterial (Bacillus subtilis, 100μg/mL, IZD = 13~15mm, moderate, control Chloromycetin, IZD = 16~20mm; Escherichia coli, 100μg/mL, IZD = 13~15mm, Chloromycetin, IZD = 16~20mm). Source: JIA TUO WU *Ligulariopsis shichuana* (whole herb: yield = 0.0030%dw). Ref: 4627.



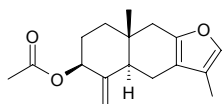
**124 8α-Acetoxyarglabin**

$C_{17}H_{20}O_5$  (304.35). Source: YI KUA *Artemisia myriantha* (aerial parts). Ref: 4618.



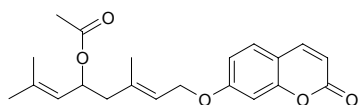
**125 3β-Acetoxy-atractylon**

$C_{17}H_{22}O_3$  (274.36). Source: CANG ZHU *Atractylodes lancea*. Ref: 2.



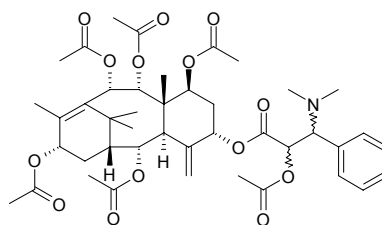
**126 Acetoxyauraptene**

$C_{21}H_{24}O_5$  (356.42). Pharm: Antibacterial; smooth muscle relaxant; anticoagulant; photosensitive agent; ichthyotoxin; toxin. Source: *Zanthoxylum* sp. Ref: 2176.



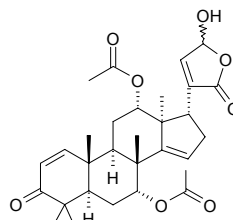
**127 2α-Acetoxyaustrospicatine**

[119777-81-0]  $C_{43}H_{57}NO_{14}$  (811.93). Source: AO DA LI YA HONG DOU SHAN *Austrotaxus spicata*. Ref: 662.



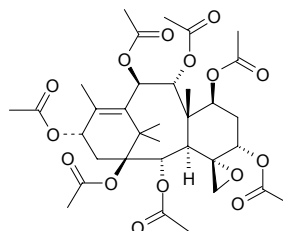
**128 12α-Acetoxyazadironolide**

$C_{30}H_{38}O_8$  (526.63). White crystalline, mp 97~99°C. Source: XIAO YE DU LIAN *Turraea parvifolia*. Ref: 2052.



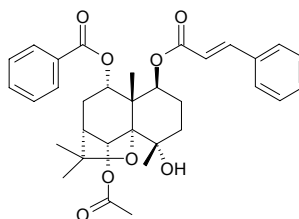
**129 1-Acetoxy-baccatin I**

$C_{34}H_{46}O_{15}$  (694.74). Colorless quadratus crystal. Source: YUN NAN HONG DOU SHAN *Taxus yunnanensis*. Ref: 2166.



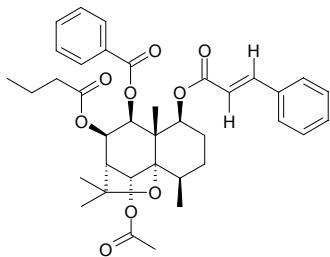
**130 5α-Acetoxy-1β-benzoyl-8α-cinnamoyl-4α-hydroxy-dihydroagarofuran**

$C_{33}H_{38}O_8$  (562.67). Amorphous powder,  $[\alpha]_D^{25} = +109.4^\circ$  ( $c = 1.3$ , MeOH). Source: NAN RI BEN LEI GONG TENG *Tripterygium doianum*. Ref: 1916.



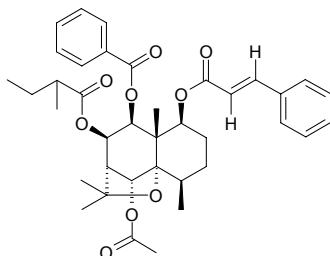
**131 6 $\alpha$ -Acetoxy-9 $\beta$ -benzoyloxy-1 $\beta$ -cinnamoyloxy-8 $\beta$ -butanoyloxy- $\beta$ -dihydroagarofuran**

C<sub>37</sub>H<sub>44</sub>O<sub>9</sub> (632.76). White powder (EtOAc), mp 181~183°C, [ $\alpha$ ]<sub>D</sub> = -7.0° (c = 0.75, MeOH). **Pharm:** NO production inhibitor (mus, macrophage RAW264.7 cells activated by LPS, very weak activity). **Source:** NAN SHE TENG GUO *Celastrus orbiculatus* [Syn. *Celastrus articulatus*]. **Ref:** 2584.



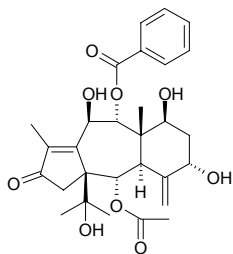
**132 6 $\alpha$ -Acetoxy-9 $\beta$ -benzoyloxy-1 $\beta$ -cinnamoyloxy-8 $\beta$ -(2-methylbutanoyloxy)- $\beta$ -dihydroagarofuran**

C<sub>38</sub>H<sub>46</sub>O<sub>9</sub> (646.78). White powder (EtOAc), mp 231~233°C, [ $\alpha$ ]<sub>D</sub> = -8.9° (c = 0.40, MeOH). **Pharm:** NO production inhibitor (mus, macrophage RAW264.7 cells activated by LPS, very weak activity). **Source:** NAN SHE TENG GUO *Celastrus orbiculatus* [Syn. *Celastrus articulatus*]. **Ref:** 2584.



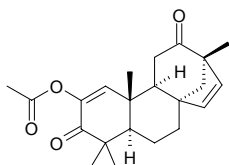
**133 2 $\alpha$ -Acetoxy-9 $\alpha$ -benzoyloxy-5 $\alpha$ ,7 $\beta$ ,10 $\beta$ ,15-tetrahydroxy-11(15→1)-abeotaxa-4(20),11-dien-13-one**

C<sub>29</sub>H<sub>36</sub>O<sub>9</sub> (528.60). Colorless amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +31.6° (c = 0.32, CHCl<sub>3</sub>). **Source:** YUN NAN HONG DOU SHAN *Taxus yunnanensis* (bark). **Ref:** 3481.



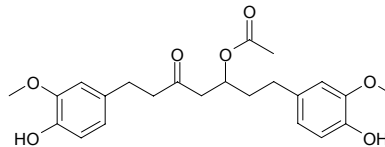
**134 2-Acetoxy-1,15-beyeradiene-3,12-dione**

C<sub>22</sub>H<sub>28</sub>O<sub>4</sub> (356.47). Colorless needles (MeOH), mp 136~138°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -294.2° (c = 2.1, CHCl<sub>3</sub>). **Source:** HAI QI *Excoecaria agallocha* (root: yield = 0.0015%dw). **Ref:** 4613.



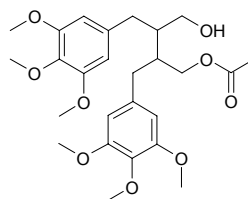
**135 (5S)-5-Acetoxy-1,7-bis(4-hydroxy-3-methoxyphenyl)heptan-3-one**

C<sub>23</sub>H<sub>28</sub>O<sub>7</sub> (416.48). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>24</sup> = +3.0° (c = 0.60, CHCl<sub>3</sub>). **Source:** SHENG JIANG *Zingiber officinale*. **Ref:** 3803.



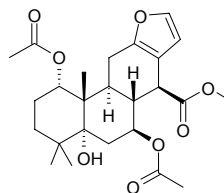
**136 4-Acetoxy-2,3-bis(3,4,5-trimethoxybenzyl)-1-butanol**

C<sub>26</sub>H<sub>36</sub>O<sub>9</sub> (492.57). **Pharm:** Antineoplastic; cathartic; sthenic; pesticide; ichthyotoxin; muscle relaxant. **Source:** *Zanthoxylum* sp. **Ref:** 2176.



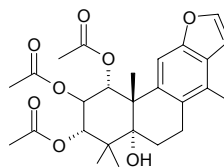
**137 7-Acetoxybonducellpin C**

C<sub>25</sub>H<sub>34</sub>O<sub>8</sub> (462.54). **Source:** CI GUO SU MU *Caesalpinia crista* (seed kernel). **Ref:** 4434.



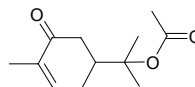
**138 2-Acetoxycaesaldekarin E**

C<sub>26</sub>H<sub>32</sub>O<sub>8</sub> (472.54). **Source:** CI GUO SU MU *Caesalpinia crista* (seed kernel). **Ref:** 4434.



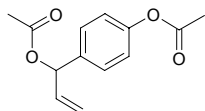
**139 D-8-Acetoxy-carvotanacetone**

C<sub>12</sub>H<sub>18</sub>O<sub>3</sub> (210.28). mp 45.3~46.2°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +32.2° (c = 10, CHCl<sub>3</sub>). **Pharm:** Anthelmintic (with anaphylactic action to skin). **Source:** BO HE *Mentha haplocalyx* [Syn. *Mentha canadaensis*; *Mentha arvensis* var. *haplocalyx*; *Mentha arvensis*]. **Ref:** 1, 660.

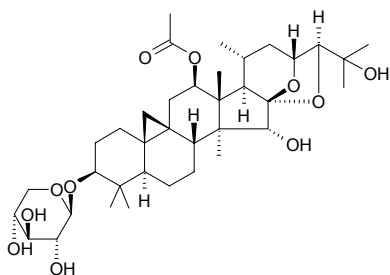


**140 1'-Acetoxychavicol acetate**

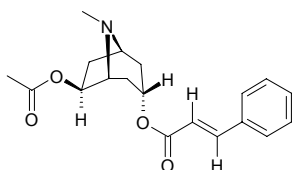
[108147-21-3] C<sub>13</sub>H<sub>14</sub>O<sub>4</sub> (234.25). [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -80° (c = 1, alcohol). **Pharm:** Antineoplastic (S<sub>180</sub>, 10mg/(kg·d), growth rate = 1%); antifungal; antiulcerative (rat, ip, gastric ulcer, 2mg/kg, InRt = 20%, 5mg/kg, InRt = 77%); toxin. **Source:** DA LIANG JIANG *Alpinia galanga*. **Ref:** 1, 995, 1134.

**141 12β-Acetoxycimigenol-3-O-β-D-xylopyranoside**

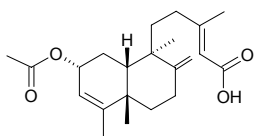
C<sub>37</sub>H<sub>58</sub>O<sub>11</sub> (678.87). White powder, mp 185~187°C, [ $\alpha$ ]<sub>D</sub><sup>24</sup> = -41° (c = 0.55, MeOH:CHCl<sub>3</sub> = 1:1). **Source:** SHENG MA *Cimicifuga foetida* (rhizome). **Ref:** 4573.

**142 trans-6β-Acetoxy-3α-(cinnamoyloxy)tropane**

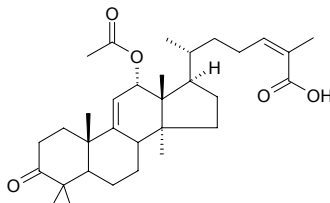
C<sub>19</sub>H<sub>23</sub>NO<sub>4</sub> (329.40). **Source:** XI LAN GU KE *Erythroxylum zeylanicum* (twig and leaf). **Ref:** 3919.

**143 2-α-Acetoxy-cis-cleroda-3,13(Z),8(17)-trien-15-oic acid**

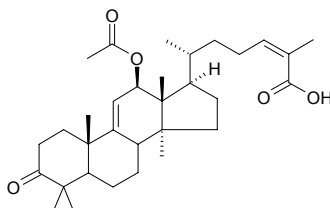
C<sub>22</sub>H<sub>32</sub>O<sub>4</sub> (360.50). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -32.5° (c = 0.6, CHCl<sub>3</sub>). **Pharm:** Antibacterial (*Bacillus cereus*, MIC = 1.25μg, control Tetracyclin, MIC = 0.25μg; *Bacillus coagulans*, MIC = 2.5μg, Tetracyclin, MIC = 0.25μg; *Bacillus subtilis*, MIC = 1.25μg, Tetracyclin, MIC = 0.25μg; *Micrococcus luteus*, MIC = 1.25μg, Tetracyclin, MIC = 0.25μg; *Staphylococcus aureus*, MIC = 1.25μg, Tetracyclin, MIC = 5.0μg). **Source:** *Haplopappus foliosus*. **Ref:** 5419.

**144 12α-Acetoxycoocinic acid**

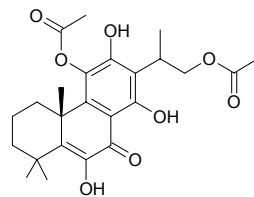
C<sub>32</sub>H<sub>48</sub>O<sub>5</sub> (512.74). **Pharm:** Antineoplastic<sup>[2523]</sup>, anti-HIV<sup>[2523]</sup>. **Source:** LENG FAN TUAN *Kadsura coccinea* [syn. *Kadsura chenensis*; *Kadsura hainanensis*], YI XING NAN WU WEI ZI *Kadsura heteroclita* [Syn. *Uvaria heteroclita*]. **Ref:** 2436, 2523.

**145 12β-Acetoxycoocinic acid**

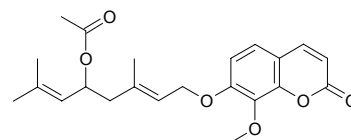
C<sub>32</sub>H<sub>48</sub>O<sub>5</sub> (512.74). **Pharm:** Antineoplastic<sup>[2523]</sup>, anti-HIV<sup>[2523]</sup>. **Source:** LENG FAN TUAN *Kadsura coccinea* [syn. *Kadsura chenensis*; *Kadsura hainanensis*], YI XING NAN WU WEI ZI *Kadsura heteroclita* [Syn. *Uvaria heteroclita*]. **Ref:** 2436, 2523.

**146 16-Acetoxycoleon U 11-acetate**

11,16-Diacetoxy-6,12,14-trihydroxyabieta-5,8,11,13-tetraen-7-one C<sub>24</sub>H<sub>30</sub>O<sub>8</sub> (446.5). Yellow amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>25,9</sup> = +32.3° (c = 0.87, CHCl<sub>3</sub>). **Source:** HUANG QIAO RUI HUA *Coleus xanthanthus* (aerial parts: yield = 0.00023%dw). **Ref:** 4625.

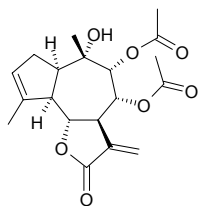
**147 (-)-Acetoxycollinin**

[148777-25-7] C<sub>22</sub>H<sub>26</sub>O<sub>6</sub> (386.45). **Pharm:** Platelet aggregation inhibitor. **Source:** QING JIAO Zhanthoxylum *schinifolium*, QUAN YUAN YE HUA *Zanthoxylum integrifoliolum*. **Ref:** 1521, 2176.

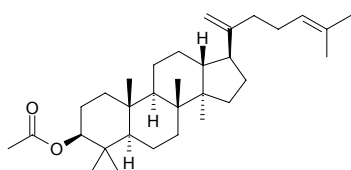


**148 9 $\alpha$ -Acetoxycumambrin A**

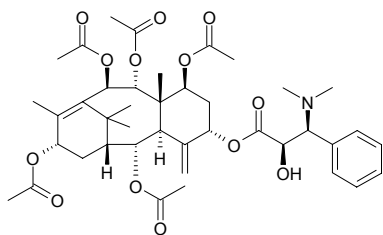
$C_{19}H_{24}O_7$  (364.40). Source: *Anthemis carpatica* (aerial parts). Ref: 3974.

**149 3 $\beta$ -Acetoxy-dammara-20,24-diene**

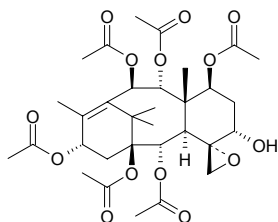
Dammardenyl acetate  $C_{32}H_{52}O_2$  (468.77). Glassy amorphous solid, mp 148–149°C,  $[\alpha]_D^{20} = +11^\circ$  ( $c = 0.08$ ,  $CHCl_3$ ). Source: PEI LAN *Eupatorium fortunei*, TU MU XIANG *Inula helenium*, XIAO SHE JU GEN *Microglossa pyrifolia*, *Santolina oblongifolia*. Ref: 6, 5374.

**150 2 $\alpha$ -Acetoxy-2' $\beta$ -deacetylaustrospicatine**

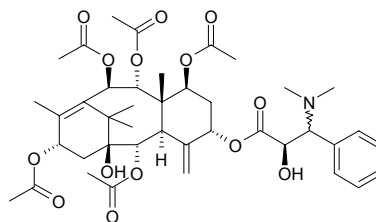
[119777-82-1]  $C_{41}H_{55}NO_{13}$  (769.89). Pharm: Cytotoxic (A549,  $ED_{50} = (28.3 \pm 3.8) \mu\text{mol/L}$ )<sup>[5225]</sup>. Source: AO DA LI YA HONG DOU SHAN *Austrotaxus spicata*, XI MA LA YA HONG DOU SHAN *Taxus wallichiana* (needle). Ref: 662, 5225.

**151 1 $\beta$ -Acetoxy-5 $\alpha$ -deacetyl-baccatin I**

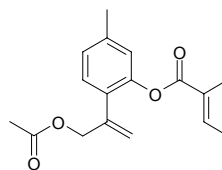
$C_{32}H_{44}O_{14}$  (652.70). mp 240–241°C. Source: MEI LI HONG DOU SHAN *Taxus mairei*. Ref: 662.

**152 2 $\alpha$ -Acetoxy-2'-deacetyl-1-hydroxyaustrospicatine**

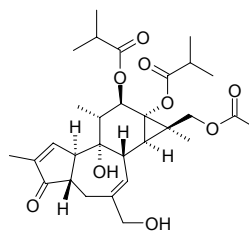
$C_{41}H_{55}NO_{14}$  (785.89). Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.

**153 9-Acetoxy-8,10-dehydrothymol 3-O-tiglate**

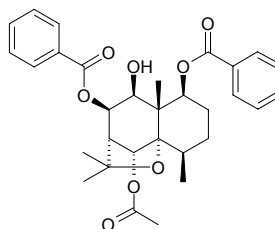
$C_{17}H_{20}O_4$  (288.35). Source: PEI LAN *Eupatorium fortunei* (aerial parts). Ref: 3077.

**154 17-Acetoxy-4-deoxyphorbol 12,13-bis(isobutyrate)**

[250258-03-8]  $C_{30}H_{42}O_9$  (546.66). Oil,  $[\alpha]_D = +70^\circ$  ( $c = 1.2$ ,  $CHCl_3$ ). Source: DUN YE DA JI *Euphorbia obtusifolia* var. *obtusifolia*. Ref: 2365.

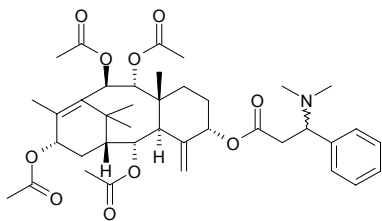
**155 6 $\alpha$ -Acetoxy-1 $\beta$ ,8 $\beta$ -dibenzyloxy-9 $\beta$ -hydroxy- $\beta$ -dihydroagarofuran**

$C_{31}H_{36}O_8$  (536.63). White powder (EtOAc), mp 217–219°C,  $[\alpha]_D = -286^\circ$  ( $c = 0.70$ , MeOH). Pharm: NO production inhibitor (mus, macrophage RAW264.7 cells activated by LPS, very weak activity)<sup>[2584]</sup>. Source: NAN SHE TENG GUO *Celastrus orbiculatus* [Syn. *Celastrus articulatus*]. Ref: 2584.

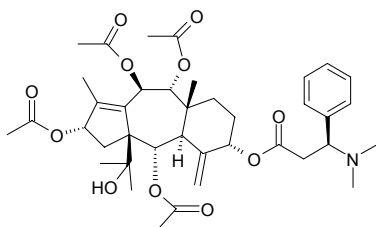


**156 2 $\alpha$ -Acetoxy-2',7-dideacetoxy austrospicatine**

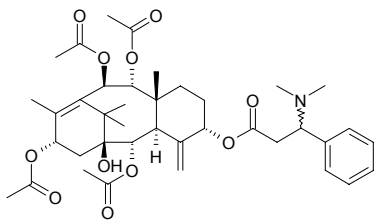
C<sub>39</sub>H<sub>53</sub>NO<sub>10</sub> (695.86). Source: HONG DOU SHAN *Taxus chinensis*. Ref: 662.

**157 (-)-2 $\alpha$ -Acetoxy-2',7-dideacetoxy-1-hydroxy-11(15→1)-abeoaustrospicatine**

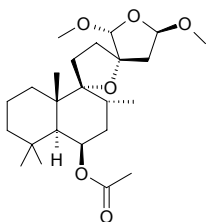
C<sub>39</sub>H<sub>53</sub>NO<sub>11</sub> (711.86). [ $\alpha$ ]<sub>D</sub> = -46° (CHCl<sub>3</sub>). Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.

**158 (+)-2 $\alpha$ -Acetoxy-2',7-dideacetoxy-1-hydroxyaustrospicatine**

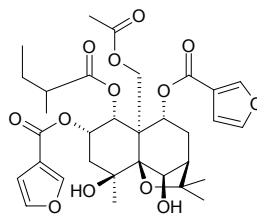
C<sub>39</sub>H<sub>53</sub>NO<sub>11</sub> (711.86). Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.

**159 (rel-5S,6R,8R,9R,10S,13S,15R,16R)-6-Acetoxy-9,13;15,16-diepoxy-15,16-dimethoxylabdane**

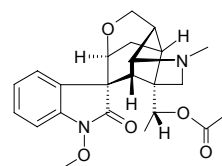
C<sub>24</sub>H<sub>40</sub>O<sub>6</sub> (424.58). Pharm: Cytotoxic (*in vitro*, PC12, GI<sub>50</sub> > 5 μg/mL, control Cisplatin, GI<sub>50</sub> = 0.111 μg/mL; HCT116, GI<sub>50</sub> > 5 μg/mL, Cisplatin, GI<sub>50</sub> = 0.794 μg/mL)<sup>[4623]</sup>. Source: DAN YE MAN JING ZI *Vitex rotundifolia* [Syn. *Vitex trifolia* var. *simplicifolia*]. Ref: 4623.

**160 15-Acetoxy-2 $\alpha$ ,9 $\beta$ -di-( $\beta$ -furancarboxyloxy)-4 $\beta$ ,6 $\beta$ -dihydroxy-1 $\alpha$ -(2-methylbutanoyloxy)-dihydro- $\beta$ -agarofuran**

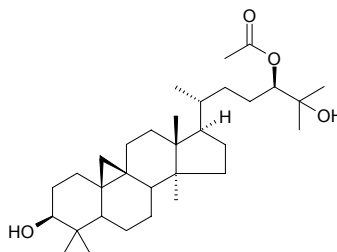
C<sub>32</sub>H<sub>40</sub>O<sub>13</sub> (632.67). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>23</sup> = +39.7° (*c* = 0.39, CHCl<sub>3</sub>). Source: OU ZHOU WEI MAO *Euonymus europaeus* (seed). Ref: 4162.

**161 19-(R)-Acetoxydihydrogelsevirine**

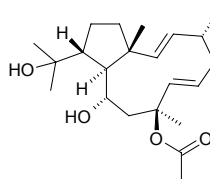
C<sub>23</sub>H<sub>28</sub>N<sub>2</sub>O<sub>5</sub> (412.49). mp 186–189°C, [ $\alpha$ ]<sub>D</sub> = -6.7°. Source: GOU WEN *Gelsemium elegans*. Ref: 14.

**162 24R-Acetoxy-3 $\beta$ ,25-dihydroxycycloartane**

C<sub>32</sub>H<sub>54</sub>O<sub>4</sub> (502.78). Crystals (CHCl<sub>3</sub>-hexane), mp 160°C. Source: MA LA BA JIAN MU *Dysoxylum malabaricum* (leaf). Ref: 5130.

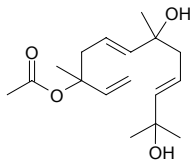
**163 10-Acetoxy-8,18-dihydroxy-2,6-dolabelladiene**

C<sub>22</sub>H<sub>36</sub>O<sub>4</sub> (364.53). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -60° (*c* = 0.5, CHCl<sub>3</sub>). Pharm: Anti-HSV-1 (Vero cells infected by HSV-1, 50 μmol/L, (87±4)% of cytopathic effect inhibition of herpes virus); cytotoxic inactive (200 μmol/L); HIV-1 RT inhibitor (40 μmol/L, InRt = 20%, positive control AZT: 0.01 μmol/L, InRt = 85%). Source: BA XI ZONG ZAO *Dictyota pfaffii*. Ref: 5023.

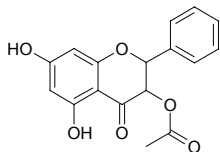


**164 3-Acetoxy-7,11-dihydroxy-farnesa-1,5,9-triene**

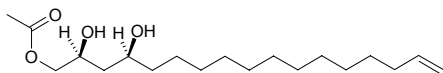
$C_{17}H_{28}O_4$  (296.41).  $[\alpha]_D^{20} = +5^\circ$  ( $c = 0.24$ ,  $CHCl_3$ ). Source: *Gackstroemia decipiens*. Ref: 3907.

**165 trans-3-Acetoxy-5,7-dihydroxyflavanone**

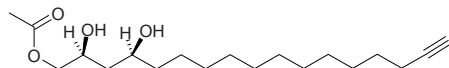
$C_{17}H_{14}O_6$  (314.30). Colorless columnar crystals, mp 264~266°C. Source: SHAN YANG *Populus davidiana*. Ref: 2212.

**166 1-Acetoxy-2,4-dihydroxy-N-heptadeca-16-ene**

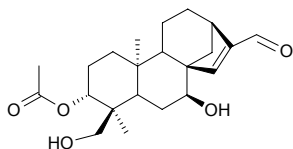
$C_{19}H_{36}O_4$  (328.50).  $[\alpha]_D^{22} = -2.5^\circ$  ( $c = 0.89$ ,  $CHCl_3$ ). Source: E LI *Persea americana* [Syn. *Persea gratissima*] (fruit). Ref: 3953.

**167 1-Acetoxy-2,4-dihydroxy-N-heptadeca-16-yne**

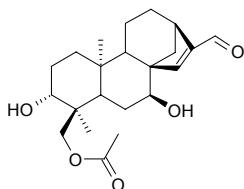
$C_{19}H_{34}O_4$  (326.48).  $[\alpha]_D^{22} = -2.7^\circ$  ( $c = 0.24$ ,  $CHCl_3$ ). Source: E LI *Persea americana* [Syn. *Persea gratissima*] (fruit). Ref: 3953.

**168 ent-3β-Acetoxy-7α,18-dihydroxykaur-15-en-17-al**

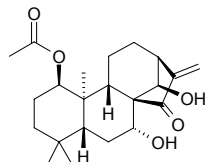
$C_{22}H_{32}O_5$  (376.50). Syrup,  $[\alpha]_D = -8.2^\circ$  ( $c = 0.5$ ,  $CHCl_3$ ). Source: MU ER DU MA CAO *Sideritis moorei* (aerial parts). Ref: 5295.

**169 ent-18-Acetoxy-3β,7α-dihydroxykaur-15-en-17-al**

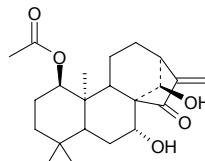
$C_{22}H_{32}O_5$  (376.50). Syrup,  $[\alpha]_D = -13.6^\circ$  ( $c = 1$ ,  $CHCl_3$ ). Source: MU ER DU MA CAO *Sideritis moorei* (aerial parts). Ref: 5295.

**170 ent-1α-Acetoxy-7β,14α-dihydroxykaur-16-en-15-one**

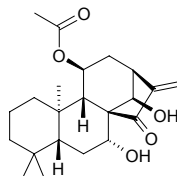
$C_{22}H_{32}O_5$  (376.50). White needles (acetone), mp 97~98°C,  $[\alpha]_D^{20} = -96.0^\circ$  ( $c = 0.80$ , MeOH). Source: DONG JIN BA DOU *Croton tonkinensis* (leaf). Ref: 4342.

**171 1β-Acetoxy-7α,14β-dihydroxykaur-16-en-15-one**

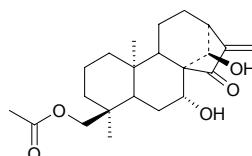
$C_{22}H_{32}O_5$  (376.5). White amorphous powder, mp 110~111°C,  $[\alpha]_D^{18} = -36.7^\circ$  ( $c = 1.1$ ,  $CHCl_3$ ). Pharm: Anti-inflammatory (inhibits LPS-induced NF-κB activation in murine macrophage RAW264.7 cells,  $IC_{50} = 0.42\mu\text{mol/L}$ ; control Parthenolide,  $IC_{50} = 2.34\mu\text{mol/L}$ ; NO production inhibitor ( $IC_{50} = 0.47\mu\text{mol/L}$ ; control Parthenolide,  $IC_{50} = 2.01\mu\text{mol/L}$ ). Source: DONG JIN BA DOU *Croton tonkinensis* (leaf; yield = 0.00062%dw). Ref: 4724.

**172 ent-11α-Acetoxy-7β,14α-dihydroxykaur-16-en-15-one**

$C_{22}H_{32}O_5$  (376.50). Oil,  $[\alpha]_D^{19} = +21.3^\circ$  ( $c = 0.41$ ). Source: DONG JIN BA DOU *Croton tonkinensis* (leaf), JIE XING YE TAI *Jungermannia truncata*. Ref: 4201, 4444.

**173 18-Acetoxy-7α,14β-dihydroxykaur-16-en-15-one**

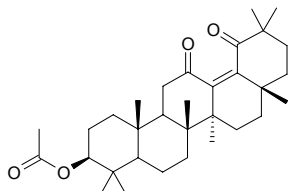
$C_{22}H_{32}O_5$  (376.50). White amorphous powder, mp 173~175°C,  $[\alpha]_D^{18} = -20^\circ$  ( $c = 0.6$ ,  $CHCl_3$ ). Pharm: Anti-inflammatory (inhibits LPS-induced NF-κB activation in murine macrophage RAW264.7 cells,  $IC_{50} = 0.07\mu\text{mol/L}$ ; control Parthenolide,  $IC_{50} = 2.34\mu\text{mol/L}$ ; NO production inhibitor ( $IC_{50} = 0.15\mu\text{mol/L}$ ; control Parthenolide,  $IC_{50} = 2.01\mu\text{mol/L}$ ). Source: DONG JIN BA DOU *Croton tonkinensis* (leaf; yield = 0.0014%dw). Ref: 4724.



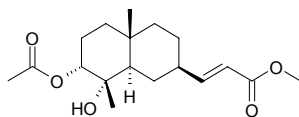


**174 3 $\beta$ -Acetoxy-12,19-dioxo-13(18)-oleanene**

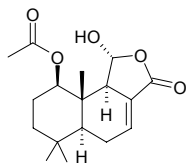
C<sub>32</sub>H<sub>48</sub>O<sub>4</sub> (496.74). Colorless solid, mp 244–247°C, [ $\alpha$ ]<sub>D</sub><sup>24</sup> = -94.9° (*c* = 1.0, CHCl<sub>3</sub>). **Pharm:** Cytotoxic inactive (HONE-1 cell, IC<sub>50</sub> > 10 $\mu$ mol/L; KB cell, IC<sub>50</sub> > 10 $\mu$ mol/L; HT29 cell, IC<sub>50</sub> > 10 $\mu$ mol/L). **Source:** RONG SHU *Ficus microcarpa* (aerial root). **Ref:** 5254.

**175 3 $\alpha$ -Acetoxydiversifolol**

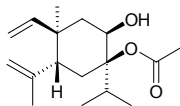
3 $\alpha$ -Acetoxy-4 $\alpha$ -hydroxy-4 $\beta$ ,10 $\beta$ -dimethyl-7 $\beta$ -(methyl-1*E*-propenoate)-*trans*-decalin C<sub>18</sub>H<sub>28</sub>O<sub>5</sub> (324.42). Colorless gel, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -71.8° (*c* = 0.071, MeOH). **Pharm:** Cytotoxic (antiproliferative, Col2 cells, IC<sub>50</sub> > 20 $\mu$ g/mL); cytotoxic (cellular differentiation inducer, hmn promyelocytic leukemia HL-60 cells, 4 $\mu$ g/mL, activity denotes percentage of cells differentiated < 10%); cytotoxic (MMOC model, inhibits DMBA-induced preneoplastic lesion formation, not tested). **Source:** ZHONG BIN JU *Tithonia diversifolia* (aerial parts: yield = 0.00056%dw). **Ref:** 4622.

**176 1 $\beta$ -Acetoxy-7-drimen-11 $\alpha$ -ol-12,11-lactone**

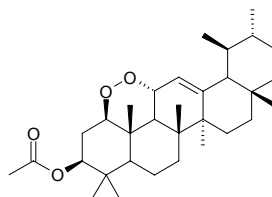
C<sub>17</sub>H<sub>24</sub>O<sub>5</sub> (308.38). Colorless amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -46.4° (*c* = 0.65, CHCl<sub>3</sub>). **Source:** YUN NAN HONG DOU SHAN *Taxus yunnanensis* (bark). **Ref:** 3481.

**177 7-Acetoxy-elema-1,3-dien-8-ol**

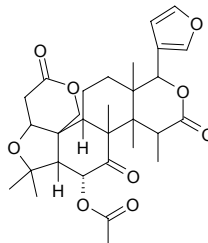
(+)-(1*R*,2*R*,4*R*,5*R*)-4-Ethenyl-2-hydroxy-4-methyl-5-(1-methylethenyl)-1-(1-methylethyl)-cyclohexylacetate C<sub>17</sub>H<sub>28</sub>O<sub>3</sub> (280.41). Colorless oil. **Source:** YING ZHI YE TAI *Lepidozia vitrea* (essential oil). **Ref:** 5209.

**178 3 $\beta$ -Acetoxy-1 $\beta$ ,11 $\alpha$ -epidioxy-12-ursene**

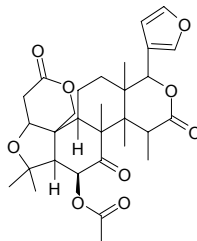
C<sub>32</sub>H<sub>50</sub>O<sub>4</sub> (498.75). Colorless solid (CH<sub>2</sub>Cl<sub>2</sub>), mp 250–253°C, [ $\alpha$ ]<sub>D</sub><sup>29</sup> = +29.4° (*c* = 0.9, CHCl<sub>3</sub>). **Source:** RONG SHU *Ficus microcarpa* (aerial root: yield = 0.000072%dw). **Ref:** 3047.

**179 6 $\alpha$ -Acetoxy-5-epilimonin**

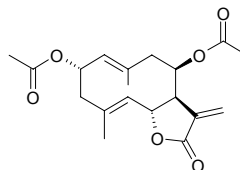
C<sub>30</sub>H<sub>38</sub>O<sub>9</sub> (542.63). **Source:** WU ZHU YU *Evodia rutaecarpa*. **Ref:** 877.

**180 6 $\beta$ -Acetoxy-5-epilimonin**

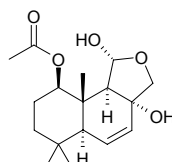
C<sub>30</sub>H<sub>38</sub>O<sub>9</sub> (542.63). **Source:** WU ZHU YU *Evodia rutaecarpa*. **Ref:** 877.

**181 2 $\alpha$ -Acetoxyepitulipinolide**

C<sub>19</sub>H<sub>24</sub>O<sub>6</sub> (348.40). Oil, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +70.4° (*c* = 0.27, CHCl<sub>3</sub>). **Source:** KU YE DAO ZE LAN *Eupatorium sachalinense* [Syn. *Eupatorium glehni*]. **Ref:** 4226.

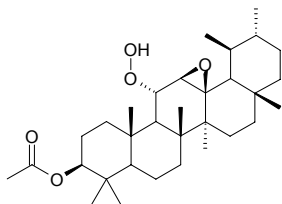
**182 1 $\beta$ -Acetoxy-11,12-epoxy-6-drimen-8 $\alpha$ ,11 $\alpha$ -diol**

C<sub>17</sub>H<sub>26</sub>O<sub>5</sub> (310.39). Colorless amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -16.4° (*c* = 0.32, CHCl<sub>3</sub>). **Source:** YUN NAN HONG DOU SHAN *Taxus yunnanensis* (bark). **Ref:** 3481.

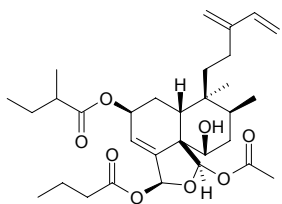


**183 3 $\beta$ -Acetoxy-12 $\beta$ ,13 $\beta$ -epoxy-11 $\alpha$ -hydroperoxyursane**

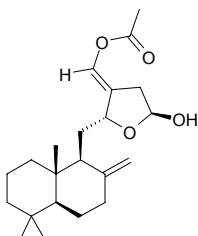
C<sub>32</sub>H<sub>52</sub>O<sub>5</sub> (516.77). Colorless solid (CH<sub>2</sub>Cl<sub>2</sub>), mp 187~193°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +14.4° (*c* = 0.2, CHCl<sub>3</sub>). Source: RONG SHU *Ficus microcarpa* (aerial root): yield = 0.000044%dw). Ref: 3047.

**184 *rel*-(2*S*,5*R*,6*R*,8*S*,9*S*,10*R*,18*S*,19*R*)-19-Acetoxy-18,19-epoxy-6-hydroxy-18-butanoyloxy-2-(2-methylbutanoyloxy)cleroda-3,13(16),14-triene**

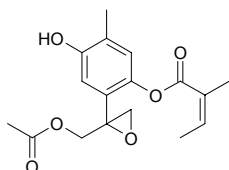
C<sub>31</sub>H<sub>46</sub>O<sub>8</sub> (546.71). Colorless viscous liquid, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +26° (*c* = 0.135, CH<sub>2</sub>Cl<sub>2</sub>). Pharm: Antitrypanosomal (Flagellate protozoan *Trypanosoma cruzi* causing Chagas' disease, MIC = 0.59 $\mu$ g/mL). Source: SHE XING LIN SHENG JIAO GU CUI *Casearia sylvestris* var. *lingua* (root bark). Ref: 4080.

**185 16-Acetoxy-12(*R*),15-epoxy-15 $\beta$ -hydroxyabda-8(17),13(16)-diene**

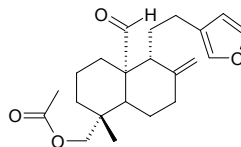
C<sub>22</sub>H<sub>34</sub>O<sub>4</sub> (362.51). Yellowish oil, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +35.0° (*c* = 1.4, CHCl<sub>3</sub>). Source: *Turreanthus africanus* (seed). Ref: 3884.

**186 9-Acetoxy-8,10-epoxy-6-hydroxythymol 3-*O*-angelate**

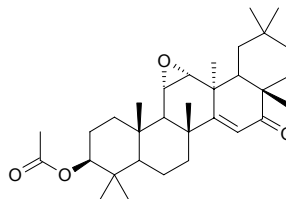
C<sub>17</sub>H<sub>20</sub>O<sub>6</sub> (320.35). [ $\alpha$ ]<sub>D</sub><sup>23</sup> = -8.5° (*c* = 0.68, CHCl<sub>3</sub>). Source: PEI LAN *Eupatorium fortunei* (aerial parts). Ref: 3077.

**187 19-Acetoxy-15,16-epoxy-8(17),13(16),14-*ent*-labdatrien-20-al**

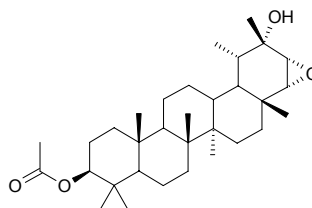
C<sub>22</sub>H<sub>30</sub>O<sub>4</sub> (358.48). White amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -17.1° (*c* = 0.52, CHCl<sub>3</sub>). Pharm: Phytotoxin (*Raphidocelis subcapitata*, IC<sub>50</sub> = 58.27 $\mu$ mol/L). Source: FU YE YAN ZI CAI *Potamogeton natans*. Ref: 5184.

**188 3 $\beta$ -Acetoxy-11 $\alpha$ ,12 $\alpha$ -epoxy-16-oxo-14-taraxerene**

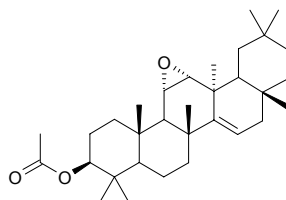
C<sub>32</sub>H<sub>48</sub>O<sub>4</sub> (496.74). Colorless solid, mp > 300°C, [ $\alpha$ ]<sub>D</sub><sup>24</sup> = -39.3° (*c* = 0.2, CHCl<sub>3</sub>). Source: RONG SHU *Ficus microcarpa* (aerial root). Ref: 5254.

**189 3 $\beta$ -Acetoxy-21 $\alpha$ ,22 $\alpha$ -epoxytaraxastan-20 $\alpha$ -ol**

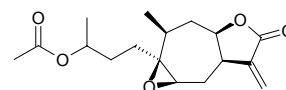
C<sub>32</sub>H<sub>52</sub>O<sub>4</sub> (500.77). Colorless solid, mp > 300°C, [ $\alpha$ ]<sub>D</sub><sup>21</sup> = +5.6° (*c* = 0.6, CHCl<sub>3</sub>). Source: RONG SHU *Ficus microcarpa* (aerial root). Ref: 5254.

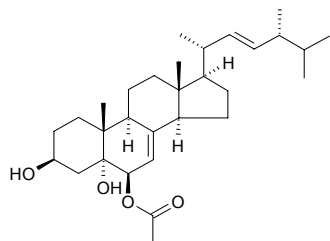
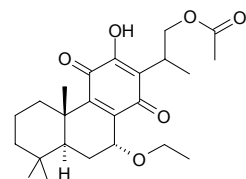
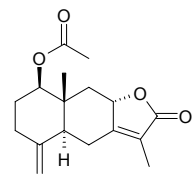
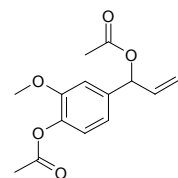
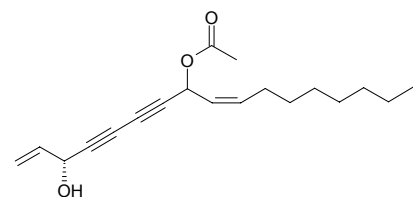
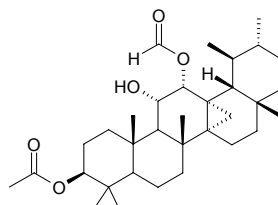
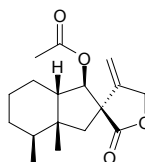
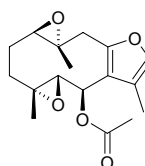
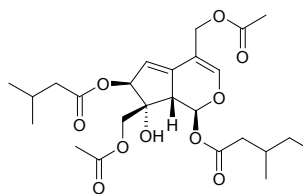
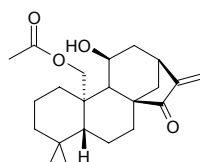
**190 3 $\beta$ -Acetoxy-11 $\alpha$ ,12 $\alpha$ -epoxy-14-taraxerene**

C<sub>32</sub>H<sub>50</sub>O<sub>3</sub> (482.75). Source: RONG SHU *Ficus microcarpa* (aerial root). Ref: 5254.

**191 4-Acetoxy-1 $\beta$ ,5 $\beta$ -epoxy-10 $\alpha$ H-xantha-11(13)-*en*-12,8 $\beta$ -olide**

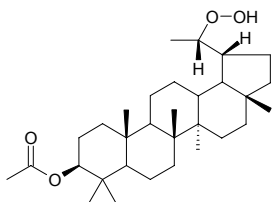
C<sub>17</sub>H<sub>24</sub>O<sub>5</sub> (308.38). Colorless gum, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +26.2° (*c* = 0.68, CHCl<sub>3</sub>). Source: CHANG YE TIAN MING JING *Carpesium longifolium* (aerial part): yield = 0.0007%dw). Ref: 4736.



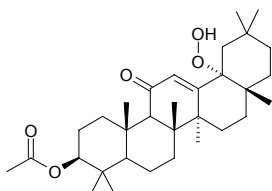
**192 6 $\beta$ -Acetoxy-(22E)-ergosta-7,22-diene-3 $\beta$ ,5 $\alpha$ -diol**C<sub>30</sub>H<sub>48</sub>O<sub>4</sub> (472.71). Source: *Pleurotus eryngii*. Ref: 4183.**193 16-Acetoxy-7 $\alpha$ -ethoxyroyleanone**C<sub>24</sub>H<sub>34</sub>O<sub>6</sub> (418.53). mp 182~184°C. Source: XI HUANG CAO *Rabdosia serra*. Ref: 4067.**194 1 $\beta$ -Acetoxyeudesman-4(15),7(11)-dien-8 $\alpha$ ,12-olide**C<sub>17</sub>H<sub>22</sub>O<sub>4</sub> (290.36). Pharm: Cytotoxic (*in vitro*, P<sub>388</sub>, IC<sub>50</sub> = 42 $\mu$ g/mL). Source: XIAO MEI WEI QIN *Smyrniun olusatrum* (fruit). Ref: 5162.**195 1'-Acetoxyeugenol acetate**[108093-85-2] C<sub>14</sub>H<sub>16</sub>O<sub>5</sub> (264.28). Pharm: Antineoplastic (S<sub>180</sub>, 10mg/kg, growth rate = 10.0%); antiulcerative (rat, ip, gastric ulcer, 5mg/kg, InRt = 36%; 10mg/kg, InRt = 100%); low toxin. Source: DA LIANG JIANG *Alpinia galanga*. Ref: 1, 995, 1134.**196 8-Acetoxyfalcarinol**C<sub>19</sub>H<sub>26</sub>O<sub>3</sub> (302.42). Source: *Niphogeton ternata*. Ref: 4156.**197 3 $\beta$ -Acetoxy-12 $\alpha$ -formyloxy-13,27-cycloursan-11 $\alpha$ -ol**C<sub>33</sub>H<sub>52</sub>O<sub>5</sub> (528.78). mp 269~273°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +38.0° (c = 0.5, CHCl<sub>3</sub>). Source: RONG SHU *Ficus microcarpa* (aerial root). Ref: 3524.**198 9-Acetoxyfukinanolide**[35945-70-1] C<sub>17</sub>H<sub>24</sub>O<sub>4</sub> (292.38). mp 96~97°C. Source: FENG DOU CAI *Petasites japonicus*. Ref: 6.**199 6 $\beta$ -Acetoxyglechomafuran**C<sub>17</sub>H<sub>22</sub>O<sub>5</sub> (306.38). Colorless gum. Source: NIAN MAO SHU WEI CAO *Salvia roborowskii*. Ref: 5439.**200 10-Acetoxy-1-homovaltrate hydrin**C<sub>25</sub>H<sub>36</sub>O<sub>10</sub> (496.56). Oil, [ $\alpha$ ]<sub>D</sub><sup>24</sup> = +197.5° (c = 0.01, MeOH). Source: ZHI ZHU XIANG *Valeriana jatamansii* [Syn. *Valeriana wallichii*] (rhizome and root; yield = 0.000005%dw). Ref: 4672.**201 ent-20-Acetoxy-11 $\alpha$ -hydroxy-16-kauren-15-one**C<sub>22</sub>H<sub>32</sub>O<sub>4</sub> (360.50). Oil, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -94.0° (c = 0.41). Source: JIE XING YE TAI *Jungermannia truncata*. Ref: 4201.

**202 (20S)-3 $\beta$ -Acetoxy-20-hydroperoxy-30-norlupane**

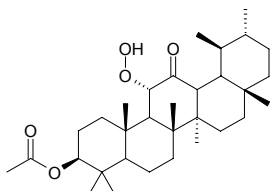
C<sub>31</sub>H<sub>52</sub>O<sub>4</sub> (488.76). Colorless solid (CH<sub>2</sub>Cl<sub>2</sub>), mp 159–162°C, [ $\alpha$ ]<sub>D</sub><sup>29</sup> = +6.8° (*c* = 3.9, CHCl<sub>3</sub>). Source: RONG SHU *Ficus microcarpa* (aerial root: yield = 0.00025%dw). Ref: 3047.

**203 3 $\beta$ -Acetoxy-18 $\alpha$ -hydroperoxy-12-oleanen-11-one**

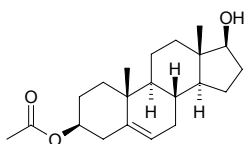
C<sub>32</sub>H<sub>50</sub>O<sub>5</sub> (514.75). Colorless solid (CH<sub>2</sub>Cl<sub>2</sub>), mp 205–207°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +23.7° (*c* = 0.7, CHCl<sub>3</sub>). Source: RONG SHU *Ficus microcarpa* (aerial root: yield = 0.000050%dw). Ref: 3047.

**204 3 $\beta$ -Acetoxy-11 $\alpha$ -hydroperoxy-13 $\alpha$ H-ursan-12-one**

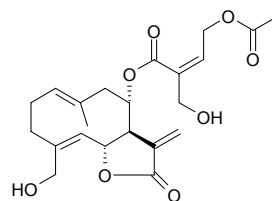
C<sub>32</sub>H<sub>52</sub>O<sub>5</sub> (516.77). Amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +63.9° (*c* = 0.4, CHCl<sub>3</sub>). Source: RONG SHU *Ficus microcarpa* (aerial root: yield = 0.000056%dw). Ref: 3047.

**205 3 $\beta$ -Acetoxy-17 $\beta$ -hydroxy-androst-5-ene**

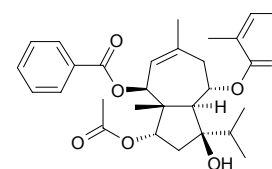
C<sub>21</sub>H<sub>32</sub>O<sub>3</sub> (332.49). Pharm: Anti-inflammation (mouse, TPA-induced ear edema, control, difference in ear thickness = (67.0±0.7)/mm<sup>3</sup>; 1.0mg/ear, difference in ear thickness = (25.0±1.6)/mm<sup>3</sup>, InRt of inflammation = 67.8%, *p*<0.001; 2.0mg/ear, difference in ear thickness = (13.2±2.6)/mm<sup>3</sup>, InRt of inflammation = 82.4%, *p*<0.001; control Indomethacin, 0.5mg/ear, difference in ear thickness = (15.0±1.7)/mm<sup>3</sup>, InRt of inflammation = 79.2%, *p*<0.001; MeOH extract A of *Acacia nilotica* (aerial parts) 5.0mg/ear, difference in ear thickness = (25.0±2.3)/mm<sup>3</sup>, InRt of inflammation = 68.4%, *p*<0.001). Source: A LA BO JIAO JIN HE HUAN *Acacia nilotica* (aerial parts). Ref: 5375.

**206 8 $\alpha$ -[(4-Acetoxy-5-hydroxy)-angelate]salonitenolide**

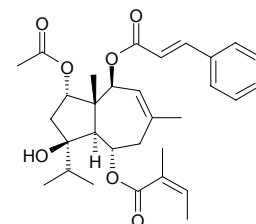
C<sub>22</sub>H<sub>28</sub>O<sub>8</sub> (420.46). Pharm: Antifungal (*Aspergillus niger*, MIC = 0.03 $\mu$ g/mL, control Miconazole, MIC = 1.5 $\mu$ g/mL; *Aspergillus ochraceus*, MIC = 0.03 $\mu$ g/mL, Miconazole, MIC = 1.5 $\mu$ g/mL; *Aspergillus versicolor*, MIC = 0.06 $\mu$ g/mL, Miconazole, MIC = 2 $\mu$ g/mL; *Aspergillus flavus*, MIC = 0.25 $\mu$ g/mL, Miconazole, MIC = 0.5 $\mu$ g/mL; *Penicillium ochrochloron*, MIC = 0.125 $\mu$ g/mL, Miconazole, MIC = 2 $\mu$ g/mL; *Penicillium funiculosum*, MIC = 0.25 $\mu$ g/mL, Miconazole, MIC = 2 $\mu$ g/mL; *Trichoderma viride*, MIC = 0.25 $\mu$ g/mL, Miconazole, MIC = 2 $\mu$ g/mL; *Cladosporium cladosporioides*, MIC = 0.125 $\mu$ g/mL, Miconazole, MIC = 0.03 $\mu$ g/mL; *Alternaria alternata*, MIC = 0.125 $\mu$ g/mL, Miconazole, MIC = 0.5 $\mu$ g/mL). Source: *Centaurea thessala* ssp. *drakiensis* (aerial parts), *Centaurea attica* ssp. *attica* (aerial parts). Ref: 5115.

**207 2 $\alpha$ -Acetoxy-4 $\beta$ -hydroxy-6 $\alpha$ -angeloyloxy-10 $\beta$ -benzoyloxy-dauc-8-ene**

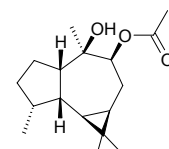
C<sub>29</sub>H<sub>38</sub>O<sub>7</sub> (498.62). Amorphous white powder, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +8.8° (*c* = 0.10, CHCl<sub>3</sub>). Pharm: Antibacterial (*Staphylococcus aureus*, MIC = 1.6mg/mL; *Streptomyces scabies*, MIC = 1.4mg/mL; *Bacillus subtilis*, MIC = 1.2mg/mL; *Bacillus cereus*, MIC = 1.3mg/mL; *Pseudomonas aeruginosa*, MIC = 1.5mg/mL)<sup>[5305]</sup>; antifungal (*Fusarium oxysporum*, MIC = 0.4mg/mL; *Aspergillus niger*, MIC = 0.25mg/mL). Source: HE SHI FENG *Daucus carota* (root). Ref: 5305.

**208 2 $\alpha$ -Acetoxy-4 $\beta$ -hydroxy-6 $\alpha$ -angeloyloxy-10 $\beta$ -cinnamoyloxy-dauc-8-ene**

C<sub>31</sub>H<sub>40</sub>O<sub>7</sub> (524.66). Amorphous yellowish powder. Source: HE SHI FENG *Daucus carota* (root). Ref: 5305.

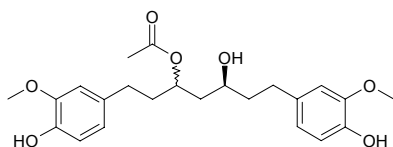
**209 9-Acetoxy-10-hydroxyaromadendrane**

C<sub>17</sub>H<sub>28</sub>O<sub>3</sub> (280.41). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +34.4° (*c* = 0.1, CHCl<sub>3</sub>). Source: *Tylianthus renifolius*. Ref: 3491.



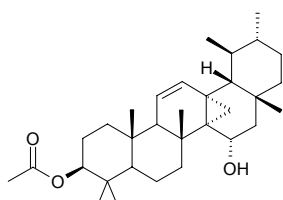
**210 (3*R*,5*S*)-3-Acetoxy-5-hydroxy-1,7-bis(4-hydroxy-3-methoxyphenyl)heptane**

C<sub>23</sub>H<sub>30</sub>O<sub>7</sub> (418.49). Colorless oil,  $[\alpha]_D^{24} = +6.0^\circ$  ( $c = 0.56$ , CHCl<sub>3</sub>). Source: SHENG JIANG *Zingiber officinale*. Ref: 3803.



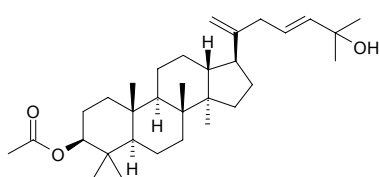
**211 3β-Acetoxy-15α-hydroxy-13,27-cyclours-11-ene**

C<sub>32</sub>H<sub>50</sub>O<sub>3</sub> (482.75). Colorless crystals, mp 130–135°C,  $[\alpha]_D^{25} = +16.8^\circ$  ( $c = 1.6$ , CHCl<sub>3</sub>). Source: RONG SHU *Ficus microcarpa* (aerial root). Ref: 3524.



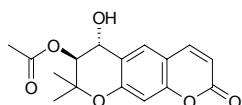
**212 3β-Acetoxy-25-hydroxydammara-20,23-diene**

C<sub>32</sub>H<sub>52</sub>O<sub>3</sub> (484.77). Glassy amorphous solid,  $[\alpha]_D^{20} = +40^\circ$  ( $c = 0.12$ , CHCl<sub>3</sub>). Source: XIAO SHE JU GEN *Microglossa pyrifolia*. Ref: 5374.



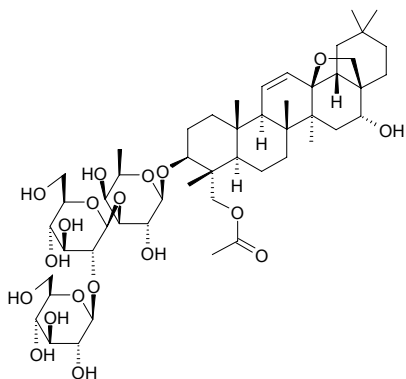
**213 3'(S)-Acetoxy-4'(R)-hydroxy-3',4'-dihydroxanthyletin**

C<sub>16</sub>H<sub>16</sub>O<sub>6</sub> (304.30). Light yellow powder, mp 158–160°C,  $[\alpha]_D^{23} = +61.5^\circ$  ( $c = 0.5$ , CHCl<sub>3</sub>). Source: QIAN HU *Angelica decursiva* [Syn. *Peucedanum decursivum*]. Ref: 874.



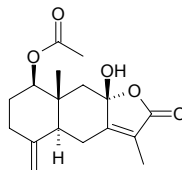
**214 23-Acetoxy-16α-hydroxy-13,28-epoxyolean-11-en-3β-yl-β-D-glucopyranosyl(1→2)-[β-D-glucopyranosyl-(1→3)]-β-D-fucopyranoside**

C<sub>50</sub>H<sub>80</sub>O<sub>19</sub> (985.18). Source: GUAN MU CHAI HU *Bupleurum fruticosum*. Ref: 2247.



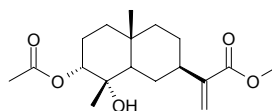
**215 1β-Acetoxy-8β-hydroxyeudesman-4(15),7(11)-dien-8α,12-olide**

C<sub>17</sub>H<sub>22</sub>O<sub>5</sub> (306.36). Pharm: Cytotoxic (*in vitro*, P<sub>388</sub>, IC<sub>50</sub> = 58 μg/mL). Source: XIAO MEI WEI QIN *Smyrniolum olusatrum* (fruit). Ref: 5162.



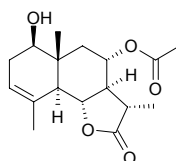
**216 3α-Acetoxy-4α-hydroxy-11(13)-eudesmen-12-oic acid methyl ester**

C<sub>18</sub>H<sub>28</sub>O<sub>5</sub> (324.42). Source: ZHONG BIN JU *Tithonia diversifolia* (aerial parts). Ref: 4622.



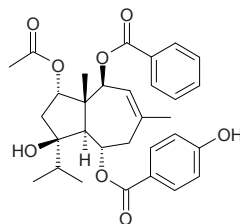
**217 8α-Acetoxy-1β-hydroxyeudesm-3-en-5α,6β,7α,11βH-12,6-olide**

C<sub>17</sub>H<sub>24</sub>O<sub>5</sub> (308.38). White needles (hexane–CH<sub>2</sub>Cl<sub>2</sub>), mp 137–139°C,  $[\alpha]_D^{25} = +61^\circ$  ( $c = 0.5$ , CHCl<sub>3</sub>). Source: JIA NA LI HAO *Artemisia canariensis*. Ref: 2332.



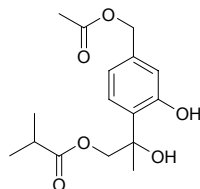
**218 2α-Acetoxy-4β-hydroxy-6α-p-hydroxybenzoyloxy-10β-benzoyloxydauc-8-ene**

C<sub>31</sub>H<sub>36</sub>O<sub>8</sub> (536.63). White powder,  $[\alpha]_D^{25} = +22.8^\circ$  ( $c = 0.30$ , CHCl<sub>3</sub>). Pharm: Antibacterial (*Staphylococcus aureus*, MIC = 1.8 mg/mL; *Streptomyces scabies*, MIC = 1.2 mg/mL; *Bacillus subtilis*, MIC = 1.00 mg/mL; *Bacillus cereus*, MIC = 1.5 mg/mL; *Pseudomonas aeruginosa*, MIC = 1.3 mg/mL)<sup>[5305]</sup>; antifungal (*Fusarium oxysporum*, MIC = 0.5 mg/mL; *Aspergillus niger*, MIC = 0.3 mg/mL). Source: HE SHI FENG *Daucus carota* (root). Ref: 5305.



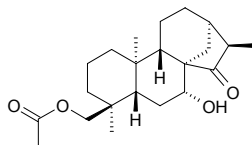
**219 7-Acetoxy-8-hydroxy-9-isobutyryloxythymol**

C<sub>16</sub>H<sub>22</sub>O<sub>6</sub> (310.35).  $[\alpha]_D^{23} = -13.6^\circ$  ( $c = 0.24$ , CHCl<sub>3</sub>). Source: PEI LAN *Eupatorium fortunei* (aerial parts). Ref: 3077.

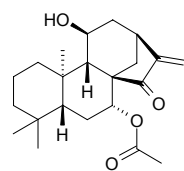


**220 ent-(16S)-18-Acetoxy-7β-hydroxykauran-15-one**

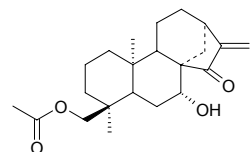
$C_{22}H_{34}O_4$  (362.51). Colorless needles, mp 175–176°C,  $[\alpha]_D^{15} = -18^\circ$  ( $c = 0.10$ , MeOH). Source: DONG JIN BA DOU *Croton tonkinensis* (leaf). Ref: 4057.

**221 ent-7β-Acetoxy-11α-hydroxykaur-16-en-15-one**

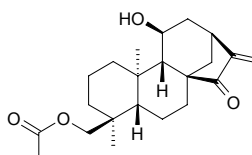
$C_{22}H_{32}O_4$  (360.50). White amorphous powder,  $[\alpha]_D^{25} = -127.3^\circ$  ( $c = 0.20$ ,  $CHCl_3$ ). Pharm: Cytotoxic (BST test, weak active). Source: DONG JIN BA DOU *Croton tonkinensis* (leaf). Ref: 4444.

**222 18-Acetoxy-7α-hydroxykaur-16-en-15-one**

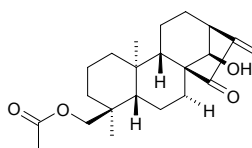
$C_{22}H_{32}O_4$  (360.5). White amorphous powder, mp 119–120°C,  $[\alpha]_D^{18} = -10^\circ$  ( $c = 0.3$ ,  $CHCl_3$ ). Pharm: Anti-inflammatory (inhibits LPS-induced NF-κB activation in murine macrophage RAW264.7 cells,  $IC_{50} = 0.10 \mu\text{mol/L}$ ; control Parthenolide,  $IC_{50} = 2.34 \mu\text{mol/L}$ ); NO production inhibitor ( $IC_{50} = 0.21 \mu\text{mol/L}$ ; control Parthenolide,  $IC_{50} = 2.01 \mu\text{mol/L}$ ). Source: DONG JIN BA DOU *Croton tonkinensis* (leaf; yield = 0.060% dw). Ref: 4724.

**223 ent-18-Acetoxy-11α-hydroxykaur-16-en-15-one**

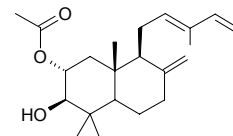
$C_{22}H_{32}O_4$  (360.50). White amorphous powder,  $[\alpha]_D^{25} = -155.6^\circ$  ( $c = 0.20$ ,  $CHCl_3$ ). Pharm: Cytotoxic (BST test, weak active). Source: DONG JIN BA DOU *Croton tonkinensis* (leaf). Ref: 4444.

**224 ent-18-Acetoxy-14α-hydroxykaur-16-en-15-one**

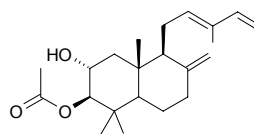
$C_{22}H_{32}O_4$  (360.50). White amorphous powder,  $[\alpha]_D^{15} = -30^\circ$  ( $c = 0.30$ , MeOH). Source: DONG JIN BA DOU *Croton tonkinensis* (leaf). Ref: 4057.

**225 2-Acetoxy-3-hydroxy-labda-8(17),12(E),14-triene**

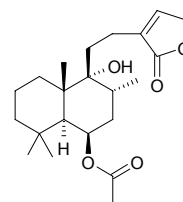
$C_{22}H_{34}O_3$  (346.51). White solid, mp 102–103°C,  $[\alpha]_D^{20} = +50.17^\circ$  ( $c = 1.0$ ,  $CHCl_3$ ). Pharm: Cytotoxic (Kato3,  $IC_{50} = 5.7 \mu\text{g/mL}$ , control Doxorubicin hydrochloride,  $IC_{50} = 1.7 \mu\text{g/mL}$ ; SW620,  $IC_{50} = 7.1 \mu\text{g/mL}$ , Doxorubicin hydrochloride,  $IC_{50} = 1.1 \mu\text{g/mL}$ ; BT474,  $IC_{50} > 10 \mu\text{g/mL}$ , Doxorubicin hydrochloride,  $IC_{50} = 0.08 \mu\text{g/mL}$ ; HepG2,  $IC_{50} > 10 \mu\text{g/mL}$ , Doxorubicin hydrochloride,  $IC_{50} = 0.9 \mu\text{g/mL}$ ; CHAGO,  $IC_{50} > 10 \mu\text{g/mL}$ , Doxorubicin hydrochloride,  $IC_{50} = 2.3 \mu\text{g/mL}$ ). Source: GUANG YE BA DOU *Croton oblongifolius* [Syn. *Croton laevigatus*] (stem bark). Ref: 5121.

**226 3-Acetoxy-2-hydroxy-labda-8(17),12(E),14-triene**

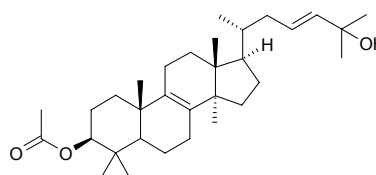
$C_{22}H_{34}O_3$  (346.51). White solid, mp 99–101°C,  $[\alpha]_D^{20} = +9.46^\circ$  ( $c = 1.0$ ,  $CHCl_3$ ). Pharm: Cytotoxic (Kato3,  $IC_{50} = 3.3 \mu\text{g/mL}$ , control Doxorubicin hydrochloride,  $IC_{50} = 1.7 \mu\text{g/mL}$ ; SW620,  $IC_{50} > 10 \mu\text{g/mL}$ , Doxorubicin hydrochloride,  $IC_{50} = 1.1 \mu\text{g/mL}$ ; BT474,  $IC_{50} = 5.9 \mu\text{g/mL}$ , Doxorubicin hydrochloride,  $IC_{50} = 0.08 \mu\text{g/mL}$ ; HepG2,  $IC_{50} > 10 \mu\text{g/mL}$ , Doxorubicin hydrochloride,  $IC_{50} = 0.9 \mu\text{g/mL}$ ; CHAGO,  $IC_{50} > 10 \mu\text{g/mL}$ , Doxorubicin hydrochloride,  $IC_{50} = 2.3 \mu\text{g/mL}$ ). Source: GUANG YE BA DOU *Croton oblongifolius* [Syn. *Croton laevigatus*] (stem bark). Ref: 5121.

**227 6-Acetoxy-9-hydroxy-13(14)-labden-16,15-olide**

$C_{22}H_{34}O_5$  (378.51). Colorless oil,  $[\alpha]_D = -7.3^\circ$  ( $c = 0.8$ , acetone),  $[\alpha]_D = -10.0^\circ$  ( $c = 3.3$ , acetone). Pharm: Antitrypanosomal (epimastigotes of *Trypanosoma cruzi*, *in vitro*, MLC =  $66 \mu\text{mol/L}$ ). Source: MAN JING ZI *Vitex trifolia*. Ref: 2550.

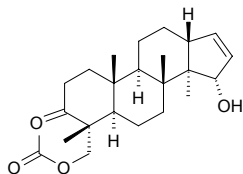
**228 3β-Acetoxy-25-hydroxy-lanosta-8,23-diene**

$C_{32}H_{52}O_3$  (484.77). Pharm: Cytotoxic (*in vitro*, HONE-1 cell,  $IC_{50} > 10 \mu\text{mol/L}$ , control Etoposide,  $IC_{50} = (0.5 \pm 0.2) \mu\text{mol/L}$ , *cis*-Platin,  $IC_{50} = (3.2 \pm 0.5) \mu\text{mol/L}$ ; KB cell,  $IC_{50} > 10 \mu\text{mol/L}$ , Etoposide,  $IC_{50} = (0.9 \pm 0.3) \mu\text{mol/L}$ , *cis*-Platin,  $IC_{50} = (4.4 \pm 0.9) \mu\text{mol/L}$ ; HT29 cell,  $IC_{50} = (9.3 \pm 1.6) \mu\text{mol/L}$ , Etoposide,  $IC_{50} = (2.4 \pm 0.5) \mu\text{mol/L}$ , *cis*-Platin,  $IC_{50} = (5.7 \pm 1.1) \mu\text{mol/L}$ ). Source: RONG SHU *Ficus microcarpa* (aerial root). Ref: 5254.

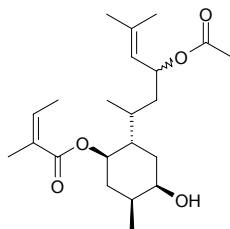


**229 18-Acetoxy-15 $\alpha$ -hydroxymansumbinone**

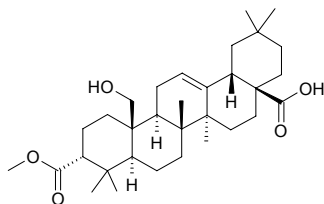
C<sub>24</sub>H<sub>36</sub>O<sub>4</sub> (388.55). Colorless crystals (*n*-hexane:CH<sub>2</sub>Cl<sub>2</sub> = 1:2), mp 135~137°C, [ $\alpha$ ]<sub>D</sub><sup>22</sup> = +25° (*c* = 1.0, CHCl<sub>3</sub>). Source: KEN NI YA MO YAO *Commiphora kua* var. *gowllo*. Ref: 1991.

**230 (1*R*\*,3*S*\*,4*R*\*,6*S*\*)-9-(Acetoxy)-4-hydroxy-1-[(2*Z*)-2-methylbut-2-enoyloxy]bisabol-10(11)-ene**

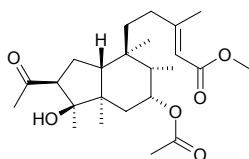
C<sub>22</sub>H<sub>36</sub>O<sub>5</sub> (380.53). Colorless gum, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +29.45°, (*c* = 1.613, MeOH). Pharm: Leukotriene biosynthesis Inhibitor (*in vitro*, IC<sub>50</sub> = 11.4 μmol/L, *p* < 0.05, control Zileuton, IC<sub>50</sub> = 10.4 μmol/L, *p* < 0.05). Source: GAO SHAN HUO RONG CAO *Leontopodium alpinum* (root). Ref: 5037.

**231 3 $\alpha$ -Acetoxy-25-hydroxyolean-12-en-28-oic acid**

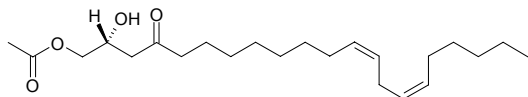
C<sub>33</sub>H<sub>50</sub>O<sub>5</sub> (514.75). Colorless columnar crystals, mp 274~276°C. Source: LU LU TONG *Liquidambar formosana* [Syn. *Liquidambar taiwaniana*]. Ref: 2226.

**232 7-Acetoxy-4-hydroxy-3-oxo-4(3→2)-abeo-13-clerodaen-15-oic acid methyl ester**

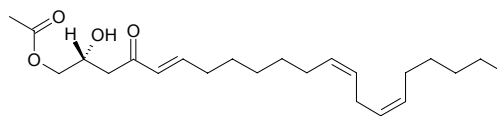
C<sub>24</sub>H<sub>38</sub>O<sub>6</sub> (422.57). [ $\alpha$ ]<sub>D</sub><sup>24</sup> = -28.0° (*c* = 0.25, CHCl<sub>3</sub>). Source: GAO YI ZHI HUANG HUA *Solidago altissima*. Ref: 2366.

**233 (Z,Z)-1-Acetoxy-2-hydroxy-4-oxo-heneicosa-12,15-diene**

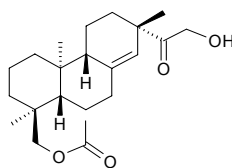
C<sub>23</sub>H<sub>40</sub>O<sub>4</sub> (380.57). Pharm: Antifungal (*Colletotrichum gloeosporioides*, ED<sub>50</sub> = 600 μg/mL). Source: E LI *Persea americana* [Syn. *Persea gratissima*] (fruit). Ref: 3953.

**234 (E,Z,Z)-1-Acetoxy-2-hydroxy-4-oxo-heneicosa-5,12,15-triene**

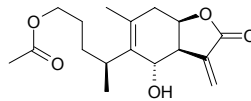
C<sub>23</sub>H<sub>38</sub>O<sub>4</sub> (378.56). [ $\alpha$ ]<sub>D</sub><sup>22</sup> = +11.7° (*c* = 0.22, CHCl<sub>3</sub>). Pharm: Antifungal (*Colletotrichum gloeosporioides*, ED<sub>50</sub> = 600 μg/mL). Source: E LI *Persea americana* [Syn. *Persea gratissima*] (fruit). Ref: 3953.

**235 ent-18-Acetoxy-16-hydroxy-8(14)-pimaren-15-one**

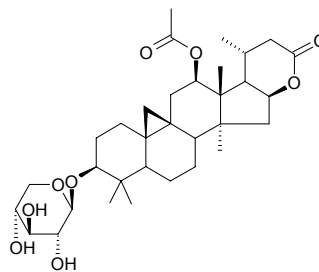
C<sub>22</sub>H<sub>34</sub>O<sub>4</sub> (362.51). Viscous oil, [ $\alpha$ ]<sub>D</sub><sup>26</sup> = -0.4° (*c* = 0.85, MeOH). Source: HAI NAN JIAN MU *Dysoxylum hainanense*. Ref: 750.

**236 1-Acetoxy-6 $\alpha$ -hydroxy-4 $\alpha$ H-1,10-secoeudesma-5(10),11(13)-dien-12,8 $\beta$ -olide**

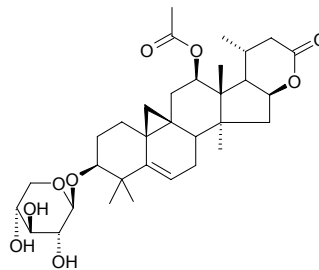
C<sub>17</sub>H<sub>24</sub>O<sub>5</sub> (308.38). Pharm: Cytotoxic inactive (SMMC-7721 IC<sub>50</sub> > 200 μg/mL, control Vincristine IC<sub>50</sub> = (30.35±2.23) μg/mL; HO-8910 IC<sub>50</sub> > 200 μg/mL, Vincristine IC<sub>50</sub> = (20.74±1.91) μg/mL). Source: JIN FEI CAO *Inula japonica*. Ref: 5422.

**237 12 $\beta$ -Acetoxy-3 $\beta$ -hydroxy-24,25,26,27-tetranorcycloartan-23,16 $\beta$ -olide 3-O- $\beta$ -D-xylopyranoside**

C<sub>33</sub>H<sub>50</sub>O<sub>9</sub> (590.76). White powder, [ $\alpha$ ]<sub>D</sub> = -75.0° (MeOH). Source: *Cimicifuga* sp. Ref: 4385.

**238 12 $\beta$ -Acetoxy-3 $\beta$ -hydroxy-24,25,26,27-tetranorcycloart-7-en-23,16 $\beta$ -olide 3-O- $\beta$ -D-xylopyranoside**

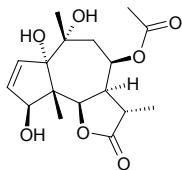
C<sub>33</sub>H<sub>48</sub>O<sub>9</sub> (588.75). White powder, [ $\alpha$ ]<sub>D</sub> = -134.9° (MeOH). Source: *Cimicifuga* sp. Ref: 4385.



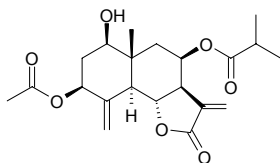
**239 8- $\beta$ -Acetoxysterone C**

$C_{17}H_{24}O_7$  (340.38). Viscous mass,  $[\alpha]_D^{25} = +32.67^\circ$  ( $c = 0.08$ , MeOH).

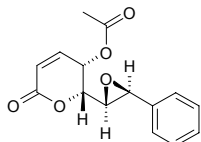
Source: YIN JIAO JU *Parthenium hysterophorus* (flower). Ref: 4489.

**240 3 $\beta$ -Acetoxy-8 $\beta$ -isobutyryloxyreynosin**

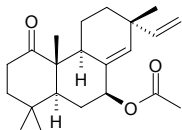
Anticancer Sesquiterpene PMV70P691-133  $C_{21}H_{28}O_7$  (392.45). Pharm: Cytotoxic (antiproliferative, Col2 cells,  $IC_{50} = 5.9\mu\text{g/mL}$ )<sup>[4622]</sup>; cytotoxic (cellular differentiation inducer, hmn promyelocytic leukemia HL-60 cells,  $4\mu\text{g/mL}$ , activity denotes percentage of cells differentiated = 33.9%)<sup>[4622, 5038]</sup>; cytotoxic (mouse mammary organ culture model (MMOC), inhibits DMBA-induced preneoplastic lesion formation,  $10\mu\text{g/mL}$ , rel-InRt = 63.0%, control DMBA, rel-InRt = 100%)<sup>[4622]</sup>. Source: ZHONG BIN JU *Tithonia diversifolia* (aerial parts: yield = 0.0035%dw)<sup>[4622]</sup>. Ref: 4622, 5038

**241 5-Acetoxyisogoniothalamine oxide**

$C_{15}H_{14}O_5$  (274.28). Pharm: NADH oxidase inhibitor (mammalian mitochondrial respiratory chain inhibitor,  $IC_{50} = (3.0\pm 0.3)\mu\text{mol/L}$ ,  $IC_{100} = (22\pm 2)\mu\text{mol/L}$ ). Source: TIAN YE GE NA XIANG *Goniothalamus arvensis* (stem bark). Ref: 3961.

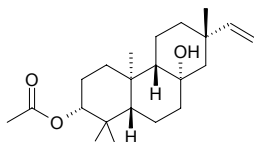
**242 7 $\beta$ -Acetoxyisopimara-8(14),15-dien-1-one**

$C_{22}H_{32}O_3$  (344.50). Amorphous powder,  $[\alpha]_D = +5.0^\circ$  ( $c = 0.5$ ,  $\text{CHCl}_3$ ). Pharm: Antifungal (TLC bioautographic assay, plant pathogenic fungus *Cladosporium cucumerinum*, MA = 25–50 $\mu\text{g}$ , yeast *Candida albicans*, MA = 25–50 $\mu\text{g}$ ). Source: PU FU QIANG DAO YAO *Hypoestes serpens*. Ref: 3438.

**243 ent-3 $\beta$ -Acetoxyisopimar-15-en-8 $\beta$ -ol**

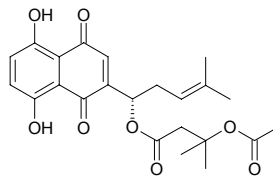
$C_{22}H_{36}O_3$  (348.53). mp 172.5–175 $^\circ\text{C}$ ,  $[\alpha]_D^{20} = -20.4^\circ$  ( $c = 0.11$ , MeOH).

Source: XIAO YE XIANG CHA CAI *Isodon parvifolia*. Ref: 4067.

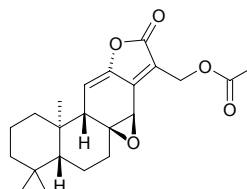
**244  $\alpha$ -Acetoxyisovalerylalkannin**

$C_{23}H_{26}O_8$  (430.46). Source: ZI CAO *Lithospermum erythrorhizon*, XIN

ZANG JIA ZI CAO *Arnebia euchroma*. Ref: 2193.

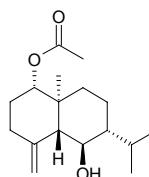
**245 17-Acetoxyjolkinoide A**

$C_{22}H_{26}O_5$  (372.47). Yellowish oil,  $[\alpha]_D^{20} = +70^\circ$  ( $c = 0.002$ ,  $\text{CHCl}_3$ ). Source: LANG DU DA JI *Euphorbia fischeriana*. Ref: 2350.

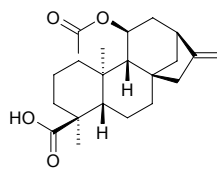
**246 1 $\alpha$ -Acetoxy-ent-junenol**

1 $\alpha,5\beta,6\beta,7\alpha,10\alpha$ -4(15)-Eudesmen-6-ol-1-yl-acetate  $C_{17}H_{28}O_3$  (280.41).

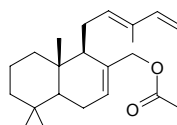
Amorphous powder,  $[\alpha]_D^{22} = -11.2^\circ$  ( $c = 0.45$ ,  $\text{CHCl}_3$ ). Source: JING HONG AN LUO *Polyalthia cheliensis*. Ref: 2095.

**247 ent-11 $\alpha$ -Acetoxykaur-16-en-18-oic acid**

$C_{22}H_{32}O_4$  (360.50). White amorphous powder,  $[\alpha]_D^{25} = -91.2^\circ$  ( $c = 0.60$ ,  $\text{CHCl}_3$ ). Pharm: Cytotoxic inactive (BST test). Source: DONG JIN BA DOU *Croton tonkinensis* (leaf). Ref: 4444.

**248 17-Acetoxyabda-7,12(E),14-triene**

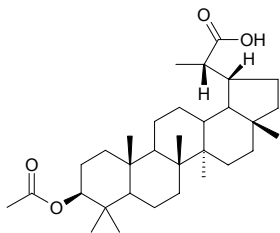
$C_{22}H_{34}O_2$  (330.52). Viscous liquid,  $[\alpha]_D^{20} = -10.71^\circ$  ( $c = 1.4$ ,  $\text{CHCl}_3$ ). Pharm: Cytotoxic (*in vitro*, BT474,  $IC_{50} = 4.7\mu\text{g/mL}$ , control Doxorubicin hydrochloride,  $IC_{50} = 0.08\mu\text{g/mL}$ ; CHAGO,  $IC_{50} = 5.7\mu\text{g/mL}$ , Doxorubicin hydrochloride,  $IC_{50} = 2.3\mu\text{g/mL}$ ; HepG2,  $IC_{50} = 6.5\mu\text{g/mL}$ , Doxorubicin hydrochloride,  $IC_{50} = 0.9\mu\text{g/mL}$ ; Kato3,  $IC_{50} = 5.3\mu\text{g/mL}$ , Doxorubicin hydrochloride,  $IC_{50} = 1.7\mu\text{g/mL}$ ; SW620,  $IC_{50} = 5.6\mu\text{g/mL}$ , Doxorubicin hydrochloride,  $IC_{50} = 1.1\mu\text{g/mL}$ ). Source: GUANG YE BA DOU *Croton oblongifolius* [Syn. *Croton laevigatus*]. Ref: 5363.



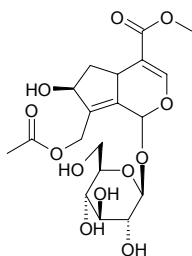


**249 (20S)-3 $\beta$ -Acetoxylupan-29-oic acid**

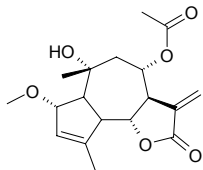
C<sub>32</sub>H<sub>52</sub>O<sub>4</sub> (500.77). Colorless solid, mp 287~290°C, [ $\alpha$ ]<sub>D</sub><sup>29</sup> = +18.9° (*c* = 0.7, CHCl<sub>3</sub>). **Source:** RONG SHU *Ficus microcarpa* (aerial root: yield = 0.000044%dw). **Ref:** 3047.

**250 10-Acetoxy majoroside**

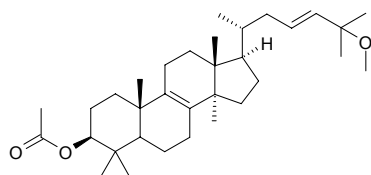
C<sub>19</sub>H<sub>26</sub>O<sub>12</sub> (446.41). [ $\alpha$ ]<sub>D</sub> = -59° (*c* = 0.3, MeOH). **Source:** DA CHE QIAN *Plantago major*, JIAO ZHUANG CHE QIAN *Plantago cornuti*. **Ref:** 2404.

**251 8-Acetoxy-2-methoxy-10-hydroxy-3,11(13)-guaiadien-12,6-olide**

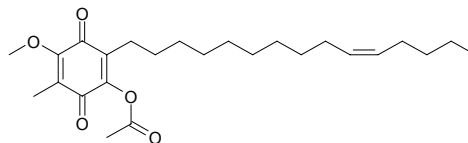
C<sub>18</sub>H<sub>24</sub>O<sub>6</sub> (336.39). [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +120.9° (*c* = 1.583, CHCl<sub>3</sub>). **Pharm:** Cytotoxic (*in vitro*, ACHN cell lines, IC<sub>50</sub> = (1.21±0.21)μg/mL, control Adriamycin, IC<sub>50</sub> = (0.09±0.03)μg/mL; LOX-IMVI, IC<sub>50</sub> = (4.86±0.34)μg/mL, Adriamycin, IC<sub>50</sub> = (0.05±0.02)μg/mL; SW620, IC<sub>50</sub> = (1.65±0.28)μg/mL, Adriamycin, IC<sub>50</sub> = (0.19±0.07)μg/mL; PC3, IC<sub>50</sub> = (4.00±0.15)μg/mL, Adriamycin, IC<sub>50</sub> = (0.76±0.12)μg/mL; A549, IC<sub>50</sub> = (3.53±0.26)μg/mL, Adriamycin, IC<sub>50</sub> = (0.28±0.09)μg/mL); anti-apoptosis (etoposide-induced, IC<sub>50</sub> = (8.6±0.7)μg/mL; control PDTC, IC<sub>50</sub> = (8.0±0.5)μg/mL). **Source:** BEI YE JU *Chrysanthemum boreale*. **Ref:** 5455.

**252 3 $\beta$ -Acetoxy-25-methoxy-lanosta-8,23-diene**

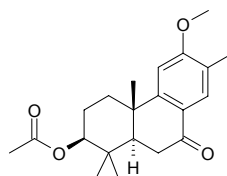
C<sub>33</sub>H<sub>54</sub>O<sub>3</sub> (498.80). Colorless solid, mp 148~150°C, [ $\alpha$ ]<sub>D</sub><sup>26</sup> = +30.4° (*c* = 2.7, CHCl<sub>3</sub>). **Pharm:** Cytotoxic inactive (HONE-1 cell, IC<sub>50</sub> > 10μmol/L; KB cell, IC<sub>50</sub> > 10μmol/L; HT29 cell, IC<sub>50</sub> > 10μmol/L). **Source:** RONG SHU *Ficus microcarpa* (aerial root). **Ref:** 5254.

**253 2-Acetoxy-5-methoxy-6-methyl-3-[(Z)-10'-pentadecenyl]-1,4-benzoquinone**

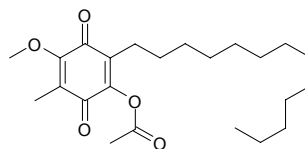
C<sub>25</sub>H<sub>38</sub>O<sub>5</sub> (418.58). Yellow gum. **Source:** PI ZHEN DU JING SHAN *Maesa lanceolata*. **Ref:** 1860.

**254 3 $\beta$ -Acetoxy-12-methoxy-13-methyl-podocarpa-8,11,13-trien-7-one**

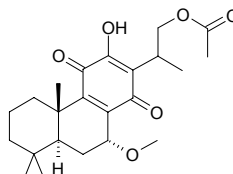
C<sub>21</sub>H<sub>28</sub>O<sub>4</sub> (344.45). White crystals, mp 158~159°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -25.2° (*c* = 0.5, CHCl<sub>3</sub>). **Source:** MA FENG SHU *Jatropha curcas* (aerial parts). **Ref:** 4287.

**255 2-Acetoxy-5-methoxy-6-methyl-3-tridecyl-1,4-benzoquinone**

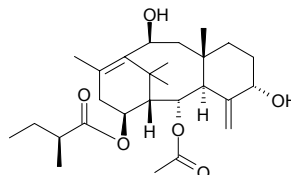
C<sub>23</sub>H<sub>36</sub>O<sub>5</sub> (392.54). Pale-yellow needles (hot *n*-hexane) mp 56~57°C **Source:** PI ZHEN DU JING SHAN *Maesa lanceolata*. **Ref:** 1860.

**256 16-Acetoxy-7 $\alpha$ -methoxyroyleanone**

C<sub>23</sub>H<sub>32</sub>O<sub>6</sub> (404.51). Yellow acicular crystals, mp 185~187°C, [ $\alpha$ ]<sub>D</sub> 16 = +12.3° (*c* = 0.3, methanol). **Source:** CHANG YE XIANG CHA CAI *Rabdosia stracheyi*. **Ref:** 76, 4067.

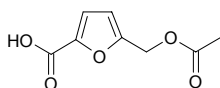
**257 2 $\alpha$ -Acetoxy-14 $\beta$ -[(S)-2-methyl-butryloxy]-4(20),11-taxadiene**

C<sub>27</sub>H<sub>42</sub>O<sub>6</sub> (462.63). **Source:** YUN NAN HONG DOU SHAN *Taxus yunnanensis* (wood). **Ref:** 5407.

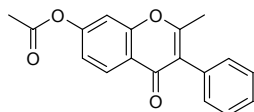


**258 5-(Acetoxymethyl)-furan-2-carboxylic acid**

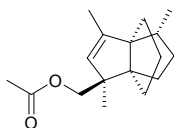
$C_8H_8O_5$  (184.15). Amorphous powder. **Pharm:** Antioxidant inactive (DPPH radical scavenger, 25 $\mu$ g/mL, ScRt = 5.9%; control BHT, 25 $\mu$ g/mL, ScRt = 18.6%); antioxidant inactive (thiobarbituric acid assay, inhibits peroxidation of linolenic acid, 37mg/mL, InRt = 2.3%; BHT 37mg/mL, InRt = 73.9%). **Source:** fungus *Epicoccum* sp. **Ref:** 5445.

**259 7-Acetoxy-2-methylisoflavone**

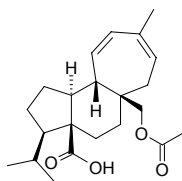
$C_{18}H_{14}O_4$  (294.31). **Source:** GUANG GUO GAN CAO *Glycyrrhiza glabra*. **Ref:** 2, 660.

**260 14-Acetoxymodhephene**

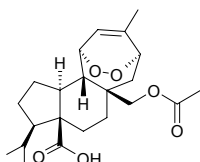
$C_{17}H_{26}O_2$  (262.40). Colorless oil,  $[\alpha]_{589nm} = +15^\circ$ ,  $[\alpha]_{578nm} = +16^\circ$ ,  $[\alpha]_{546nm} = +19^\circ$ ,  $[\alpha]_{436nm} = +31^\circ$ ,  $[\alpha]_{365nm} = +47^\circ$  ( $c = 2.02$ ,  $CHCl_3$ ). **Source:** JUAN MAO KUO BAO JU *Pluchea sericea*. **Ref:** 2277.

**261 17-Acetoxytulipin-11,13-dien-20-oic acid**

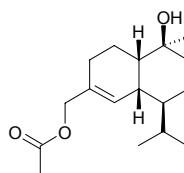
$C_{22}H_{32}O_4$  (360.50). **Pharm:** Antimalarial (*in vivo Plasmodium berghei* NK65 on infected mouse, ip 10mg/(kg·d), growth InRt on parasite erythrocytic life cycle = 60%; control Chloroquine,  $IC_{50} = 2.5$ mg/(kg·d)). **Source:** MI XIAO YING QIN *Azorella compacta* (aerial parts). **Ref:** 3815.

**262 17-Acetoxytulipinic acid**

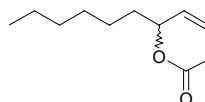
$C_{22}H_{32}O_6$  (392.50). **Pharm:** Antimalarial (*in vivo Plasmodium berghei* NK65 on infected mouse, ip 10mg/(kg·d), growth InRt on parasite erythrocytic life cycle = 26%; control Chloroquine,  $IC_{50} = 2.5$ mg/(kg·d)). **Source:** MI XIAO YING QIN *Azorella compacta* (aerial parts). **Ref:** 3815.

**263 15-Acetoxy-T-muurolool**

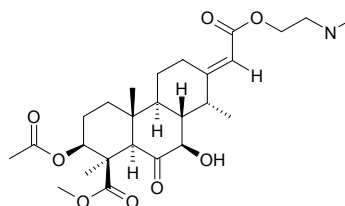
$C_{17}H_{28}O_3$  (280.41). Amorphous solid,  $[\alpha]_D^{31} = -51.2^\circ$  ( $c = 0.08$ ,  $CHCl_3$ ). **Source:** TAI WAN SHAN *Taiwania cryptomerioides* (root). **Ref:** 4371.

**264 3-Acetoxy-1-nonene**

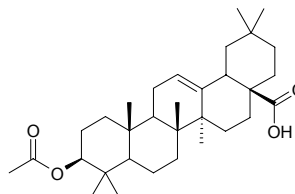
[31795-37-6]  $C_{11}H_{20}O_2$  (184.28). **Source:** FENG DOU CAI *Petasites japonicus*. **Ref:** 6.

**265 3β-Acetoxynererythrosumine**

[58189-26-7]  $C_{26}H_{39}NO_8$  (493.60). mp 173~175°C. **Pharm:** Cytotoxic (KB,  $ED_{50} = 0.003$  $\mu$ g/mL). **Source:** LU SUI GE MU *Erythrophleum chlorostachyum*. **Ref:** 1, 5, 661.

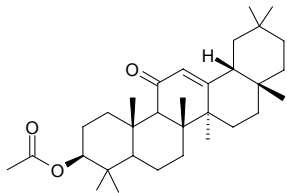
**266 3β-Acetoxyolean-12-en-28-oic acid**

3 $\beta$ -Acetyloleanolic acid [4339-72-4]  $C_{32}H_{50}O_4$  (498.75). Colorless acicular crystals, mp 258~268°C,  $[\alpha]_D^{25} = +74^\circ$  ( $c = 1.0$ ,  $CHCl_3$ ). **Pharm:** Cytotoxic (Col2,  $IC_{50} = 10.4$  $\mu$ g/mL, control Ellipticine,  $IC_{50} = 0.3$  $\mu$ g/mL; LNCaP,  $IC_{50} > 20$  $\mu$ g/mL; KB,  $IC_{50} > 20$  $\mu$ g/mL; LU1,  $IC_{50} > 20$  $\mu$ g/mL)<sup>[5400]</sup>; inhibits promotor of cancer (skin tumor); immunoenhancer; antimalarial (*Plasmodium falciparum* FcB1,  $IC_{50} = (7.65 \pm 0.49)$  $\mu$ g/mL; control Chloroquine,  $IC_{50} = (0.05 \pm 0.002)$  $\mu$ g/mL)<sup>[4419]</sup>. **Source:** BAI TOU WENG *Pulsatilla chinensis*, HUA MU PI *Betula platyphylla*, KUN MING SHAN HAI TANG *Tripterygium hypoglucum*, LONG NAO GAO XIANG *Dryobalanops aromatica*, MEI SHANG LU *Phytolacca americana* [Syn. *Phytolacca decandra*], NV ZHEN ZI *Ligustrum lucidum*, QIAN CAO GEN *Rubia cordifolia*, XIONG RUI ZHUANG SHU WEI CAO *Salvia staminea*, ZI MEI SHU *Millingtonia hortensis*, *Drypetes molunduana* (stem), *Nuxia sphaerocephala* (leaf). **Ref:** 6, 660, 1667, 1668, 3989, 4419, 5400.

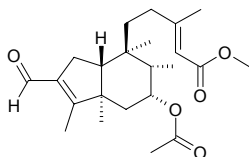


**267 3 $\beta$ -Acetoxy-12-oleanen-11-one**

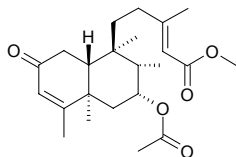
C<sub>32</sub>H<sub>50</sub>O<sub>3</sub> (482.75). Colorless solid (CH<sub>2</sub>Cl<sub>2</sub>), mp 283–286°C. Source: RONG SHU *Ficus microcarpa* (aerial root: yield = 0.00026%dw). Ref: 3047.

**268 7-Acetoxy-3-oxo-4(3→2)-abeo-2(4),13-clerodadien-15-oic acid methyl ester**

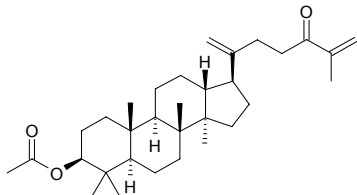
C<sub>23</sub>H<sub>34</sub>O<sub>5</sub> (390.52). [ $\alpha$ ]<sub>D</sub><sup>23</sup> = +12.0° (*c* = 0.69, CHCl<sub>3</sub>). Source: GAO YI ZHI HUANG HUA *Solidago altissima*. Ref: 2366.

**269 7-Acetoxy-2-oxo-3,13-clerodadien-15-oic acid methyl ester**

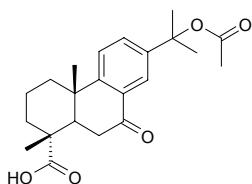
C<sub>23</sub>H<sub>34</sub>O<sub>5</sub> (390.52). mp 195–198°C (EtOAc), [ $\alpha$ ]<sub>D</sub><sup>22</sup> = –80.9° (*c* = 1.02, CHCl<sub>3</sub>). Source: GAO YI ZHI HUANG HUA *Solidago altissima*. Ref: 2366.

**270 3 $\beta$ -Acetoxy-24-oxo-dammara-20,25-diene**

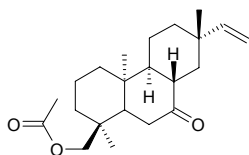
C<sub>32</sub>H<sub>50</sub>O<sub>3</sub> (482.75). Glassy amorphous solid. Source: XIAO SHE JU GEN *Microglossa pyrifolia*. Ref: 5374.

**271 15-Acetoxy-7-oxo-dehydroabietic acid**

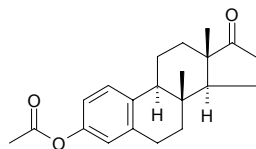
C<sub>22</sub>H<sub>28</sub>O<sub>5</sub> (372.47). Amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +7.2° (*c* = 0.34, CHCl<sub>3</sub>). Source: TAI WAN YUN SHAN *Picea morrisonicola* (heartwood). Ref: 4054.

**272 18-Acetoxy-7-oxo-9-epi-ent-pimara-15-ene**

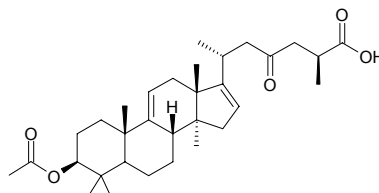
C<sub>22</sub>H<sub>34</sub>O<sub>3</sub> (346.51). Source: TENG CANG CHI MEI *Gibberella fujikuroi*. Ref: 3916.

**273 3-Acetoxy-17-oxo-estra-1,3,5(10)-triene**

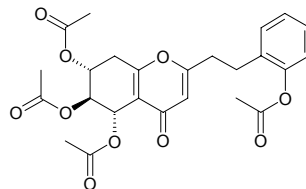
C<sub>20</sub>H<sub>24</sub>O<sub>3</sub> (312.41). Reddish plates (MeOH), mp 92–94°C. Source: DUAN ROU MAO ZHI XIE MU *Holarrhena pubescens* (bark). Ref: 5231.

**274 (25R)-3 $\beta$ -Acetoxy-23-oxo-9,16-lanostadien-26-oic acid**

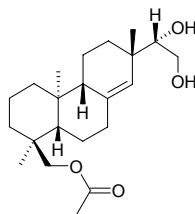
C<sub>32</sub>H<sub>48</sub>O<sub>5</sub> (512.74). Source: MEI LI TENG HUANG *Garcinia speciosa* (bark). Ref: 3762.

**275 (5S,6S,7R)-2-[2-(2-Acetoxyphenyl)ethyl]-5 $\alpha$ ,6 $\beta$ ,7 $\alpha$ -triacetoxy-5,6,7,8-tetrahydrochromone (AH9)**

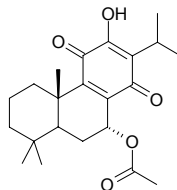
C<sub>25</sub>H<sub>26</sub>O<sub>10</sub> (486.48). Colorless acicular crystals, mp 147–148°C, [ $\alpha$ ]<sub>D</sub> = –11.1°. Source: CHEN XIANG *Aquilaria agallocha*. Ref: 13.

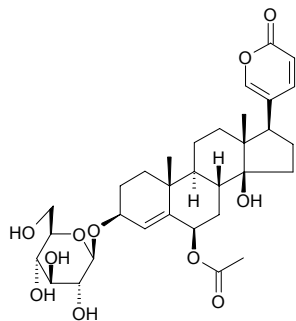
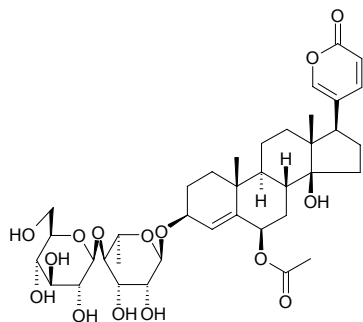
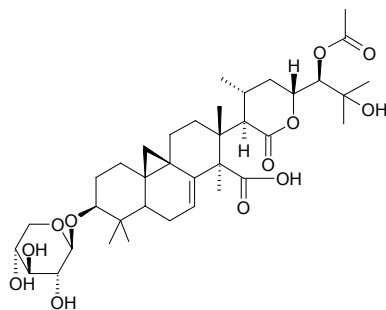
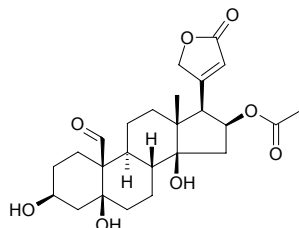
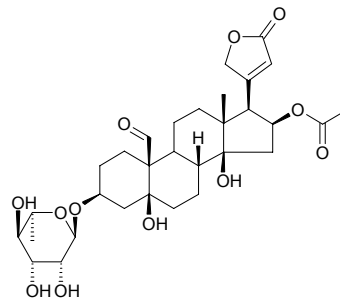
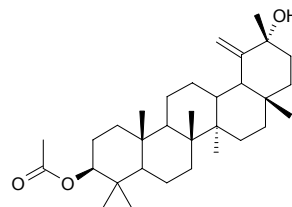
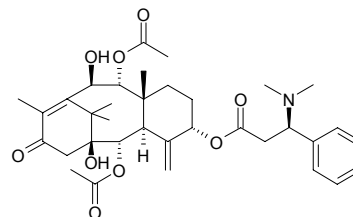
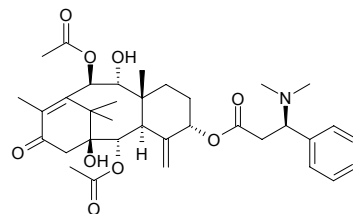
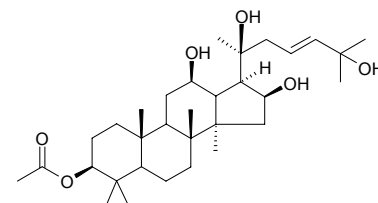
**276 ent-18-Acetoxy-8(14)-pimarene-15S,16-diol**

C<sub>22</sub>H<sub>36</sub>O<sub>4</sub> (364.53). Viscous oil, [ $\alpha$ ]<sub>D</sub><sup>26</sup> = –3.5° (*c* = 0.50, MeOH). Source: HAI NAN JIAN MU *Dysoxylum hainanense*. Ref: 750.

**277 7 $\alpha$ -Acetoxyroyleanone**

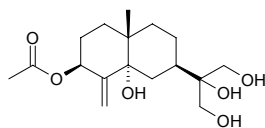
C<sub>22</sub>H<sub>30</sub>O<sub>5</sub> (374.48). Yellow crystals, mp 194–198°C. Source: XIU QIU SHU WEI CAO *Salvia hydrangea* (root). Ref: 5447.



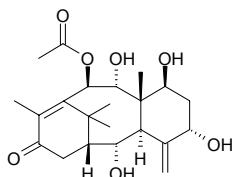
**278 6 $\beta$ -Acetoxy scillarenin 3-O- $\beta$ -D-glucopyranoside**C<sub>32</sub>H<sub>44</sub>O<sub>11</sub> (604.70). Amorphous powder,  $[\alpha]_D^{28} = -52.4^\circ$  ( $c = 8.04$ , MeOH).Source: HAI CONG *Urginea maritima* (bulb). Ref: 3513.**279 6 $\beta$ -Acetoxy scillarenin 3-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- $\alpha$ -L-rhamnopyranoside**C<sub>38</sub>H<sub>54</sub>O<sub>15</sub> (750.85). Amorphous powder,  $[\alpha]_D^{26} = -83.4^\circ$  ( $c = 0.6$ , MeOH).Source: HAI CONG *Urginea maritima* (bulb). Ref: 3513.**280 24-Acetoxy-15,16-seco-cycloart-7-en 3-O-xyloside**C<sub>37</sub>H<sub>56</sub>O<sub>12</sub> (692.85). White needles,  $[\alpha]_D = -31.2^\circ$  (MeOH). Source:*Cimicifuga* sp. (Rhizome). Ref: 4396.**281 16 $\beta$ -Acetoxystrophanthidin**C<sub>25</sub>H<sub>34</sub>O<sub>8</sub> (462.54). mp 232~237°C. Source: HEI GANG LIU *Periploca nigrescens*. Ref: 1521, 2498.**282 16 $\beta$ -Acetoxy-strophanthidin-3- $\beta$ -D-O-rhamnoside**C<sub>31</sub>H<sub>44</sub>O<sub>12</sub> (608.69). mp 262~268°C,  $[\alpha]_D = -13.4^\circ$ . Source: HEI GANG LIU*Periploca nigrescens*. Ref: 1521, 2498.**283 3 $\beta$ -Acetoxy-19(29)-taraxasten-20 $\alpha$ -ol**C<sub>32</sub>H<sub>52</sub>O<sub>3</sub> (484.77). Colorless solid, mp 245~248°C,  $[\alpha]_D^{24} = +55.3^\circ$  ( $c = 0.5$ , CHCl<sub>3</sub>). Source: RONG SHU *Ficus microcarpa* (aerial root). Ref: 5254.**284 9-Acetoxytaxine B**C<sub>35</sub>H<sub>47</sub>NO<sub>9</sub> (625.77). Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.**285 10-Acetoxytaxine B**C<sub>35</sub>H<sub>47</sub>NO<sub>9</sub> (625.77). Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.**286 (20S)-3 $\beta$ -Acetoxy-12 $\beta$ ,16 $\beta$ ,25-tetrahydrodammar-23-ene**C<sub>32</sub>H<sub>54</sub>O<sub>6</sub> (534.78). Colorless crystals, mp 244~246°C,  $[\alpha]_D^{25} = +76^\circ$  ( $c = 1.0$ , CH<sub>2</sub>Cl<sub>2</sub>). Source: HUN XIAO MO YAO *Commiphora confusa* (resin). Ref: 4335.

**287 3 $\beta$ -Acetoxy-5 $\alpha$ ,11,12,13-tetrahydroxy-eudesm-4(15)-ene**

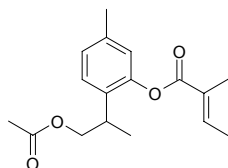
C<sub>17</sub>H<sub>28</sub>O<sub>6</sub> (328.41). [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +6.9° (c = 0.42, CHCl<sub>3</sub>). Source: XI LA SI MAO SHI *Achillea holosericea*. Ref: 2008.

**288 10 $\beta$ -Acetoxy-2 $\alpha$ ,5 $\alpha$ ,7 $\beta$ ,9 $\alpha$ -tetrahydroxytaxa-4(20),11-dien-13-one**

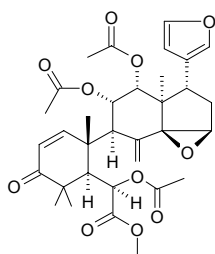
C<sub>22</sub>H<sub>32</sub>O<sub>7</sub> (408.50). Colorless amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +22.2° (c = 0.16, CHCl<sub>3</sub>). Source: YUN NAN HONG DOU SHAN *Taxus yunnanensis* (bark). Ref: 3481.

**289 9-Acetoxythymo 13-O-tiglate**

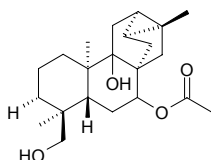
C<sub>17</sub>H<sub>22</sub>O<sub>4</sub> (290.36). [ $\alpha$ ]<sub>D</sub><sup>24</sup> = -10.5° (c = 0.57, CHCl<sub>3</sub>). Source: PEI LAN *Eupatorium fortunei* (aerial parts). Ref: 3077.

**290 Acetoxytoonacilin**

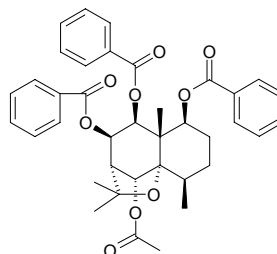
[66610-70-6] C<sub>33</sub>H<sub>40</sub>O<sub>11</sub> (612.68). Prismatic crystals, mp 215°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +42.5° (c = 1g/100ml, chloroform). Pharm: Pesticide. Source: HONG CHUN *Toona ciliata*. Ref: 661.

**291 7 $\beta$ -Acetoxytrachyloban-18-oic acid**

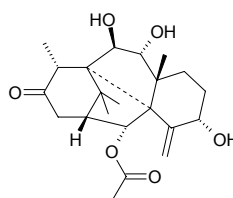
C<sub>22</sub>H<sub>34</sub>O<sub>4</sub> (362.51). Source: ZAN BI XI BA DOU *Croton zambesicus*. Ref: 4552.

**292 6 $\alpha$ -Acetoxy-1 $\beta$ ,8 $\beta$ ,9 $\beta$ -tribenzoyloxy- $\beta$ -dihydroagarofuran**

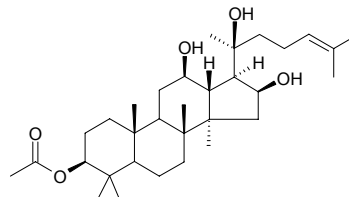
C<sub>38</sub>H<sub>40</sub>O<sub>9</sub> (640.74). Pharm: NO production inhibitor (mus, macrophage RAW264.7 cells activated by LPS, very weak activity). Source: NAN SHE TENG GUO *Celastrus orbiculatus* [Syn. *Celastrus articulatus*]. Ref: 2584.

**293 (12 $\alpha$ )-2 $\alpha$ -Acetoxy-5 $\alpha$ ,9 $\alpha$ ,10 $\beta$ -trihydroxy-3,11-cyclotax-4(20)-en-13-one**

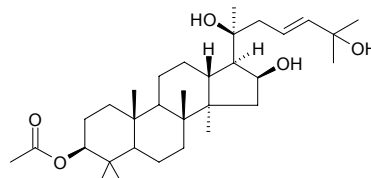
C<sub>22</sub>H<sub>32</sub>O<sub>6</sub> (392.50). Gum, [ $\alpha$ ]<sub>D</sub><sup>24</sup> = -17° (c = 0.01, CHCl<sub>3</sub>). Source: YUN NAN HONG DOU SHAN *Taxus yunnanensis* (seed). Ref: 3991.

**294 3 $\beta$ -Acetoxy-12 $\beta$ ,16 $\beta$ ,20S-trihydroxydammar-24-ene**

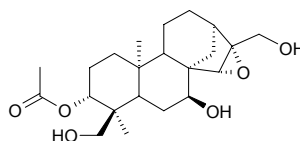
C<sub>32</sub>H<sub>54</sub>O<sub>5</sub> (518.78). Colorless needles, mp 188~190°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +46.7° (c = 1.0, CH<sub>2</sub>Cl<sub>2</sub>). Source: HUN XIAO MO YAO *Commiphora confusa* (resin). Ref: 4335.

**295 3 $\beta$ -Acetoxy-16 $\beta$ ,20S,25-trihydroxydammar-23-ene**

C<sub>32</sub>H<sub>54</sub>O<sub>5</sub> (518.78). Colorless needles, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +38.3° (c = 0.5, CH<sub>2</sub>Cl<sub>2</sub>). Source: KU A MO YAO *Commiphora kua* (resin). Ref: 4334.

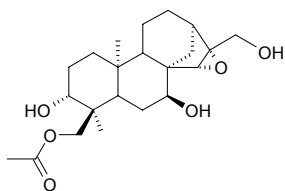
**296 ent-3 $\beta$ -Acetoxy-7 $\alpha$ ,17,18-trihydroxy-15 $\beta$ ,16 $\beta$ -epoxykaurane**

C<sub>22</sub>H<sub>34</sub>O<sub>6</sub> (394.51). Syrup, [ $\alpha$ ]<sub>D</sub> = +13.5° (c = 1, CHCl<sub>3</sub>). Source: MU ER DU MA CAO *Sideritis moorei* (aerial parts). Ref: 5295.

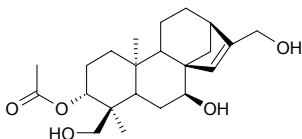


**297 ent-18-Acetoxy-3 $\beta$ ,7 $\alpha$ ,17-trihydroxy-15 $\beta$ ,16 $\beta$ -epoxykaurane**

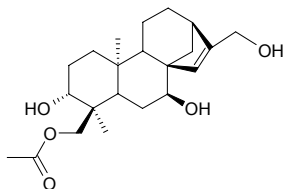
C<sub>22</sub>H<sub>34</sub>O<sub>6</sub> (394.51). White solid, mp 134–136°C, [ $\alpha$ ]<sub>D</sub> = +12.8° (c = 0.5, CHCl<sub>3</sub>). Source: MU ER DU MA CAO *Sideritis moorei* (aerial parts). Ref: 5295.

**298 ent-3 $\beta$ -Acetoxy-7 $\alpha$ ,17,18-trihydroxykaur-15-ene**

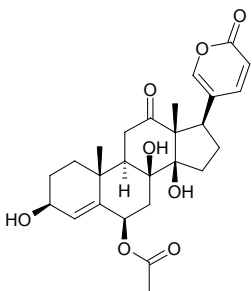
C<sub>22</sub>H<sub>34</sub>O<sub>5</sub> (378.51). White solid, mp 147–149°C, [ $\alpha$ ]<sub>D</sub> = +13.2° (c = 0.5, CHCl<sub>3</sub>). Source: MU ER DU MA CAO *Sideritis moorei* (aerial parts). Ref: 5295.

**299 ent-18-Acetoxy-3 $\beta$ ,7 $\alpha$ ,17-trihydroxykaur-15-ene**

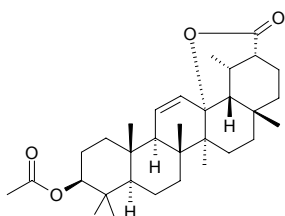
C<sub>22</sub>H<sub>34</sub>O<sub>5</sub> (378.51). Syrup, [ $\alpha$ ]<sub>D</sub> = +8.6° (c = 0.63, CHCl<sub>3</sub>). Source: MU ER DU MA CAO *Sideritis moorei* (aerial parts). Ref: 5295.

**300 6 $\beta$ -Acetoxy-3 $\beta$ ,8 $\beta$ ,14 $\beta$ -trihydroxy-12-oxobufa-4,20,22-trienolide**

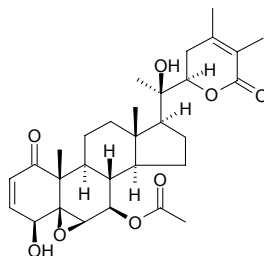
C<sub>26</sub>H<sub>32</sub>O<sub>8</sub> (472.54). Yellow amorphous compound. Source: CHU TU HAI CONG *Urginea epigea* (bulb). Ref: 3882.

**301 3 $\beta$ -Acetoxy-11-ursen-13 $\alpha$ ,30-olide**

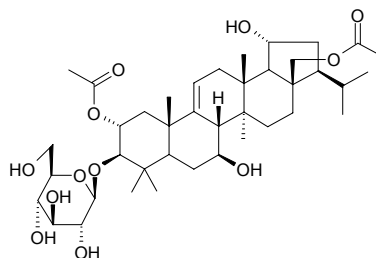
C<sub>32</sub>H<sub>48</sub>O<sub>4</sub> (496.74). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +46.9° (c = 0.3, MeOH). Source: NAN RI BEN LEI GONG TENG *Tripterygium doianum*. Ref: 1916.

**302 7 $\beta$ -Acetoxywithanolide D**

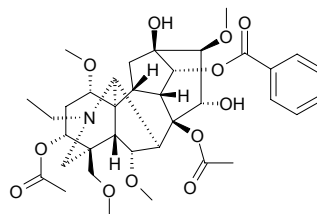
7 $\beta$ -Acetoxy-4 $\beta$ ,20R-dihydroxy-5 $\beta$ ,6 $\beta$ -epoxy-1-oxo-witha-2,24-dienolide C<sub>30</sub>H<sub>40</sub>O<sub>8</sub> (528.65). mp 151–153°C (EtOAc). Source: BA XI YE YAN *Acnistus arborescens*. Ref: 2003.

**303 2-O-Acetyl-28-O-acetyl-rubianoside IV**

C<sub>40</sub>H<sub>64</sub>O<sub>12</sub> (736.95). Pharm: Anti-inflammatory inactive (inhibits nitric oxide production, LPS-activated mouse peritoneal macrophages, 100 $\mu$ mol/L, InRt = (0.1 $\pm$ 0.3)%, control L-NMMA, IC<sub>50</sub> = 57 $\mu$ mol/L);  $\beta$ -hexosaminidase inhibitor inactive (rat basophilic cell RBL-2H3, inhibits release of  $\beta$ -hexosaminidase, 100 $\mu$ mol/L, InRt = (1.2 $\pm$ 2.4)%). Source: XIAO HONG SHEN *Rubia yunnanensis* (root). Ref: 4347.

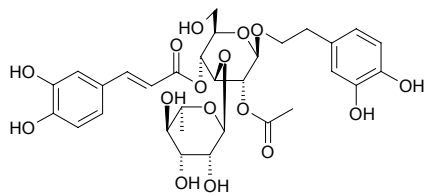
**304 3-Acetylaconitine**

Flaconitine [77181-26-1] C<sub>36</sub>H<sub>49</sub>NO<sub>12</sub> (687.79). White crystals (absolute alcohol), mp 196–197°C, [ $\alpha$ ]<sub>D</sub><sup>24</sup> = +18.6° (c = 1, chloroform). Pharm: Anti-inflammatory; antipyretic; causes arrhythmia (rat, iv, 0.097mg/kg); antihypertensive (dose < 0.097mg/kg); inhibits myocardial contractility (dose < 0.097mg/kg); analgesic (for all 1500 cases in clinic, analgesic effective rate = (95–97)%, non-habitual); LD<sub>50</sub> (mus, sc) = 1.4mg/kg, (mus, iv) = 0.470mg/kg. Source: BEI WU TOU *Aconitum kusnezoffii*, XUAN WEI WU TOU *Aconitum nagarum* var. *lasiandrum*. Ref: 900.

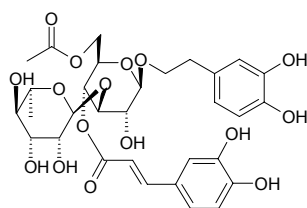


**305 2'-Acetyllactoside**

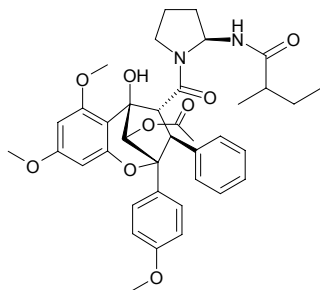
[94492-24-7] C<sub>31</sub>H<sub>38</sub>O<sub>16</sub> (666.64). Source: GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *huechingsensis*], ROU CONG RONG *Cistanche deserticola*. Ref: 2, 628.

**306 6'-O-Acetyllactoside**

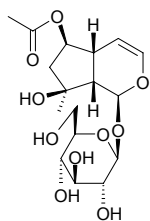
C<sub>31</sub>H<sub>38</sub>O<sub>16</sub> (666.64). Pharm: Elastase inhibitor (hmn leukocyte *in vitro*, IC<sub>50</sub> = 47 μg/mL = 70 μmol/L; control Caffeic acid, IC<sub>50</sub> = 86 μg/mL = 475 μmol/L). Source: NAN FEI GOU MA *Harpagophytum procumbens*. Ref: 5458.

**307 10-O-Acetylglaine B**

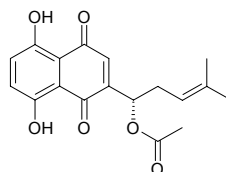
C<sub>38</sub>H<sub>44</sub>N<sub>2</sub>O<sub>9</sub> (672.78). Amorphous powder, [α]<sub>D</sub><sup>20</sup> = +20.4° (c = 0.83, MeOH). Source: TUE YUAN MI ZI LAN *Aglaia elliptica* (leaf). Ref: 4127.

**308 6-O-Acetylajugol**

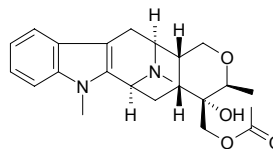
C<sub>17</sub>H<sub>26</sub>O<sub>10</sub> (390.39). Powder. Source: BO SI YI MU CAO *Leonurus persicus*. Ref: 2499.

**309 Acetylalkannin**

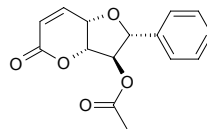
C<sub>18</sub>H<sub>18</sub>O<sub>6</sub> (330.34). Red acicular crystals (petroleum spirit), mp 92–94°C. Pharm: Anti-inflammatory (rat, tampon granuloma and swell-foot induced by formaldehyde); platelet aggregation inhibitor; antioxidant. Source: ZI CAO *Lithospermum erythrorhizon*, XIN ZANG JIA ZI CAO *Arnebia euchroma*, JIA ZI CAO *Arnebia guttata*, DIAN ZI CAO *Onosma paniculatum*. Ref: 1, 2, 658, 660, 2193.

**310 Acetyl-alstohentine**

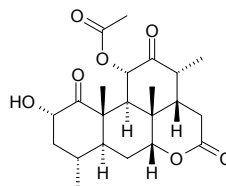
C<sub>23</sub>H<sub>30</sub>N<sub>2</sub>O<sub>4</sub> (398.51). Source: DA YE TANG JIAO SHU *Alstonia macrophylla* (leaf). Ref: 3020.

**311 3-Acetylalholactone**

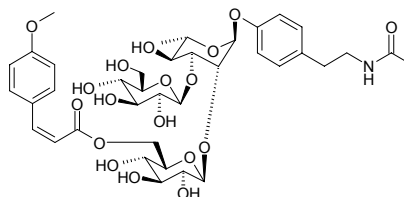
C<sub>15</sub>H<sub>14</sub>O<sub>5</sub> (274.28). mp 140–142°C, [α]<sub>D</sub> = +166.6° (c = 0.3, EtOH). Pharm: NADH oxidase inhibitor (mammalian mitochondrial respiratory chain inhibitor, IC<sub>50</sub> = (4.7±1.6) μmol/L, IC<sub>100</sub> = (32±4) μmol/L). Source: TIAN YE GE NA XIANG *Goniotalamus arvensis* (stem bark). Ref: 3961.

**312 Acetylamarolide**

C<sub>22</sub>H<sub>30</sub>O<sub>7</sub> (406.48). mp 264–265°C. Source: CHU BAI PI *Ailanthus altissima*. Ref: 6.

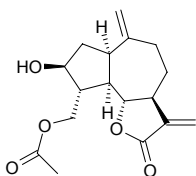
**313 4-Acetylaminoethylphenyl-1-O-[6-O-(Z)-p-methoxycinnamoyl-β-D-glucopyranosyl(1→2)]-β-D-glucopyranosyl(1→3)-α-L-rhamnopyranoside**

C<sub>38</sub>H<sub>51</sub>NO<sub>18</sub> (809.83). White needles (MeOH), mp 198–199°C, [α]<sub>D</sub><sup>25</sup> = –14.1° (c = 0.75, MeOH). Source: SI CHI SI LENG CAO *Schnabelia tetradonta* (aerial part; yield = 0.00062%dw). Ref: 4665.

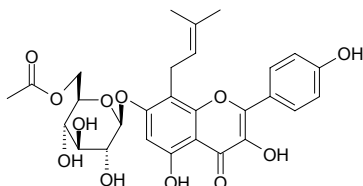


**314 15-O-Acetylamphoricarpolide**

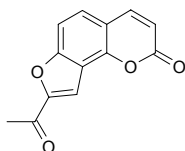
$C_{17}H_{22}O_5$  (306.36). Colorless oil,  $[\alpha]_D^{25} = -40.5^\circ$  ( $c = 0.44$ ,  $CHCl_3$ ). Source: *Amphoricarpus neumayeri* ssp. *neumayeri* (aerial parts), *Amphoricarpus neumayeri* ssp. *murbeckii* (aerial parts). Ref: 3842.

**315 6'''-O-Acetylamurensin**

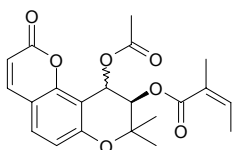
$C_{28}H_{30}O_{12}$  (558.54). Yellow powder, mp 235~237°C,  $[\alpha]_D^{25} = -91.3^\circ$  ( $c = 0.05$ , MeOH). Source: RI BEN HUANG BAI *Phellodendron japonicum* (leaf). Ref: 4502.

**316 2'-Acetylangelicin**

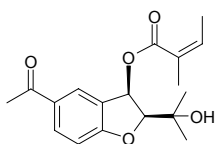
$C_{13}H_8O_4$  (228.21). Light yellow acicular crystals, mp 200~202°C (ethanol). Source: SHE CHUANG ZI *Cnidium monnieri*. Ref: 352.

**317 (±)-4'-O-Acetyl-3'-O-angeloyl-cis-khellactone**

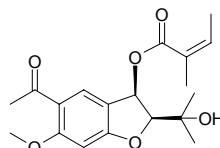
$C_{21}H_{22}O_7$  (386.41). Pharm: Induces mitochondria-mediated apoptosis (HL-60 cells). Source: BAI HUA QIAN HU *Peucedanum praeruptorum* (root). Ref: 4983.

**318 5-Acetyl-3β-angeloyloxy-2β-(1-hydroxyisopropyl)-2,3-dihydrobenzofuran**

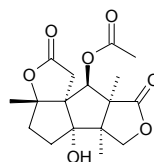
$C_{18}H_{22}O_5$  (318.37). Yellowish oil,  $[\alpha]_D^{25} = -75.7^\circ$  ( $c = 0.57$ ,  $CHCl_3$ ). Pharm: Antifungal (*Trichophyton mentagrophytes* ATCC28185, MIC = 200μg/mL, control Miconazole, MIC = 8μg/mL; *Trichophyton rubrum* ATCC28188, MIC = 100μg/mL, Miconazole, MIC = 8μg/mL). Source: *Eupatorium aschenbornianum*. Ref: 5472.

**319 5-Acetyl-3β-angeloyloxy-2β-(1-hydroxyisopropyl)-6-methoxy-2,3-dihydrobenzofuran**

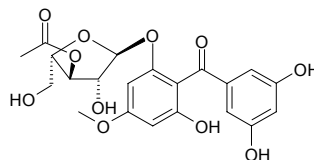
$C_{19}H_{24}O_6$  (348.40). Colorless oil,  $[\alpha]_D^{25} = -30.4^\circ$  ( $c = 0.53$ ,  $CHCl_3$ ). Pharm: Antifungal (*Trichophyton mentagrophytes* ATCC28185, MIC = 50μg/mL, control Miconazole, MIC = 8μg/mL; *Trichophyton rubrum* ATCC28188, MIC = 50μg/mL, Miconazole, MIC = 8μg/mL). Source: *Eupatorium aschenbornianum*. Ref: 5472.

**320 7-O-Acetylanislactone B**

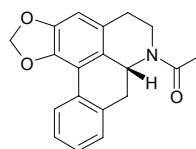
$C_{17}H_{22}O_7$  (338.36). Source: *Illicium merrillianum* (pericarp: yield = 0.00006%dw). Ref: 3046.

**321 Acetylannulatophenonoside**

$C_{21}H_{22}O_{11}$  (450.40). Colorless prismatic crystals ( $H_2O-EtOH$ ), mp 177.5~179.5°C,  $[\alpha]_D^{20} = -7.48^\circ$  ( $c = 1.055$ , MeOH). Source: HUAN ZHUANG JIN SI TAO *Hypericum annulatum*. Ref: 2009.

**322 N-Acetylanonaine**

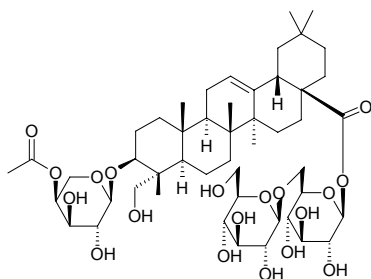
$C_{19}H_{17}NO_3$  (307.35). Pharm: Platelet aggregation inhibitor (rat blood: 2~5μmol/L ADP-induced,  $IC_{50} = 450\mu mol/L$ , control Acetylsalicylic acid,  $IC_{50} > 1000\mu mol/L$ ; 2~5μg/mL collagen-induced,  $IC_{50} = 32\mu mol/L$ , Acetylsalicylic acid,  $IC_{50} = 420\mu mol/L$ ; 1~4μmol/L epinephrine-induced with threshold concentration of collagen (0.8~1.0μg/mL),  $IC_{50} = 0.39\mu mol/L$ , Acetylsalicylic acid,  $IC_{50} = 53\mu mol/L$ ; 10~40μmol/L AA-induced with threshold concentration of collagen (0.8~1.0μg/mL),  $IC_{50} = 0.25\mu mol/L$ , Acetylsalicylic acid,  $IC_{50} = 66\mu mol/L$ ; 1~5μmol/L U46619-induced with threshold concentration of collagen (0.8~1.0μg/mL),  $IC_{50} = 3.6\mu mol/L$ , Acetylsalicylic acid,  $IC_{50} = 340\mu mol/L$ ; 1~2μmol/L hmn U46619 in 1mmol/L acetylsalicylic acid-induced,  $IC_{50} = 64\mu mol/L$ , control Pentolamine,  $IC_{50} > 100\mu mol/L$ , control Yohimbine,  $IC_{50} > 100\mu mol/L$ ). Source: RI BEN HOU PO *Magnolia obovata* (leaf). Ref: 5381.





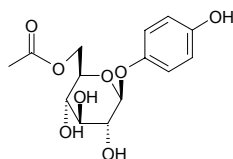
**323 3-O-(4-O-Acetyl)- $\alpha$ -L-arabinopyranosyl-hederagenin 28-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranoside**

C<sub>49</sub>H<sub>78</sub>O<sub>19</sub> (971.16). White powder, mp 198–201°C, [ $\alpha$ ]<sub>D</sub><sup>23</sup> = +19.7° (c = 0.25, methanol). Source: CHUAN XU DUAN *Dipsacus asperoides*. Ref: 201.



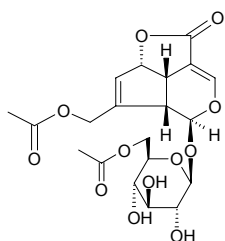
**324 6-O-Acetylbutin**

Pyroside [10338-88-2] C<sub>14</sub>H<sub>18</sub>O<sub>8</sub> (314.29). mp 214–216°C, [ $\alpha$ ]<sub>D</sub><sup>23</sup> = –58.8° (c = 2.0, H<sub>2</sub>O). Source: XI YANG LI *Pyrus communis*, YUE JU YE *Vaccinium vitis-idaea*. Ref: 6, 1521.



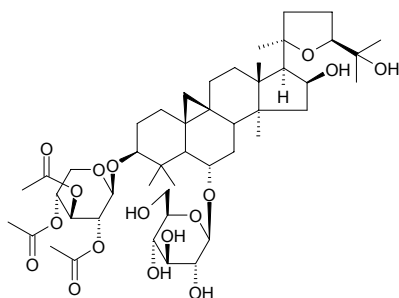
**325 6'-Acetyl asperuloside**

C<sub>20</sub>H<sub>24</sub>O<sub>12</sub> (456.41). White powder, [ $\alpha$ ]<sub>D</sub> = –104.6° (c = 0.085, methanol). Source: JIN MAO ER CAO *Hedyotis chrysotricha* [Syn. *Oldenlandia chrysotricha*]. Ref: 400.



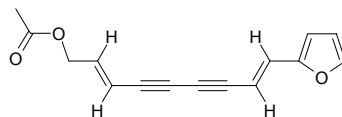
**326 Acetyl astragaloside I**

C<sub>47</sub>H<sub>74</sub>O<sub>17</sub> (911.10). Source: HUANG QI *Astragalus membranaceus*. Ref: 660.



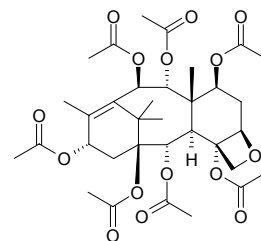
**327 Acetyl-atractylodinol**

[61582-39-6] C<sub>15</sub>H<sub>12</sub>O<sub>3</sub> (240.26). Source: BEI CANG ZHU *Atractylodes chinensis*. Ref: 2.



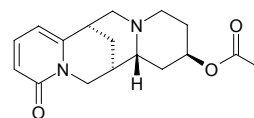
**328 1 $\beta$ -Acetylbaccatin IV**

C<sub>34</sub>H<sub>46</sub>O<sub>15</sub> (694.74). Source: YUN NAN HONG DOU SHAN *Taxus yunnanensis*. Ref: 662.



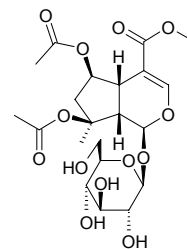
**329 13-O-Acetylbaptifoline**

C<sub>17</sub>H<sub>22</sub>N<sub>2</sub>O<sub>3</sub> (302.38). Colorless oleaginous substance, [ $\alpha$ ]<sub>D</sub> = –101° (c = 0.18, EtOH). Source: MU MA DOU *Thermopsis lanceolata*. Ref: 699.



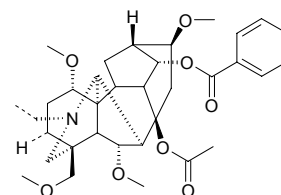
**330 Acetylbarlerin**

C<sub>21</sub>H<sub>30</sub>O<sub>13</sub> (490.47). [ $\alpha$ ]<sub>D</sub><sup>30</sup> = –113.7° (c = 0.105, MeOH). Pharm: Cytotoxic inactive (Vero cells)<sup>[5456]</sup>; COX-2 inhibitor inactive<sup>[5456]</sup>. Source: HUA YE JIA DU JUAN *Barleria lupulina* (flower). Ref: 5456.



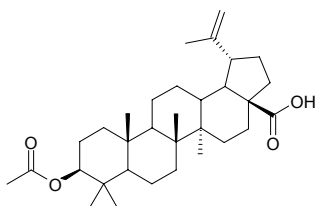
**331 8-Acetyl-14-benzoylchamanine**

[4296-54-2] C<sub>34</sub>H<sub>47</sub>NO<sub>8</sub> (597.76). Colorless acicular crystals, mp 150–152°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +9.8° (c = 0.08, ethanol). Source: SONG PAN WU TOU *Aconitum sungpanense*. Ref: 107.

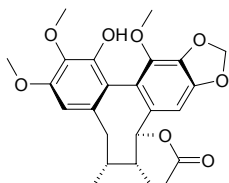


**332 Acetylbetulinic acid**

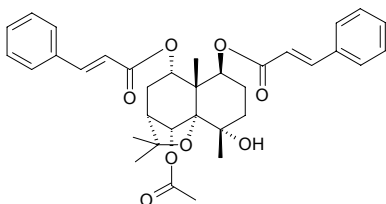
$C_{32}H_{50}O_4$  (498.75). **Pharm:** Cytotoxic (*in vitro*, HONE-1 cell,  $IC_{50}$  =  $(4.7 \pm 1.9) \mu\text{mol/L}$ , control Etoposide,  $IC_{50}$  =  $(0.5 \pm 0.2) \mu\text{mol/L}$ , *cis*-Platin,  $IC_{50}$  =  $(3.2 \pm 0.5) \mu\text{mol/L}$ ; KB cell,  $IC_{50}$  =  $(6.7 \pm 2.6) \mu\text{mol/L}$ , Etoposide,  $IC_{50}$  =  $(0.9 \pm 0.3) \mu\text{mol/L}$ , *cis*-Platin,  $IC_{50}$  =  $(4.4 \pm 0.9) \mu\text{mol/L}$ ; HT29 cell,  $IC_{50}$  >  $10 \mu\text{mol/L}$ , Etoposide,  $IC_{50}$  =  $(2.4 \pm 0.5) \mu\text{mol/L}$ , *cis*-Platin,  $IC_{50}$  =  $(5.7 \pm 1.1) \mu\text{mol/L}$ ). **Source:** RONG SHU *Ficus microcarpa* (aerial root). **Ref:** 5254.

**333 Acetylbinankadsurin A**

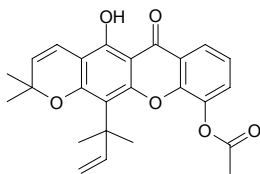
$C_{24}H_{28}O_8$  (444.49). **Source:** RI BEN NAN WU WEI ZI *Kadsura japonica*. **Ref:** 660.

**334 5 $\alpha$ -Acetyl-1 $\beta$ ,8 $\alpha$ -bis-cinnamoyl-4 $\alpha$ -hydroxydihydroagarofuran**

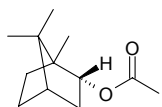
$C_{35}H_{40}O_8$  (588.70). Amorphous powder,  $[\alpha]_D^{25} = +198.0^\circ$  ( $c = 0.3$ , MeOH). **Source:** NAN RI BEN LEI GONG TENG *Tripterygium doianum*. **Ref:** 1916.

**335 Acetyl blancoxanthone**

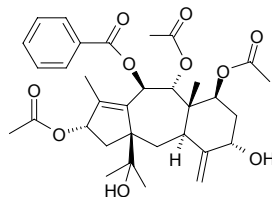
$C_{25}H_{24}O_6$  (420.47). Yellowish powder. **Source:** *Calophyllum blancoi* (root). **Ref:** 4441.

**336 Acetylborneol**

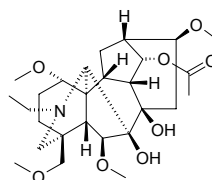
1,7,7-Trimethyl-acetate-endobicyclo[2.2.1]heptan-2-ol [76-49-3]  $C_{12}H_{20}O_2$  (196.29). mp 26.5–29.0°C, bp 225–226°C. **Source:** HOU PO *Magnolia officinalis*, HUANG HUA HAO *Artemisia annua*, LIAO XI XIN *Asarum heterotropoides* var. *mandshuricum*, QIANG HUO *Notopterygium incisum*, SHENG JIANG *Zingiber officinale*, WU WEI ZI *Schisandra chinensis*, XI XIN *Asarum sieboldii*, YIN CHEN HAO *Artemisia capillaris*, YU XING CAO *Houttuynia cordata*. **Ref:** 1, 2, 6, 660.

**337 13-Acetylbrevifoliosol**

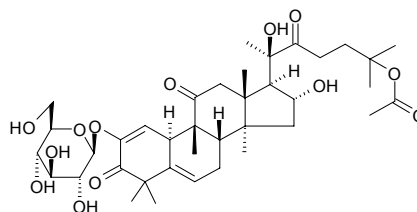
$C_{33}H_{42}O_{10}$  (598.70).  $[\alpha]_D = +8^\circ$  (MeOH). **Source:** XI MA LA YA HONG DOU SHAN *Taxus wallichiana*. **Ref:** 662.

**338 Acetylbrowniine**

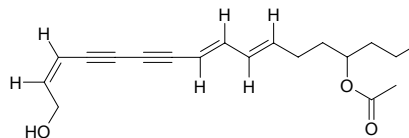
[65601-04-9]  $C_{27}H_{43}NO_8$  (509.65). **Pharm:** Ileal smooth muscle stimulant (gpg, 0.2mmol/L). **Source:** XI SHAN CUI QUE *Delphinium oreophilum*, LIANG SI FEI YAN CAO *Consolida ambigua*. **Ref:** 658.

**339 25-O-Acetylbryomaride**

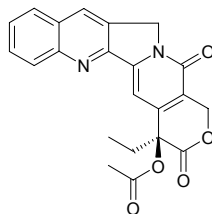
$C_{38}H_{56}O_{13}$  (720.86). Pale yellow amorphous solid,  $[\alpha]_D = -61.0^\circ$  ( $c = 0.94$ ,  $CHCl_3$ ). **Source:** FENG GUA *Gymnopetalum integrifolium* (fruit). **Ref:** 4189.

**340 Acetyl-bupleurotoxin**

$C_{19}H_{24}O_3$  (300.40). Colorless lamellar crystals, mp 48°C,  $[\alpha]_D^{18} = -10^\circ$  ( $c = 0.04$ , methanol). **Pharm:** Toxin. **Source:** DA YE CHAI HU *Bupleurum longiradiatum*. **Ref:** 81.

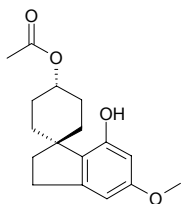
**341 20-O-Acetylcamptothecin**

$C_{22}H_{18}N_2O_5$  (390.40). **Source:** XI SHU *Camptotheca acuminata*. **Ref:** 4097.

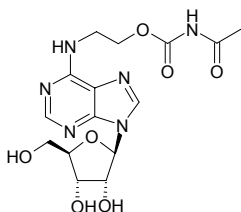


**342 Acetyl cannabispipol**

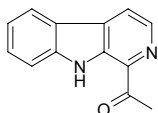
$C_{17}H_{22}O_4$  (290.36). Source: MA YE *Cannabis sativa*. Ref: 660.

**343  $N^6$ -[ $\beta$ -(Acetylcarbamoyloxy)ethyl] adenosine**

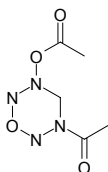
$C_{15}H_{20}N_6O_7$  (396.36). White crystal powder. Source: REN GONG YONG CHONG CAO *Cordyceps militaris* cv. Ref: 858.

**344 1-Acetyl- $\beta$ -carboline**

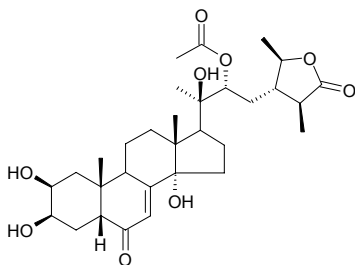
[50892-83-6]  $C_{13}H_{10}N_2O$  (210.24). Source: KU MU *Picrasma quassioides* [Syn. *Picrasma ailanthoides*]. Ref: 12.

**345 3-Acetyl-5-carbomethoxy-2H-3,4,5,6-tetrahydro-1-oxa-2,3,5,6-tetrazine**

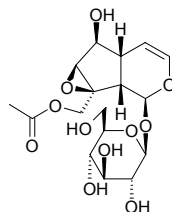
$C_5H_{10}N_4O_4$  (190.16). Source: XIAN MAO *Curculigo orchoides*. Ref: 660.

**346 22-Acetylasterone**

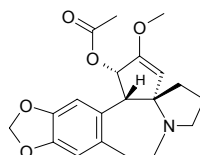
$C_{31}H_{46}O_9$  (562.71). White amorphous solid, mp 212–214°C,  $[\alpha]_D^{25} = +111.7^\circ$  ( $c = 0.007$ ,  $CHCl_3$ ). Source: TAI WAN JIN GU CAO *Ajuga taiwanensis* (whole plant). Ref: 4483.

**347 Acetylcatalpol**

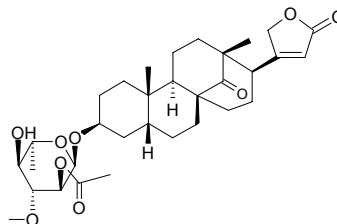
$C_{17}H_{24}O_{11}$  (404.37). Source: GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *huechingensis*]. Ref: 2.

**348 Acetylcephalotaxine**

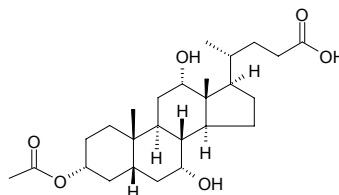
[24274-60-0]  $C_{20}H_{23}NO_5$  (357.41). Source: SAN JIAN SHAN *Cephalotaxus fortunei*. Ref: 2.

**349 2'-O-Acetyl cerleaside A**

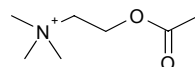
$C_{32}H_{46}O_9$  (574.72). White solid, mp 209–211°C,  $[\alpha]_D^{26} = -62.50^\circ$  ( $c = 0.0016$ ,  $CHCl_3$ ). Pharm: Cytotoxic (KB,  $ED_{50} = 7.56\mu g/mL$ ; BC,  $ED_{50} = 4.62\mu g/mL$ ; NCI-H187,  $ED_{50} = 7.42\mu g/mL$ ; control Ellipticine,  $ED_{50} = 0.3\text{--}0.6\mu g/mL$ )<sup>[3777]</sup>. Source: AO DAO LA MU HAI MANG GUO *Cerbera odollam* (seed), NIU XIN QIE ZI *Cerbera manghas*. Ref: 2594, 3777.

**350 Acetylcholic acid**

$C_{26}H_{42}O_6$  (450.62). Source: XIANG DAN *Elephas maximus*. Ref: 6.

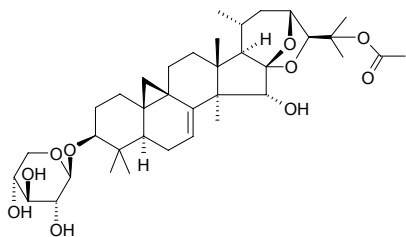
**351 Acetylcholine**

*O*-Acetylcholine [51-84-3]  $C_7H_{16}NO_2^+$  (146.21). Source: FENG MI *Apis cerana*, FENG RU *Apis cerana*, JI CAI *Capsella bursa-pastoris*, MAI JIAO *Claviceps purpurea*, SHAN ZHA *Crataegus pinnatifida*, SHAN ZHA YE *Crataegus pinnatifida*, SHI QI *Diospyros kaki*, XIONG DAN *Selenarctos thibetanus*; *Ursus arctos*. Ref: 6, 660.

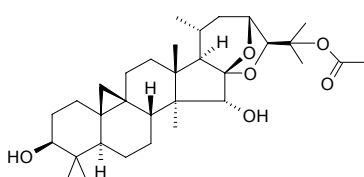


**352 Acetylcimifugoside**

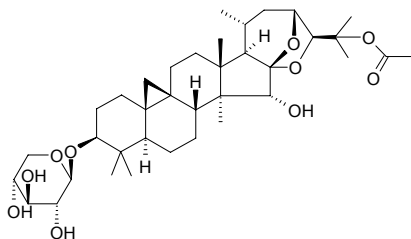
25-*O*-Acetyl-7,8-didehydrocimigenol 3-*O*- $\beta$ -D-xylopyranoside C<sub>37</sub>H<sub>56</sub>O<sub>10</sub> (660.85). Source: XING AN SHENG MA *Cimicifuga dahurica* (rhizome), YE SHENG MA *Cimicifuga simplex*. Ref: 6, 4140.

**353 25-*O*-Acetylcimigenol**

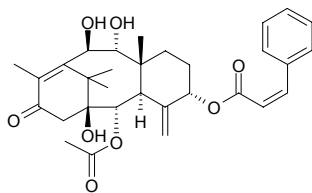
C<sub>37</sub>H<sub>50</sub>O<sub>6</sub> (530.75). mp 193~194°C. Source: SAN MIAN DAO *Cimicifuga acerina*. Ref: 6.

**354 25-*O*-Acetylcimigenoside**

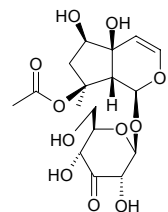
C<sub>37</sub>H<sub>58</sub>O<sub>10</sub> (662.87). mp 234~235°C. Source: SAN MIAN DAO *Cimicifuga acerina*, YE SHENG MA *Cimicifuga simplex*. Ref: 6.

**355 2-*O*-Acetyl-5-*O*-cinnamoyltaxicin I**

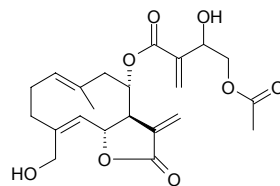
C<sub>31</sub>H<sub>38</sub>O<sub>8</sub> (538.64). Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.

**356 8-*O*-Acetylclandonoside**

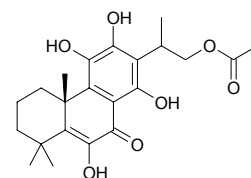
8-*O*-Acetylharpagide-aglucone-1-*O*- $\beta$ -D-ribohexo-3-ulopyranoside [239449-45-7] C<sub>17</sub>H<sub>24</sub>O<sub>11</sub> (404.37). White amorphous powder. Source: ZHAO JIAO YOU<sup>(2)</sup> *Caryopteris clandonensis*. Ref: 2312.

**357 4'-Acetylenicin**

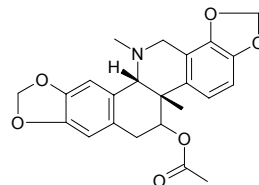
C<sub>22</sub>H<sub>28</sub>O<sub>8</sub> (420.46). Pharm: Antifungal (*Aspergillus niger*, MIC = 0.125 $\mu$ g/mL, control Miconazole, MIC = 1.5 $\mu$ g/mL; *Aspergillus ochraceus*, MIC = 0.06 $\mu$ g/mL, Miconazole, MIC = 1.5 $\mu$ g/mL; *Aspergillus versicolor*, MIC = 0.125 $\mu$ g/mL, Miconazole, MIC = 2 $\mu$ g/mL; *Aspergillus flavus*, MIC = 0.125 $\mu$ g/mL, Miconazole, MIC = 0.5 $\mu$ g/mL; *Penicillium ochrochloron*, MIC = 0.25 $\mu$ g/mL, Miconazole, MIC = 2 $\mu$ g/mL; *Penicillium funiculosum*, MIC = 0.5 $\mu$ g/mL, Miconazole, MIC = 2 $\mu$ g/mL; *Trichoderma viride*, MIC = 0.5 $\mu$ g/mL, Miconazole, MIC = 2 $\mu$ g/mL; *Cladosporium cladosporioides*, MIC = 0.125 $\mu$ g/mL, Miconazole, MIC = 0.03 $\mu$ g/mL; *Alternaria alternata*, MIC = 0.125 $\mu$ g/mL, Miconazole, MIC = 0.5 $\mu$ g/mL). Source: *Centaurea thessala* ssp. *drakiensis* (aerial parts), *Centaurea attica* ssp. *attica* (aerial parts). Ref: 5115.

**358 16-*O*-Acetylcoleon C**

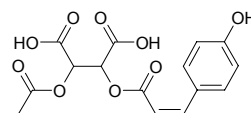
C<sub>22</sub>H<sub>28</sub>O<sub>7</sub> (404.46). Source: HUANG QIAO RUI HUA *Coleus xanthanthus* (aerial parts: yield = 0.00021% dw). Ref: 4625.

**359 Acetylcorynoline**

C<sub>23</sub>H<sub>23</sub>NO<sub>6</sub> (409.44). mp 157~159°C. Source: KU DI DING *Corydalis bungeana* (whole herb with root: content scope of 5 origins = 0.032%~0.059%, mean content = 0.058%<sup>[5508]</sup>), YUN QIAN HU *Peucedanum rubricaulae*, ZI HUA YU DENG CAO *Corydalis incisa*. Ref: 6, 436, 5501, 5508.

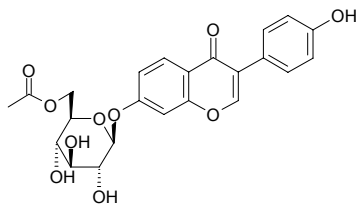
**360 2-*O*-Acetyl-3-(*p*-coumaroyl)-*meso*-tartaric acid**

C<sub>15</sub>H<sub>14</sub>O<sub>9</sub> (338.27). Source: BO CAI *Spinacia oleracea*. Ref: 6.

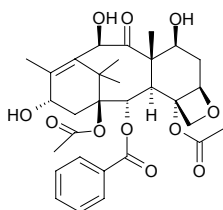


**361 6"-O-Acetylaidzin**

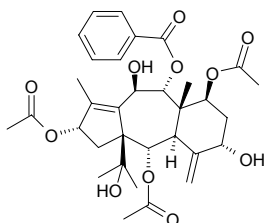
Daidzein 7-O-β-D-(6"-O-acetylglucopyranoside) [71385-83-6] C<sub>23</sub>H<sub>22</sub>O<sub>10</sub> (458.43). Needles, mp 186~189°C. **Pharm:** Phyto-estrogen; antioxidant. **Source:** DOU YOU *Glycine max*, DA DOU *Glycine max* (Soybean phytochemical concentrate: yield = 0.036%dw)<sup>[4630]</sup>. **Ref:** 2200, 4630.

**362 1-Acetyl-10-deacetylbaaccatin III**

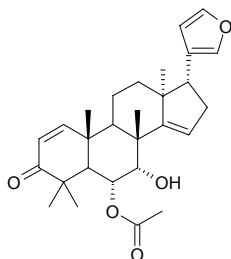
C<sub>31</sub>H<sub>38</sub>O<sub>11</sub> (586.64). **Source:** JIA NA DA HONG DOU SHAN *Taxus canadensis*. **Ref:** 662.

**363 13-Acetyl-9-deacetyl-9-benzoyl-10-debenzoyltaxchinin A**

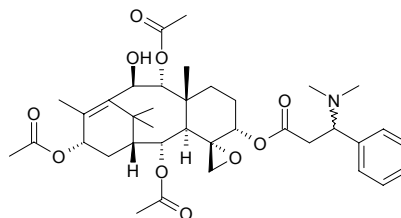
C<sub>33</sub>H<sub>42</sub>O<sub>11</sub> (614.70). mp 121~122°C, [α]<sub>D</sub> = -14.9° (CHCl<sub>3</sub>). **Source:** HONG DOU SHAN *Taxus chinensis*. **Ref:** 662.

**364 6α-O-Acetyl-7-deacetylnimocinol**

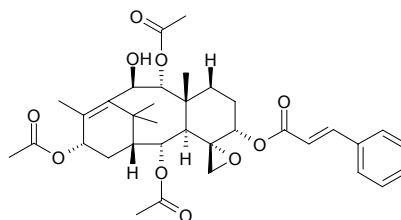
24,25,26,27-Tetra-norapotirucalla-(apoeupha)-6α-acetoxy-7α-hydroxy-1,14,20,22-tetraen-21,23-epoxy-3-one C<sub>28</sub>H<sub>36</sub>O<sub>5</sub> (452.60). Slender rods (MeOH), mp 60~62°C, [α]<sub>D</sub><sup>27</sup> = +6.6° (c = 0.12, CHCl<sub>3</sub>). **Pharm:** Insecticidal (*Aedes aegypti*, 21.0mg/L, mean mortalities = 50%, Range = (41.84~58.15)%; 31.5 mg/L, mean mortalities = 62%, Range = (56.84~67.16)%; 42.0 mg/L, mean mortalities = 72%, Range = (66.84~77.16)%; 52.5 mg/L, mean mortalities = 84%, Range = (77.68~90.32)%; 63.0 mg/L, mean mortalities = 92%, Range = (86.84~97.16)%). **Source:** YIN DU LIAN *Azadiractica indica* (fresh leaf). **Ref:** 3914.

**365 9α-Acetyl-10β-deacetyl-spicataxine**

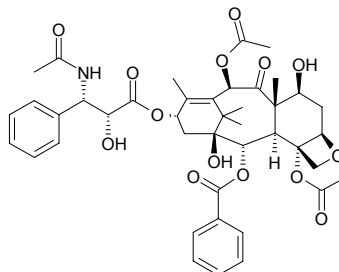
[126585-91-9] C<sub>37</sub>H<sub>51</sub>NO<sub>10</sub> (669.82). **Source:** AO DA LI YA HONG DOU SHAN *Austrotaxus spicata*. **Ref:** 662.

**366 9α-Acetyl-10β-deacetyl-spicataine**

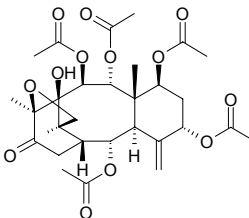
[126617-15-0] C<sub>35</sub>H<sub>44</sub>O<sub>10</sub> (624.73). **Source:** AO DA LI YA HONG DOU SHAN *Austrotaxus spicata*. **Ref:** 662.

**367 N-Acetyl-N-debenzoyltaxol**

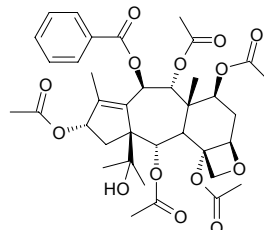
C<sub>42</sub>H<sub>49</sub>NO<sub>14</sub> (791.86). Gum. **Source:** JIA NA DA HONG DOU SHAN *Taxus canadensis* (needle leaf). **Ref:** 3958.

**368 5α-Acetyl-5α-decinnamoyltaxagifine**

C<sub>30</sub>H<sub>40</sub>O<sub>13</sub> (608.65). **Source:** HONG DOU SHAN *Taxus chinensis*. **Ref:** 662.

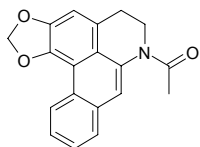
**369 13-Acetyl-13-decinnamoyltaxchinin B**

C<sub>37</sub>H<sub>46</sub>O<sub>14</sub> (718.77). mp 243~244°C, [α]<sub>D</sub> = -54° (CHCl<sub>3</sub>). **Source:** JIANG GUO ZI SHAN *Taxus baccata*. **Ref:** 662.

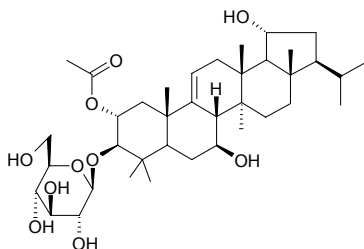


**370 N-Acetyldehydroanonaine**

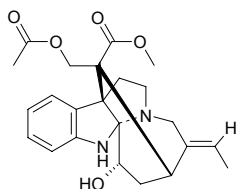
$C_{19}H_{15}NO_3$  (305.34). **Pharm:** Platelet aggregation inhibitor; DNA isomerase inhibitor; antibacterial; cytotoxic. **Source:** YE HUA JIAO YE *Zanthoxylum simulans*. **Ref:** 2176.

**371 2-O-Acetyl-28-dehydroxy-rubianoside IV**

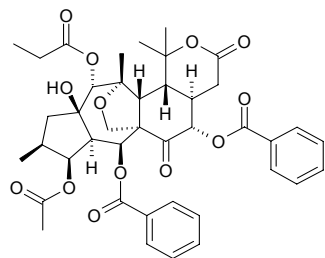
$C_{38}H_{62}O_{10}$  (678.91). **Pharm:** Anti-inflammatory inactive (inhibits nitric oxide production, LPS-activated mouse peritoneal macrophages, 100 $\mu$ mol/L, InRt = (5.8 $\pm$ 3.8)%; control *L*-NMMA, IC<sub>50</sub> = 57 $\mu$ mol/L);  $\beta$ -hexosaminidase inhibitor inactive (rat basophilic cell RBL-2H3, inhibits release of  $\beta$ -hexosaminidase, 100 $\mu$ mol/L, InRt = (-15.4 $\pm$ 1.4)%). **Source:** XIAO HONG SHEN *Rubia yunnanensis* (root). **Ref:** 4347.

**372 22-O-Acetyl-N<sub>6</sub>-demethyl-echitamine**

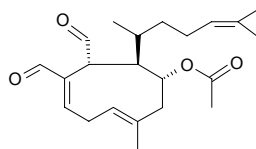
$C_{23}H_{28}N_2O_5$  (412.49). White acicular crystals, mp 234°C. **Source:** PEN JIA SHU *Winchia calophylla*. **Ref:** 270.

**373 3-Acetyl-5 $\beta$ ,8 $\alpha$ -dibenzylformyl-14-propanoyl myrsinoltype diterpene with C9-C10 cyclized to form an additional lactone ring**

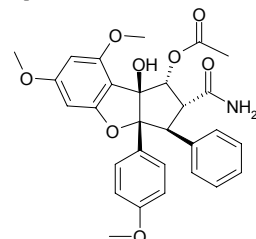
$C_{41}H_{46}O_{13}$  (746.82). White acicular crystals, mp 276~278°C. **Source:** TU GUA LANG DU *Euphorbia prolifera*. **Ref:** 807.

**374 4 $\alpha$ -Acetyldictyodial**

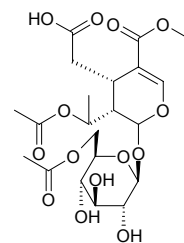
$C_{20}H_{32}O_4$  (360.50). Colorless oil,  $[\alpha]_D^{20} = -163.6^\circ$  ( $c = 0.30$ ,  $CH_2Cl_2$ ). **Source:** XIAN ZHUANG WANG DI ZAO *Dictyota linearis*. **Ref:** 3818.

**375 1-O-Acetyl-N,N-didemethylrocaglamide**

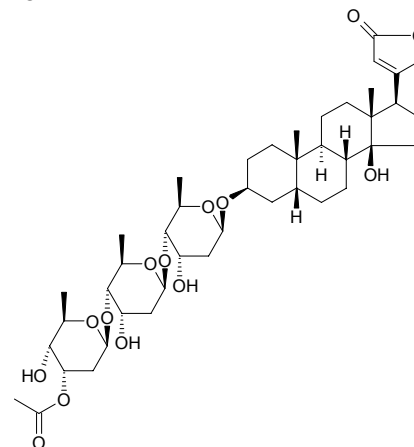
[259143-57-2]  $C_{29}H_{29}NO_8$  (519.56). **Pharm:** Insecticidal (neonate larvae of *Spodoptera littoralis*, LC<sub>50</sub> = 1.97mg/L, EC<sub>50</sub> = 0.14mg/L; control Azadirachtin, LC<sub>50</sub> = 0.9mg/L, EC<sub>50</sub> = 0.04mg/L). **Source:** *Aglaia duperreana*. **Ref:** 2376.

**376 6'-O-Acetyldideroside**

6'-Acetyl- $\beta$ -D-glucopyranosyldideroside  $C_{21}H_{30}O_{14}$  (506.46). Amorphous powder,  $[\alpha]_D^{25} = -76.5^\circ$  ( $c = 1.0$ , MeOH). **Pharm:** Antitrypanosomal (trypomastigotes of *Trypanosoma cruzi*, *in vitro*, IC<sub>50</sub> = 90.2 $\mu$ g/mL, control Gentian violet, IC<sub>50</sub> = 7.5 $\mu$ g/mL). **Source:** *Calycophyllum spruceanum*. **Ref:** 3439.

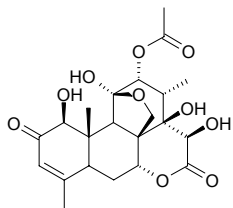
**377  $\alpha$ -Acetyldigitoxin**

[1111-39-3]  $C_{43}H_{66}O_{14}$  (809.96). White, tiny lamellar crystal powder, mp 217~221°C,  $[\alpha]_D^{20} = +5^\circ$  ( $c = 0.7$ , pyridine). **Pharm:** Cardiotonic (same action and usage as digitoxin). **Source:** MAO HUA MAO DI HUANG *Digitalis lanata*. **Ref:** 661.

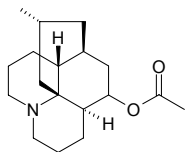


**378 12-Acetyl-13,21-dihydroeurycomanone**

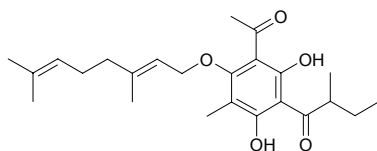
$C_{22}H_{28}O_{10}$  (452.46). **Pharm:** Cytotoxic (P<sub>388</sub> cells, IC<sub>50</sub> = 0.94 μg/mL). **Source:** *Eurycoma* sp. **Ref:** 4556.

**379 O-Acetyl-dihydrolycopodine**

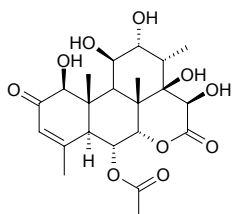
$C_{18}H_{29}NO_2$  (291.44). **Source:** YU BAI SHI SONG *Lycopodium obscurum*. **Ref:** 660.

**380 2-Acetyl-3,5-dihydroxy-1-geranoxy-6-methyl-4-(2-methyl)butyrylbenzene**

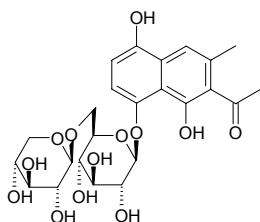
$C_{24}H_{34}O_5$  (402.54). Colorless oil,  $[\alpha]_D^{31.2} = -7.02^\circ$  ( $c = 0.057$ , MeOH). **Source:** DI ER CAO *Hypericum japonicum*. **Ref:** 762.

**381 6α-Acetyl-14β,15β-dihydroxyklaineanone**

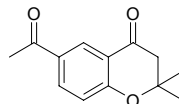
$C_{22}H_{30}O_{10}$  (454.48). **Source:** *Eurycoma* sp. **Ref:** 4556.

**382 2-Acetyl-1,5-dihydroxy-3-methyl-8-O(β-xylopyranosyl-(1→6)-O-(β-glucopyranosyl)) naphthalene**

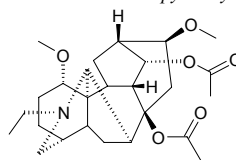
$C_{24}H_{30}O_{13}$  (526.50). **Source:** TA SI MA NI YA JIE GENG LAN *Dianella tasmanica* (berry), HEI JIE GENG LAN *Dianella nigra* (berry). **Ref:** 5214.

**383 6-Acetyl-2,2-dimethylchroman-4-one**

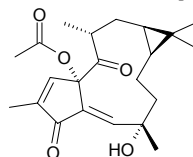
$C_{13}H_{14}O_3$  (218.25). **Pharm:** Platelet aggregation inhibitor (washed rabbit platelets, 100 μg/mL, 100 μmol/L AA-induced, AggRt = 100%, control 50 μmol/L Aspirin, AggRt = 100%; 10 μg/mL collagen-induced, AggRt = 11.1%, 100 μmol/L Aspirin, AggRt = 4.9%; 0.1 U/mL thrombin-induced, AggRt = 6.7%, 100 μmol/L Aspirin, AggRt = 1.7%; 2 ng/mL PAF-induced, AggRt = 16.8%, 100 μmol/L Aspirin, AggRt = 2.1%). **Source:** SAN QI CAO *Gynura segetum* [Syn. *Gynura japonica*] (rhizome). **Ref:** 5427.

**384 8-Acetyldolaconine**

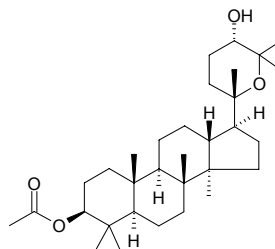
[132160-38-4]  $C_{26}H_{39}NO_6$  (461.60). Wax solid. **Source:** WAN ZHUO WU TOU *Aconitum campylorrhynchum*. **Ref:** 158.

**385 15-O-Acetyl-15-epi-(4E)-jatrogrossidentadione**

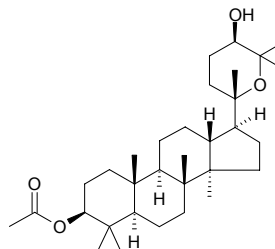
$C_{22}H_{30}O_5$  (374.48). Semi solid,  $[\alpha]_D^{25} = -165.2^\circ$  ( $c = 0.5$ , CHCl<sub>3</sub>). **Source:** MA FENG SHU *Jatropha curcas* (aerial parts). **Ref:** 4287.

**386 3β-Acetyl-20,25-epoxydammarane-24α-ol**

$C_{32}H_{54}O_4$  (502.78). White amorphous solid,  $[\alpha]_D = 22.7^\circ$  ( $c = 0.022$ , CHCl<sub>3</sub>). **Source:** LIAN QIAO *Forsythia suspensa*. **Ref:** 753.

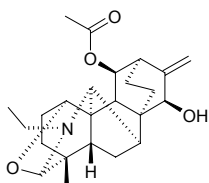
**387 3β-Acetyl-20,25-epoxydammarane-24β-ol**

$C_{32}H_{54}O_4$  (502.78). White gum,  $[\alpha]_D = 81^\circ$  ( $c = 0.05$ , CHCl<sub>3</sub>). **Source:** LIAN QIAO *Forsythia suspensa*. **Ref:** 753.

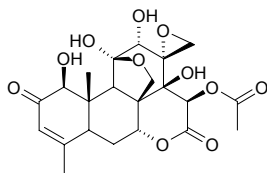


**388 11-Acetyl-1,19-epoxydenudatine**

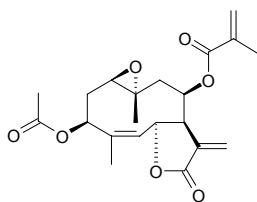
$C_{24}H_{33}NO_4$  (399.53). Colorless needles, mp 201~202°C (acetone). Source: JI LIN WU TOU *Aconitum kirinense*. Ref: 2515.

**389 15-Acetyl-13 $\alpha$ (21)-epoxyeurycomanone**

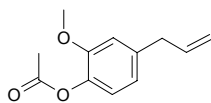
$C_{22}H_{26}O_{11}$  (466.45). Source: *Eurycoma* sp. Ref: 4556.

**390 Acetylerioflorin**

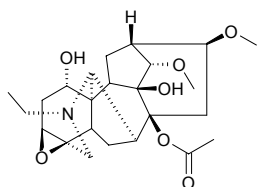
$C_{21}H_{26}O_7$  (390.44). Source: *Viguiera eriophora* ssp. *eriphora* (aerial parts). Ref: 5090.

**391 Acetyleugenol**

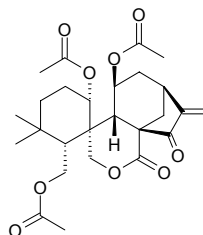
Eugenyl acetate [93-28-7]  $C_{12}H_{14}O_3$  (206.24). mp 30~31°C, bp 281~282°C/752mmHg. Source: DING XIANG *Syzygium aromaticum* [Syn. *Eugenia caryophyllata*] (dried bud, content scope = 1.12%~2.72%<sup>[5501]</sup>), YUE GUI ZI *Laurus nobilis*. Ref: 6, 660, 5501.

**392 8-Acetylcelsine**

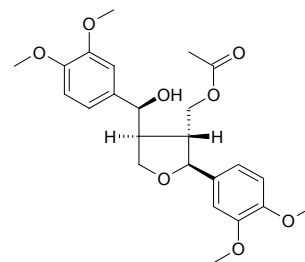
$C_{24}H_{35}NO_7$  (449.55). White resinoid solid. Source: JI LIN WU TOU *Aconitum kirinense*. Ref: 2515.

**393 Acetylexidonin**

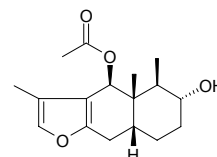
Acetylraabosin B  $C_{26}H_{34}O_9$  (490.56). mp 165~167°C. Source: LAN E XIANG CHA CAI *Isodon japonica* var. *glaucoalyx*. Ref: 4067.

**394 9'-O-Acetyl-(7R,8S,7R,8S)-(-)-fargesol**

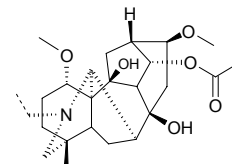
$C_{24}H_{30}O_8$  (446.50). Colorless oil,  $[\alpha]_D^{21.2} = +35.2^\circ$  ( $c = 1.20$ ,  $CHCl_3$ ). Source: ZHOU YE MU LAN *Magnolia praecocissima* (seed). Ref: 4181.

**395 6-Acetylfuranofukinol**

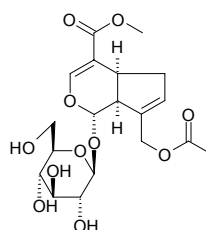
$C_{17}H_{24}O_4$  (292.38). Source: FENG DOU CAI *Petasites japonicus*. Ref: 6.

**396 14-Acetylgenicunine B**

$C_{25}H_{39}NO_6$  (449.59). Amorphous solid,  $[\alpha]_D^{20} = +24.2^\circ$  ( $c = 0.55$ ,  $CHCl_3$ ). Source: BAN HUA WU TOU *Aconitum variegatum* (aerial parts). Ref: 5270.

**397 10-O-Acetylgeniposide**

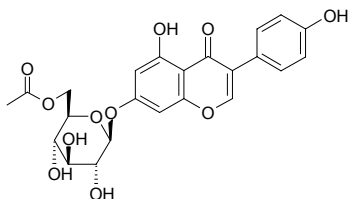
$C_{19}H_{26}O_{11}$  (430.41). Source: ZHI ZI *Gardenia jasminoides* [Syn. *Gardenia florida*]. Ref: 2, 660, 626.



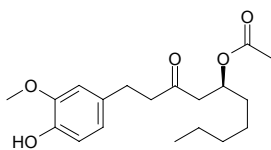


**398 6"-O-Acetylgenistin**

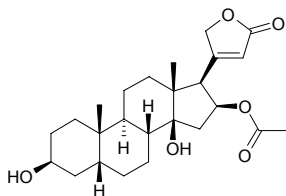
Genistein 7-O- $\beta$ -D-(6"-O-acetylglucopyranoside) [73566-30-0] C<sub>23</sub>H<sub>22</sub>O<sub>11</sub> (474.43). Needles, mp 185~186°C. **Pharm:** Phyto-estrogen; antioxidant. **Source:** DOU YOU *Glycine max*, DA DOU *Glycine max* (Soybean phytochemical concentrate: yield = 0.039%dw)<sup>[4630]</sup>. **Ref:** 2200, 4630.

**399 6-Acetyl gingerol**

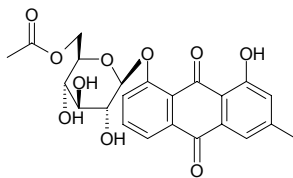
C<sub>19</sub>H<sub>28</sub>O<sub>5</sub> (336.43). **Source:** SHENG JIANG *Zingiber officinale*. **Ref:** 660.

**400 16-Acetylgitoxigenin**

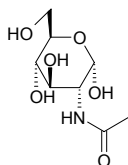
Oleandrigenin [465-15-6] C<sub>25</sub>H<sub>36</sub>O<sub>6</sub> (432.56). Crystals (Me<sub>2</sub>CO-Et<sub>2</sub>O), mp 225~228°C, [ $\alpha$ ]<sub>D</sub><sup>16</sup> = -9.5° (MeOH). **Source:** JIA ZHU TAO *Nerium indicum*, QING MING HUA *Beaumontia grandiflora*. **Ref:** 6, 660, 1521.

**401 8-O- $\beta$ -D-(6'-O-Acetyl)glucopyranosylchrysophanol**

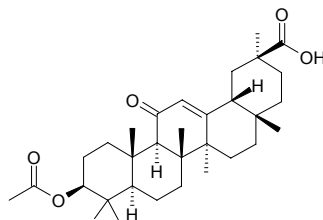
C<sub>23</sub>H<sub>22</sub>O<sub>10</sub> (458.43). **Source:** ZANG BIAN DA HUANG *Rheum emodi* [Syn. *Rheum australe*] (root). **Ref:** 4273.

**402 N-Acetyl-D-glucosamine**

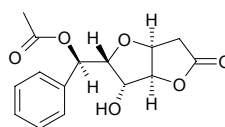
2-Acetyl-amino-2-deoxy-D-glucose [7512-17-6] C<sub>8</sub>H<sub>15</sub>NO<sub>6</sub> (221.21). **Source:** MA YE *Cannabis sativa*, XIE KE *Eriocher sinensis*, YUAN ZHI *Polygala tenuifolia*. **Ref:** 2, 6, 660.

**403 3-O-Acetyl-glycyrrhetic acid**

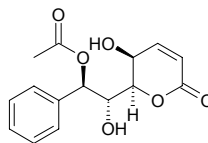
Glycyrrhetic acid acetate C<sub>32</sub>H<sub>48</sub>O<sub>5</sub> (512.74). **Source:** GAN CAO *Glycyrrhiza uralensis*. **Ref:** 2.

**404 8-Acetyl goniofufurone**

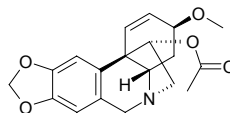
(4*S*,5*R*,6*S*,7*S*,8*R*)-6-Hydroxy-7-( $\alpha$ -acetoxybenzyl)-tetrahydrofuro[3,2-*b*]furan-2-one C<sub>15</sub>H<sub>16</sub>O<sub>6</sub> (292.29). Colorless prismatic crystals (acetone), mp 188~189°C. **Pharm:** Antineoplastic. **Source:** DA HUA GE NA XIANG *Goniothalamus griffithii*. **Ref:** 667.

**405 8-O-Acetylgoniotriol**

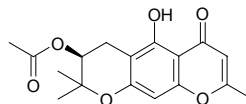
C<sub>15</sub>H<sub>16</sub>O<sub>6</sub> (292.29). [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +66.0° (*c* = 0.39, MeOH). **Source:** DA HUA GE NA XIANG *Goniothalamus griffithii*. **Ref:** 5453.

**406 11-O-Acetyl haemanthamine**

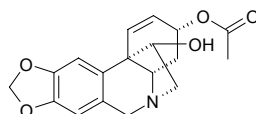
C<sub>19</sub>H<sub>21</sub>NO<sub>5</sub> (343.38). mp. 92~96°C, [ $\alpha$ ]<sub>D</sub><sup>22</sup> = 9.1° (*c* = 0.55, MeOH). **Source:** YI BI LI YA SHUI XIAN *Narcissus bujei*. **Ref:** 1887.

**407 3'-O-Acetylhamaudol**

C<sub>17</sub>H<sub>18</sub>O<sub>6</sub> (318.33). **Source:** FANG FENG *Saposhnikovia divaricata* [Syn. *Ledebouriella seseloides*]. **Ref:** 2.

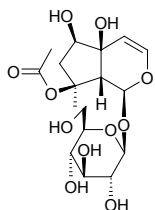
**408 3-O-Acetylhamayne**

C<sub>18</sub>H<sub>19</sub>NO<sub>5</sub> (329.36). **Pharm:** AChE inhibitor (IC<sub>50</sub> = (594±8)μmol/L, control Galanthamine, IC<sub>50</sub> = (1.9±0.2)μmol/L). **Source:** LIN JING ZHONG ZI WEN SHU LAN *Crinum bulbispermum*. **Ref:** 4952.

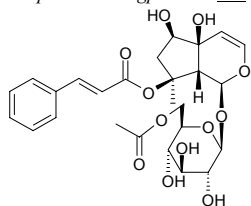


**409 8-Acetylharpagide**

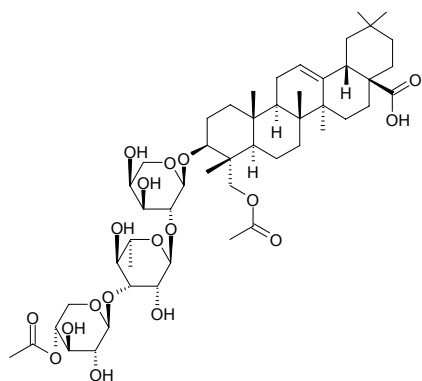
8-*O*-Acetylharpagide C<sub>17</sub>H<sub>26</sub>O<sub>11</sub> (406.39). White powder. Pharm: Antineoplastic (mus-skin *in vivo*, strongly inhibits EBV-EA induction). Source: BAI MAO XIA KU CAO *Ajuga decumbens*, BO SI YI MU CAO *Leonurus persicus*, LI ZHI HAO *Ajuga forrestii*, LONG TU ZHU *Clerodendrum thomsonae*, PU FU JIN GU CAO *Ajuga reptans*, TAI WAN JIN GU CAO *Ajuga taiwanensis* (whole plant). Ref: 660, 693, 1521, 2499, 4483.

**410 6'-*O*-Acetylharpagoside**

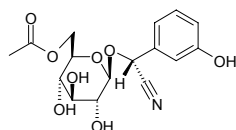
C<sub>26</sub>H<sub>32</sub>O<sub>12</sub> (536.54). White amorphous powder. Source: XUAN SHEN *Scrophularia ningpoensis*. Ref: 781.

**411 23-*O*-Acetylhederagenin 3-*O*-(4-*O*-acetyl-β-*D*-xylopyranosyl)-(1→3)-α-*L*-rhamnopyranosyl-(1→2)-α-*L*-arabinopyranoside**

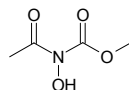
C<sub>50</sub>H<sub>78</sub>O<sub>18</sub> (967.17). White amorphous powder, [α]<sub>D</sub><sup>22</sup> = -10.4° (*c* = 0.7, MeOH). Source: AO TOU WU HUAN ZI *Sapindus emarginatus* (pericarp). Ref: 4123.

**412 6-Acetyl holocalin**

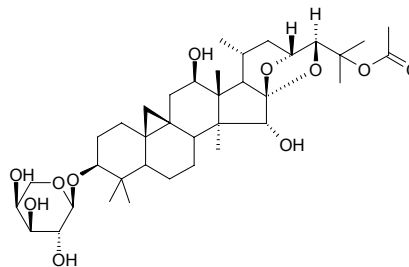
C<sub>16</sub>H<sub>19</sub>NO<sub>8</sub> (353.33). Pharm: Plant growth stimulatory or inhibitory activity (radicle length: *Lactuca sativa*, 1 μmol/L, StRt/InRt < 10%, 10 μmol/L, StRt/InRt < 10%, 100 μmol/L, StRt/InRt < 10%, 1 mmol/L, InRt = (10~30)%; *Raphanus sativus*, 1 μmol/L, StRt/InRt < 10%, 10 μmol/L, StRt/InRt < 10%, 100 μmol/L, StRt/InRt < 10%, 1 mmol/L, StRt/InRt < 10%; *Allium cepa*, 1 μmol/L, StRt/InRt < 10%, 10 μmol/L, InRt = (10~30)%, 100 μmol/L, StRt/InRt < 10%, 1 mmol/L, StRt/InRt < 10%). Source: XI YANG JIE GU MU *Sambucus nigra*. Ref: 5217.

**413 *N*-Acetyl-*N*-hydroxy-2-carbamic acid methyl ester**

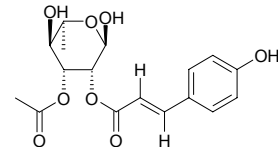
C<sub>4</sub>H<sub>7</sub>NO<sub>4</sub> (133.10). Source: XIAN MAO *Curculigo orchoides*. Ref: 660.

**414 25-*O*-Acetyl-12β-hydroxycimigenol 3-*O*-α-*L*-arabinopyranoside**

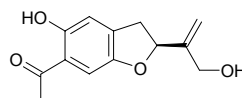
C<sub>37</sub>H<sub>58</sub>O<sub>11</sub> (678.87). Amorphous solid, [α]<sub>D</sub><sup>26</sup> = +26.0° (*c* = 0.10, MeOH). Pharm: Cytotoxic (HSC-2 cells, IC<sub>50</sub> = 142 μmol/L, control Etoposide, IC<sub>50</sub> = 24 μmol/L; HGF cells, IC<sub>50</sub> = 271 μmol/L). Source: ZONG ZHUANG SHENG MA *Cimicifuga racemosa* (rhizome). Ref: 4158.

**415 3-*O*-Acetyl-2-*O*-(*p*-hydroxycinnamoyl)-α-*L*-rhamnose**

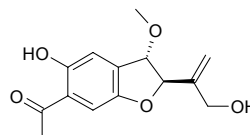
Ningposide C C<sub>17</sub>H<sub>20</sub>O<sub>8</sub> (352.34). Oil, [α]<sub>D</sub><sup>30</sup> = +79.63° (*c* = 0.38, acetone). Source: XUAN SHEN *Scrophularia ningpoensis*. Ref: 674, 741.

**416 6-Acetyl-5-hydroxy-2-(1-hydroxy-2-propenyl)-2,3-dihydrobenzofuran**

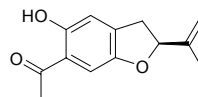
Viscidone C<sub>13</sub>H<sub>14</sub>O<sub>4</sub> (234.25). Glassy amorphous solid. Source: XIAO SHE JU GEN *Microglossa pyrifolia*, NIAN ZHI JIN ZHI JU *Chrysothamnus viscidiflorus*. Ref: 5374.

**417 6-Acetyl-5-hydroxy-2-(1-hydroxy-2-propenyl)-3-methoxy-2,3-dihydrobenzofuran**

C<sub>14</sub>H<sub>16</sub>O<sub>5</sub> (264.28). Glassy amorphous solid. Source: XIAO SHE JU GEN *Microglossa pyrifolia*. Ref: 5374.

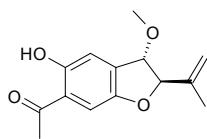
**418 6-Acetyl-5-hydroxy-2-isopropenyl-2,3-dihydrobenzofuran**

C<sub>13</sub>H<sub>14</sub>O<sub>3</sub> (218.25). Glassy amorphous solid. Source: XIAO SHE JU GEN *Microglossa pyrifolia*, *Trichocline reptans*. Ref: 5374.

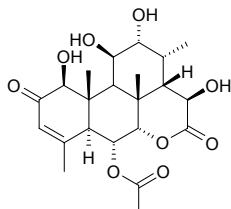


**419 6-Acetyl-5-hydroxy-2-isopropenyl-3-methoxy-2,3-dihydrobenzofuran**

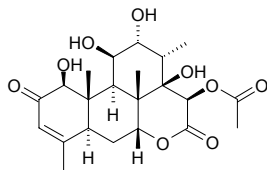
C<sub>14</sub>H<sub>16</sub>O<sub>4</sub> (248.28). Glassy amorphous solid. Source: XIAO SHE JU GEN *Microglossa pyriformis*, *Acritopappus* spp. Ref: 5374.

**420 6 $\alpha$ -Acetyl-15 $\beta$ -hydroxyklaineanone**

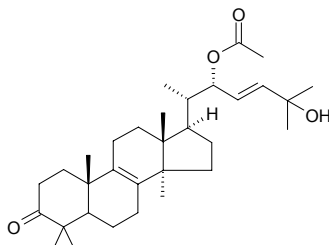
C<sub>22</sub>H<sub>30</sub>O<sub>9</sub> (438.48). Source: *Eurycoma* sp. Ref: 4556.

**421 15 $\beta$ -O-Acetyl-14-hydroxyklaineanone**

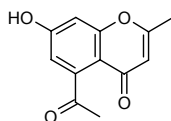
C<sub>22</sub>H<sub>30</sub>O<sub>9</sub> (438.48). Pharm: Plant growth inhibitor (Cucumber seedling, root growth, IC<sub>50</sub> = (17.6±0.5)μmol/L, shoot growth, IC<sub>50</sub> > 200μmol/L; Rice seedling, root growth, IC<sub>50</sub> > 200μmol/L, shoot growth, IC<sub>50</sub> > 200μmol/L)<sup>[5215]</sup>. Source: CHANG YE KUAN MU *Eurycoma longifolia* (leaf), *Eurycoma* sp. Ref: 4556, 5215.

**422****(20S,22S,23E)-22-O-Acetyl-25-hydroxylanosta-8,23(E)-dien-3-one**

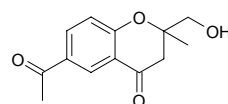
C<sub>32</sub>H<sub>50</sub>O<sub>4</sub> (498.75). mp 166~168°C, [ $\alpha$ ]<sub>D</sub><sup>31</sup> = +62.1° (c = 0.15, CHCl<sub>3</sub>). Pharm: Anti-HSV-1 (IC<sub>50</sub> = 5.2μg/mL; control Acyclovir, IC<sub>50</sub> = 2.0~5.0μg/mL); cytotoxic inactive (hmn small cell lung cancer cells NCI-H187). Source: HUANG YING PI MA BO *Scleroderma citrinum*. Ref: 5406.

**423 5-Acetyl-7-hydroxy-2-methylbenzopyran- $\gamma$ -one**

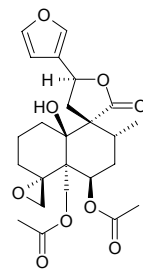
C<sub>12</sub>H<sub>10</sub>O<sub>4</sub> (218.21). Source: DA HUANG *Rheum officinale*. Ref: 2.

**424 6-Acetyl-2-hydroxymethyl-2-methylchroman-4-one**

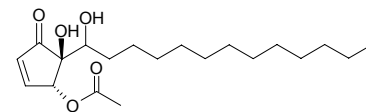
C<sub>13</sub>H<sub>14</sub>O<sub>4</sub> (234.25). [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +10.8° (c = 0.1, CHCl<sub>3</sub>). Pharm: Platelet aggregation inhibitor (washed rabbit platelets, 100μg/mL, 100μmol/L AA-induced, AggRt = 10.3%, control 50μmol/L Aspirin, AggRt = 100%; 10μg/mL collagen-induced, AggRt = 1.9%, 100μmol/L Aspirin, AggRt = 4.9%; 0.1U/mL thrombin-induced, AggRt = 4.9%, 100μmol/L Aspirin, AggRt = 1.7%; 2ng/mL PAF-induced, AggRt = 3.6%, 100μmol/L Aspirin, AggRt = 2.1%). Source: SAN QI CAO *Gynura segetum* [Syn. *Gynura japonica*] (rhizome). Ref: 5427.

**425 6-Acetyl-10-hydroxyteucjaponin B**

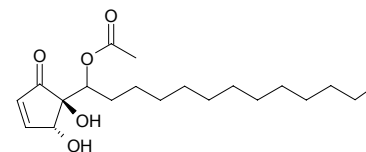
10-Hydroxymontanin C C<sub>24</sub>H<sub>30</sub>O<sub>9</sub> (462.50). White amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +35.2° (c = 0.13, CHCl<sub>3</sub>). Pharm: Insect antifeedant (fifth instar larvae of *Spodoptera littoralis*, dual-choice feeding assays, dose = 10μg/cm<sup>2</sup>, FR<sub>50</sub> = 0.08±0.01, dose = 1μg/cm<sup>2</sup>, FR<sub>50</sub> = 0.16±0.02). Source: GUAN CONG XIANG KE KE *Teucrium fruticans*. Ref: 3761.

**426 4-O-Acetyl hygrophorone A<sup>12</sup>**

4,5-*trans*-4-Acetoxy-5-hydroxy-5-(1-hydroxytridecyl)-2-cyclopenten-1-one C<sub>20</sub>H<sub>34</sub>O<sub>5</sub> (354.49). Colorless oil. Pharm: Antifungal (*Cladosporium cucumerinum*, 20μg, IZA = 188mm<sup>2</sup>, 40μg, IZA = 217mm<sup>2</sup>). Source: *Hygrophorus persoonii*. Ref: 3800.

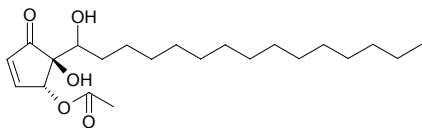
**427 6-O-Acetyl hygrophorone A<sup>12</sup>**

4,5-*trans*-4,5-Dihydroxy-5-(1-acetoxytridecyl)-2-cyclopenten-1-one C<sub>20</sub>H<sub>34</sub>O<sub>5</sub> (354.49). Colorless oil. Source: *Hygrophorus persoonii*. Ref: 3800.

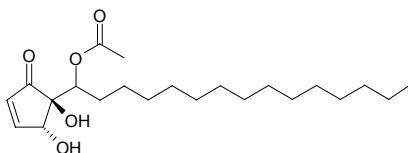


**428 4-O-Acetyl hygrophorone A<sup>14</sup>**

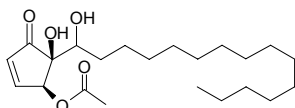
4,5-*trans*-4-Acetoxy-5-hydroxy-5-(1-hydroxypentadecyl)-2-cyclopenten-1-one C<sub>22</sub>H<sub>38</sub>O<sub>5</sub> (382.55). Colorless oil. Source: *Hygrophorus persoonii*. Ref: 3800.

**429 6-O-Acetyl hygrophorone A<sup>14</sup>**

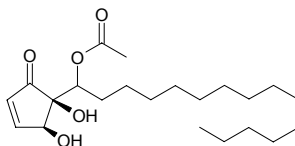
4,5-*trans*-4,5-Dihydroxy-5-(1-acetoxypentadecyl)-2-cyclopenten-1-one C<sub>22</sub>H<sub>38</sub>O<sub>5</sub> (382.55). Colorless oil. Source: *Hygrophorus persoonii*. Ref: 3800.

**430 4-O-Acetyl hygrophorone B<sup>14</sup>**

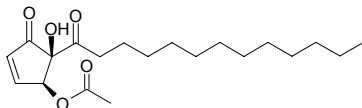
4,5-*cis*-4-Acetoxy-5-hydroxy-5-(1-hydroxypentadecyl)-2-cyclopenten-1-one C<sub>22</sub>H<sub>38</sub>O<sub>5</sub> (382.55). Colorless oil. Source: *Hygrophorus olivaceoalbus*. Ref: 3800.

**431 6-O-Acetyl hygrophorone B<sup>14</sup>**

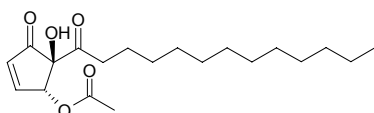
4,5-*cis*-4,5-Dihydroxy-5-(1-acetoxypentadecyl)-2-cyclopenten-1-one C<sub>22</sub>H<sub>38</sub>O<sub>5</sub> (382.55). Colorless oil. Source: *Hygrophorus olivaceoalbus*. Ref: 3800.

**432 4-O-Acetyl hygrophorone C<sup>12</sup>**

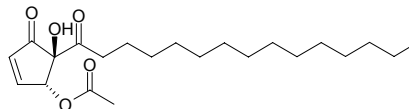
*cis*-4-Acetoxy-5-hydroxy-5-tridecanoyl-2-cyclopenten-1-one C<sub>20</sub>H<sub>32</sub>O<sub>5</sub> (352.48). White solid. Pharm: Antifungal (*Cladosporium cucumerinum*, 20µg, IZA = 86mm<sup>2</sup>, 40µg, IZA = 148mm<sup>2</sup>). Source: *Hygrophorus pustulatus*. Ref: 3800.

**433 4-O-Acetyl hygrophorone D<sup>12</sup>**

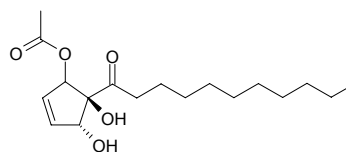
*trans*-4-Acetoxy-5-hydroxy-5-tridecanoyl-2-cyclopenten-1-one C<sub>20</sub>H<sub>32</sub>O<sub>5</sub> (352.48). Color oil, [α]<sub>D</sub><sup>23</sup> = +111.7° (c = 0.470, MeOH). Pharm: Antifungal (*Cladosporium cucumerinum*, 20µg, IZA = 55mm<sup>2</sup>, 40µg, IZA = 82mm<sup>2</sup>). Source: *Hygrophorus latitabundus*. Ref: 3800.

**434 4-O-Acetyl hygrophorone D<sup>14</sup>**

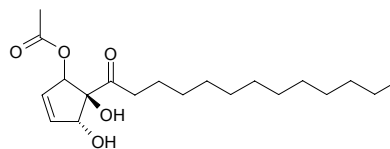
*trans*-4-Acetoxy-5-hydroxy-5-pentadecanoyl-2-cyclopenten-1-one C<sub>22</sub>H<sub>36</sub>O<sub>5</sub> (380.53). Colorless oil, [α]<sub>D</sub><sup>23</sup> = +98.7° (c = 0.475, MeOH). Pharm: Antifungal (*Cladosporium cucumerinum*, 20µg, IZA = 14mm<sup>2</sup>; 40µg, IZA = 15mm<sup>2</sup>). Source: *Hygrophorus latitabundus*. Ref: 3800.

**435 1-O-Acetyl hygrophorone E<sup>10</sup>**

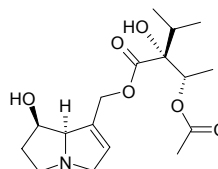
1-(2-Acetoxy-1,5-dihydroxy-cyclopent-3-enyl)-undecan-1-one C<sub>18</sub>H<sub>30</sub>O<sub>5</sub> (326.44). Colorless oil. Source: *Hygrophorus latitabundus*. Ref: 3800.

**436 1-O-Acetyl hygrophorone E<sup>12</sup>**

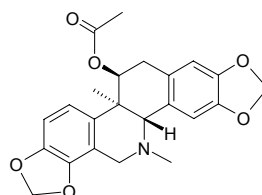
1-(2-Acetoxy-1,5-dihydroxy-cyclopent-3-enyl)-tridecan-1-one C<sub>20</sub>H<sub>34</sub>O<sub>5</sub> (354.49). Colorless oil. Pharm: Antifungal (*Cladosporium cucumerinum*, 20µg, IZA = 1mm<sup>2</sup>; 40µg, IZA = 28mm<sup>2</sup>). Source: *Hygrophorus latitabundus*. Ref: 3800.

**437 Acetyлиндicine**

[11014-09-8] C<sub>17</sub>H<sub>27</sub>NO<sub>6</sub> (341.41). Source: DA WEI YAO *Heliotropium indicum*. Ref: 6.

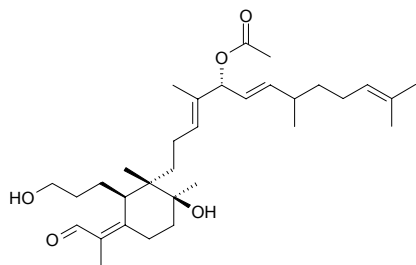
**438 Acetyliscorynoline**

[42881-67-4] C<sub>23</sub>H<sub>23</sub>NO<sub>6</sub> (409.44). mp 205–209°C. Source: YUN QIAN HU *Peucedanum rubricaulae*, ZI HUA YU DENG CAO *Corydalis incisa*. Ref: 6, 436.

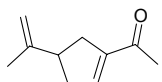


**439 16-O-Acetyl isoigidogermanal**

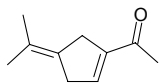
$C_{32}H_{52}O_5$  (516.77). Source: SHE GAN *Belamcanda chinensis*. Ref: 660.

**440 1-Acetyl-4-isopropenyl cyclopentene**

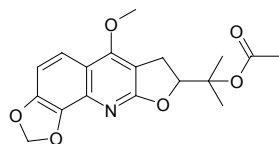
$C_{10}H_{14}O$  (150.22). Source: AN YE *Eucalyptus globulus* (oil), RU XIANG *Boswellia carterii*. Ref: 660, 1521.

**441 1-Acetyl-4-isopropylidene-cyclopentene**

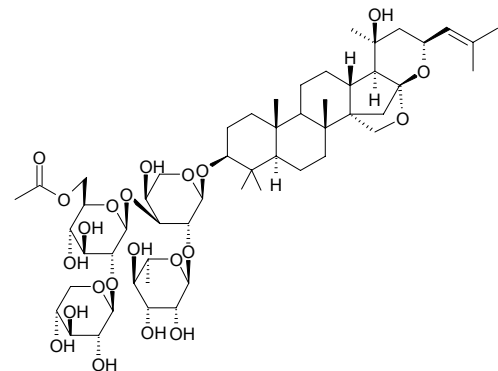
$C_{10}H_{14}O$  (150.22). Source: AN YE *Eucalyptus globulus*. Ref: 6.

**442 3'-O-Acetylisopteleflorine**

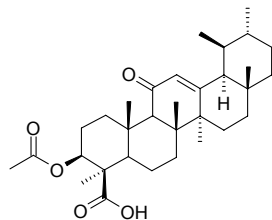
$C_{18}H_{19}NO_6$  (345.36). Source: CHOU SHAN YANG *Orixa japonica* (stem: yield = 0.00059% dw). Ref: 4774.

**443 Acetyljujuboside B**

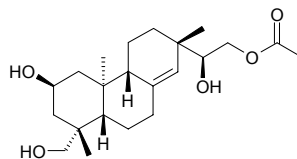
[194737-13-8]  $C_{54}H_{86}O_{22}$  (1087.27). Colorless acicular crystals, (methanol–water), mp 207~210°C,  $[\alpha]_D^{28} = -42.8^\circ$  ( $c = 0.3$ , methanol). Pharm: Antihistamine (inhibits histamine release, rat peritoneum cells *in vitro*, caused by antigen-antibody reaction, 100  $\mu$ mol/L InRt = 14.5 %). Source: SUAN ZAO REN *Ziziphus jujuba* var. *spinosa*. Ref: 971.

**444 Acetyl-11-keto- $\beta$ -boswellic acid**

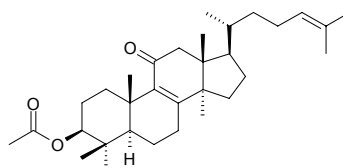
$C_{32}H_{48}O_5$  (512.74). Pharm: 5-LOX inhibitor (rat neutrophils, in a non-competitive and specific manner,  $IC_{50} = 1.5 \mu$ mol/L). Source: RU XIANG *Boswellia carterii*. Ref: 4415.

**445 16-Acetylkirenenol**

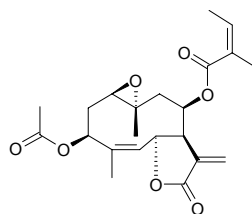
$C_{22}H_{36}O_5$  (380.53). Source: MAO GENG XI XIAN *Siegesbeckia orientalis* var. *glabrescens* [Syn. *Siegesbeckia glabrescens*], XI XIAN *Siegesbeckia orientalis* (aerial part: yield = 0.0003%)<sup>[4764]</sup>. Ref: 2, 660, 4764.

**446 3 $\beta$ -Acetyl-5 $\alpha$ -lanosta-8,24-diene-11-one**

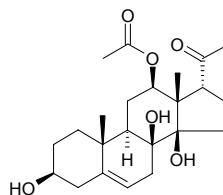
$C_{32}H_{50}O_3$  (482.75). mp 144~147°C. Source: SHUI TONG MU *Ficus fistulosa* [Syn. *Ficus harlandii*]. Ref: 1906.

**447 Acetyllepocarpin**

$C_{22}H_{28}O_7$  (404.46). Source: *Viguiera puruana* (aerial parts). Ref: 5090.

**448 12-O-Acetyllineolone**

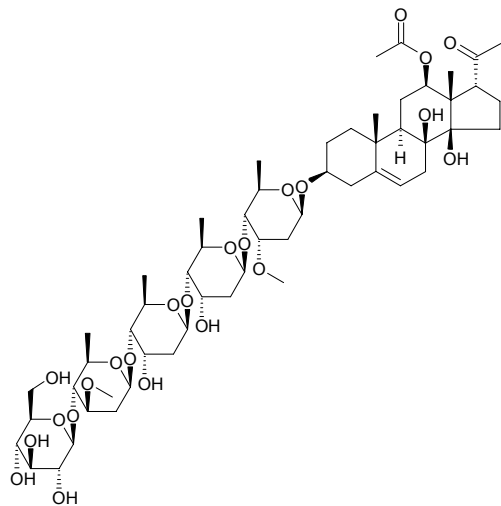
$C_{23}H_{34}O_6$  (406.52). Amorphous powder,  $[\alpha]_D^{21} = -70.2^\circ$  ( $c = 0.26$ , MeOH). Source: ROU HONG MA LI JIN *Asclepias incarnata* (aerial parts). Ref: 3925.



**449 12-O-Acetylleanon-3-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-oleandropyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-digitoxopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-cymaropyranoside**

$C_{55}H_{88}O_{23}$  (1117.30). Amorphous powder,  $[\alpha]_D^{27} = -10.0^\circ$  ( $c = 1.01$ , MeOH).

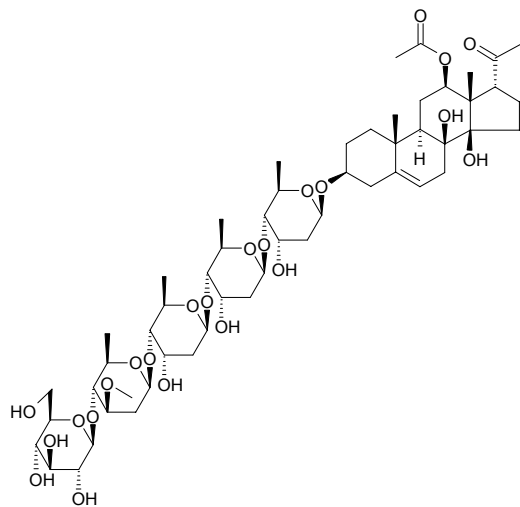
Source: ROU HONG MA LI JIN *Asclepias incarnata* (aerial parts). Ref: 3925.



**450 12-O-Acetylleanon-3-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-oleandropyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-digitoxopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-digitoxopyranoside**

$C_{54}H_{86}O_{23}$  (1103.27). Amorphous powder,  $[\alpha]_D^{27} = -13.8^\circ$  ( $c = 1.47$ , MeOH).

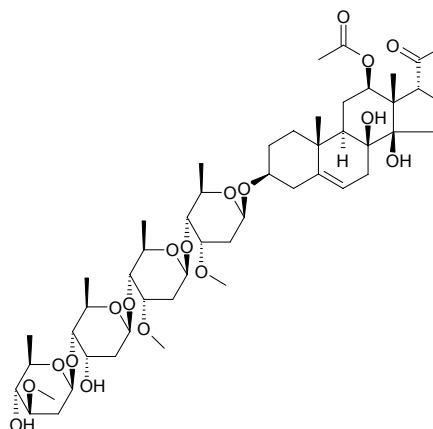
Source: ROU HONG MA LI JIN *Asclepias incarnata* (aerial parts). Ref: 3925.



**451 12-O-Acetylleanon-3-O- $\beta$ -D-oleandropyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-digitoxopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-cymaropyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-cymaropyranoside**

$C_{50}H_{80}O_{18}$  (969.18). Amorphous powder,  $[\alpha]_D^{27} = -2.7^\circ$  ( $c = 0.17$ , MeOH).

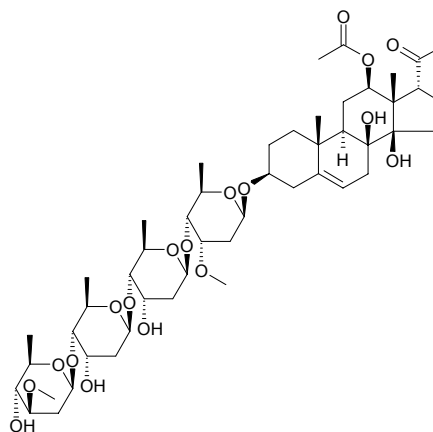
Source: ROU HONG MA LI JIN *Asclepias incarnata* (aerial parts). Ref: 3925.



**452 12-O-Acetylleanon-3-O- $\beta$ -D-oleandropyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-digitoxopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-digitoxopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-cymaropyranoside**

$C_{49}H_{78}O_{18}$  (955.16). Amorphous powder,  $[\alpha]_D^{23} = -16.7^\circ$  ( $c = 0.66$ , MeOH).

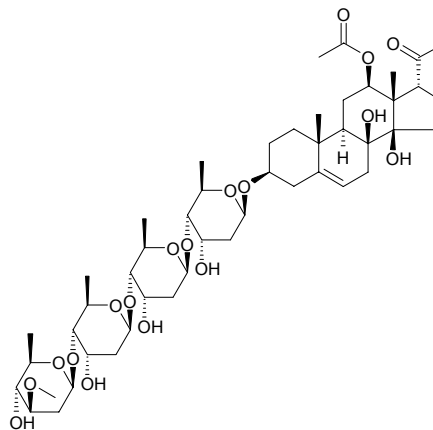
Source: ROU HONG MA LI JIN *Asclepias incarnata* (aerial parts). Ref: 3925.



**453 12-O-Acetylleanon-3-O- $\beta$ -D-oleandropyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-digitoxopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-digitoxopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-digitoxopyranoside**

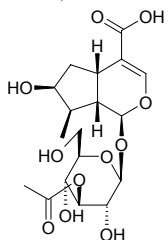
$C_{48}H_{76}O_{18}$  (941.13). Amorphous powder,  $[\alpha]_D^{24} = +21.5^\circ$  ( $c = 0.59$ , MeOH).

Source: ROU HONG MA LI JIN *Asclepias incarnata* (aerial parts). Ref: 3925.

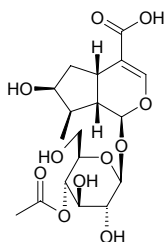


**454 3'-O-Acetylloganic acid**

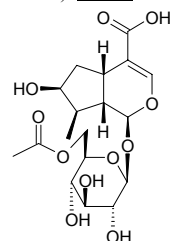
$C_{18}H_{26}O_{11}$  (418.40). White amorphous solid,  $[\alpha]_D^{20} = -70.1^\circ$  ( $c = 0.06$ , MeOH). Source: MA QIAN ZI *Strychnos nux-vomica*. Ref: 3492.

**455 4'-O-Acetylloganic acid**

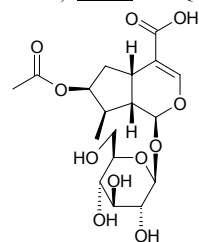
$C_{18}H_{26}O_{11}$  (418.40). White amorphous solid,  $[\alpha]_D^{20} = -67.6^\circ$  ( $c = 0.07$ , MeOH). Source: MA QIAN ZI *Strychnos nux-vomica*. Ref: 3492.

**456 6'-O-Acetylloganic acid**

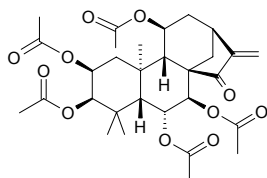
$C_{18}H_{26}O_{11}$  (418.40). White amorphous solid,  $[\alpha]_D^{20} = -85.1^\circ$  ( $c = 0.07$ , MeOH). Source: MA QIAN ZI *Strychnos nux-vomica*. Ref: 3492.

**457 7-O-Acetylloganic acid**

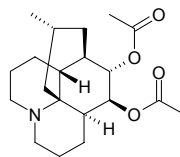
$C_{18}H_{26}O_{11}$  (418.40). White amorphous solid,  $[\alpha]_D^{20} = -67.2^\circ$  ( $c = 0.07$ , MeOH). Source: MA QIAN ZI *Strychnos nux-vomica*. Ref: 3492.

**458 7-Acetylshanrubescensin A**

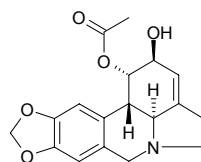
$C_{30}H_{40}O_{11}$  (576.65). mp 185–186°C,  $[\alpha]_D^{22} = -54.5^\circ$  ( $c = 0.46$ ,  $CHCl_3$ ). Source: MAO GENG XIA YE XIANG CHA CAI *Isodon angustifolius* var. *glabrescens*. Ref: 4067.

**459 Acetyllycoclavine**

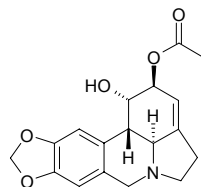
$C_{20}H_{31}NO_4$  (349.47). Source: QIAN CENG TA *Huperzia serrata* [Syn. *Lycopodium serratum*]. Ref: 4388.

**460 1-O-Acetyllycorine**

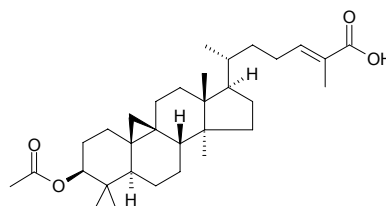
$C_{18}H_{19}NO_5$  (329.36). Pharm: AChE inhibitor ( $IC_{50} = (0.96 \pm 0.04) \mu\text{mol/L}$ , control Galanthamine,  $IC_{50} = (1.9 \pm 0.2) \mu\text{mol/L}$ ). Source: *Crinum moorei*. Ref: 4952.

**461 2-O-Acetyllycorine**

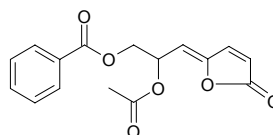
$C_{18}H_{19}NO_5$  (329.36). Pale yellow crystals, 224–225°C,  $[\alpha]_D^{28} = +22^\circ$  ( $c = 0.1$ , EtOH). Source: XUE PIAN LIAN *Leucojum vernum* (bulb). Ref: 5026.

**462 3β-O-Acetyl-mangiferolic acid**

3β-Acetoxy-9,19-cyclolanost-24(E)-en-26-oic acid  $C_{32}H_{50}O_4$  (498.75). Colorless acicular crystals, mp 180–182°C (petroleum spirit-acetic ester). Source: DI FENG PI *Illicium difengpi*. Ref: 395.

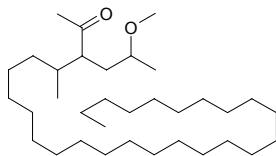
**463 Acetylmelodorinol**

$C_{16}H_{14}O_6$  (302.29). Pharm: Cytotoxic (BT474:  $IC_{50} = 0.2 \mu\text{g/mL}$ , control Doxorubicin hydrochloride,  $IC_{50} = 0.1 \mu\text{g/mL}$ ; CHAGO:  $IC_{50} = 3.1 \mu\text{g/mL}$ , Doxorubicin hydrochloride,  $IC_{50} = 2.3 \mu\text{g/mL}$ ; HepG2:  $IC_{50} = 2.1 \mu\text{g/mL}$ , Doxorubicin hydrochloride,  $IC_{50} = 0.9 \mu\text{g/mL}$ ; Kato3:  $IC_{50} = 0.4 \mu\text{g/mL}$ , Doxorubicin hydrochloride,  $IC_{50} = 1.7 \mu\text{g/mL}$ ; SW 620:  $IC_{50} = 0.3 \mu\text{g/mL}$ , Doxorubicin hydrochloride,  $IC_{50} = 1.1 \mu\text{g/mL}$ ). Source: *Melodorum fruticosum* (flower). Ref: 5245.

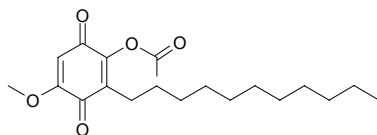


**464 4-Acetyl-2-methoxy-5-methyltriacontane**

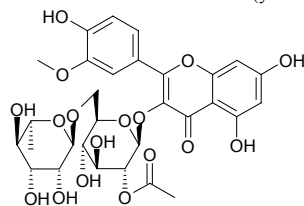
$C_{34}H_{68}O_2$  (508.92). Source: XIAN MAO *Curculigo orchoides*. Ref: 660.

**465 2-O-Acetyl-5-O-methylembelin**

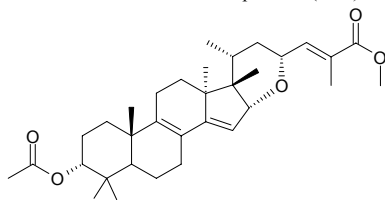
$C_{20}H_{30}O_5$  (350.46). Yellow amorphous powder. Pharm: Cytotoxic inactive (*in vitro*, HL-60,  $IC_{50} > 100\mu\text{g/mL}$ ; Bel7402,  $IC_{50} > 100\mu\text{g/mL}$ ; HeLa,  $IC_{50} > 100\mu\text{g/mL}$ ; U937,  $IC_{50} > 100\mu\text{g/mL}$ ; control Colchicine, HL-60,  $IC_{50} = 1.6\mu\text{g/mL}$ ; Bel7402,  $IC_{50} = 0.4\mu\text{g/mL}$ ; HeLa,  $IC_{50} = 0.1\mu\text{g/mL}$ ; U937,  $IC_{50} = 0.1\mu\text{g/mL}$ ). Source: LA ZHU GUO *Aegiceras corniculatum* (stem and twig; yield = 0.00019%). Ref: 4746.

**466 2''-O-Acetyl-3'-O-methylrutin**

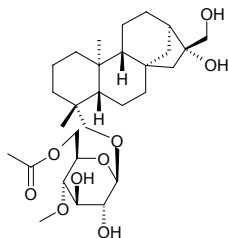
3'-O-Methylquercetin-3-O- $\alpha$ -L-rhamnopyranosyl(1 $\rightarrow$ 6)-2''-O-acetyl- $\beta$ -D-glucopyranoside  $C_{30}H_{34}O_{17}$  (666.6). Yellow powder,  $[\alpha]_D^{27} = -13.0^\circ$  ( $c = 1.0$ , MeOH). Pharm: Aldose reductase inhibitor (*in vitro*, rat lens aldose reductase,  $IC_{50} = 9.8\mu\text{mol/L}$ ; control Epalrestat,  $IC_{50} = 0.072\mu\text{mol/L}$ ). Source: BAI MEI HUA *Prunus mume* (yield = 0.0008%fw). Ref: 4641.

**467 3-O-Acetyl-methyl-(24E)-3 $\alpha$ ,16 $\alpha$ ,23 $\alpha$ (=16R,23R)-trihydroxy-epoxy-17,14-friedolan-8,14,24-trien-26-oate**

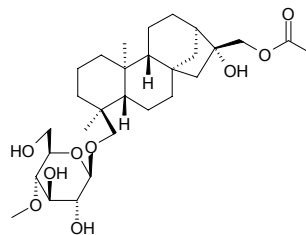
$C_{33}H_{48}O_5$  (524.75). Gum,  $[\alpha]_D^{25} = -13^\circ$  ( $c = 0.0093$ ,  $CHCl_3$ ). Source: MEI LI TENG HUANG *Garcinia speciosa* (bark). Ref: 3762.

**468 6'-O-Acetylmicrolepin**

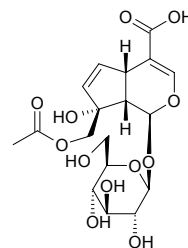
$C_{29}H_{48}O_9$  (540.70). Source: BIAN YUAN LIN GAI JUE *Microlepis marginata*. Ref: 660.

**469 17-O-Acetylmicrolepin**

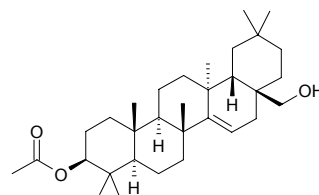
$C_{29}H_{48}O_9$  (540.70). Source: BIAN YUAN LIN GAI JUE *Microlepis marginata*. Ref: 660.

**470 10-O-Acetylmonotropein**

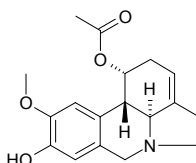
$C_{18}H_{24}O_{12}$  (432.38). Amorphous powder,  $[\alpha]_D^{19} = -95.3^\circ$  ( $c = 1.2$ , MeOH). Source: TAI GUO BA JI *Morinda coreia*. Ref: 2002.

**471 Acetylmyricadiol**

$C_{32}H_{52}O_3$  (484.77). Source: SHANG LU *Phytolacca esculenta* [Syn. *Phytolacca acinosa*] (berry; yield = 0.001%dw). Ref: 4714.

**472 1-O-Acetylnorpluviine**

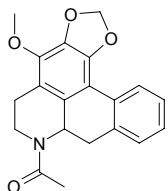
1-O-Acetyl-9-O-demethylpluviine  $C_{18}H_{21}NO_4$  (315.37). White amorphous powder (acetone-hexane), mp 185~187°C,  $[\alpha]_D^{22} = -67^\circ$  ( $c = 0.25$ , EtOH); white crystalline, mp 173°C. Pharm: Antiplasmodial (strain D10,  $IC_{50} = 28.3\mu\text{g/mL}$ , control Hamayne,  $IC_{50} = 15.6\mu\text{g/mL}$ , Chloroquine,  $IC_{50} = 0.002\mu\text{g/mL}$ ; strain FAC8,  $IC_{50} = 34.2\mu\text{g/mL}$ , Hamayne,  $IC_{50} = 18.2\mu\text{g/mL}$ , Chloroquine,  $IC_{50} = 0.01\mu\text{g/mL}$ ; cytotoxic, BL6,  $IC_{50} = 1.6\mu\text{g/mL}$ , Hamayne,  $IC_{50} = 9.4\mu\text{g/mL}$ , Chloroquine,  $IC_{50} = 20.9\mu\text{g/mL}$ , Daunomycin,  $IC_{50} = 0.43\mu\text{g/mL}$ )<sup>[3931]</sup>. Source: BU LANG WEI JI *Brunsvigia radulosa* (bulb)<sup>[3931]</sup>, *Ammocharis coranica* (bulb)<sup>[3952]</sup>. Ref: 3931, 3952.



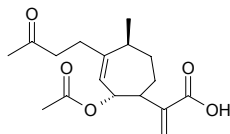


**473 (-)-N-Acetylnorstephagine**

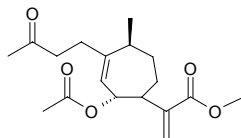
$C_{20}H_{19}NO_4$  (337.38). **Pharm:** Cytotoxic (*in vitro*, HepG<sub>2</sub>, IC<sub>50</sub> = 9.8 μg/mL; Hep2,2,15, IC<sub>50</sub> = 9.3 μg/mL). **Source:** YOU GOU YING ZHAO *Artabotrys uncinatus* (root). **Ref:** 3083.

**474 6- $\alpha$ -Acetyl-4-O-oxobedfordiaic acid**

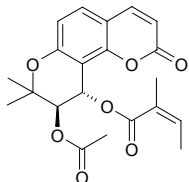
$C_{17}H_{24}O_5$  (308.38). Gummy material,  $[\alpha]_D^{25} = -15.5^\circ$ . **Source:** MAO RUI HUA YE TU *Inula verbascifolia*. **Ref:** 2041.

**475 6- $\alpha$ -Acetyl-4-O-oxobedfordiaic methyl ester**

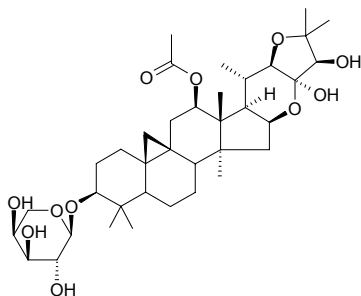
$C_{18}H_{26}O_5$  (322.40). Oil,  $[\alpha]_D^{25} = -19.53^\circ$ . **Source:** MAO RUI HUA YE TU *Inula verbascifolia*. **Ref:** 2041.

**476 (-)-3'-(S)-Acetyloxy-4'-(S)-angeloyloxy-3',4'-dihydroreselin**

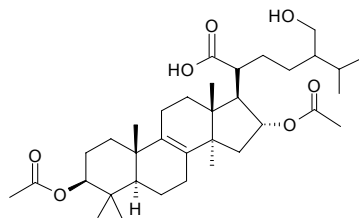
$C_{21}H_{22}O_7$  (386.41). Colorless acicular crystals, mp 172~174°C (petroleum spirit-acetic ester),  $[\alpha]_D^{18} = -27.2^\circ$  ( $c = 0.25$ , chloroform). **Source:** NAN LING QIAN HU *Peucedanum longshengens*. **Ref:** 373.

**477 (22R,23R,24R)-12 $\beta$ -Acetyloxy-16 $\beta$ ,23:22,25-diepoxy-23,24-dihydroxy-9,19-cyclolanostan-3 $\beta$ -yl  $\alpha$ -L-arabinopyranoside**

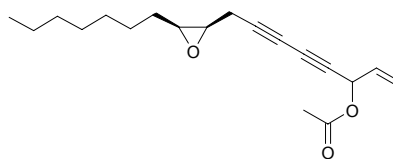
$C_{37}H_{58}O_{11}$  (678.87). Amorphous solid,  $[\alpha]_D^{26} = -20.0^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (HSC-2 cells, IC<sub>50</sub> = 170 μmol/L, control Etoposide, IC<sub>50</sub> = 24 μmol/L; HGF cells, IC<sub>50</sub> = 261 μmol/L). **Source:** ZONG ZHUANG SHENG MA *Cimicifuga racemosa* (rhizome). **Ref:** 4158.

**478 O-Acetylpachymic acid-25-ol**

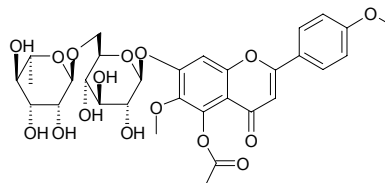
$C_{35}H_{56}O_7$  (588.83). Colorless acicular crystals, mp 244~245°C. **Source:** FU LING *Poria cocos*. **Ref:** 809.

**479 Acetyl panaxydol**

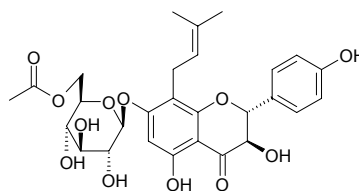
$C_{19}H_{26}O_3$  (302.42). **Source:** XI YANG SHEN *Panax quinquefolium*. **Ref:** 660.

**480 Acetylpectolarin**

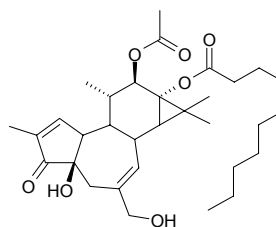
$C_{31}H_{36}O_{16}$  (664.62). mp 134~138°C (petroleum ether),  $[\alpha]_D^{18} = -68.5^\circ$ . **Pharm:** Diuretic; laxative. **Source:** LIU CHUAN YU *Linaria vulgaris*. **Ref:** 1.

**481 6'''-O-Acetylphellamurin**

$C_{28}H_{32}O_{12}$  (560.56). White powder. **Source:** RI BEN HUANG BAI *Phellodendron japonicum* (leaf). **Ref:** 4502.

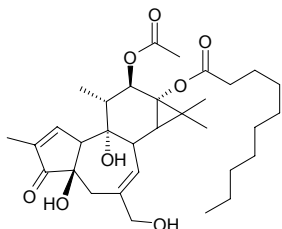
**482 12-O-Acetylphorbla-13-decanoate**

$C_{32}H_{48}O_7$  (544.74). **Source:** BA DOU *Croton tiglium*. **Ref:** 4552.

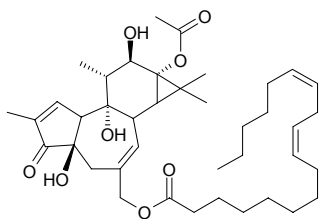


**483 12-O-Acetylphorbol-13-decanoate**

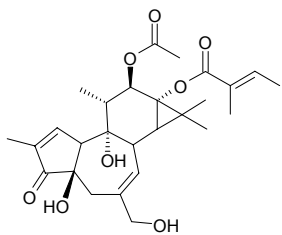
$C_{32}H_{48}O_8$  (560.73). **Pharm:** Anti-HIV-1 (MT-4 cells, HIV-1-induced cytopathic effect inhibitor,  $IC_{100} = 0.0076\mu\text{g/mL}$ ,  $CC_0 = 62.5\mu\text{g/mL}$ , control DS8000,  $IC_{100} = 3.9\mu\text{g/mL}$ ,  $CC_0 > 1000\mu\text{g/mL}$ ); PKC activator inactive (10ng/mL, activity rate = 0%). **Source:** BA DOU *Croton tiglium*. **Ref:** 3921.

**484 13-O-Acetylphorbol-20-linoleate**

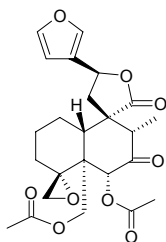
13-O-Acetylphorbol-20-(9Z,12Z-octadecadienoate)  $C_{40}H_{60}O_8$  (668.92). Oil,  $[\alpha]_D = +50^\circ$  ( $c = 0.05$ ,  $\text{CHCl}_3$ ). **Pharm:** Anti-HIV-1 (MT-4 cells, HIV-1-induced cytopathic effect inhibitor,  $IC_{100} = 15.6\mu\text{g/mL}$ ,  $CC_0 = 62.5\mu\text{g/mL}$ , control DS8000,  $IC_{100} = 3.9\mu\text{g/mL}$ ,  $CC_0 > 1000\mu\text{g/mL}$ ); PKC activator inactive (10ng/mL, activity rate = 0%). **Source:** BA DOU *Croton tiglium*. **Ref:** 3921.

**485 12-O-Acetylphorbol-13-tiglate**

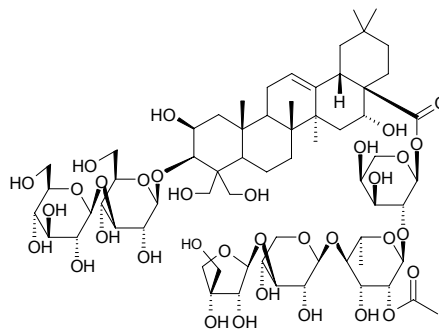
$C_{27}H_{36}O_8$  (488.58). Oil,  $[\alpha]_D = +17.0^\circ$  ( $c = 0.05$ ,  $\text{CHCl}_3$ ). **Pharm:** Anti-HIV-1 (MT-4 cells, HIV-1-induced cytopathic effect inhibitor,  $IC_{100} = 125\mu\text{g/mL}$ ,  $CC_0 = 500\mu\text{g/mL}$ , control DS8000,  $IC_{100} = 3.9\mu\text{g/mL}$ ,  $CC_0 > 1000\mu\text{g/mL}$ ); PKC activator (10ng/mL, activity rate = 16%). **Source:** BA DOU *Croton tiglium*. **Ref:** 3921.

**486 6-Acetylpicropoline**

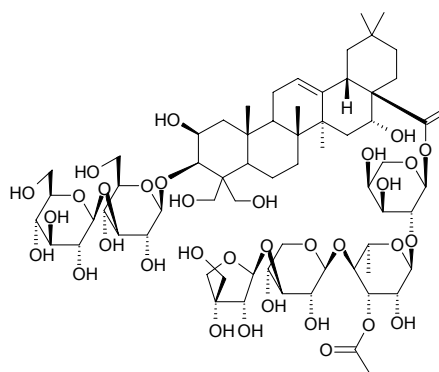
$C_{24}H_{28}O_9$  (460.49). **Pharm:** Bitter principle. **Source:** HUI BAI SHI CAN *Teucrium polium*. **Ref:** 658.

**487 2''-O-Acetylplatycodin D<sub>2</sub>**

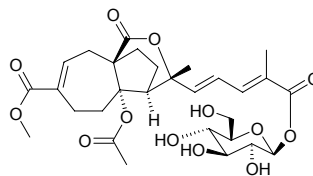
$C_{65}H_{104}O_{34}$  (1429.53). **Source:** JIE GENG *Platycodon grandiflorum*. **Ref:** 660.

**488 3''-O-Acetylplatycodin D<sub>2</sub>**

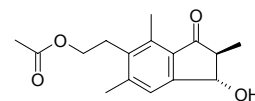
$C_{65}H_{104}O_{34}$  (1429.53). **Source:** JIE GENG *Platycodon grandiflorum*. **Ref:** 660.

**489 6'-O-Acetylpsedolaric acid B-O-β-D-glucopyranoside**

$C_{29}H_{38}O_{13}$  (594.62). White amorphous powder,  $[\alpha]_D^{20} = -7.2^\circ$  ( $c = 0.77$ ,  $\text{Me}_2\text{CO}$ ). **Source:** TU JING PI *Pseudolarix amabilis* [Syn. *Larix amabilis*; *Pseudolarix kaempferi*] (root bark: yield = 0.000067% dw). **Ref:** 4637.

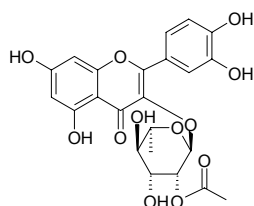
**490 Acetylpterosin C**

$C_{16}H_{20}O_4$  (276.34). mp 115~116°C. **Source:** JUE *Pteridium aquilinum* var. *latiusculum*. **Ref:** 6.

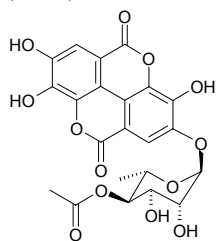


**491 2''-O-Acetylquercitrin**

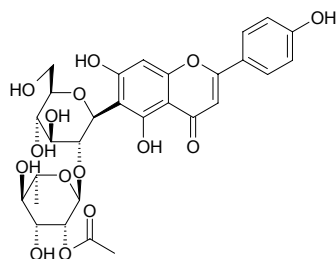
Quercetin-3-O-(2''-O-acetyl- $\alpha$ -rhamnopyranoside) C<sub>23</sub>H<sub>22</sub>O<sub>12</sub> (490.42). **Pharm:** Aldose reductase inhibitor (0.1  $\mu$ mol/L, InRt = 87%, 0.04  $\mu$ mol/L, InRt = 50%); used in treatment of diabetic cataract (one of the effective components in Red Wing Azalea). **Source:** LAN SHUI LIAN *Nymphaea caerulea*, *Azalea* sp. **Ref:** 1, 2342.

**492 4-(4''-O-Acetyl- $\alpha$ -rhamnopyranosyl)jellagic acid**

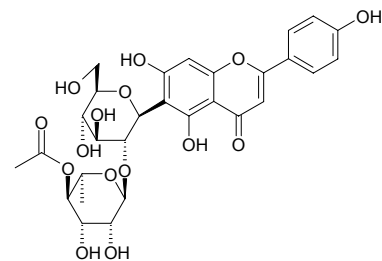
C<sub>22</sub>H<sub>18</sub>O<sub>13</sub> (490.38).  $[\alpha]_D^{27} = -84^\circ$  ( $c = 0.1$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, P<sub>388</sub>, IC<sub>50</sub> = 52  $\mu$ g/mL; P<sub>388</sub>/ADM, IC<sub>50</sub> = 19  $\mu$ g/mL; K562, IC<sub>50</sub> = 80  $\mu$ g/mL; K562/ADM, IC<sub>50</sub> = 56  $\mu$ g/mL; B16, IC<sub>50</sub> = 52  $\mu$ g/mL; HeLa, IC<sub>50</sub> = 76  $\mu$ g/mL; KB, IC<sub>50</sub> = 61  $\mu$ g/mL); HIV-1 protease inhibitor (IC<sub>50</sub> = 11.0  $\mu$ g/mL). **Source:** YUN NAN FENG CHE ZI *Combretum yunnanensis* (branch) **Ref:** 4693.

**493 2'''-O-Acetyl-2''-O- $\alpha$ -L-rhamnopyranosylisovitexin**

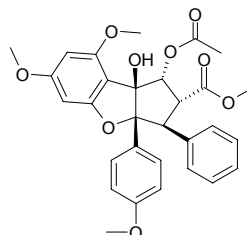
C<sub>29</sub>H<sub>32</sub>O<sub>15</sub> (620.57). Amorphous powder. **Source:** RI BEN SHUANG HU DIE *Tripterospermum japonicum*. **Ref:** 3533.

**494 4'''-O-Acetyl-2''-O- $\alpha$ -L-rhamnopyranosylisovitexin**

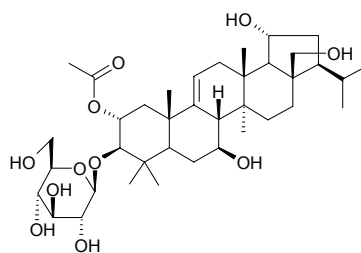
C<sub>29</sub>H<sub>32</sub>O<sub>15</sub> (620.57). Amorphous powder,  $[\alpha]_D^{22} = -34.8^\circ$  ( $c = 0.58$ , MeOH). **Source:** RI BEN SHUANG HU DIE *Tripterospermum japonicum*. **Ref:** 3533.

**495 1-O-Acetyl-rocaglic acid methyl ester**

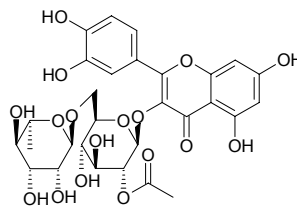
[253271-50-0] C<sub>30</sub>H<sub>30</sub>O<sub>9</sub> (534.57). **Pharm:** Insecticidal (neonate larvae of *Spodoptera littoralis*, LC<sub>50</sub> = 6.62 mg/L, EC<sub>50</sub> = 1.03 mg/L; control Azadirachtin, LC<sub>50</sub> = 0.9 mg/L, EC<sub>50</sub> = 0.04 mg/L)<sup>[2376]</sup>. **Source:** *Aglaia duperreana*. **Ref:** 2376.

**496 2-O-Acetyl-rubianoside IV**

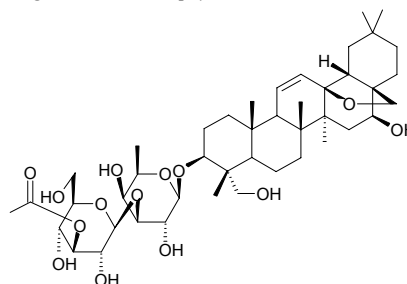
C<sub>38</sub>H<sub>62</sub>O<sub>11</sub> (694.91). **Pharm:** Anti-inflammatory inactive (inhibits nitric oxide production, LPS-activated mouse peritoneal macrophages, 100  $\mu$ mol/L, InRt = (-6.8 ± 3.6)%, control L-NMMA, IC<sub>50</sub> = 57  $\mu$ mol/L);  $\beta$ -hexosaminidase inhibitor inactive (rat basophilic cell RBL-2H3, inhibits release of  $\beta$ -hexosaminidase, 100  $\mu$ mol/L, InRt = (-2.1 ± 4.2)%). **Source:** XIAO HONG SHEN *Rubia yunnanensis* (root). **Ref:** 4347.

**497 2''-O-Acetylrutin**

Quercetin-3-O- $\alpha$ -L-rhamnopyranosyl(1→6)-2''-O-acetyl- $\beta$ -D-glucopyranoside C<sub>29</sub>H<sub>32</sub>O<sub>17</sub> (652.57). Yellow powder,  $[\alpha]_D^{28} = -28.9^\circ$  ( $c = 0.80$ , MeOH). **Pharm:** Aldose reductase inhibitor (*in vitro*, rat lens aldose reductase, IC<sub>50</sub> = 18  $\mu$ mol/L; control Epalrestat, IC<sub>50</sub> = 0.072  $\mu$ mol/L). **Source:** BAI MEI HUA *Prunus mume* (flower: yield = 0.0039%fw). **Ref:** 4641.

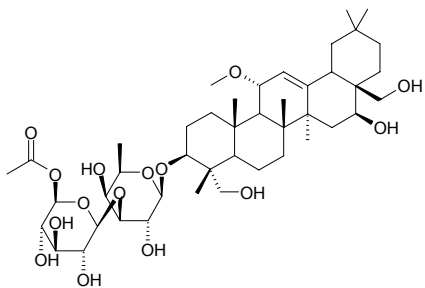
**498 3''-O-Acetylsaikosaponin A**

C<sub>44</sub>H<sub>70</sub>O<sub>14</sub> (823.04). **Source:** ZHAI ZHU YE CHAI HU *Bupleurum marginatum* var. *stenophyllum*. **Ref:** 660.

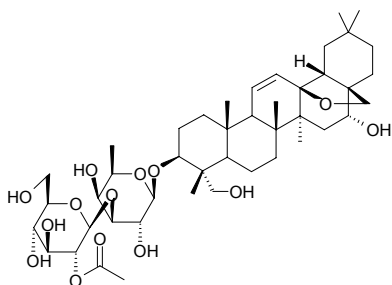


**499 6''-O-Acetylsaikosaponin B<sub>3</sub>**

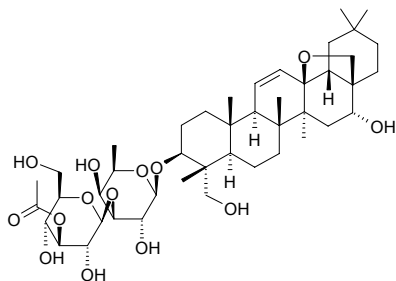
C<sub>44</sub>H<sub>72</sub>O<sub>15</sub> (841.06). Source: WEN CHUAN CHAI HU *Bupleurum wenchuanense*. Ref: 660.

**500 2''-O-Acetylsaikosaponin D**

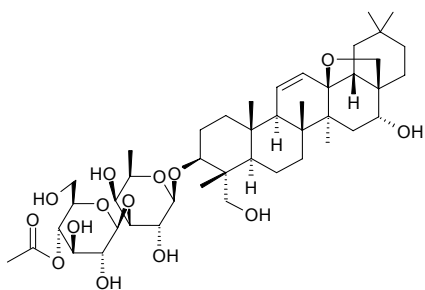
C<sub>44</sub>H<sub>70</sub>O<sub>14</sub> (823.04). Source: WEN CHUAN CHAI HU *Bupleurum wenchuanense*. Ref: 660.

**501 3''-O-Acetylsaikosaponin D**

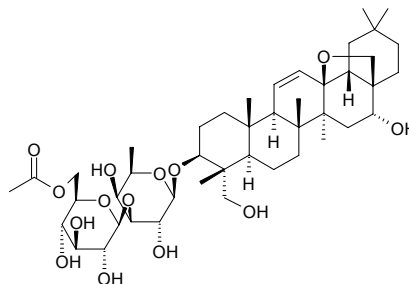
C<sub>44</sub>H<sub>70</sub>O<sub>14</sub> (823.04). Source: HONG CHAI HU *Bupleurum scorzonerifolium*. Ref: 2247.

**502 4''-O-Acetylsaikosaponin D**

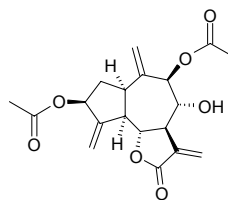
C<sub>44</sub>H<sub>70</sub>O<sub>14</sub> (823.04). Source: ZI HU *Bupleurum falcatum*. Ref: 2247.

**503 6''-O-Acetylsaikosaponin D**

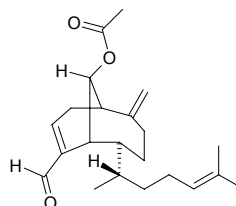
C<sub>44</sub>H<sub>70</sub>O<sub>14</sub> (823.04). Source: HONG CHAI HU *Bupleurum scorzonerifolium*. Ref: 2247.

**504 9-O-Acetylsalograviolide A**

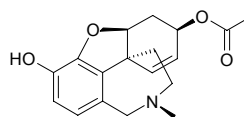
C<sub>19</sub>H<sub>22</sub>O<sub>7</sub> (362.38). Pharm: Antifungal (*Aspergillus niger*, MIC = 3.13 μg/mL; *Aspergillus ochraceus*, MIC = 0.78 μg/mL; *Penicillium ochrocloron*, MIC = 6.25 μg/mL; *Cladosporium cladosporioides*, MIC = 0.78 μg/mL; *Fusarium tricinctum*, MIC = 6.25 μg/mL; *Phomopsis helianthi*, MIC = 0.78 μg/mL; *Trichoderma viride*, inactive)<sup>[2361]</sup>. Source: NI GU LA SHI CHE JU *Centaurea nicolai*. Ref: 2361.

**505 Acetylsanadaol**

C<sub>22</sub>H<sub>32</sub>O<sub>3</sub> (344.50). [α]<sub>D</sub><sup>20</sup> = +12.86° (c = 0.30, CH<sub>2</sub>Cl<sub>2</sub>). Source: XIAN ZHUANG WANG DI ZAO *Dictyota linearis*. Ref: 3818.

**506 3-O-Acetylsanguinine**

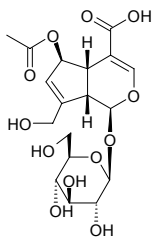
C<sub>18</sub>H<sub>21</sub>NO<sub>4</sub> (315.37). mp 215–218°C, [α]<sub>D</sub><sup>20</sup> = -13.5° (c = 0.2, MeOH). Pharm: Antitrypanosomal (*Trypanosoma brucei*, IC<sub>50</sub> = 1.1 μg/mL; *Trypanosoma cruzi*, IC<sub>50</sub> = 2.3 μg/mL); antiprotozoal inactive (*Plasmodium falciparum*, *Leishmania donovani*). Source: KEN NI YA WEN SHU LAN *Crinum kirkii* (bulb). Ref: 3892.



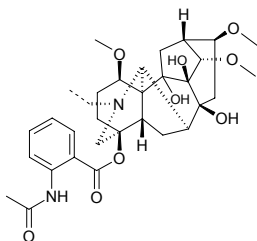
**507 6-O-Acetylscandoside**

$C_{18}H_{24}O_{12}$  (432.38). Amorphous powder,  $[\alpha]_D^{19} = -82.7^\circ$  ( $c = 1.2$ , MeOH).

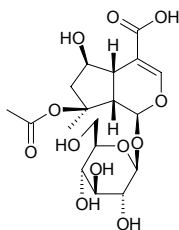
**Source:** TAI GUO BA JI *Morinda coreia*. **Ref:** 2002.

**508 N-Acetylsepaconitine**

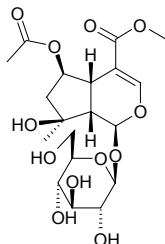
$C_{32}H_{44}N_2O_9$  (600.72). **Pharm:** Anti-inflammatory (modified assay of Berridge, 100 $\mu$ g/mL, InRt = 25.00%); tyrosinase inhibitor inactive (control Kojic acid,  $IC_{50} = (16.67 \pm 0.52) \mu\text{mol/L}$ , *L*-Mimosine,  $IC_{50} = (3.68 \pm 0.02) \mu\text{mol/L}$ ); antioxidant (DPPH scavenger, 1 $\mu$ mol/L, ScRt = 38.1%; control BHA, 1 $\mu$ mol/L, ScRt = 92.5%). **Source:** BAI HOU WU TOU *Aconitum leucostomum*, *Aconitum leave* (aerial parts). **Ref:** 1521, 5271.

**509 8-O-Acetylshanzhiside**

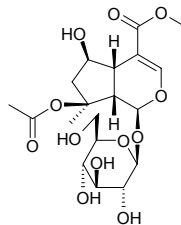
$C_{18}H_{26}O_{12}$  (434.40).  $[\alpha]_D^{28} = -91.7^\circ$  ( $c = 0.102$ , MeOH). **Pharm:** Cytotoxic inactive (Vero cells); COX-2 inhibitor inactive. **Source:** HUA YE JIA DU JUAN *Barleria lupulina* (flower). **Ref:** 5456.

**510 6-O-Acetylshanzhiside methyl ester**

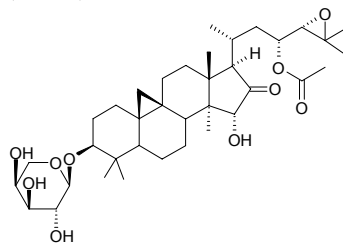
$C_{19}H_{28}O_{12}$  (448.23).  $[\alpha]_D^{28} = -118.0^\circ$  ( $c = 0.15$ , MeOH). **Pharm:** Cytotoxic inactive (Vero cells); COX-2 inhibitor inactive. **Source:** HUA YE JIA DU JUAN *Barleria lupulina* (flower). **Ref:** 5456.

**511 8-O-Acetylshanzhiside methyl ester**

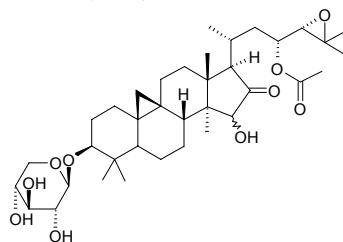
Barlerin  $C_{19}H_{28}O_{12}$  (448.43).  $[\alpha]_D^{29} = -56.0^\circ$  ( $c = 0.103$ , MeOH). **Pharm:** Cytotoxic inactive (Vero cells)<sup>[5456]</sup>; COX-2 inhibitor inactive<sup>[5456]</sup>. **Source:** HUA YE JIA DU JUAN *Barleria lupulina* (flower), MENG GU CAO SU *Phlomis mongolica*. **Ref:** 381, 560, 5456.

**512 23-O-Acetylshengmanol 3-O- $\alpha$ -L-arabinopyranoside**

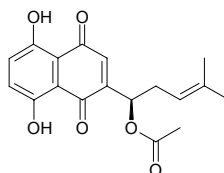
$C_{37}H_{58}O_{10}$  (662.87). Amorphous solid,  $[\alpha]_D^{26} = -26.0^\circ$  ( $c = 0.10$ , MeOH); white powder, mp 262~263 $^\circ$ C,  $[\alpha]_D^{20} = -0.012^\circ$  ( $c = 0.43$ ,  $CHCl_3$ ). **Pharm:** Cytotoxic (HSC-2 cells,  $IC_{50} = 63 \mu\text{mol/L}$ , control Etoposide,  $IC_{50} = 24 \mu\text{mol/L}$ ; HGF cells,  $IC_{50} = 267 \mu\text{mol/L}$ )<sup>[4158]</sup>. **Source:** SHENG MA *Cimicifuga foetida*, ZONG ZHUANG SHENG MA *Cimicifuga racemosa* (rhizome). **Ref:** 2218, 4158.

**513 Acetyl shengmanol xyloside**

$C_{37}H_{58}O_{10}$  (662.87). **Source:** RI BEN SHENG MA *Cimicifuga japonica*. **Ref:** 660.

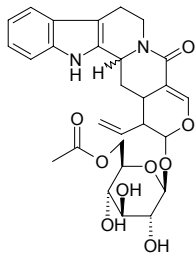
**514 Acetylshikonin**

$C_{18}H_{18}O_6$  (330.34). **Pharm:** Contracts blood vessels (inhibits ACh-induced relaxation on intact thoracic aorta,  $IC_{50} = (0.831 \pm 0.138) \mu\text{mol/L}$ , control 1,4-Naphthoquinone  $IC_{50} = (1.504 \pm 0.171) \mu\text{mol/L}$ )<sup>[4916]</sup>. **Source:** DIAN ZI CAO *Onosma paniculatum* (root: mean content of 3 origins = 0.14%<sup>[5508]</sup>), JIA ZI CAO *Arnebia guttata* (root: mean content of 2 origins = 0.18%<sup>[5508]</sup>), XI HUA DIAN ZI CAO *Onosma hookeri* (root: content = 0.15%<sup>[5508]</sup>), XIN ZANG JIA ZI CAO *Arnebia euchroma* (root: mean content of 3 origins = 1.23%<sup>[5508]</sup>), ZI CAO *Lithospermum erythrorhizon* (root: mean content of 6 origins = 0.45%<sup>[5508]</sup>). **Ref:** 1521, 2193, 4916, 5501, 5508.

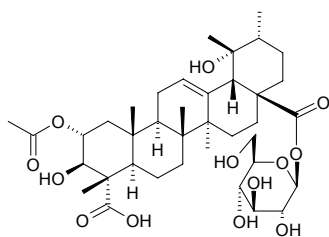


**515 6-O-Acetylstritosamide**

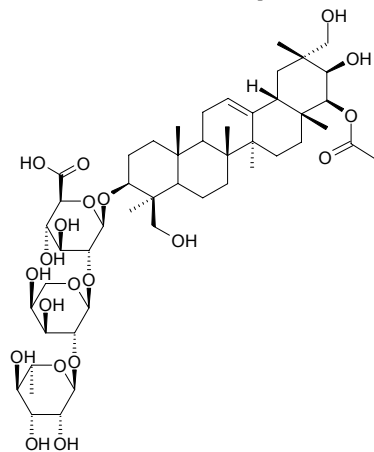
$C_{28}H_{32}N_2O_9$  (540.58).  $[\alpha]_D = -50.5^\circ$  ( $c = 0.62$ , MeOH). **Pharm:** Antibacterial (*in vitro*: *Staphylococcus aureus*, *Bacillus subtilis*, *Bacillus coli*, *Bacillus diptheriae*, *Streptococcus* sp., *Streptobacillus* sp., *Salmonella* sp., *Bacillus proteus*, *Bacillus lactis*, *Klebsiella pneumoniae*); antileishmanial; antifungal (*Aspergillus niger*).  
**Source:** DONG FANG WU TAN *Nauclea orientalis*. **Ref:** 2178.

**516 2-O-Acetylsuavissimoside F<sub>1</sub>**

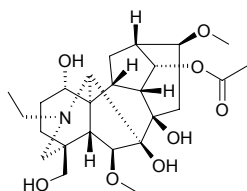
$C_{38}H_{58}O_{13}$  (722.88). Amorphous,  $[\alpha]_D^{28} = -11.9^\circ$  ( $c = 0.25$ , MeOH) **Source:** SHE PAO JIN *Rubus cochinchinensis*. **Ref:** 1905.

**517 Acetyl-subproside II**

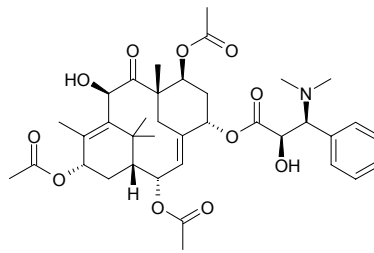
3-O- $\alpha$ -L-Rhamnopyranosyl(1 $\rightarrow$ 2)- $\alpha$ -L-arabinopyranosyl(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranosyl kudzusapogenol A 22-O-acetate  $C_{49}H_{78}O_{20}$  (987.16). **Source:** CHAO XIAN LANG YA CI *Sophora koreensis* (root). **Ref:** 4056.

**518 14-O-Acetyltakaosamine**

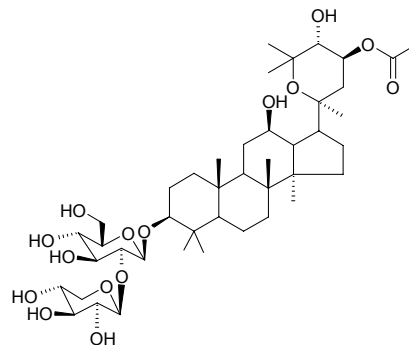
$C_{25}H_{39}NO_8$  (481.59). Amorphous solid,  $[\alpha]_D^{25} = +25.3^\circ$  ( $c = 0.4$ ,  $CHCl_3$ ).  
**Source:** DONG FANG FEI YAN CAO *Consolida orientalis* (aerial parts).  
**Ref:** 4283.

**519 7-O-Acetyltaxine A**

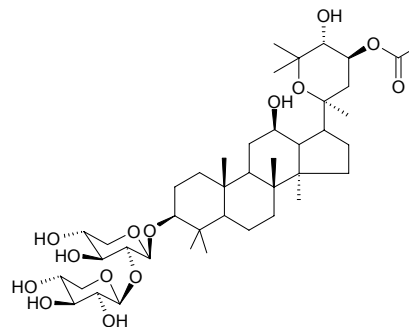
$C_{37}H_{49}NO_{11}$  (683.80). mp 178~180°C,  $[\alpha]_D = -96^\circ$  ( $CHCl_3$ ). **Pharm:** Cytotoxic inactive (A549 cell line)<sup>[5225]</sup>. **Source:** JIANG GUO ZI SHAN *Taxus baccata*, XI MA LA YA HONG DOU SHAN *Taxus wallichiana* (needle leaf). **Ref:** 662, 5225.

**520 23-O-Acetyl-3 $\beta$ ,12 $\beta$ ,23S,24R-tetrahydroxy-20S,25-epoxydammarane 3-O- $\beta$ -D-xylopyranosyl(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranoside**

$C_{43}H_{72}O_{15}$  (829.04). Amorphous powder,  $[\alpha]_D^{20} = +39.5^\circ$  ( $c = 0.83$ , MeOH).  
**Source:** JIAO GU LAN *Gynostemma pentaphyllum* (aerial part: yield = 0.0035%dw). **Ref:** 4751.

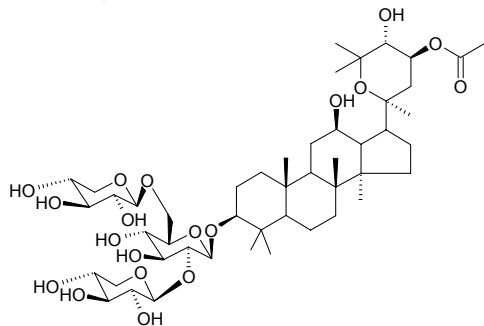
**521 23-O-Acetyl-3 $\beta$ ,12 $\beta$ ,23S,24R-tetrahydroxy-20S,25-epoxydammarane 3-O- $\beta$ -D-xylopyranosyl(1 $\rightarrow$ 2)- $\beta$ -D-xylopyranoside**

$C_{42}H_{70}O_{14}$  (799.02). Amorphous powder,  $[\alpha]_D^{20} = +36.8^\circ$  ( $c = 0.98$ , MeOH).  
**Source:** JIAO GU LAN *Gynostemma pentaphyllum* (aerial parts: yield = 0.0027%dw). **Ref:** 4751.



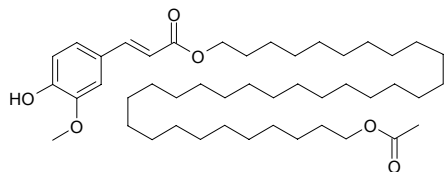
**522 23-O-Acetyl-3 $\beta$ ,12 $\beta$ ,23S,24R-tetrahydroxy-20S,25-epoxydammarane 3-O-[ $\beta$ -D-xylopyranosyl(1 $\rightarrow$ 2)] [ $\beta$ -D-xylopyranosyl(1 $\rightarrow$ 6)]- $\beta$ -D-glucopyranoside**

C<sub>48</sub>H<sub>80</sub>O<sub>19</sub> (961.16). Amorphous powder,  $[\alpha]_D^{20} = +17.6^\circ$  ( $c = 1.03$ , MeOH).  
**Source:** JIAO GU LAN *Gynostemma pentaphyllum* (aerial part: yield = 0.0035%dw). **Ref:** 4751.



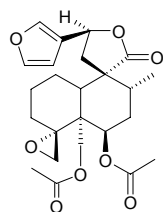
**523 34-O-Acetyltetracontanylferulate**

C<sub>46</sub>H<sub>80</sub>O<sub>6</sub> (729.15). Colorless powder, mp 68–69°C. **Source:** SHUANG SE JI DAN HUA *Plumeria bicolor*. **Ref:** 2286.



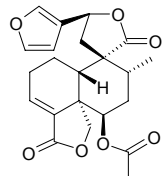
**524 6-Acetyl-teucjaponin B**

Montanin C C<sub>24</sub>H<sub>30</sub>O<sub>8</sub> (446.50). **Pharm:** Insect antifeedant (fifth instar larvae of *Spodoptera littoralis*, dual-choice feeding assays, dose = 10 $\mu$ g/cm<sup>2</sup>, FR<sub>50</sub> = 0.07 $\pm$ 0.02, dose = 1 $\mu$ g/cm<sup>2</sup>, FR<sub>50</sub> = 0.34 $\pm$ 0.06<sup>[3761]</sup>). **Source:** SHAN XIANG KE KE *Teucrium montanum*, SUAN WEI XIANG KE KE *Teucrium scordium*. **Ref:** 1521, 3761.



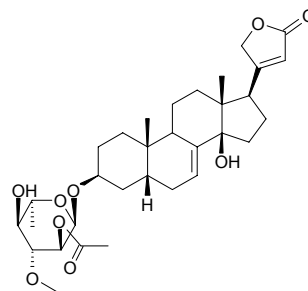
**525 6 $\beta$ -Acetylteuscordin**

C<sub>22</sub>H<sub>24</sub>O<sub>7</sub> (400.43). **Pharm:** Insect antifeedant (*Spodoptera litura*, 10 $\mu$ g/cm<sup>2</sup>, antifeedant activity = (73 $\pm$ 2)%, control Azadirachtin A, 0.5 $\mu$ g/cm<sup>2</sup>, antifeedant activity = (79 $\pm$ 2)%; *Plutella xylostella*, 10 $\mu$ g/cm<sup>2</sup>, antifeedant activity = (72 $\pm$ 2)%, Azadirachtin A, 0.5 $\mu$ g/cm<sup>2</sup>, antifeedant activity = (71 $\pm$ 2)%). **Source:** RONG MAO XIANG KE KE *Teucrium tomentosum* (aerial parts), SUAN WEI XIANG KE KE *Teucrium scordium*. **Ref:** 3478.



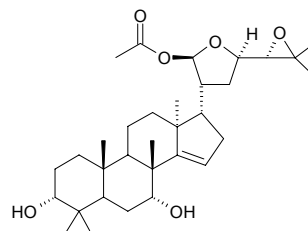
**526 3 $\beta$ -O-(2'-O-Acetyl- $\alpha$ -L-thevetosyl)-14 $\beta$ -hydroxy-7-en-5 $\beta$ -card-20(22)-enolide**

7,8-Dehydrocerberin C<sub>32</sub>H<sub>46</sub>O<sub>9</sub> (574.72). White solid, mp 103–105°C.  
**Pharm:** Cytotoxic (KB, ED<sub>50</sub> = 1.75 $\mu$ g/mL; BC, ED<sub>50</sub> = 0.0006 $\mu$ g/mL; NCI-H187, ED<sub>50</sub> = 16.7 $\mu$ g/mL). **Source:** NIU XIN QIE ZI *Cerbera manghas*. **Ref:** 2594.



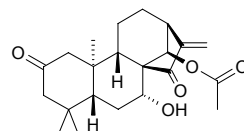
**527 21-O-Acetyl toosendantriol**

C<sub>32</sub>H<sub>50</sub>O<sub>6</sub> (530.75). **Source:** CHUAN LIAN ZI *Melia toosendan*. **Ref:** 660.



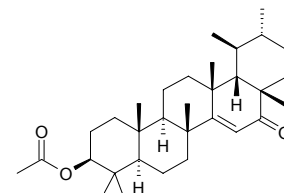
**528 14-Acetylbrosin B**

C<sub>22</sub>H<sub>30</sub>O<sub>5</sub> (374.48). mp 194–196°C. **Source:** XIANG CHA CAI *Isodon amethystoides*. **Ref:** 4067.



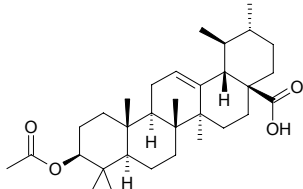
**529 3 $\beta$ -Acetyllursa-14-en-16-one**

C<sub>32</sub>H<sub>50</sub>O<sub>3</sub> (482.75). mp 167–169°C. **Source:** SHUI TONG MU *Ficus fistulosa* [Syn. *Ficus harlandii*]. **Ref:** 1906.

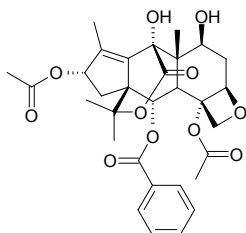


**530 3-O-Acetylursolic acid**

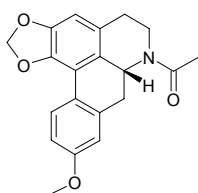
$C_{32}H_{50}O_4$  (498.75). mp 289~290°C. **Pharm:** Cytotoxic (*in vitro*, HONE-1 cell,  $IC_{50} > 10\mu\text{mol/L}$ , control Etoposide,  $IC_{50} = (0.5\pm 0.2)\mu\text{mol/L}$ , *cis*-Platin,  $IC_{50} = (3.2\pm 0.5)\mu\text{mol/L}$ ; KB cell,  $IC_{50} = (8.4\pm 2.9)\mu\text{mol/L}$ , Etoposide,  $IC_{50} = (0.9\pm 0.3)\mu\text{mol/L}$ , *cis*-Platin,  $IC_{50} = (4.4\pm 0.9)\mu\text{mol/L}$ ; HT29 cell,  $IC_{50} > 10\mu\text{mol/L}$ , Etoposide,  $IC_{50} = (2.4\pm 0.5)\mu\text{mol/L}$ , *cis*-Platin,  $IC_{50} = (5.7\pm 1.1)\mu\text{mol/L}$ )<sup>[5254]</sup>. **Source:** NV ZHEN ZI *Ligustrum lucidum*, QIU MU GUA *Chaenomeles lagenaria* [Syn. *Chaenomeles speciosa*], RONG SHU *Ficus microcarpa* (aerial root), SUO YANG *Cynomorium songaricum*, YANG MEI SHU PI *Myrica rubra* (bark: yield = 0.0021%)<sup>[4163]</sup>, occurs in many plants. **Ref:** 610, 660, 4163, 5254.

**531 13-O-Acetylwallifolol**

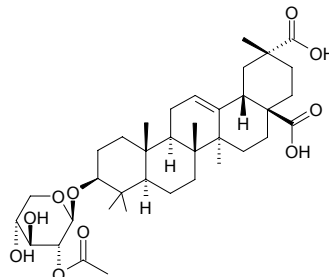
[Up here]  $C_{31}H_{36}O_{11}$  (584.63). Yellow solid. **Pharm:** Cytotoxic (*in vitro*, KB,  $IC_{50} = 2.91\mu\text{g/mL}$ , Hepa59T/VGH,  $IC_{50} = 13.92\mu\text{g/mL}$ ; control Paclitaxel, KB,  $IC_{50} = 0.001\mu\text{g/mL}$ , Hepa59T/VGH,  $IC_{50} = 0.001\mu\text{g/mL}$ ). **Source:** SU MEN DA LA HONG DOU SHAN *Taxus sumatрана* (leaf and twig: yield = 0.00014%dw). **Ref:** 4666.

**532 N-Acetylxylopinine**

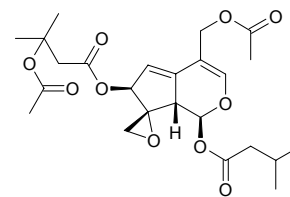
$C_{20}H_{19}NO_4$  (337.38). **Pharm:** Platelet aggregation inhibitor (rat blood: 2~5 $\mu\text{mol/L}$  ADP-induced,  $IC_{50} = 440\mu\text{mol/L}$ , control Acetylsalicylic acid,  $IC_{50} > 1000\mu\text{mol/L}$ ; 2~5 $\mu\text{g/mL}$  collagen-induced,  $IC_{50} = 8.0\mu\text{mol/L}$ , Acetylsalicylic acid,  $IC_{50} = 420\mu\text{mol/L}$ ; 1~4 $\mu\text{mol/L}$  epinephrine-induced with threshold concentration of collagen (0.8~1.0 $\mu\text{g/mL}$ ),  $IC_{50} = 0.28\mu\text{mol/L}$ , Acetylsalicylic acid,  $IC_{50} = 53\mu\text{mol/L}$ ; 10~40 $\mu\text{mol/L}$  AA-induced with threshold concentration of collagen (0.8~1.0 $\mu\text{g/mL}$ ),  $IC_{50} = 0.37\mu\text{mol/L}$ , Acetylsalicylic acid,  $IC_{50} = 66\mu\text{mol/L}$ ; 1~5 $\mu\text{mol/L}$  U46619-induced with threshold concentration of collagen (0.8~1.0 $\mu\text{g/mL}$ ),  $IC_{50} = 3.7\mu\text{mol/L}$ , Acetylsalicylic acid,  $IC_{50} = 340\mu\text{mol/L}$ ; 1~2 $\mu\text{mol/L}$  hmn U46619 in 1mmol/L acetylsalicylic acid-induced,  $IC_{50} = 47\mu\text{mol/L}$ , control Pentolamine,  $IC_{50} > 100\mu\text{mol/L}$ , control Yohimbine,  $IC_{50} > 100\mu\text{mol/L}$ ). **Source:** RI BEN HOU PO *Magnolia obovata* (leaf). **Ref:** 5381.

**533 3-O- $\alpha$ -(2''-O-Acetyl)-D-xylopyranosyl-3 $\beta$ -hydroxyolean-12-ene-28,29-dioic acid**

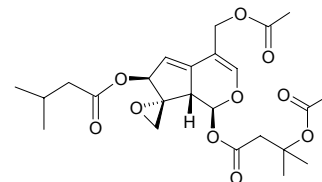
$C_{37}H_{56}O_{10}$  (660.85). White powder, mp 267~270°C,  $[\alpha]_D^{20} = +3.55^\circ$  ( $c = 0.1$ , methanol). **Source:** YI YE LIANG WANG CHA *Nothopanax davidii*. **Ref:** 216.

**534 Acevaltrate**

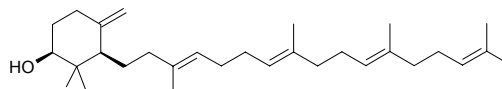
$C_{24}H_{32}O_{10}$  (480.52). **Source:** ZHI ZHU XIANG *Valeriana jatamansii* [Syn. *Valeriana wallichii*]. (rhizome and root: yield = 0.000019%dw). **Ref:** 4672.

**535 Acevaltratrum**

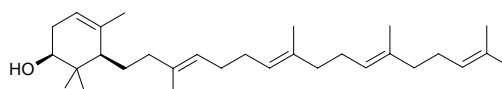
[25161-41-5]  $C_{24}H_{32}O_{10}$  (480.52). White acicular crystals (ethane), mp 83~84°C,  $[\alpha]_D^{24} = +163.7^\circ$  (methanol). **Pharm:** Sedative. **Source:** ZHI ZHU XIANG *Valeriana jatamansii* [Syn. *Valeriana wallichii*]. **Ref:** 1.

**536 Achilleol A**

$C_{30}H_{50}O$  (426.73). **Source:** MEI LI TENG HUANG *Garcinia speciosa* (trunk bark and stems). **Ref:** 5491.

**537 Achilleol C**

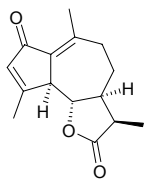
Camelliol C  $C_{30}H_{50}O$  (426.73). **Pharm:** Antineoplastic (EBV-EA induced by TPA, mol ratio/TPA = 1000, relative percentage of EBV-EA = 20.1% (positive control value 32pmol, 20ng TPA = 100%), viability of Raji cells = 70%; reference compound  $\beta$ -Carotene, relative percentage = 8.6%)<sup>[4606]</sup>. **Source:** HUO YANG LE *Euphorbia antiquorum* (latex), MEI LI TENG HUANG *Garcinia speciosa* (trunk bark and stems). **Ref:** 4606, 5491.



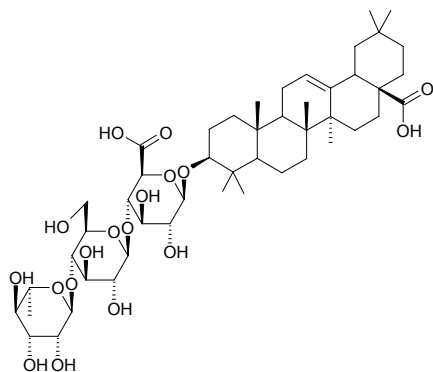


**538 Achillin**

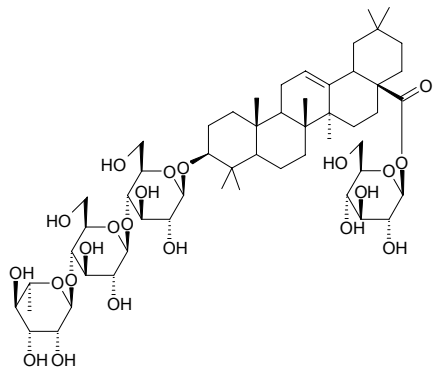
$C_{15}H_{18}O_3$  (246.31). mp 144~145°C. Pharm: Anti-inflammatory; plant growth inhibitor. Source: YI ZHI HAO *Achillea alpina* [Syn. *Achillea sibirica*], YUN NAN SHI *Achillea wilsoniana*, YANG SHI CAO *Achillea millefolium*. Ref: 6, 658.

**539 Achyranthes saponin A**

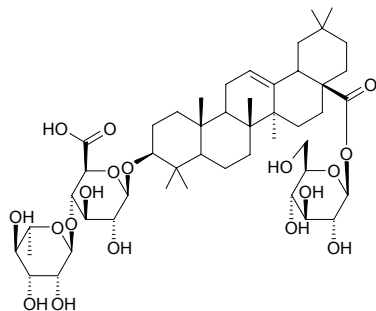
$C_{48}H_{76}O_{18}$  (941.13). Source: TU NIU XI *Achyranthes aspera* (seed). Ref: 660.

**540 Achyranthes saponin B**

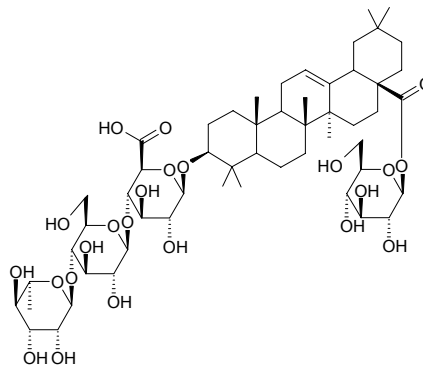
$C_{54}H_{88}O_{22}$  (1089.29). Source: TU NIU XI *Achyranthes aspera* (seed). Ref: 660.

**541 Achyranthes saponin C**

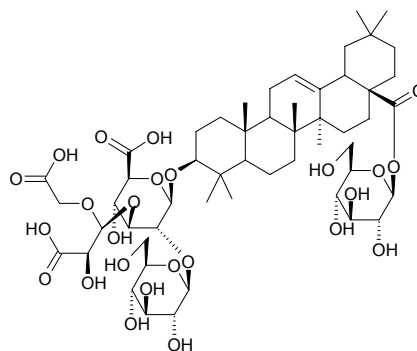
$C_{48}H_{76}O_{18}$  (941.13). Source: TU NIU XI *Achyranthes aspera*. Ref: 660.

**542 Achyranthes saponin D**

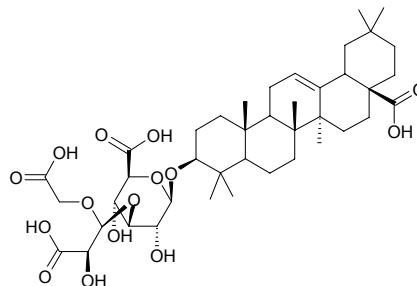
$C_{54}H_{86}O_{23}$  (1103.27). Source: TU NIU XI *Achyranthes aspera*. Ref: 660.

**543 Achyranthoside I**

3-*O*-[2'- $\beta$ -*D*-Glucopyranosyl-3'-*O*-(2''-hydroxy-1''-carboxyethoxycarboxypropyl)]- $\beta$ -*D*-glucopyranosyl oleanolic acid 28-*O*- $\beta$ -*D*-glucopyranoside  $C_{53}H_{82}O_{25}$  (1119.23). Colorless needles, mp 205~207°C,  $[\alpha]_D^{20} = +12.5^\circ$  ( $c = 0.4$ , MeOH). Source: NIU XI *Achyranthes bidentata*. Ref: 4891.

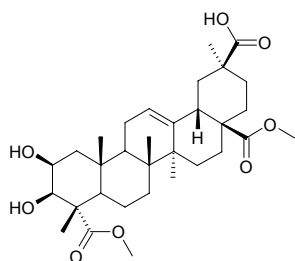
**544 Achyranthoside II**

Oleanolic acid 3-*O*-[3'-*O*-(2''-hydroxy-1''-carboxyethoxycarboxypropyl)]- $\beta$ -*D*-glucopyranoside  $C_{41}H_{62}O_{15}$  (794.94). Colorless needles, mp 186~188°C,  $[\alpha]_D^{20} = +10.5^\circ$  ( $c = 0.1$ , MeOH). Source: NIU XI *Achyranthes bidentata*. Ref: 4891.

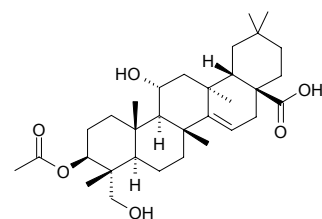


**545 Acinospesigenin**

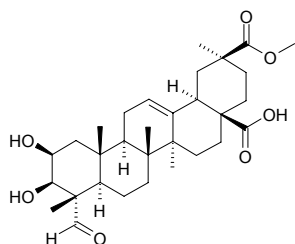
$C_{32}H_{48}O_8$  (560.73). Source: SHANG LU *Phytolacca esculenta* [Syn. *Phytolacca acinosa*] (berry: yield = 0.002%dw). Ref: 660, 4714.

**546 Acinospesigenin A**

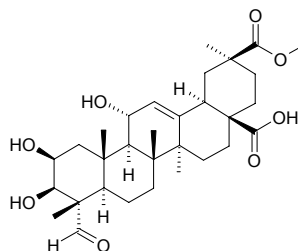
3 $\beta$ -Acetoxy-11 $\alpha$ ,23-dihydroxytaraxer-14-en-28-oic acid  $C_{32}H_{50}O_6$  (530.75). Colorless crystals, mp 189~190°C (Me<sub>2</sub>CO–petroleum ether),  $[\alpha]_D^{20} = +47.1^\circ$  ( $c = 0.01$ , MeOH). Pharm: Anti-inflammatory (edema was induced in hind paw of rats by injecting 2mL DMSO, ED<sub>50</sub> = 25mg/kg mass; control Cortisone, ED<sub>50</sub> = 30mg/kg mass; Prednisolone, ED<sub>50</sub> = 60mg/kg mass). Source: SHANG LU *Phytolacca esculenta* [Syn. *Phytolacca acinosa*] (berry: yield = 0.002%dw). Ref: 4714.

**547 Acinospesigenin B**

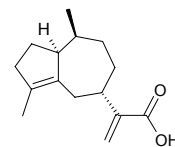
Olean-12-en-23-al-2 $\beta$ ,3 $\beta$ -dihydroxy-30-methoxycarbonyl-28-oic acid  $C_{31}H_{46}O_7$  (530.71). Colorless crystals, mp 224~225°C (MeOH–CHCl<sub>3</sub>),  $[\alpha]_D^{25} = +36.2^\circ$  ( $c = 0.01$ , C<sub>5</sub>H<sub>5</sub>N). Pharm: Anti-inflammatory (edema was induced in hind paw of rats by injecting 2mL DMSO, ED<sub>50</sub> = 10~15mg/kg mass; control Cortisone, ED<sub>50</sub> = 30mg/kg mass; Prednisolone, ED<sub>50</sub> = 60mg/kg mass). Source: SHANG LU *Phytolacca esculenta* [Syn. *Phytolacca acinosa*] (berry: yield = 0.0018%dw). Ref: 4714.

**548 Acinospesigenin C**

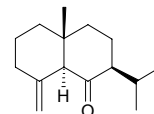
Olean-12-en-23-al-2 $\beta$ ,3 $\beta$ ,11 $\alpha$ -trihydroxy-30-methoxycarbonyl-28-oic acid  $C_{31}H_{46}O_8$  (546.71). Colorless crystalline compound, mp 236~237°C (MeOH–CHCl<sub>3</sub>),  $[\alpha]_D^{25} = +48.9^\circ$  ( $c = 0.01$ , C<sub>5</sub>H<sub>5</sub>N). Pharm: Anti-inflammatory (edema was induced in hind paw of rats by injecting 2mL DMSO, ED<sub>50</sub> = 10~15mg/kg mass; control Cortisone, ED<sub>50</sub> = 30mg/kg mass; Prednisolone, ED<sub>50</sub> = 60mg/kg mass). Source: SHANG LU *Phytolacca esculenta* [Syn. *Phytolacca acinosa*] (berry: yield = 0.0013%dw). Ref: 4714.

**549 Aciphyllic acid**

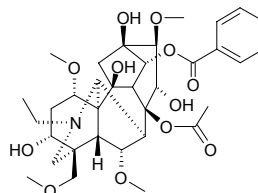
$C_{15}H_{22}O_2$  (234.34). Source: XIN JIANG YI ZHI HAO *Artemisia rupestris* [Syn. *Artemisia dentata*; *Artemisia viridis*; *Artemisia viridifolia*], *Anthemis* spp. Ref: 660, 1521.

**550 Acolamone**

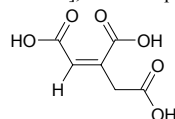
[39012-14-1]  $C_{15}H_{24}O$  (220.36). Source: BAI CHANG *Acorus calamus*. Ref: 6.

**551 Aconifine**

[41849-35-8]  $C_{34}H_{47}NO_{12}$  (661.75). Pharm: Toxin. Source: DUO GEN WU TOU *Aconitum karakolicum*, BAO SHAN WU TOU *Aconitum bullatifolium* var. *homotrichum* [Syn. *Aconitum nagarum*]. Ref: 658.

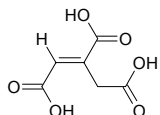
**552 cis-Aconitic acid**

[585-84-2]  $C_6H_6O_6$  (174.11). mp (*cis*-) 125°C, (*trans*-) 194~195°C. Pharm: Antineoplastic (mus, inhibits carcinogenesis of 3, 4-benzopyrene). Source: GAN ZHE *Saccharum sinensis*, GU JIE CAO *Equisetum palustre*, HEI DA DOU *Glycine max*, HEI DA DOU YE *Glycine max*, JIN CAO *Arthraxon hispidus*, OU WU TOU *Aconitum napellus*, YAO YONG GAN ZHE *Saccharum officinarum*, YI ZHI HAO *Achillea alpina* [Syn. *Achillea sibirica*], *Achillea* sp. Ref: 1, 6.

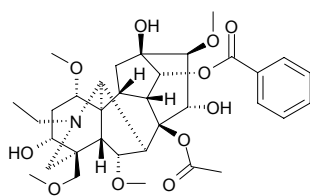


**553 trans-Aconitic acid**

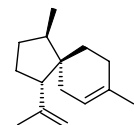
*trans*-1-Propene-1,2,3-tricarboxylic acid [4023-65-8] C<sub>6</sub>H<sub>6</sub>O<sub>6</sub> (174.11). mp (*cis*-) 125°C, (*trans*-) 194–195°C. Source: GAN ZHE *Saccharum sinensis*, GU JIE CAO *Equisetum palustre*, HEI DA DOU YE *Glycine max*, JIN CAO *Arthraxon hispidus*, YI ZHI HAO *Achillea alpina* [Syn. *Achillea sibirica*]. Ref: 1, 6.

**554 Aconitine**

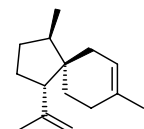
[302-27-2] C<sub>34</sub>H<sub>47</sub>NO<sub>11</sub> (645.75). mp 204°C, [α]<sub>D</sub> = +17.3°, soluble in chloroform, benzene, ethanol and ether, insoluble in water. Pharm: Analgesic; local anesthetic (anesthesia against peripheral nerve ending); antihypertensive; antipyretic; slows heart rate; supertoxic agent (hmn, causes death upon transcutaneous absorption, orl, 0.2mg causes intoxication); LD<sub>50</sub> (mus, iv) = 0.166mg/kg, (mus, ip) = 0.328mg/kg, (mus, orl) = 1mg/kg. Source: BEI WU TOU *Aconitum kusnezoffii* (dried tuberoid: content = 0.008%<sup>[5508]</sup>), FU ZI *Aconitum carmichaeli* (daughter root: content = 0.0049%<sup>[5508]</sup>), OU WU TOU *Aconitum napellus*, WU TOU *Aconitum carmichaeli* (tuberoid: mean content = 0.021%<sup>[5508]</sup>, in 1959, isolated from the plant by K. Wiesner, et al<sup>[5505]</sup>), XUE SHANG YI ZHI HAO *Aconitum brachypodum*. Ref: 2, 4, 5, 6, 658, 660, 5501, 5505, 5507, 5508.

**555 α-Acoradiene**

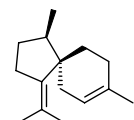
[24048-44-0] C<sub>15</sub>H<sub>24</sub> (204.36). Source: DANG GUI *Angelica sinensis*, DU SONG SHI *Juniperus rigida*. Ref: 2.

**556 β-Acoradiene**

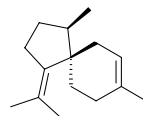
[28477-64-7] C<sub>15</sub>H<sub>24</sub> (204.36). Source: DANG GUI *Angelica sinensis*, DU SONG SHI *Juniperus rigida*. Ref: 2.

**557 γ-Acoradiene**

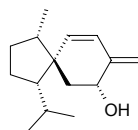
[28400-12-6] C<sub>15</sub>H<sub>24</sub> (204.36). Source: DANG GUI *Angelica sinensis*, DU SONG SHI *Juniperus rigida*. Ref: 2.

**558 δ-Acoradiene**

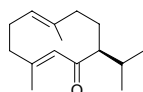
[28400-13-7] C<sub>15</sub>H<sub>24</sub> (204.36). Source: DANG GUI *Angelica sinensis*. Ref: 2.

**559 1S\*,4S\*,5S\*-Acora-8(15),9-dien-7R\*-ol**

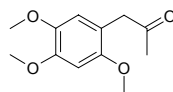
C<sub>15</sub>H<sub>24</sub>O (220.36). Oil, [α]<sub>D</sub><sup>20</sup> = -165.0° (c = 0.2, MeOH). Source: *Bazzania madagassa*. Ref: 4458.

**560 Acoragermacrone**

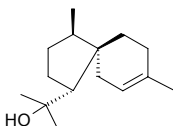
C<sub>15</sub>H<sub>24</sub>O (220.36). Source: BAI CHANG *Acorus calamus*, JI JI *Chloranthus serratus*. Ref: 660.

**561 Acoramone**

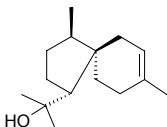
C<sub>12</sub>H<sub>16</sub>O<sub>4</sub> (224.26). Source: BAI CHANG *Acorus calamus*. Ref: 660.

**562 α-Acorenol**

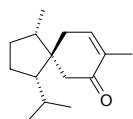
[28296-85-7] C<sub>15</sub>H<sub>26</sub>O (222.37). Source: DU SONG SHI *Juniperus rigida*. Ref: 6.

**563 β-Acorenol**

[28400-11-5] C<sub>15</sub>H<sub>26</sub>O (222.37). Source: DU SONG SHI *Juniperus rigida*. Ref: 6.

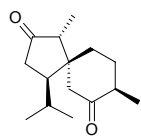
**564 Acorenone**

[5956-05-8] C<sub>15</sub>H<sub>24</sub>O (220.36). Source: BAI CHANG *Acorus calamus*. Ref: 6.

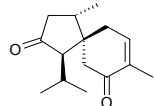


**565 Acorone**

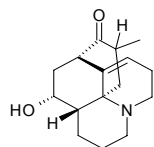
[10121-28-5] C<sub>15</sub>H<sub>24</sub>O<sub>2</sub> (236.36). mp 100°C. Source: BAI CHANG *Acorus calamus*. Ref: 6.

**566 Acoronene**

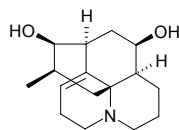
[33983-45-8] C<sub>15</sub>H<sub>22</sub>O<sub>2</sub> (234.34). mp 69°C. Source: BAI CHANG *Acorus calamus*. Ref: 6.

**567 Acrifoline**

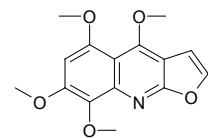
[664-24-4] C<sub>16</sub>H<sub>23</sub>NO<sub>2</sub> (261.37). mp 103~104°C. Pharm: Toxin. Source: XIAO JIE JIN CAO *Huperzia selago* [Syn. *Lycopodium selago*], LIANG NIAN SHI SONG *Lycopodium annotinum* var. *acrifolium*. Ref: 6.

**568 Acrifolinol**

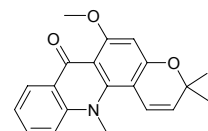
C<sub>16</sub>H<sub>25</sub>NO<sub>2</sub> (263.38). Source: YU BAI SHI SONG *Lycopodium obscurum*. Ref: 660.

**569 Acronycidine**

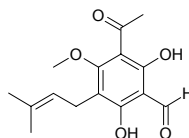
[521-43-7] C<sub>15</sub>H<sub>15</sub>NO<sub>5</sub> (289.29). Pharm: CNS depressant; antibacterial inactive (*Staphylococcus aureus* MIC > 20mg/mL, control Amoxycillin, MIC = 2.0µg/mL; *Staphylococcus epidermidis* MIC > 20mg/mL; *Pseudomonas aeruginosa* MIC > 20mg/mL; *Enterobacter cloacae* MIC > 20mg/mL; *Klebsiella pneumoniae* MIC > 20mg/mL; *Escherichia coli* MIC > 20mg/mL). Source: BAO RUI SHAN YOU GAN *Acronychia baueri*, *Sarcomelicope megistophylla* (bark). Ref: 658, 4172.

**570 Acronycine**

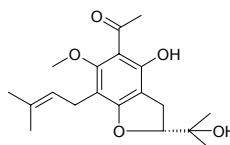
[7008-42-6] C<sub>20</sub>H<sub>19</sub>NO<sub>3</sub> (321.38). Pharm: Antineoplastic (marrow-leukemia C1498, phlogocyte myeloma X5563 and Shingi cancer 115). Source: BAO RUI SHAN YOU GAN *Acronychia baueri*, DAN YE YOU GAN *Acronychia haplophylla*, JIU LI XIANG *Murraya paniculata* [Syn. *Chalcas paniculata*], SHA TANG MU *Acronychia pedunculata*. Ref: 1, 6, 11.

**571 Acronyculatin A**

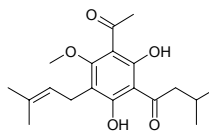
1-[3'-Formyl-2',4'-dihydroxy-6'-methoxy-5'-(3"-methylbut-2"-enyl)]acetophenone C<sub>15</sub>H<sub>18</sub>O<sub>5</sub> (278.31). Colorless syrup. Pharm: Antioxidant inactive (500µmol/L); tyrosinase inhibitor inactive (500µmol/L). Source: SHA TANG MU *Acronychia pedunculata* (root bark and stem: yield = 0.0028%). Ref: 4704.

**572 Acronyculatin B**

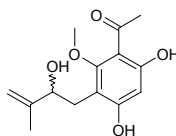
1-[2'-Hydroxy-3',4'-(2"-isopropanoyldihydrofuran)-6'-methoxy-5'-(3"-methylbut-2"-enyl)]acetophenone C<sub>19</sub>H<sub>26</sub>O<sub>5</sub> (334.42). Colorless powder, mp 118~119°C, [α]<sub>D</sub><sup>25</sup> = -58.0° (c = 0.013, MeOH). Pharm: Antioxidant inactive (500µmol/L); tyrosinase inhibitor inactive (500µmol/L). Source: SHA TANG MU *Acronychia pedunculata* (root bark and stem: yield = 0.0093%). Ref: 4704.

**573 Acronyculatin C**

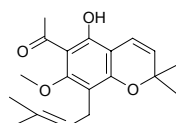
1-[2',4'-Dihydroxy-6'-methoxy-3'-(3"-methylbutanoyl)-5'-(3"-methylbut-2"-enyl)]acetophenone C<sub>19</sub>H<sub>26</sub>O<sub>5</sub> (334.42). Colorless syrup. Pharm: Antioxidant inactive (500µmol/L); tyrosinase inhibitor inactive (500µmol/L). Source: SHA TANG MU *Acronychia pedunculata* (root bark and stem: yield = 0.00083%). Ref: 4704.

**574 Acronyculatin D**

1-[2',4'-Dihydroxy-5'-(2"-hydroxy-3"-methyl-3"-butenyl)-6'-methoxy]acetophenone C<sub>14</sub>H<sub>18</sub>O<sub>5</sub> (266.3). Colorless syrup, [α]<sub>D</sub><sup>25</sup> = -31.0° (c = 0.029, MeOH). Pharm: Antioxidant inactive (500µmol/L); tyrosinase inhibitor inactive (500µmol/L). Source: SHA TANG MU *Acronychia pedunculata* (root bark and stem: yield = 0.0017%). Ref: 4704.

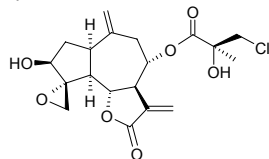
**575 Acronyculatin E**

1-[2'-Hydroxy-6'-methoxy-5'-(2"-hydroxy-3"-methyl-3"-butenyl)-3',4'-3"-dimethyl-1"-pyrenyl)]acetophenone C<sub>19</sub>H<sub>24</sub>O<sub>5</sub> (316.4). Colorless syrup. Pharm: Antioxidant inactive (500µmol/L); tyrosinase inhibitor inactive (500µmol/L). Source: SHA TANG MU *Acronychia pedunculata* (root bark, stem: yield = 0.0057%). Ref: 4704.

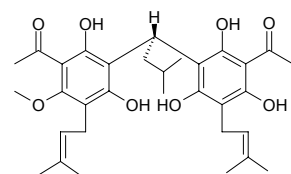


**576 Acroptilin**

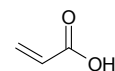
[41787-75-1] C<sub>19</sub>H<sub>23</sub>ClO<sub>7</sub> (398.84). **Pharm:** Antineoplastic; antiprotozoal (*Trichomonas vaginalis* and *Amoeba histolytica*, EC = 0.24~7.8µg/mL); cytotoxic. **Source:** DING YU JU *Acroptilon repens*. **Ref:** 658.

**577 Acrovestone**

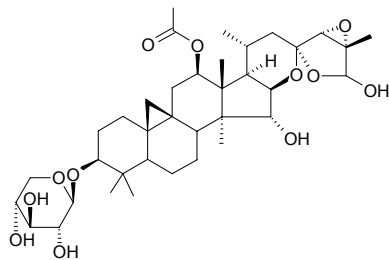
[24177-16-0] C<sub>32</sub>H<sub>42</sub>O<sub>8</sub> (554.69). **Pharm:** Cytotoxic (A549, KB, P<sub>388</sub> and L<sub>1210</sub>)<sup>[658]</sup>; antioxidant (DPPH weak scavenger, IC<sub>50</sub> = 493µmol/L; control Vitamin E, IC<sub>50</sub> = 8.3µmol/L)<sup>[4704]</sup>; tyrosinase inhibitor (IC<sub>50</sub> = 333µmol/L, weak activity; control Kojic acid, IC<sub>50</sub> = 125µmol/L)<sup>[4704]</sup>. **Source:** BAO SHAN YOU GAN *Acronychia vestita*, SHA TANG MU *Acronychia pedunculata* (root bark, stem: yield = 5.25%)<sup>[4704]</sup>. **Ref:** 658, 4704.

**578 Acrylic acid**

Propenoic acid; Vinylformic acid [79-10-7] C<sub>3</sub>H<sub>4</sub>O<sub>2</sub> (72.06). mp 13°C, bp 141°C. **Source:** KONG SHI CHUN *Ulva pertusa*, SHUI SONG *Codium fragile*. **Ref:** 6, 660.

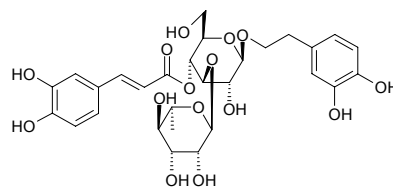
**579 Actein**

C<sub>37</sub>H<sub>56</sub>O<sub>12</sub> (692.85). **Pharm:** Cytotoxic (HSC-2 cells, IC<sub>50</sub> = 44µmol/L, control Etoposide, IC<sub>50</sub> = 24µmol/L; HGF, IC<sub>50</sub> = 141µmol/L). **Source:** ZONG ZHUANG SHENG MA *Cimicifuga racemosa* (rhizome). **Ref:** 4158.

**580 Acteroside**

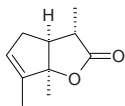
Verbascoside [61276-17-3] C<sub>29</sub>H<sub>36</sub>O<sub>15</sub> (624.60). mp 142°C, colorless amorphous powder, [α]<sub>D</sub><sup>20</sup> = -83° (c = 0.3, MeOH). **Pharm:** Antioxidant (DPPH scavenger, IC<sub>50</sub> = 0.24mmol/L, control *dl*-Vitamin E, IC<sub>50</sub> = 0.48mmol/L, BHA, IC<sub>50</sub> = 0.63mmol/L)<sup>[4211]</sup>; antioxidant (DPPH scavenger, IC<sub>50</sub> = 63µmol/L, control Ascorbic acid, IC<sub>50</sub> = 129µmol/L)<sup>[5449]</sup>; antioxidant (ferric thiocyanate method, 0.5mmol/L, peroxidation value = 5.9%, control BHA, 0.5mmol/L, peroxidation value = 4.5%, control α-Tocopherol 0.5mmol/L, peroxidation value = 14.7%)<sup>[4508]</sup>; antioxidant (antihemolysis, *in vitro*, AAPH-induced hemolysis of RBC, IC<sub>50</sub> = 28µmol/L; control Trolox,

IC<sub>50</sub> = 101µmol/L)<sup>[4698]</sup>; antioxidant (relative potency > 6.9, compared with resveratrol, relative potency = 1)<sup>[4920]</sup>; antioxidant (*in vitro* inhibits LDL peroxidation, Cu<sup>2+</sup>-induced and AAPH-induced)<sup>[5370]</sup>; inhibits minimally oxidized LDL-induced cellular toxicity (cultured bovine aortic endothelial cells, BAEC)<sup>[5370]</sup>; anti-apoptosis (cerebellar granule neurons, protects MPP<sup>+</sup>-induced CGNs death, improves cell viability and inhibits lactate dehydrogenase (LDH) release, effective dose = 12.5, 25 and 50µmol/L, control EGF 100ng/mL)<sup>[5348]</sup>; anti-apoptosis (prevents CGNs apoptosis, neurotoxin MPP<sup>+</sup>-induced, flowcytometric analysis of CGNs, effective dose = 20 and 50µmol/L, control EGF 100ng/mL, a decrease in the number of the MPP<sup>+</sup>-induced apoptotic cells was observed, *p*<0.001)<sup>[5348]</sup>; anti-apoptosis (inhibits the active caspase-3 fragment (*p*<0.001) and proteolytic poly (ADP-ribose) polymerase (PARP) fragment expression (*p*<0.001) following MPP<sup>+</sup> treatment in CGNs, Western blot analysis, control EGF 100ng/mL)<sup>[5348]</sup>; elastase inhibitor (hmn leukocyte *in vitro*, IC<sub>50</sub> > 500µg/mL = >800µmol/L; control Caffeic acid, IC<sub>50</sub> = 86µg/mL = 475µmol/L)<sup>[5458]</sup>; antihepatotoxin; anti-inflammatory; increases blood pressure; 5-lipoxygenase inhibitor (hmn leukocyte); aldose reductase inhibitor (eye lens); antitrypanosomal (*Trypanosoma b. rhodesiense*, IC<sub>50</sub> = 14.2µg/mL, control Melarsoprol, IC<sub>50</sub> = 0.00098µg/mL; *Trypanosoma cruzi*, IC<sub>50</sub> > 90µg/mL, control Benzimidazole, IC<sub>50</sub> = 1.06µg/mL)<sup>[5009]</sup>; antimalarial (*Plasmodium falciparum*, IC<sub>50</sub> > 50µg/mL, control Artemisinin, IC<sub>50</sub> = 0.0022µg/mL)<sup>[5009]</sup>; antileishmanial (*Leishmania donovani*, IC<sub>50</sub> = 8.7µg/mL, control Miltefosine, IC<sub>50</sub> = 0.102µg/mL)<sup>[5009]</sup>; cytotoxic (L6, IC<sub>50</sub> = 37.1µg/mL, control Podophyllotoxin, IC<sub>50</sub> = 0.008µg/mL)<sup>[5009]</sup>. **Source:** A LA BO PO PO NA *Veronica persica* (aerial parts), CHA RU SHI WAN CUO *Asystasia intrusa*, CHANG YE CHE QIAN *Plantago lanceolata*, CHE QIAN *Plantago asiatica*, CU ZHUANG NV ZHEN *Ligustrum robustum* (leaf: yield = 0.012%dw)<sup>[4698]</sup>, DA CHE QIAN *Plantago major*, DI ZHONG HAI MAO RUI HUA *Verbascum sinuatum*, DU HONG HUA *Callicarpa formosana* (dried leaf: content scope of 5 origins = 0.73%~1.36%, mean content = 1.06%)<sup>[5222]</sup>, GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *huechingensis*], JIN ZHONG HUA *Forsythia viridissima*, LIE DANG *Orobanchae coerulea* (whole herb), MA LAN GEN *Baphicacanthus cusia* [Syn. *Strobilanthes cusia*], MAO PAO TONG *Paulownia tomentosa*, MI MENG HUA *Buddleja officinalis* (flower: mean content of 10 origins = 1.26%)<sup>[5508]</sup>, NAN FEI GOU MA *Harpagophytum procumbens*, OU XIA ZHI CAO *Marrubium vulgare* (aerial parts), QIU HUA ZUI YU CAO *Buddleja globosa*, ROU CONG RONG *Cistanche deserticola* (fleshy stem: content = 0.338%)<sup>[5508]</sup>, TIAN SHE CAO *Lippia dulcis* (aerial parts), XIAO YE ZHI MA *Galeobdolon chinense* [Syn. *Lamium chinense*] (dried whole herb: mean content of 4 origins = 1.17%)<sup>[5508]</sup>, YAN SHENG ROU CONG RONG *Cistanche salsa*, ZI HUA GUAN MAO RUI HUA *Verbascum wiedemannianum*, ZONG KUI CAO SU *Phlomis brunneogaleata*, *Sideritis ozturkii* (aerial parts), *Forsythia* sp., occurs in many plants. **Ref:** 2, 529, 628, 629, 658, 660, 2577, 2589, 3827, 4211, 4508, 4698, 4920, 5009, 5346, 5370, 5020, 5449, 5458, 5508, 5522.

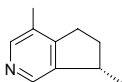


**581 Actinidialactone**

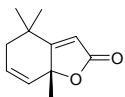
$C_{10}H_{14}O_2$  (166.22). Source: MU TIAN LIAO *Actinidia polygama*. Ref: 660.

**582 Actinidine**

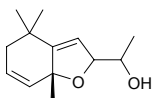
[524-03-8]  $C_{10}H_{13}N$  (147.22). mp ( $\pm$ )142~143°C, bp 100~103°C/9mmHg,  $[\alpha]_D^{11} = -7.2^\circ$  ( $c = 17.54$ , chloroform). Pharm: Enhances sedative effects of phenobarbital; antihypertensive; salivary secretion promotor. Source: HUANG ZHONG HUA *Tecoma stans*, MI HOU LI *Actinidia arguta*, MI HOU TAO *Actinidia chinensis*, MU TIAN LIAO *Actinidia polygama*, XIE CAO *Valeriana officinalis*. Ref: 1, 4, 1521.

**583 Actinidiolide**

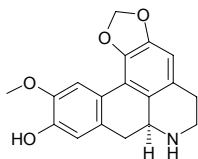
$C_{11}H_{14}O_2$  (178.23). Source: MU TIAN LIAO *Actinidia polygama*. Ref: 660.

**584 Actinidol**

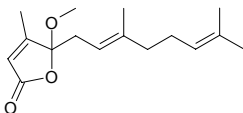
$C_{13}H_{20}O_2$  (208.30). Source: MU TIAN LIAO *Actinidia polygama*. Ref: 660.

**585 Actinodaphnine**

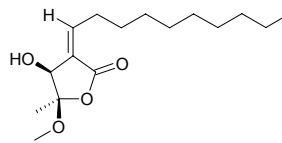
[517-69-1]  $C_{18}H_{17}NO_4$  (311.34). Mp (+) 210~211°C. Pharm: Antibacterial; antitrypanosomal (*Trypanosoma brucei brucei*,  $IC_{50} = 3.2\mu\text{mol/L}$ , Suramin,  $IC_{50} = 0.06\mu\text{mol/L}$ ; cytotoxic, hmn cervixcarcinoma cell HeLa,  $IC_{50} = 15\mu\text{mol/L}$ )<sup>[4969]</sup>. Source: LA ZHI MU JIANG ZI *Litsea sebifera*, WU YE TENG *Cassytha filiformis*, YUE GUI ZI *Laurus nobilis*. Ref: 6, 658, 4969.

**586 Actinolide A**

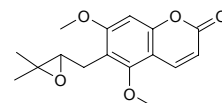
$C_{16}H_{24}O_3$  (264.37). Colorless oil,  $[\alpha]_D^{26.5} = +5.1^\circ$  ( $c = 0.33$ ,  $CHCl_3$ ) Source: PI ZHEN YE HUANG ROU NAN *Actinodaphne lancifolia*. Ref: 2011.

**587 Actinolide B**

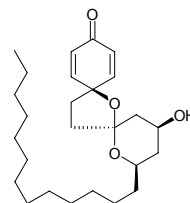
$C_{16}H_{28}O_4$  (284.40). Colorless oil,  $[\alpha]_D^{25} = +14.7^\circ$  ( $c = 1.00$ ,  $CHCl_3$ ). Source: PI ZHEN YE HUANG ROU NAN *Actinodaphne lancifolia*. Ref: 2011.

**588 Aculeatin**

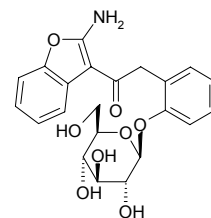
[523-51-3]  $C_{16}H_{18}O_5$  (290.32). mp 113°C. Source: FEI LONG ZHANG XUE *Toddalia asiatica* [Syn. *Toddalia aculeata*; *Paullinia asiatica*]. Ref: 6.

**589 Aculeatin D**

*rel*-(2*R*,4*S*,6*S*)-4-Hydroxy-2-tridecyl-1,7-dioxa-dispiro[5.1.5.2]pentadeca-9,12-dien-11-one  $C_{26}H_{42}O_4$  (418.62). Yellow oil,  $[\alpha]_D^{20} = +46.5^\circ$  ( $c = 1$ ,  $CHCl_3$ ). Pharm: Cytotoxic (KB,  $IC_{50} = 0.38\mu\text{g/mL}$ , control Podophyllotoxin,  $IC_{50} = 0.01\mu\text{g/mL}$ ; rat skeletal myoblasts L-6,  $IC_{50} = 1.00\mu\text{g/mL}$ ); antimalarial (*Plasmodium falciparum* K1,  $IC_{50} = 0.42\mu\text{g/mL}$ , control Chloroquine,  $IC_{50} = 0.09\mu\text{g/mL}$ ; *Plasmodium falciparum* NF54,  $IC_{50} = 0.47\mu\text{g/mL}$ , Chloroquine,  $IC_{50} = 0.004\mu\text{g/mL}$ ); antitrypanosomal (*Trypanosoma brucei rhodesiense*,  $IC_{50} = 0.20\mu\text{g/mL}$ , control Melarsoprol,  $IC_{50} = 0.0007\mu\text{g/mL}$ ; *Trypanosoma cruzi*,  $IC_{50} = 0.49\mu\text{g/mL}$ , Benznidazole,  $IC_{50} = 2.1\mu\text{g/mL}$ ); antibacterial (*Bacillus cereus*, MIC =  $16\mu\text{g/mL}$ , control Chloramphenicol, MIC =  $4\mu\text{g/mL}$ ; *Escherichia coli*, MIC =  $16\mu\text{g/mL}$ , Chloramphenicol, MIC =  $2\mu\text{g/mL}$ ; *Staphylococcus epidermidis*, MIC =  $8\mu\text{g/mL}$ , Chloramphenicol, MIC =  $4\mu\text{g/mL}$ ); antifungal inactive (*Candida albicans*). Source: CI DOU KOU *Amomum aculeatum* (rhizome). Ref: 5176.

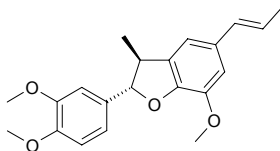
**590 Acuminaminoside**

$C_{22}H_{23}NO_8$  (429.43). Colorless needles (MeOH), mp 212~215°C,  $[\alpha]_D^{28} = -33.3^\circ$  ( $c = 0.75$ , MeOH). Source: JIAN JIAN SUAN PAN ZI *Glochidion acuminatum* (leaf). Ref: 4286.

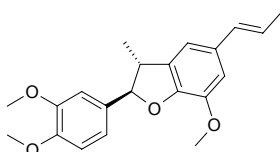


**591 Acuminatin**

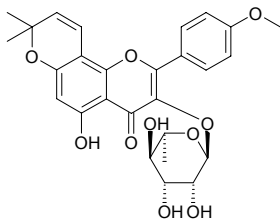
$C_{21}H_{24}O_4$  (340.42). Source: YU LAN *Magnolia denudata* [Syn. *Magnolia heptapata*]. Ref: 4439.

**592 (+)-Acuminatin**

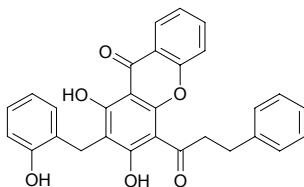
$C_{21}H_{24}O_4$  (340.42). Pharm: NO production inhibitor (mus, macrophage-like cell line RAW264.7 activated by LPS/IFN,  $IC_{50} = 56.7 \mu\text{mol/L}$ , control Quercetin,  $IC_{50} = 26.8 \mu\text{mol/L}$ )<sup>[2537]</sup>. Source: HAI FENG TENG *Piper kadsura* [Syn. *Piper futokadsura*], JIAN JIAN MU LAN *Magnolia acuminata* Ref: 1521, 2537.

**593 Acuminatin II\***

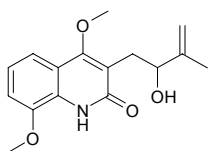
$C_{27}H_{28}O_{10}$  (512.52). Yellow needles, mp 151~152°C. Source: CU MAO YIN YANG HUO *Epimedium acuminatum*. Ref: 230.

**594 Acumitin**

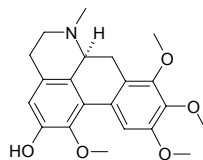
$C_{29}H_{22}O_6$  (466.50). Colorless crystals, mp 186~187°C ( $\text{CHCl}_3$ ). Pharm: Cytotoxic (hmn promyelocytic leukemia HL-60 cells,  $IC_{50} = 4.1 \mu\text{mol/L}$ ). Source: JIAN ZI YU PAN *Uvaria acuminata* (root). Ref: 4261.

**595 Acutifolidin**

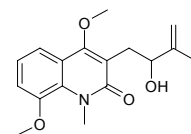
[145237-08-7]  $C_{16}H_{19}NO_4$  (289.33). Pharm: Platelet aggregation inhibitor; DNA isomerase inhibitor; antibacterial; cytotoxic. Source: JIAN YE HUA JIAO *Zanthoxylum acutifolium*. Ref: 2176.

**596 Acutifolidine**

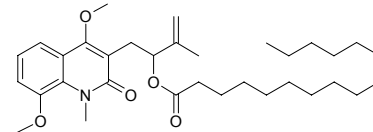
[126595-93-5]  $C_{21}H_{25}NO_5$  (371.44). Source: JIAN YE TANG SONG CAO *Thalictrum acutifolium* (root). Ref: 660, 1521.

**597 Acutifolin**

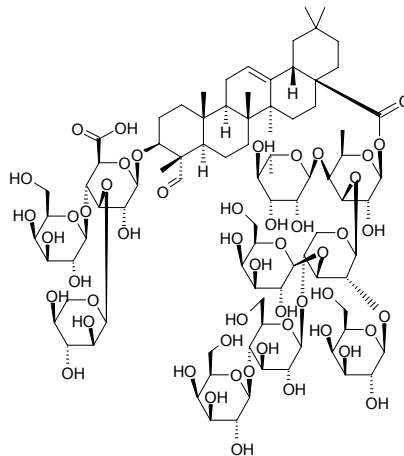
[145237-07-6]  $C_{17}H_{21}NO_4$  (303.36). Pharm: Platelet aggregation inhibitor; DNA isomerase inhibitor; antibacterial; cytotoxic. Source: JIAN YE HUA JIAO *Zanthoxylum acutifolium*. Ref: 2176.

**598 Acutifolin palmitate**

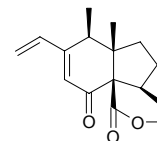
$C_{33}H_{55}NO_5$  (541.78). Pharm: Platelet aggregation inhibitor; DNA isomerase inhibitor; antibacterial; cytotoxic. Source: JIAN YE HUA JIAO *Zanthoxylum acutifolium*. Ref: 2176.

**599 Acutifoliside**

$C_{88}H_{140}O_{51}$  (2014.07). Source: HUANG JIE GU DAN *Gypsophila acutifolia*. Ref: 6.

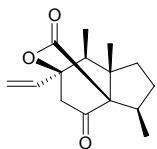
**600 Acutifolone A**

$C_{16}H_{22}O_3$  (262.35). Colorless prisms, mp 102~104°C,  $[\alpha]_D^{19} = +2.10^\circ$  ( $c = 1.73$ ,  $\text{CHCl}_3$ ). Source: SHANG ZUO JIAN YE GUANG E TAI *Porella acutifolia* ssp. *tosana*. Ref: 3932.

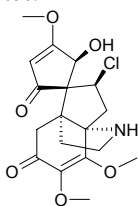


**601 Acutifolone B**

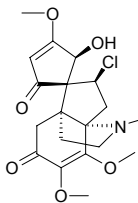
$C_{15}H_{20}O_3$  (248.32). Colorless prisms, mp 138~140°C,  $[\alpha]_D^{19} = -94.9^\circ$  ( $c = 0.66$ ,  $CHCl_3$ ). Source: SHANG ZUO JIAN YE GUANG E TAI *Porella acutifolia* ssp. *tosana*. Ref: 3932.

**602 Acutumidine**

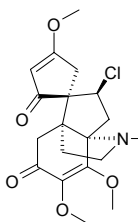
[18145-26-1]  $C_{18}H_{22}ClNO_6$  (383.83). mp 239~241°C (dec). Pharm: Antimalarial (similar action with quinine). Source: BIAN FU GE GEN *Menispermum dauricum*, QING FENG TENG *Sinomenium acutum*. Ref: 6, 658.

**603 Acutumine**

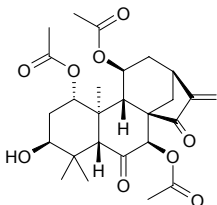
[17088-50-5]  $C_{19}H_{24}ClNO_6$  (397.86). mp 238~240°C (dec). Source: BIAN FU GE *Menispermum dauricum*, BIAN FU GE GEN *Menispermum dauricum*, QING FENG TENG *Sinomenium acutum*. Ref: 6.

**604 Acutuminine**

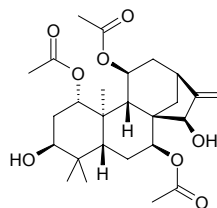
$C_{19}H_{24}ClNO_5$  (381.86). mp 175~177°C. Source: BIAN FU GE *Menispermum dauricum*, BIAN FU GE GEN *Menispermum dauricum*. Ref: 6.

**605 Adenanthin**

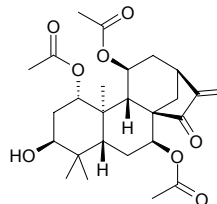
$C_{26}H_{34}O_9$  (490.56). mp 251~255°C,  $[\alpha]_D^{13} = -76^\circ$  ( $c = 0.25$ ,  $CHCl_3$ ). Source: XIAN HUA XIANG CHA CAI *Rabdosia adenantha* (leaf: yield = 0.015%dw)<sup>[4640]</sup>. Ref: 4067, 4640.

**606 Adenanthin B**

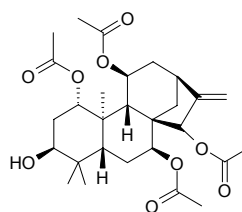
$C_{26}H_{38}O_8$  (478.59). Colorless cubes (acetone), mp 210.5~212.5°C,  $[\alpha]_D^{22} = 0^\circ$  ( $c = 0.25$ ,  $CHCl_3$ ). Source: XIAN HUA XIANG CHA CAI *Rabdosia adenantha* (leaf: yield = 0.033%dw)<sup>[4640]</sup>. Ref: 4067, 4640.

**607 Adenanthin C**

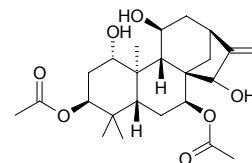
3β-Hydroxy-1α,7β,11β-triacetoxy-*ent*-kaur-16-en-15-one  $C_{26}H_{36}O_8$  (476.57). Colorless cubes (acetone), mp 228~229°C,  $[\alpha]_D^{22.5} = -23.2^\circ$  ( $c = 0.42$ ,  $CHCl_3$ ). Pharm: Cytotoxic (*in vitro*, K562,  $IC_{50} = 3.3\mu g/mL$ ; control *cis*-Platin,  $IC_{50} = 1.9\mu g/mL$ )<sup>[4640]</sup>. Source: XIAN HUA XIANG CHA CAI *Rabdosia adenantha* (leaf: yield = 0.203%dw)<sup>[4640]</sup>. Ref: 4067, 4640.

**608 Adenanthin D**

3β-Hydroxy-1α,7β,11β,15β-tetraacetoxy-*ent*-kaur-16-ene  $C_{28}H_{40}O_9$  (520.63). Colorless crystals (acetone), mp 147~148°C,  $[\alpha]_D^{27} = +14.4^\circ$  ( $c = 0.18$ , MeOH). Source: XIAN HUA XIANG CHA CAI *Rabdosia adenantha* (leaf: yield = 0.0097%dw). Ref: 4640.

**609 Adenanthin E**

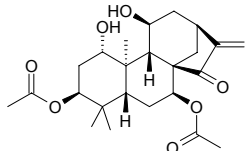
1α,11β,15β-Trihydroxy-3β,7β-diacetoxy-*ent*-kaur-16-ene  $C_{24}H_{36}O_7$  (436.55). Amorphous powder,  $[\alpha]_D^{27} = +33.0^\circ$  ( $c = 0.27$ , MeOH). Source: XIAN HUA XIANG CHA CAI *Rabdosia adenantha* (leaf: yield = 0.0031%dw). Ref: 4640.



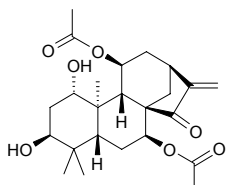


**610 Adenanthin F**

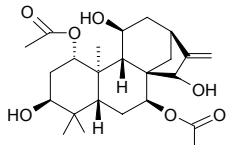
1 $\alpha$ ,11 $\beta$ -Dihydroxy-3 $\beta$ ,7 $\beta$ -diacetoxy-*ent*-kaur-16-en-15-one C<sub>24</sub>H<sub>34</sub>O<sub>7</sub> (434.53). Colorless crystals, mp 121–122°C, [ $\alpha$ ]<sub>D</sub><sup>26</sup> = –9.2° (*c* = 0.33, MeOH). **Pharm:** Cytotoxic (*in vitro*, K562, IC<sub>50</sub> = 3.6 $\mu$ g/mL; control *cis*-Platin, IC<sub>50</sub> = 1.9 $\mu$ g/mL). **Source:** XIAN HUA XIANG CHA CAI *Rabdosia adenantha* (leaf: yield = 0.0090%dw). **Ref:** 4640.

**611 Adenanthin G**

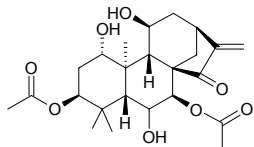
1 $\alpha$ ,3 $\beta$ -Dihydroxy-7 $\beta$ ,11 $\beta$ -diacetoxy-*ent*-kaur-16-en-15-one C<sub>24</sub>H<sub>34</sub>O<sub>7</sub> (434.53). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>26</sup> = –30.7° (*c* = 0.49, MeOH). **Source:** XIAN HUA XIANG CHA CAI *Rabdosia adenantha* (leaf: yield = 0.00036%dw). **Ref:** 4640.

**612 Adenanthin H**

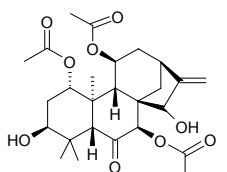
3 $\beta$ ,11 $\beta$ ,15 $\beta$ -Trihydroxy-1 $\alpha$ ,7 $\beta$ -diacetoxy-*ent*-kaur-16-ene C<sub>24</sub>H<sub>36</sub>O<sub>7</sub> (436.55). Colorless crystals, mp 188–190°C, [ $\alpha$ ]<sub>D</sub><sup>27</sup> = –33.3° (*c* = 0.15, MeOH). **Source:** XIAN HUA XIANG CHA CAI *Rabdosia adenantha* (leaf: yield = 0.00058%dw). **Ref:** 4640.

**613 Adenanthin I**

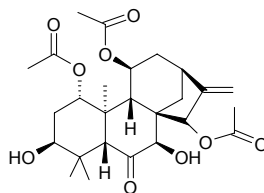
1 $\alpha$ ,6 $\alpha$ ,11 $\beta$ -Trihydroxy-3 $\beta$ ,7 $\beta$ -diacetoxy-*ent*-kaur-16-en-15-one C<sub>24</sub>H<sub>34</sub>O<sub>8</sub> (450.53). Colorless needles, mp 215–217°C, [ $\alpha$ ]<sub>D</sub><sup>26</sup> = –4.0° (*c* = 0.46, MeOH). **Source:** XIAN HUA XIANG CHA CAI *Rabdosia adenantha* (leaf: yield = 0.0021%dw). **Ref:** 4640.

**614 Adenanthin J**

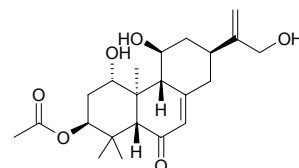
3 $\beta$ ,15 $\beta$ -Dihydroxy-1 $\alpha$ ,7 $\beta$ ,11 $\beta$ -triacetoxy-*ent*-kaur-16-en-6-one C<sub>26</sub>H<sub>36</sub>O<sub>9</sub> (492.57). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>27</sup> = –7.9° (*c* = 0.71, MeOH). **Source:** XIAN HUA XIANG CHA CAI *Rabdosia adenantha* (leaf: yield = 0.0025%dw). **Ref:** 4640.

**615 Adenanthin K**

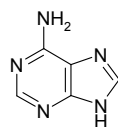
3 $\beta$ ,7 $\beta$ -Dihydroxy-1 $\alpha$ ,11 $\beta$ ,15 $\beta$ -triacetoxy-*ent*-kaur-16-en-6-one C<sub>26</sub>H<sub>36</sub>O<sub>9</sub> (492.57). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>26</sup> = –170.5° (*c* = 0.21, MeOH). **Source:** XIAN HUA XIANG CHA CAI *Rabdosia adenantha* (leaf: yield = 0.00098%dw). **Ref:** 4640.

**616 Adenanthin L**

1 $\alpha$ ,11 $\beta$ ,16-Trihydroxy-3 $\beta$ -acetoxy-*ent*-abieta-7,15(17)-dien-6-one C<sub>22</sub>H<sub>32</sub>O<sub>6</sub> (392.5). Colorless crystals, mp 272–273°C, [ $\alpha$ ]<sub>D</sub><sup>17</sup> = +28.5° (*c* = 0.44, MeOH). **Source:** XIAN HUA XIANG CHA CAI *Rabdosia adenantha* (leaf: yield = 0.0092%dw). **Ref:** 4640.

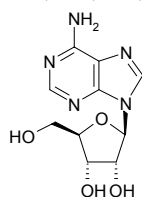
**617 Adenine**

[73-24-5] C<sub>5</sub>H<sub>5</sub>N<sub>5</sub> (135.13). Trihydrate: white trapezoid acicular crystals, 110°C (dehydrate), 220°C (sub), mp 360–365°C. **Pharm:** Leukopoietic; reagent used in biochemistry research; antioxidant inactive (SOD-like activity, EC<sub>50</sub> = 695 $\mu$ mol/L, control Gallic acid, EC<sub>50</sub> = 31.7 $\mu$ mol/L, *L*-Ascorbic acid, EC<sub>50</sub> = 34.6 $\mu$ mol/L)<sup>[3408]</sup>; antioxidant inactive (DPPH scavenger, EC<sub>50</sub> > 1000 $\mu$ mol/L, Gallic acid, EC<sub>50</sub> = 5.88 $\mu$ mol/L, *L*-Ascorbic acid, EC<sub>50</sub> = 6.25 $\mu$ mol/L)<sup>[3408]</sup>. **Source:** CHE QIAN *Plantago asiatica*, DANG GUI *Angelica sinensis* (root: content = 0.009%<sup>[5514]</sup>), DONG CHONG XIA CAO *Cordyceps sinensis* (dried fungal stroma growing on larva of a caterpillar: content = 0.011%<sup>[5512]</sup>), FU LING *Poria cocos*, GUI GAI *Coprinus atramentarius*, HU TAO REN *Juglans regia*, HUANG QI *Astragalus membranaceus* (root: content = 0.025%<sup>[5514]</sup>), JU HUA *Chrysanthemum morifolium* [Syn. *Dendranthema morifolium*], NAN GUA *Cucurbita moschata*, PING CHE QIAN *Plantago depressa*, QIE ZI *Solanum melongena*, REN GONG YONG CHONG CAO *Cordyceps militaris* cv. (sclerotium and stroma: content = 0.023%<sup>[5512]</sup>), REN SHEN *Panax ginseng* [Syn. *Panax schinseng*] (root: content = 0.0034%<sup>[5514]</sup>), SANG YE *Morus alba*, SU TIE SHU GUO *Cycas revoluta*, TIAN NAN XING *Arisaema consanguineum* (dried tuber: mean content = 0.018%<sup>[5508]</sup>), XIANG XUN *Lentinus edodes*, ZI YUN YING *Astragalus sinicus*. **Ref:** 658, 661, 3408, 5501, 5508, 5512, 5514.

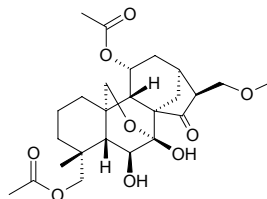


**618 Adenine nucleoside**

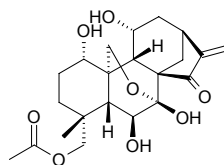
Adenosine; 9- $\beta$ -D-Ribofuranosyl-9H-purin-6-amine; Adenine riboside [58-61-7] C<sub>10</sub>H<sub>13</sub>N<sub>5</sub>O<sub>4</sub> (267.25). Crystals (H<sub>2</sub>O), mp 234~236°C, [ $\alpha$ ]<sub>D</sub><sup>11</sup> = -61.7° (c = 0.7, H<sub>2</sub>O); white acicular crystals, mp 233.5~234.5°C (alcohol), [ $\alpha$ ]<sub>D</sub><sup>24</sup> = -60.2° (c = 0.49, H<sub>2</sub>O); mp 235~236°C, soluble in water, insoluble in EtOH. **Pharm:** Antiarrhythmic, tyrosinase inhibitor (333.3 $\mu$ mol/L, InRt = 21.6%; control Kojic acid, 333.3 $\mu$ mol/L, InRt = 59.8%)<sup>[4233]</sup>; CNS stimulant; antifungal inactive (hmm pathogenic yeasts *Candida albicans*, *Candida glabrata* and *Candida tropicalis*); antioxidant inactive (DPPH scavenger, EC<sub>50</sub> > 50 $\mu$ g/mL, 50 $\mu$ g/mL, InRt = 4%, control Ascorbic acid, EC<sub>50</sub> = 1.6 $\mu$ g/mL = 9.1 $\mu$ mol/L)<sup>[4154]</sup>; antioxidant inactive (SOD-like activity, EC<sub>50</sub> > 1000 $\mu$ mol/L, control Gallic acid, EC<sub>50</sub> = 31.7 $\mu$ mol/L, L-Ascorbic acid, EC<sub>50</sub> = 34.6 $\mu$ mol/L)<sup>[3408]</sup>; antioxidant inactive (DPPH scavenger, EC<sub>50</sub> > 1000 $\mu$ mol/L, control Gallic acid, EC<sub>50</sub> = 5.88 $\mu$ mol/L, L-Ascorbic acid, EC<sub>50</sub> = 6.25 $\mu$ mol/L)<sup>[3408]</sup>. **Source:** AN HUI BEI MU *Fritillaria anhuiensis*, BAI FAN DOU *Phaseolus vulgaris*, BAN LAN GEN *Isatis indigotica*, BAO JING KU MAI CAI *Ixeris sonchifolia*, BEI SHA SHEN *Glehnia littoralis* (fruit), BEI SHA SHEN *Glehnia littoralis* (underground part), CANG ZHU *Atractylodes lancea*, CHANG CHUN HUA *Catharanthus roseus* [Syn. *Vinca rosea*; *Lochera rosea*], DA QING YE *Isatis indigotica*, DA SUAN *Allium sativum*, DANG GUI *Angelica sinensis* (root: content = 0.027%<sup>[5514]</sup>), DONG BEI HE SHI *Lappula echinata*, DONG CHONG XIA CAO *Cordyceps sinensis* (dried fungal stroma growing on larva of a caterpillar: content = 0.030%<sup>[5512]</sup>), GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *huechingensis*], GAN SU BEI MU *Fritillaria przewalskii*, GOU GU SHU PI *Ilex cornuta*, GOU GU YE *Ilex cornuta*, GUAN HUA ROU CONG RONG *Cistanche tubulosa* (fleshy stem: content = 0.009%<sup>[5514]</sup>), HONG HUA *Carthamus tinctorius* (flower oil: content scope of 4 origins = 0.0038%~0.039%, mean content = 0.0175%<sup>[5508]</sup>), HONG MAO WU JIA PI *Acanthopanax giraldii* [Syn. *Acanthopanax giraldii* var. *inermis*; *Eleutherococcus giraldii*], HU BEI SHAN MAI DONG *Liriope spicata* var. *prolifera*, HU DIE HUA DOU *Clitoria ternatea*, HU TAO REN *Juglans regia*, HUANG QI *Astragalus membranaceus* (root: content = 0.010%<sup>[5514]</sup>), JIU CAI *Allium tuberosum*, JUAN BAI *Selaginella tamariscina* (dried whole herb: content scope = 0.317%~0.846%<sup>[5508]</sup>), LING ZHI *Ganoderma lucidum*, LING ZHI *Ganoderma lucidum* (dried sporocarp: content = 0.002%<sup>[5508]</sup>), MA BIAN CAO *Verbena officinalis*, MAI DONG *Ophiopogon japonicus* (tuberoid: content = trace<sup>[5514]</sup>), PING BEI MU *Fritillaria ussuriensis*, QI BAI ZHI *Angelica dahurica* cv. *Qibaizhi*, REN GONG YONG CHONG CAO *Cordyceps militaris* cv. (sclerotium and stroma: content = 0.250%<sup>[5512]</sup>), REN SHEN *Panax ginseng* [Syn. *Panax schinseng*] (root: content = 0.038%<sup>[5514]</sup>), SHAN YAO *Dioscorea batatas* [Syn. *Dioscorea opposita*], XIAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *huechingensis*], XIE BAI *Allium macrostemon*, YANG CONG *Allium cepa*, YONG CHONG CAO *Cordyceps militaris*, ZANG HONG HUA *Crocus sativus* (pollen), ZANG HONG HUA *Crocus sativus* (stigma: yield = 0.00033%<sup>[4653]</sup>), ZHANG YE BAN XIA *Pinellia pedatisecta*, ZHE BEI MU *Fritillaria verticillata* var. *thunbergii* [Syn. *Fritillaria thunbergii*], widely distributed in nature. **Ref:** 569, 660, 900, 1521, 2576, 3408, 3525, 4154, 4233, 4348, 4653, 5501, 5507, 5508, 5512, 5514.

**619 Adenolin A**

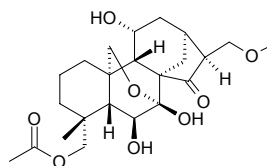
C<sub>25</sub>H<sub>36</sub>O<sub>9</sub> (480.56). mp 182~184°C, [ $\alpha$ ]<sub>D</sub><sup>19</sup> = -121.7°. **Source:** XIAN HUA XIANG CHA CAI *Rabdosia adenantha*. **Ref:** 4067.

**620 Adenolin B**

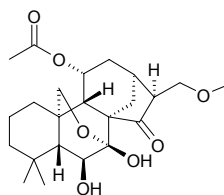
C<sub>23</sub>H<sub>30</sub>O<sub>8</sub> (422.48). mp 253~255°C, [ $\alpha$ ]<sub>D</sub><sup>19</sup> = -204.5°. **Source:** SHAN DI XIANG CHA CAI *Isodon oresbia* (aerial parts). **Ref:** 4067.

**621 Adenolin C**

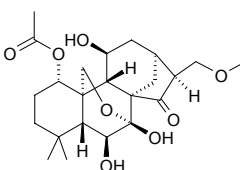
C<sub>23</sub>H<sub>34</sub>O<sub>8</sub> (438.52). mp 214~216°C, [ $\alpha$ ]<sub>D</sub><sup>19</sup> = -100.8°. **Source:** XIAN HUA XIANG CHA CAI *Rabdosia adenantha*. **Ref:** 4067.

**622 Adenolin D**

C<sub>23</sub>H<sub>34</sub>O<sub>7</sub> (422.52). mp 204~206°C, [ $\alpha$ ]<sub>D</sub><sup>19</sup> = -78.9°. **Source:** XIAN HUA XIANG CHA CAI *Rabdosia adenantha*. **Ref:** 4067.

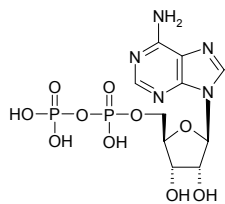
**623 Adenolin E**

C<sub>23</sub>H<sub>34</sub>O<sub>8</sub> (438.52). mp 213.5~215°C, [ $\alpha$ ]<sub>D</sub><sup>19</sup> = -82.9°. **Source:** XIAN HUA XIANG CHA CAI *Rabdosia adenantha*. **Ref:** 4067.

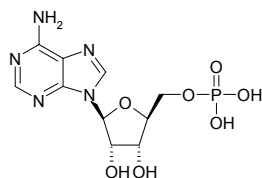


**624 Adenosine diphosphate**

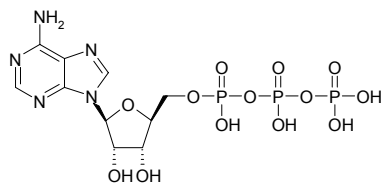
$C_{10}H_{15}N_5O_{10}P_2$  (427.21). Source: XIANG XUN *Lentinus edodes*. Ref: 660.

**625 5'-Adenosine monophosphate**

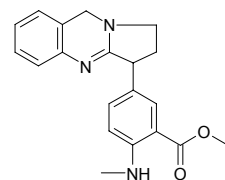
[61-19-8]  $C_{10}H_{14}N_5O_7P$  (347.23). mp 195°C. Source: MO GU *Agaricus campestris*. Ref: 6.

**626 Adenosine triphosphate**

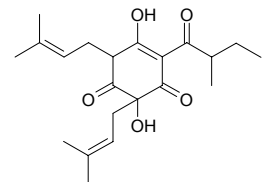
[56-65-5]  $C_{10}H_{16}N_5O_{13}P_3$  (507.19). Pharm: Coenzyme of energy transfer in phosphate bonds; reagent used in biochemistry research. Source: HA SHI MA *Rana temporaria chensinensis*; *Rana amurensis*, LU RONG *Cervus nippon*; *Cervus elaphus*, QING WA *Rana nigromaculata*; *Rana plancyi*, REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. Ref: 2, 6, 658.

**627 Adhatodine**

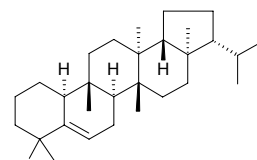
[33903-14-9]  $C_{20}H_{21}N_3O_2$  (335.41). mp 183°C. Source: DA BO GU *Adhatoda vasica*. Ref: 6.

**628 Adhumulone**

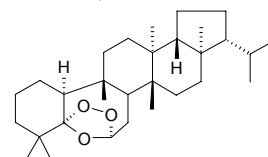
$C_{21}H_{30}O_5$  (362.47). Source: PI JIU HUA *Humulus lupulus*. Ref: 660.

**629 Adianene**

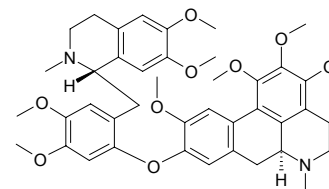
$C_{30}H_{50}$  (410.73). Source: DAN GAI TIE XIAN JUE *Adiantum monochlamys*. Ref: 660.

**630 Adian-5-ene ozonide**

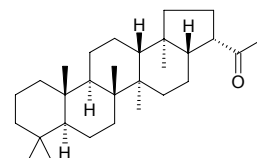
$C_{30}H_{50}O_3$  (458.73). Source: DAN GAI TIE XIAN JUE *Adiantum monochlamys*, GAO SHAN TIAO JUE *Oleandra wallichii*. Ref: 660, 1521.

**631 Adiantifoline**

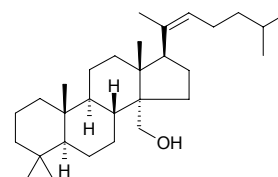
[20823-96-5]  $C_{42}H_{50}N_2O_9$  (726.87). Dark yellow acicular crystals (alcohol), thin acicular crystals (alcohol-ether), mp 142–143°C, dark yellow needle crystals (anhydrous alcohol), mp 143.5–144°C,  $[\alpha]_D^{28} = +90^\circ$  ( $c = 0.11$ , methanol). Pharm: Antihypertensive (rbt, 1mg/kg, blood pressure is lowered by 3.33kPa for 2min); supertoxic agent. Source: HE NAN TANG SONG CAO *Thalictrum honanense*, TIE XIAN JUE YE TANG SONG CAO *Thalictrum minus* var. *adiantifolium*. Ref: 1, 537.

**632 Adiantone**

[1253-69-6]  $C_{29}H_{48}O$  (412.71). mp 222–224°C. Source: BIAN YE TIE XIAN JUE *Adiantum caudatum*, GUAN ZHONG *Dryopteris crassirhizoma*, TIE SI QI *Adiantum pedatum*, ZHU ZONG CAO *Adiantum capillus-veneris*. Ref: 6.

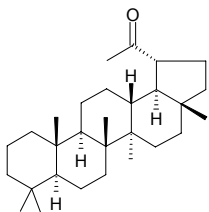
**633 Adiantulanosterol**

Lanost-20(22)-ene-30-ol  $C_{30}H_{52}O$  (428.75). Colorless crystals, mp 170–172°C,  $[\alpha]_D^{20} = -29.4^\circ$  ( $c = 0.07$ ,  $CHCl_3$ ). Source: XI YE TIE XIAN JUE *Adiantum venustum* (aerial parts). Ref: 3957.

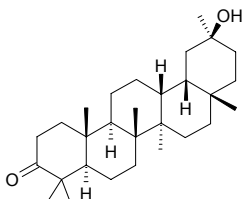


**634 Adiantulupanone**

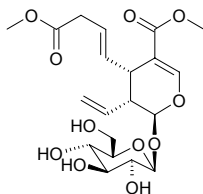
30-Normethyl lupane-20-one  $C_{29}H_{48}O$  (412.71). Colorless rhombic crystals, mp 212~215°C. Source: XI YE TIE XIAN JUE *Adiantum venustum* (aerial parts). Ref: 3957.

**635 Adiantuoleanone**

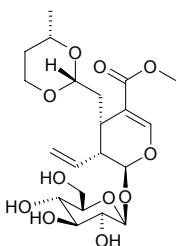
30-Normethyl olean-3-on-30 $\beta$ -ol  $C_{29}H_{48}O_2$  (428.70). mp 268~269°C. Source: XI YE TIE XIAN JUE *Adiantum venustum* (aerial parts). Ref: 3957.

**636 Adinoside A**

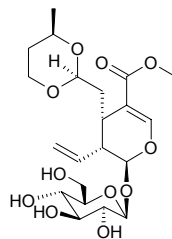
$C_{20}H_{28}O_{11}$  (444.44). Amorphous powder,  $[\alpha]_D^{26} = -40^\circ$  ( $c = 0.5$ , MeOH). Source: JI ZI MU *Sinoadina Racemosa* [Syn. *Adina racemosa*] (leaf, flower and twig: yield = 0.00073%dw). Ref: 4723.

**637 Adinoside B**

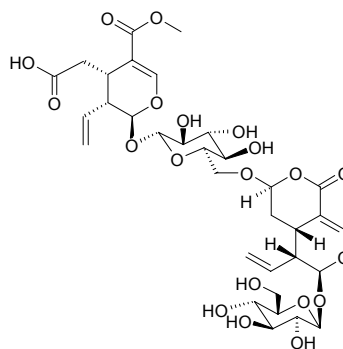
$C_{21}H_{32}O_{11}$  (460.48). Amorphous powder,  $[\alpha]_D^{31} = -111^\circ$  ( $c = 0.93$ , MeOH). Source: JI ZI MU *Sinoadina Racemosa* [Syn. *Adina racemosa*] (leaf, flower and twig: yield = 0.0031%dw). Ref: 4723.

**638 Adinoside C**

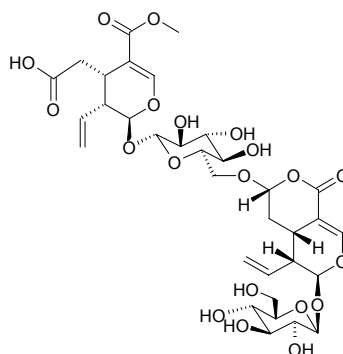
$C_{21}H_{32}O_{11}$  (460.48). Amorphous powder,  $[\alpha]_D^{23} = -134^\circ$  ( $c = 0.5$ , MeOH). Source: JI ZI MU *Sinoadina Racemosa* [Syn. *Adina racemosa*] (leaf, flower and twig: yield = 0.0037%dw). Ref: 4723.

**639 Adinoside D**

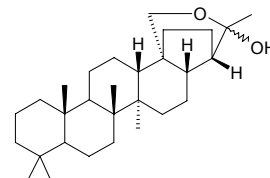
$C_{33}H_{44}O_{20}$  (760.71). Amorphous powder,  $[\alpha]_D^{28} = -137^\circ$  ( $c = 1.0$ , MeOH). Source: JI ZI MU *Sinoadina Racemosa* [Syn. *Adina racemosa*] (leaf, flower and twig: yield = 0.0042%dw). Ref: 4723.

**640 Adinoside E**

$C_{33}H_{44}O_{20}$  (760.71). Amorphous powder,  $[\alpha]_D^{28} = -181^\circ$  ( $c = 1.0$ , MeOH). Source: JI ZI MU *Sinoadina Racemosa* [Syn. *Adina racemosa*] (leaf, flower and twig: yield = 0.0023%dw). Ref: 4723.

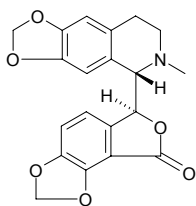
**641 Adipedatol**

[13843-87-3]  $C_{29}H_{48}O_2$  (428.70). mp 185~188°C. Source: TIE SI QI *Adiantum pedatum*. Ref: 6.

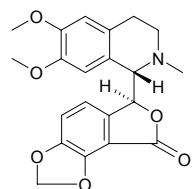


**642 Adlumidine**

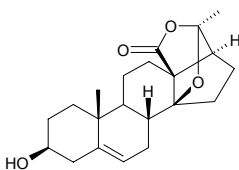
Bicuculline [550-49-2]  $C_{20}H_{17}NO_6$  (367.36). Orthogonal lamellar crystals ( $CHCl_3$ -MeOH), mp 236~238°C; 215°C,  $[\alpha]_D^{25} = +116.2^\circ$  ( $c = 22$ ,  $CHCl_3$ ), almost insoluble in water, very slightly soluble in alcohol, ether and ethane. **Pharm:**  $\gamma$ -Aminobutyric acid antagonist; eclampptogenic, acts violently, attacks quickly and persistently; uterine stimulant. **Source:** BIAN BING HUANG JIN *Corydalis mucronifera*, DOU ZHUANG HE BAO MU DAN *Dicentra cucullaria*, QUAN YE YAN HU SUO *Corydalis repens* (rhizome: content = 0.03%<sup>[5508]</sup>), TU YAN HU *Corydalis repens* var. *humosides*, XIA TIAN WU *Corydalis decumbens* [Syn. *Corydalis amabilis*] (rhizome: content = 0.15%<sup>[5508]</sup>), XUN ZHUANG SHAN YUAN CAO *Adlumia cirrhosa* [Syn. *Adlumia fungosa*], ZI HUA YU DENG CAO *Corydalis incisa*, YAN HUANG LIAN *Corydalis thalictrifolia*. **Ref:** 1, 6, 5508.

**643 Adlumine**

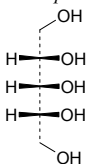
[524-46-9]  $C_{21}H_{21}NO_6$  (383.40). **Pharm:** Inhibits heart; uterine stimulant; smooth muscle stimulant (small intestinal). **Source:** CANG BAI ZI JIN *Corydalis sempervirens*, MEI GUI HONG JIN *Corydalis rosea*, SHE GUO HUANG JIN *Corydalis ophiocarpa*, SI KAO LE ZI JIN *Corydalis scouleri*, TIAO LIE HUANG JIN *Corydalis linearoides*, XIA TIAN WU *Corydalis decumbens* [Syn. *Corydalis amabilis*], XUN ZHUANG SHAN YUAN CAO *Adlumia cirrhosa* [Syn. *Adlumia fungosa*]. **Ref:** 1, 5501.

**644 Adonilide**

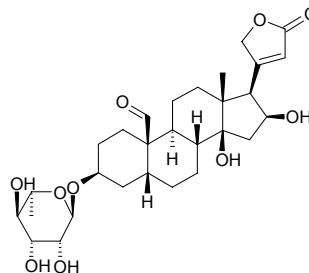
[21132-14-9]  $C_{21}H_{28}O_4$  (344.45). mp 268~270°C. **Source:** FU SHOU CAO *Adonis amurensis*. **Ref:** 6.

**645 Adonitol**

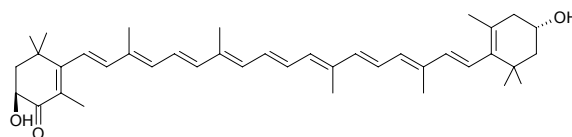
1,2,3,4-Pentanepentol [488-81-3]  $C_5H_{12}O_5$  (152.15). mp 104°C, soluble in water and ethanol. **Source:** CHAI HU *Bupleurum chinense*, JI CAI *Capsella bursa-pastoris*. **Ref:** 2.

**646 Adonitoxin**

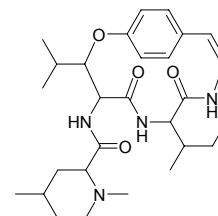
[17651-61-5]  $C_{29}H_{42}O_{10}$  (550.66).  $[\alpha]_D^{22} = -19.9^\circ$  ( $c = 0.33$ , MeOH)<sup>[5507]</sup>. **Pharm:** Toxin (vertebrate)<sup>[658]</sup>; cardiotoxic<sup>[5507]</sup>. **Source:** BEI CE JIN ZHAN HUA *Adonis sibirica*<sup>[5507]</sup>, CHUN FU SHOU CAO *Adonis vernalis*<sup>[658]</sup>, FU ER JIA CE JIN ZHAN HUA *Adonis wolgensis*<sup>[5507]</sup>. **Ref:** 658, 5507.

**647 Adonixanthin**

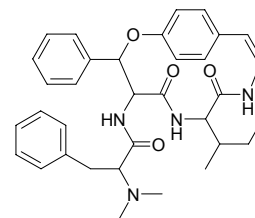
$C_{40}H_{54}O_3$  (582.87). **Source:** QIU FU SHOU CAO *Adonis annua* **Ref:** 660.

**648 Adouetine X**

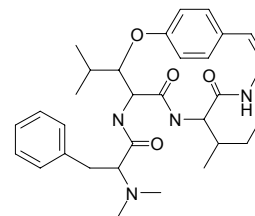
[19542-37-1]  $C_{28}H_{44}N_4O_4$  (500.69). mp 277~279°C. **Source:** HE TA CAO *Waltheria americana*. **Ref:** 6.

**649 Adouetine Y**

[19542-38-2]  $C_{34}H_{40}N_4O_4$  (568.72). mp 292°C. **Source:** HE TA CAO *Waltheria americana*. **Ref:** 6.

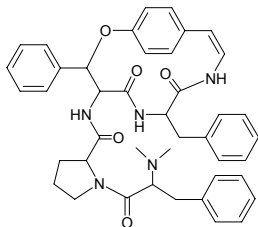
**650 Adouetine Y'**

[19542-39-3]  $C_{31}H_{42}N_4O_4$  (534.70). mp 289.0~290.5°C. **Source:** HE TA CAO *Waltheria americana*. **Ref:** 6.

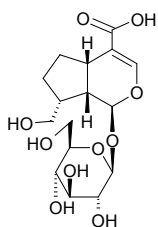


**651 Adouetine Z**

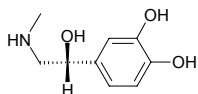
[19542-40-6] C<sub>42</sub>H<sub>45</sub>N<sub>5</sub>O<sub>5</sub> (699.86). mp 140~145°C. **Pharm:** Antipyretic (low dose); causes anorexia (high dose); antihypertensive; sedative (low dose); LD<sub>50</sub> (mus) = 52.5mg/kg. **Source:** HE TA CAO *Waltheria americana*. **Ref:** 1, 6.

**652 Adoxosidic acid**

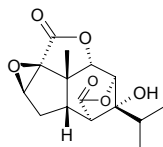
C<sub>16</sub>H<sub>24</sub>O<sub>10</sub> (376.36). **Source:** GUAN HUA ROU CONG RONG *Cistanche tubulosa*. **Ref:** 2448.

**653 Adrenaline**

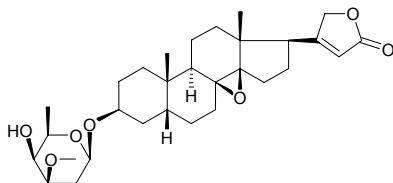
L-Epinephrine [51-43-4] C<sub>9</sub>H<sub>13</sub>NO<sub>3</sub> (183.21). mp 211~212°C, soluble in acetic acid. **Source:** CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus*, NIU SHEN *Bos taurus domesticus*; *Bubalus bubalis*, JIN YU *Carassius auratus*, WEI NAO *Erinaceus europaeus*; *Hemiechinus dauuricus*; *Hemiechinus auritus*, WEI XIN GAN *Erinaceus europaeus*; *Hemiechinus dauuricus*; *Hemiechinus auritus*, XIANG JIAO *Musa paradisiaca* var. *sapientum* [Syn. *Musa sapientum*]. **Ref:** 6, 660, 1521.

**654 Aduncin**

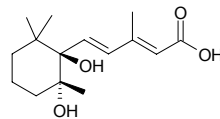
C<sub>15</sub>H<sub>18</sub>O<sub>6</sub> (294.31). **Source:** GOU ZHUANG SHI HU *Dendrobium aduncum*. **Ref:** 660.

**655 Adynerin**

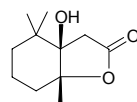
[35109-93-4] C<sub>30</sub>H<sub>44</sub>O<sub>7</sub> (516.68). mp 234°C. **Pharm:** Toxin (vertebrate). **Source:** JIA ZHU TAO *Nerium indicum*, OU ZHOU JIA ZHU TAO *Nerium oleander*. **Ref:** 6, 658.

**656 Aeginetic acid**

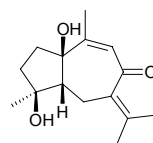
[53337-92-1] C<sub>15</sub>H<sub>24</sub>O<sub>4</sub> (268.36). mp 205°C. **Source:** YE GU *Aeginetia indica*. **Ref:** 6.

**657 Aeginetolide**

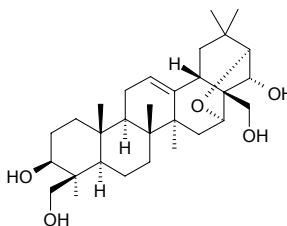
[53337-93-2] C<sub>11</sub>H<sub>18</sub>O<sub>3</sub> (198.26). mp 169~170°C. **Source:** YE GU *Aeginetia indica*. **Ref:** 6.

**658 Aerugidiol**

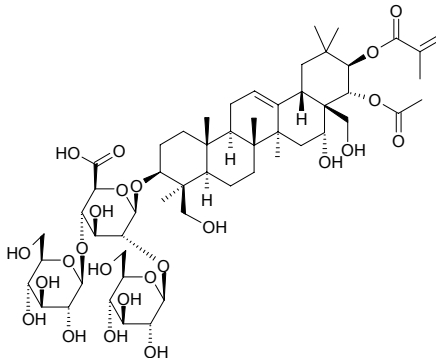
C<sub>15</sub>H<sub>22</sub>O<sub>3</sub> (250.34). **Pharm:** NO production inhibitor inactive (mus peritoneal macrophages, induced by LPS, 100μmol/L, InRt = (12.5±1.6)%, control L-NMMA, 100μmol/L, InRt = (79.2±0.9)%)<sup>[4150]</sup>. **Source:** PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. **Ref:** 660, 4150.

**659 Aescigenin**

[17806-68-7] C<sub>30</sub>H<sub>48</sub>O<sub>5</sub> (488.71). mp 307°C, mp 317~318°C. **Source:** RI BEN QI YE SHU *Aesculus turbinata*. **Ref:** 6, 660.

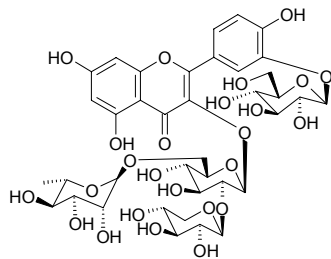
**660 Aescin**

21-O-Angeloyl-22-Oacetylprotoaescigenin-3-O-β-D-glucopyranosyl(1→2)]β-D-glucopyranosyl(1→4)]β-D-glucopyranosiduronic acid C<sub>55</sub>H<sub>86</sub>O<sub>24</sub> (1131.29). **Pharm:** Antineoplastic; antifungal; anti-inflammatory (mus, assay of Dimethyl benzene-induced inflammation, dose 30mg/kg, InRt = 71.5%; control Dexamethasone, dose 1mg/kg, InRt = 55.6%); astringent; hemolytic. **Source:** OU ZHOU QI YE SHU *Aesculus hippocastanum*, QI YE SHU *Aesculus chinensis* (seed), SUO LUO ZI *Aesculus wilsonii*. **Ref:** 658, 2578.

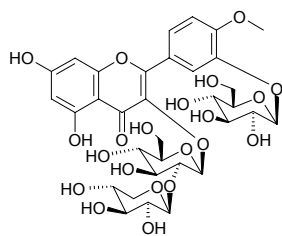


**661 Aesculflavoside**

Quercetin-3-*O*-[ $\beta$ -*D*-xylopyranosyl(1 $\rightarrow$ 2)]-[ $\alpha$ -*L*-rhamnopyranosyl(1 $\rightarrow$ 6)]- $\beta$ -*D*-glucopyranoside-3'-*O*- $\beta$ -*D*-glucopyranoside C<sub>38</sub>H<sub>48</sub>O<sub>25</sub> (904.79). Yellow powder,  $[\alpha]_D^{22} = -107.8^\circ$  ( $c = 1.25$ , MeOH). **Pharm:** Antiviral (*in vitro*, RSV, IC<sub>50</sub> = 4.5  $\mu$ g/mL, CC<sub>50</sub> = 71.3  $\mu$ g/mL; Para-3, IC<sub>50</sub> = 35.6  $\mu$ g/mL, CC<sub>50</sub> = 71.3  $\mu$ g/mL; Flu-A, IC<sub>50</sub> > 100  $\mu$ g/mL, CC<sub>50</sub> = 107.5  $\mu$ g/mL; control Ribavirin: RSV, IC<sub>50</sub> = 2.6  $\mu$ g/mL, CC<sub>50</sub> = 62.5  $\mu$ g/mL; PIV3, IC<sub>50</sub> = 2.6  $\mu$ g/mL, CC<sub>50</sub> = 62.5  $\mu$ g/mL; Flu-A, IC<sub>50</sub> = 62.5  $\mu$ g/mL, CC<sub>50</sub> > 125  $\mu$ g/mL)<sup>[4740]</sup>. **Source:** QI YE SHU *Aesculus chinensis* (seed). **Ref:** 4740.

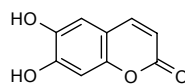
**662 Aesculflavoside A**

4'-Methoxyquercetin-3-*O*- $\beta$ -*D*-xylopyranosyl(1 $\rightarrow$ 2)- $\beta$ -*D*-glucopyranoside-3'-*O*- $\beta$ -*D*-glucopyranoside C<sub>33</sub>H<sub>40</sub>O<sub>21</sub> (772.67). Yellow powder,  $[\alpha]_D^{22} = -102.1^\circ$  ( $c = 0.25$ , MeOH). **Source:** QI YE SHU *Aesculus chinensis* (seed). **Ref:** 4740.

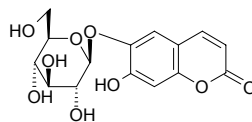
**663 Aesculetin**

Esculetin; Cichorigenin [305-01-1] C<sub>9</sub>H<sub>6</sub>O<sub>4</sub> (178.15). Rhomboid crystals (icy acetic acid); leaflike crystals (sub under vacuum); mp 268~270°C; mp 242~248°C (dec). **Pharm:** Antiasthmatic; antibacterial (*Bacillus coli* and *Staphylococcus aureus in vitro*); antifungal; anti-inflammatory (swollen foot model caused by carrageenan, large dose, inhibits increase of blood capillary permeability induced by histamine); antitussive (dispels phlegm); LD (mus, sc) = 250mg/kg. **Source:** BAI LA SHU *Fraxinus chinensis*, CEN PI *Fraxinus rhynchophylla* [Syn. *Fraxinus chinensis* var. *rhynchophylla*] (bark: content scope = 0.122%~1.01%<sup>[5501]</sup>), HENG GEN FEI CAI *Sedum kamschaticum*, HUA BAI LA SHU *Fraxinus ornus*, HUANG GUO QIE *Solanum xanthocarpum*, JIAN YE CEN *Fraxinus szaboana* [Syn. *Fraxinus chinensis* var. *acuminata*], JU QU *Cichorium intybus*, LANG PA CAO *Bidens tripartita*, LI MENG *Citrus limonia*, LIU YE CEN *Fraxinus stylosa* (bark: mean content = 0.14%<sup>[5508]</sup>), LONG YAN DU HUO *Aralia fargesii*, MAO YAN CAO *Euphorbia lunulata*, NING MENG YE *Citrus limon*, OU ZHOU QI YE SHU *Aesculus hippocastanum* (in 1938 the compound was isolated from the plant by Genya Shimada)<sup>[5505]</sup>, PI HAN CAO *Melilotus suaveolens*, QIAN JIN ZI *Euphorbia lathyris* (dried ripe seed: mean content of 3 origins = 0.238%<sup>[5508]</sup>), QIN LING BAI LA SHU *Fraxinus paxiana* (bark: content = 0.05%<sup>[5508]</sup>), RI BEN HUANG BAI *Phellodendron japonicum* (leaf), RI BEN QI YE SHU *Aesculus turbinata*, SHUI QU LIU *Fraxinus mandshurica* (bark: content = 0.06%<sup>[5508]</sup>), XI LA GANG LIU

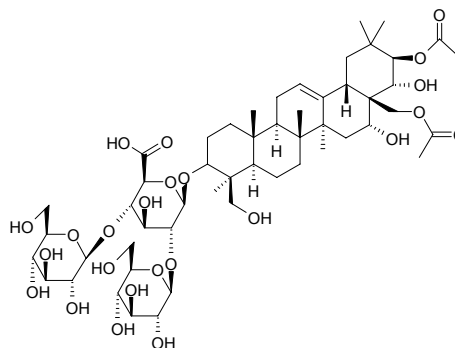
*Periploca graeca*, XIAO YE CEN *Fraxinus bungeana*, XIE WEI JU *Koelpinia linearis*, YI WO SI JING TIAN *Sedum ewersii*, YING GUO OU SHI NAN *Erica vagans*, ZANG QIE *Anisodus tanguticus* [Syn. *Scopolia tangutica*], occurs in many plants. **Ref:** 4, 6, 572, 658, 660, 661, 4502, 5501, 5505, 5508.

**664 Aesculin**

Bicoloirin; Esculin [531-75-9] C<sub>15</sub>H<sub>16</sub>O<sub>9</sub> (340.29). Sesquihydrate, acicular (hot water), mp 204~206°C,  $[\alpha]_D^{18} = -78.4^\circ$  ( $c = 2.5$ , 50% dioxane). **Pharm:** Antibacterial; platelet aggregation inhibitor; anti-inflammatory (rat: swollen foot model caused by carrageenan, 10mg/kg ip, InRt = 35%, caused by glucosan, 10mg/kg ip, InRt = 28%, caused by 5-HT, 10mg/kg ip, InRt = 20%, caused by histamine, 10mg/kg ip, InRt = 8%; gpg: erythema reaction on back from ultraviolet irradiation); inhibits increase of blood capillary permeability (gpg, induced by histamine); diuretic (mus); inhibits carcinogenic action of chemicals; aldose reductase inhibitor (rat eye lens). **Source:** CEN PI *Fraxinus rhynchophylla* [Syn. *Fraxinus chinensis* var. *rhynchophylla*] (bark: content scope = 2.63%~6.79%<sup>[5501]</sup>), HUA BAI LA SHU *Fraxinus ornus*, JIAN YE CEN *Fraxinus szaboana* [Syn. *Fraxinus chinensis* var. *acuminata*], JU QU *Cichorium intybus*, LIU YE CEN *Fraxinus stylosa* (bark: mean content = 1.77%<sup>[5508]</sup>), OU MAN TUO LUO GEN *Datura stramonium*, OU ZHOU QI YE SHU *Aesculus hippocastanum*, PI HAN CAO *Melilotus suaveolens*, QIAN JIN ZI *Euphorbia lathyris* (content scope = 0.88%~1.17%<sup>[5501]</sup>), QIN LING BAI LA SHU *Fraxinus paxiana* (bark: content = 0.02%<sup>[5508]</sup>), SHUI QU LIU *Fraxinus mandshurica* (bark: content = 0.03%<sup>[5508]</sup>), TU LIAN QIAO *Hymenodictyon excelsum*, XIAO YE CEN *Fraxinus bungeana*, YING GUO SHAN ZHA *Crataegus oxyacantha*. **Ref:** 4, 6, 660, 661, 5501, 5508.

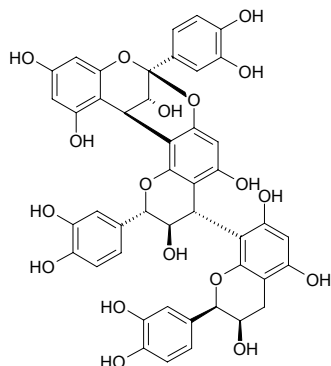
**665 Aesculside A**

21,28-Di-*O*-acetylprotoaescigenin-3-*O*-[ $\beta$ -*D*-glucopyranosyl(1 $\rightarrow$ 2)][ $\beta$ -*D*-glucopyranosyl(1 $\rightarrow$ 4)]- $\beta$ -*D*-glucopyranosiduronic acid C<sub>52</sub>H<sub>82</sub>O<sub>24</sub> (1091.22). White powder,  $[\alpha]_D^{25} = -11.2^\circ$  ( $c = 1.25$ , MeOH). **Source:** QI YE SHU *Aesculus chinensis* (seed). **Ref:** 2578.



**666 Aesculitannin B**

$C_{45}H_{36}O_{18}$  (864.78). Pale yellow amorphous powder,  $[\alpha]_D^{21} = +125.3^\circ$  ( $c = 1.92$ , MeOH). Source: CHANG JIE ZHU *Parameria laevigata* (bark). Ref: 3523.

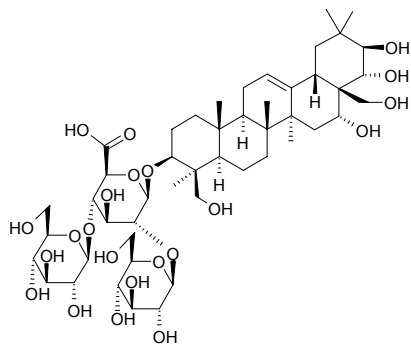
**667 Aesculuside B**

Desacylescigenin I;

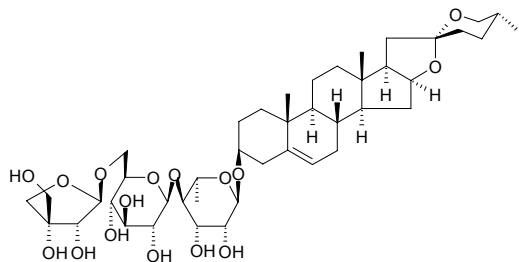
Protoaescigenin-3-*O*-[ $\beta$ -D-glucopyranosyl(1 $\rightarrow$ 2)][ $\beta$ -D-glucopyranosyl(1 $\rightarrow$ 4)]- $\beta$ -D-glucopyranosiduronic acid [26339-92-4]  $C_{48}H_{78}O_{22}$  (1007.14).

Colorless fine crystals, mp 260–262°C,  $[\alpha]_D^{25} = -33.9^\circ$  ( $c = 1.15$ , MeOH).

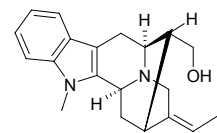
Source: QI YE SHU *Aesculus chinensis* (seed). Ref: 2578, 3528.

**668 Aferoside A**

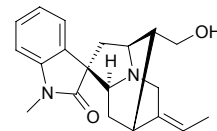
$C_{43}H_{68}O_{16}$  (841.01). Pharm: Anti-inflammatory (used to treatment of arthritis). Source: FEI ZHOU BI QIAO JIANG *Costus afer*. Ref: 2165.

**669 Affinisine**

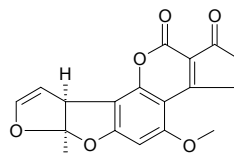
[2912-11-0]  $C_{20}H_{24}N_2O$  (308.42). Pharm: Analgesic (rat); CNS depressant (mus). Source: DA YE TANG JIAO SHU *Alstonia macrophylla*. Ref: 658.

**670 Affinisine oxindole**

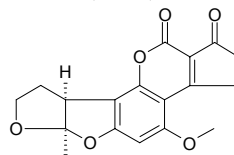
$C_{20}H_{24}N_2O_2$  (324.43). Light yellowish oil,  $[\alpha]_D = -70^\circ$  ( $c = 0.06$ ,  $CHCl_3$ ). Source: XIA YE JI GU CHANG SHAN *Alstonia angustifolia* (leaf). Ref: 3780.

**671 Aflatoxin B<sub>1</sub>**

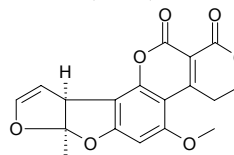
$C_{17}H_{12}O_6$  (312.28). Source: WU HUA GUO *Ficus carica*. Ref: 660.

**672 Aflatoxin B<sub>2</sub>**

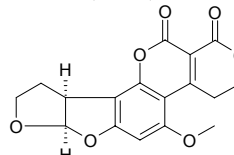
$C_{17}H_{14}O_6$  (314.30). Source: WU HUA GUO *Ficus carica*. Ref: 660.

**673 Aflatoxin G<sub>1</sub>**

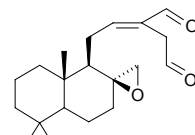
$C_{17}H_{12}O_7$  (328.28). Source: WU HUA GUO *Ficus carica*. Ref: 660.

**674 Aflatoxin G<sub>2</sub>**

$C_{17}H_{14}O_7$  (330.30). Source: WU HUA GUO *Ficus carica*. Ref: 660.

**675 Aframodial**

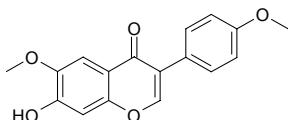
(*E*)-8 $\beta$ (17)-Epoxyabd-12-ene-15,16-dial [115795-58-9]  $C_{20}H_{30}O_3$  (318.46). Colorless acicular crystals (methanol–water), mp 90–92°C,  $[\alpha]_D = +27.3^\circ$  ( $c = 0.27$ ,  $CHCl_3$ ). Pharm: Antibacterial (gram-negative, gram-positive bacteria and *Penicillium aureus*); antifungal (*Candida albicans*, MIC = 12.5  $\mu$ g/mL); cytotoxic (KB, ED<sub>50</sub> = 22.5  $\mu$ g/mL); antihypercholesterolemic (rat liver homogenate, inhibits biosynthesis of cholesterol); antimalarial (*in vitro*, *Plasmodium falciparum* 3D7, IC<sub>50</sub> = (24.3 $\pm$ 0.6)  $\mu$ g/mL = (76.3 $\pm$ 1.9)  $\mu$ mol/L)<sup>[3022]</sup>. Source: DA LIANG JIANG *Alpinia galanga*, DUO NI FEI SHA REN *Aframomum daniellii*, SHENG JIANG *Zingiber officinale*. Ref: 983, 1139, 1140, 1521, 3022.



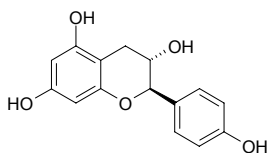


**676 Afrormosin**

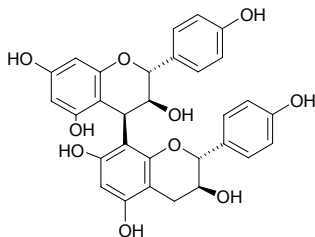
Castanin [550-79-8] C<sub>17</sub>H<sub>14</sub>O<sub>5</sub> (298.30). Colorless needles, mp 236–237°C. **Pharm:** Antifungal; antimalarial (*Plasmodium falciparum* PoW, IC<sub>50</sub> = (36.6±3.3)µg/mL, control Chloroquine diphosphate, IC<sub>50</sub> = (0.006±0.002)µg/mL; Dd2, IC<sub>50</sub> = (38.5±7.3)µg/mL, Chloroquine diphosphate, IC<sub>50</sub> = (0.06±0.01)µg/mL)<sup>[5208]</sup>. **Source:** MI HUA DOU *Spatholobus suberectus*, KUN MING JI XUE TENG *Milletia dielsiana*, WU CI KE YA SHU *Andira inermis* (leaf), XI FEI HONG DOU SHU *Afrormosia elata*. **Ref:** 658, 2205, 5208.

**677 Afzelechin**

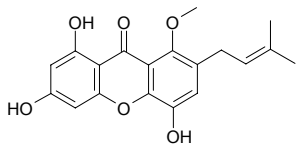
C<sub>15</sub>H<sub>14</sub>O<sub>5</sub> (274.28). **Source:** HAI ER CHA *Acacia catechu*. **Ref:** 660.

**678 Afzelechin-(4α→8)-afzelechin**

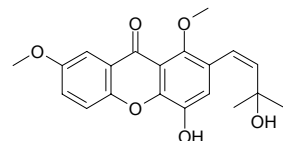
[101339-37-1] C<sub>30</sub>H<sub>26</sub>O<sub>10</sub> (546.54). **Pharm:** Tanning agent. **Source:** QIU QIE SHU *Kandelia candel*. **Ref:** 658.

**679 Afzeliixanthone A**

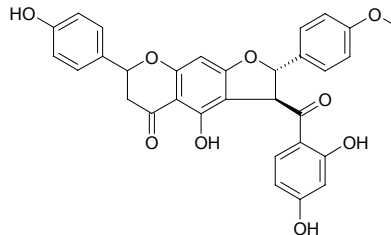
C<sub>19</sub>H<sub>18</sub>O<sub>6</sub> (342.35). Yellow oil. **Pharm:** Antioxidant (DPPH scavenger, IC<sub>50</sub> = 0.177µg/mL, control BHA, IC<sub>50</sub> = 0.135µg/mL, Vitamin E, IC<sub>50</sub> = 0.138µg/mL). **Source:** A FU ZE LI SHAN ZHU ZI *Garcinia afzelii* (stem bark: yield = 0.00006%dw)<sup>[2084]</sup>. **Ref:** 2084.

**680 Afzeliixanthone B**

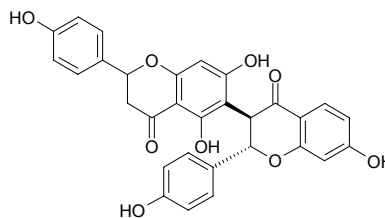
C<sub>20</sub>H<sub>20</sub>O<sub>6</sub> (356.38). Yellow oil. **Pharm:** Antioxidant (DPPH scavenger, IC<sub>50</sub> = 0.140µg/mL, control BHA, IC<sub>50</sub> = 0.135µg/mL, Vitamin E, IC<sub>50</sub> = 0.138µg/mL). **Source:** A FU ZE LI SHAN ZHU ZI *Garcinia afzelii* (stem bark: yield = 0.00007%dw)<sup>[2084]</sup>. **Ref:** 2084.

**681 Afzelone A**

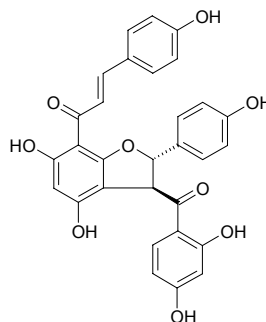
C<sub>31</sub>H<sub>24</sub>O<sub>9</sub> (540.53). Amorphous pale yellow solid, [α]<sub>D</sub><sup>25</sup> = +193° (c = 0.4, Me<sub>2</sub>CO). **Source:** *Ochna afzelii*. **Ref:** 3449.

**682 Afzelone B**

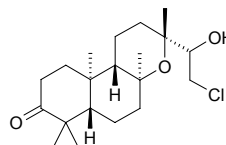
C<sub>30</sub>H<sub>22</sub>O<sub>9</sub> (526.50). Amorphous pale yellow solid, [α]<sub>D</sub><sup>25</sup> = -19° (c = 0.6, Me<sub>2</sub>CO). **Source:** *Ochna afzelii*. **Ref:** 3449.

**683 Afzelone C**

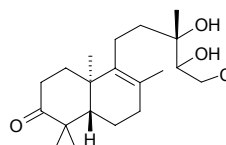
C<sub>30</sub>H<sub>22</sub>O<sub>9</sub> (526.50). **Source:** *Ochna afzelii*. **Ref:** 3449.

**684 Agallochin A**

3-Oxo-*ent*-13epi-8(13)-epoxy-15-chloro-14-hydroxylabdane C<sub>20</sub>H<sub>33</sub>ClO<sub>3</sub> (356.94). Colorless needles (MeOH), mp 145–148°C, [α]<sub>D</sub><sup>25</sup> = -38.0° (c = 1.5, CHCl<sub>3</sub>). **Source:** HAI QI *Excoecaria agallocha* (root). **Ref:** 5114.

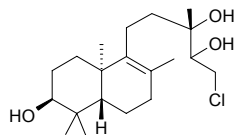
**685 Agallochin B**

*ent*-15-Chloro-13,14-dihydroxylabd-8(9)-en-3-one C<sub>20</sub>H<sub>33</sub>ClO<sub>3</sub> (356.94). Colorless needles (MeOH), mp 157–159°C, [α]<sub>D</sub><sup>25</sup> = -45.1° (c = 1.75, CHCl<sub>3</sub>). **Source:** HAI QI *Excoecaria agallocha* (root). **Ref:** 5114.

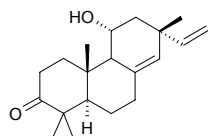


**686 Agallochin C**

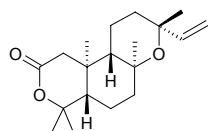
*ent*-15-Chloro-labd-8(9)ene-3 $\alpha$ ,13,14-triol C<sub>20</sub>H<sub>35</sub>ClO<sub>3</sub> (358.95). Colorless oil,  $[\alpha]_D^{25} = -26.4^\circ$  ( $c = 1.7$ , CHCl<sub>3</sub>). Source: HAI QI *Excoecaria agallocha* (root). Ref: 5114.

**687 Agallochin D**

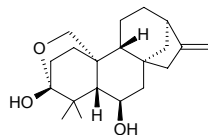
*ent*-11 $\beta$ -Hydroxy-8(14),15-isopimaradien-3-one C<sub>20</sub>H<sub>30</sub>O<sub>2</sub> (302.46). Colorless needles, mp 145~148°C,  $[\alpha]_D^{25} = +45.3^\circ$  ( $c = 1.9$ , CHCl<sub>3</sub>). Source: HAI QI *Excoecaria agallocha* (root). Ref: 5114.

**688 Agallochin E**

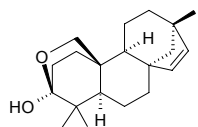
8,13-Epoxy-3-nor-2,3-seco-14-epilabden-2,4-olide C<sub>19</sub>H<sub>30</sub>O<sub>3</sub> (306.45). Colorless needles, mp 140~142°C,  $[\alpha]_D^{25} = -101.2^\circ$  ( $c = 1.6$ , CHCl<sub>3</sub>). Source: HAI QI *Excoecaria agallocha* (root). Ref: 5114.

**689 Agallochin F**

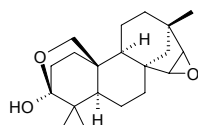
*ent*-3 $\beta$ ,20-Epoxy-3 $\alpha$ ,6 $\alpha$ -dihydroxykaur-16-ene C<sub>20</sub>H<sub>30</sub>O<sub>3</sub> (318.46). Colorless oil,  $[\alpha]_D^{25} = -21.6^\circ$  ( $c = 1.2$ , CHCl<sub>3</sub>). Source: HAI QI *Excoecaria agallocha* (root; yield = 0.00075%dw). Ref: 4613.

**690 Agallochin G**

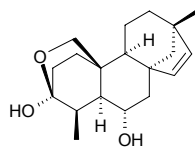
3 $\beta$ ,20-Epoxy-3 $\alpha$ -hydroxybeyer-15-ene C<sub>20</sub>H<sub>30</sub>O<sub>2</sub> (302.46). Colorless needles (MeOH), mp 152~54°C,  $[\alpha]_D^{25} = -59.2^\circ$  ( $c = 1.9$ , CHCl<sub>3</sub>). Source: HAI QI *Excoecaria agallocha* (root; yield = 0.00088%dw). Ref: 4613.

**691 Agallochin H**

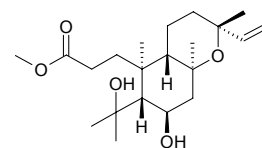
3 $\beta$ ,20:15*R*,16*S*-Diepoxy-3 $\alpha$ -beyeranol C<sub>20</sub>H<sub>30</sub>O<sub>3</sub> (318.46). Colorless needles (*n*-hexane-EtOAc), mp 164~166°C,  $[\alpha]_D^{25} = -76.4^\circ$  ( $c = 0.7$ , CHCl<sub>3</sub>). Source: HAI QI *Excoecaria agallocha* (root; yield = 0.00063%dw). Ref: 4613.

**692 Agallochin I**

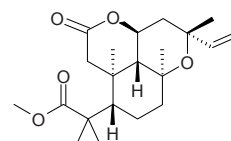
3 $\beta$ ,20-Epoxy-3 $\alpha$ ,6 $\alpha$ -dihydroxy-18-nor-beyer-15-ene C<sub>19</sub>H<sub>28</sub>O<sub>3</sub> (304.43). Colorless oil,  $[\alpha]_D^{25} = -52.2^\circ$  ( $c = 1.0$ , CHCl<sub>3</sub>). Source: HAI QI *Excoecaria agallocha* (root; yield = 0.0010%dw). Ref: 4613.

**693 Agallochin M**

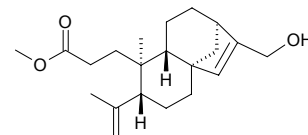
C<sub>21</sub>H<sub>36</sub>O<sub>5</sub> (368.52). Colorless oil,  $[\alpha]_D^{25} = -46.4^\circ$  ( $c = 0.2$ , CHCl<sub>3</sub>). Source: HAI QI *Excoecaria agallocha*. Ref: 2057.

**694 Agallochin N**

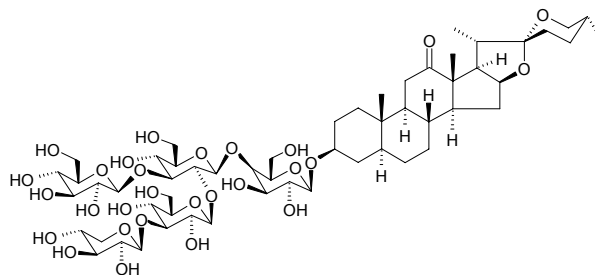
C<sub>21</sub>H<sub>32</sub>O<sub>5</sub> (364.49). Colorless needles (MeOH), mp 160~162°C  $[\alpha]_D^{25} = -54.2^\circ$  ( $c = 0.1$ , CHCl<sub>3</sub>). Source: HAI QI *Excoecaria agallocha*. Ref: 2057.

**695 Agallochin O**

C<sub>21</sub>H<sub>32</sub>O<sub>3</sub> (332.49). Colorless oil,  $[\alpha]_D^{25} = -28.0^\circ$  ( $c = 0.1$ , CHCl<sub>3</sub>). Source: HAI QI *Excoecaria agallocha*. Ref: 2057.

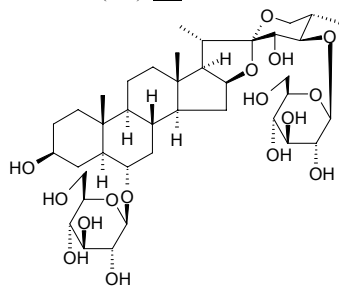
**696 Agamenoside F**

C<sub>56</sub>H<sub>90</sub>O<sub>28</sub> (1211.32). Pharm: Cytotoxic (*in vitro*, HeLa, IC<sub>50</sub> = 5.1  $\mu$ g/mL; control *cis*-Platin, IC<sub>50</sub> = 0.75  $\mu$ g/mL). Source: WAN XIANG YU *Polianthes tuberosa* (tuber; yield = 0.0018%fw). Ref: 3002.

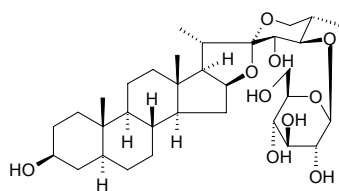


**697 Agamenoside H**

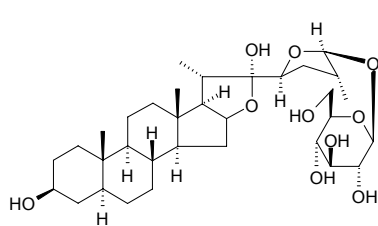
(22S,23S,24R,25S)-24-[( $\beta$ -D-Glucopyranosyl)oxy]-5 $\alpha$ -spirostane-3 $\beta$ ,6 $\alpha$ ,23-triol 6-O- $\beta$ -D-glucopyranoside C<sub>39</sub>H<sub>64</sub>O<sub>16</sub> (788.94). White amorphous powder,  $[\alpha]_D^{21} = -42.1^\circ$  ( $c = 0.011$ , pyridine). Source: FAN MA *Agave Americana* (leaf). Ref: 4293.

**698 Agamenoside I**

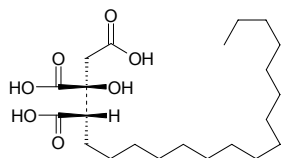
(22S,23S,24R,25S)-5 $\alpha$ -Spirostane-3 $\beta$ ,23,24-triol-24-O- $\beta$ -D-glucopyranoside C<sub>33</sub>H<sub>54</sub>O<sub>10</sub> (610.79). White amorphous powder,  $[\alpha]_D^{14} = -39.9^\circ$  ( $c = 0.041$ , pyridine). Source: FAN MA *Agave Americana* (leaf). Ref: 4293.

**699 Agamenoside J**

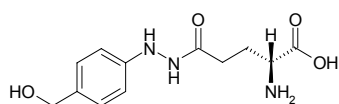
(22S,23S,25R,26S)-23,26-Epoxy-5 $\alpha$ -furostane-3 $\beta$ ,22,26-triol 26-O- $\beta$ -D-glucopyranoside C<sub>33</sub>H<sub>54</sub>O<sub>10</sub> (610.79). White amorphous powder,  $[\alpha]_D^{21} = -37.1^\circ$  ( $c = 0.018$ , pyridine). Source: FAN MA *Agave Americana* (leaf). Ref: 4293.

**700 Agaricic acid**

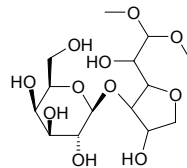
2-Hydroxy-1,2,3-nonadecanetricarboxylic acid [666-99-9] C<sub>22</sub>H<sub>40</sub>O<sub>7</sub> (416.56). mp 142°C (dec). Source: SANG HUANG *Phellinus igniarius*. Ref: 6.

**701 Agaritine**

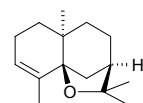
[2757-90-6] C<sub>12</sub>H<sub>17</sub>N<sub>3</sub>O<sub>4</sub> (267.29). mp 205~209°C (dec). Pharm: Mutagen (*Salmonella aertrycke*). Source: SHUANG BAO MO GU *Agaricus bisporus*, MO GU *Agaricus campestris*. Ref: 6, 658.

**702 Agarobiose dimethylacetal**

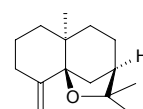
C<sub>14</sub>H<sub>26</sub>O<sub>11</sub> (370.36). bp 155~156°C/0.052mmHg. Source: LU JIAO CAI *Gloiopeltis furcata*. Ref: 6.

**703  $\alpha$ -Agarofuran**

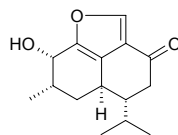
[5956-12-7] C<sub>15</sub>H<sub>24</sub>O (220.36). bp 134°C/6mmHg. Source: CHEN XIANG *Aquilaria agallocha*. Ref: 6, 16.

**704  $\beta$ -Agarofuran**

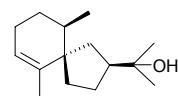
[6040-08-0] C<sub>15</sub>H<sub>24</sub>O (220.36). bp 130°C/8mmHg. Source: BAI MU XIANG *Aquilaria sinensis*, CHEN XIANG *Aquilaria agallocha*. Ref: 6, 13.

**705 Agarol**

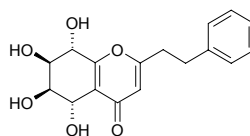
[5956-13-9] C<sub>15</sub>H<sub>20</sub>O<sub>3</sub> (248.32). Source: CHEN XIANG *Aquilaria agallocha*. Ref: 13.

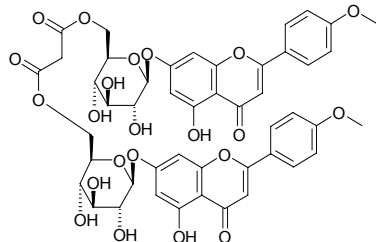
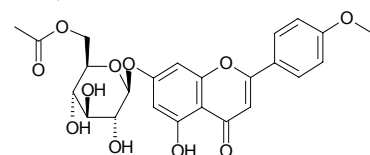
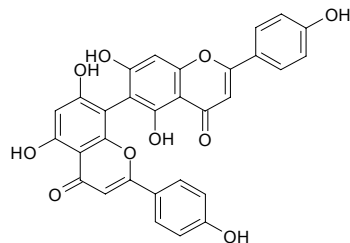
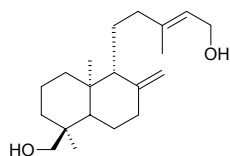
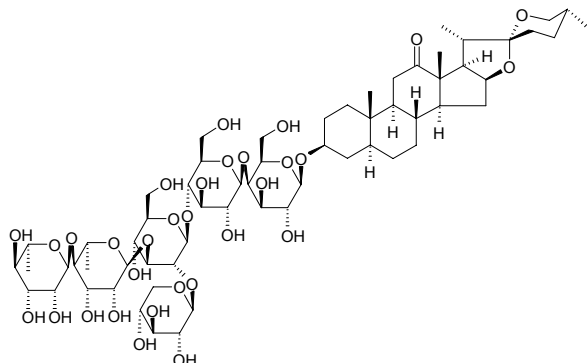
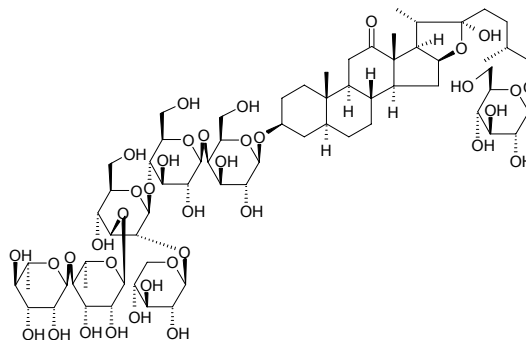
**706 Agarospirol**

[1460-73-7] C<sub>15</sub>H<sub>26</sub>O (222.37). bp 90~91°C/0.1mmHg. Pharm: CNS depressant (mus, inhibits spontaneous motion induced by pervitine and apomorphine, increases content of homovanillic acid in cerebrum). Source: BAI MU XIANG *Aquilaria sinensis*, CHEN XIANG *Aquilaria agallocha*. Ref: 13, 5501.

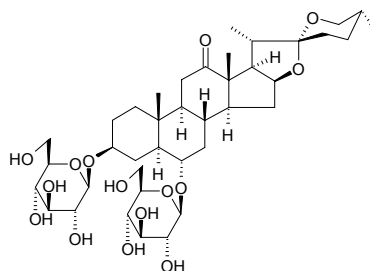
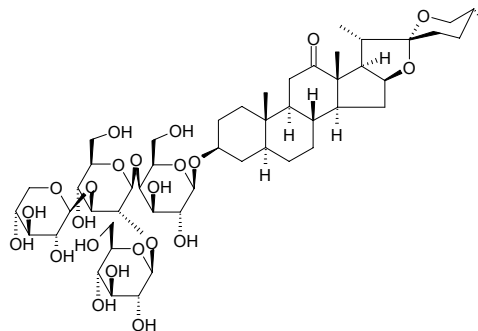
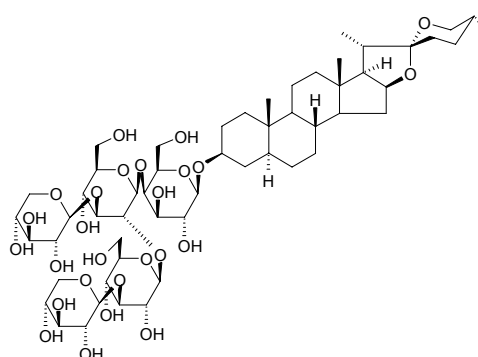
**707 Agarotetrol**

AH1 [69809-22-9] C<sub>17</sub>H<sub>18</sub>O<sub>6</sub> (318.33). Colorless acicular crystals, mp 179~181°C,  $[\alpha]_D^{24} = -21.3^\circ$ . Source: CHEN XIANG *Aquilaria agallocha*. Ref: 13.



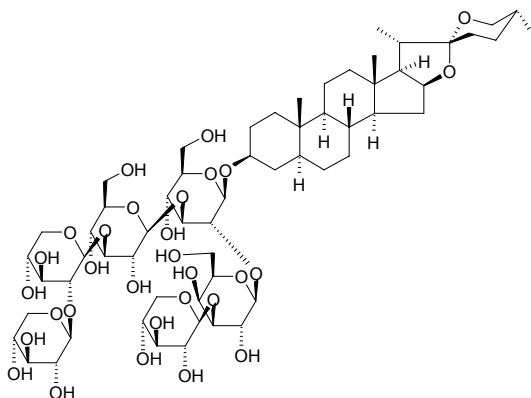
**708 Agastachin**[78897-46-8] C<sub>47</sub>H<sub>44</sub>O<sub>22</sub> (960.87). Source: HUO XIANG *Agastache rugosus*.Ref: 2.**709 Agastachoside**[76410-61-2] C<sub>24</sub>H<sub>24</sub>O<sub>11</sub> (488.45). Source: HUO XIANG *Agastache rugosus*.Ref: 2, 7.**710 Agathisflavone**C<sub>30</sub>H<sub>18</sub>O<sub>10</sub> (538.47). Pharm: Cyclonucleotide phosphodiesterase inhibitor.Source: BEI KE SHAN *Agathis dammara*, DA YE NAN YANG SHAN*Araucaria bidwillii*. Ref: 658.**711 Agathodienediol**C<sub>20</sub>H<sub>34</sub>O<sub>2</sub> (306.49). mp 107~108°C. Source: HAI SONG ZI *Pinus koraiensis*.Ref: 6.**712 Agavasaponin E**[58546-19-3] C<sub>62</sub>H<sub>100</sub>O<sub>31</sub> (1341.47). mp 304~308°C, [α]<sub>D</sub> = -130°. Source:FAN MA *Agave americana*. Ref: 2503.**713 Agavasaponin H**C<sub>68</sub>H<sub>112</sub>O<sub>37</sub> (1521.63). mp 228~230°C, [α]<sub>D</sub> = -113°. Source: FAN MA*Agave americana*. Ref: 2503.**714 Agave americana Compound 3**C<sub>39</sub>H<sub>62</sub>O<sub>15</sub> (770.92). [α]<sub>D</sub> = -57.1°. Source: FAN MA *Agave americana*. Ref:

2503.

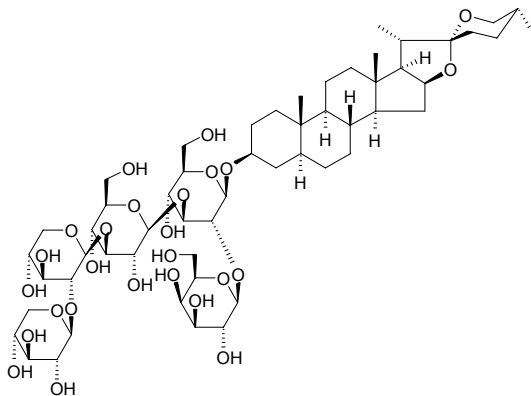
**715 Agave americana Compound 4**C<sub>50</sub>H<sub>80</sub>O<sub>23</sub> (1049.18). [α]<sub>D</sub> = -52°. Source: FAN MA *Agave americana*. Ref: 2503.**716 Agave americana Glycoside 1**C<sub>53</sub>H<sub>90</sub>O<sub>26</sub> (1167.31). mp 260~263°C. Source: FAN MA *Agave americana*. Ref: 2503.

**717 *Agave cantala* Agaveside A**

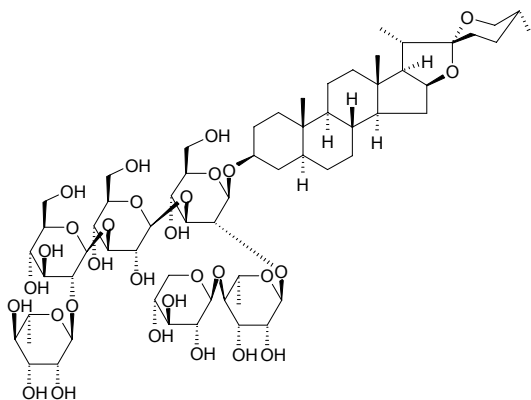
$C_{60}H_{98}O_{30}$  (1299.43). mp 278~280°C,  $[\alpha]_D = -50^\circ$ . Source: XIA YE LONG SHE LAN *Agave cantala*. Ref: 2503.

**718 *Agave cantala* Agaveside B**

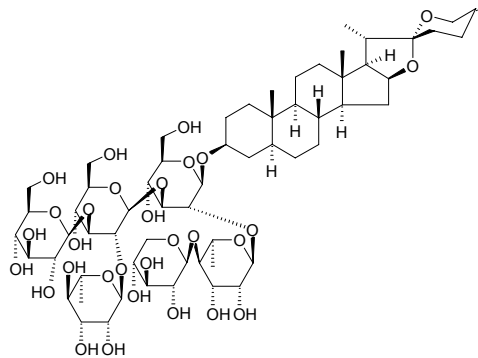
$C_{55}H_{90}O_{26}$  (1167.31). mp 283~285°C. Source: XIA YE LONG SHE LAN *Agave cantala*. Ref: 2503.

**719 *Agave cantala* Agaveside C**

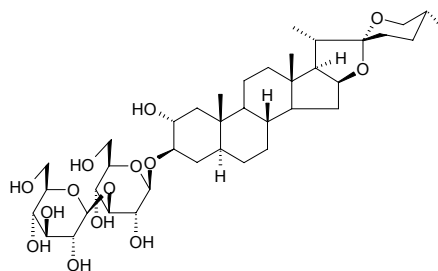
$C_{62}H_{102}O_{30}$  (1327.49). mp 256~260°C,  $[\alpha]_D = -39.4^\circ$ . Source: XIA YE LONG SHE LAN *Agave cantala*. Ref: 2503.

**720 *Agave cantala* Agaveside D**

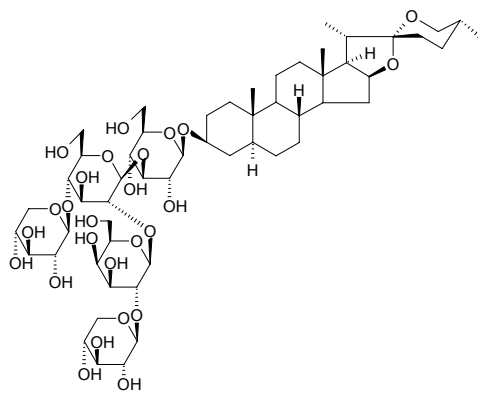
$C_{62}H_{102}O_{30}$  (1327.49). mp 256~260°C. Source: XIA YE LONG SHE LAN *Agave cantala*. Ref: 2503.

**721 *Agave cantala* Compound 1**

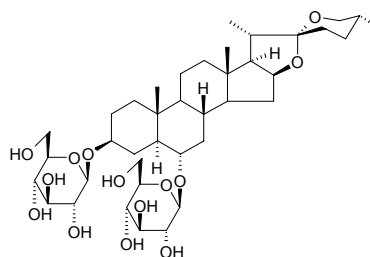
$C_{39}H_{64}O_{14}$  (756.94). mp 235~338°C,  $[\alpha]_D = -62.0^\circ$ . Source: XIA YE LONG SHE LAN *Agave cantala*. Ref: 2503.

**722 *Agave cantala* Compound 1'**

$C_{55}H_{90}O_{26}$  (1167.31). mp 301~304°C. Source: XIA YE LONG SHE LAN *Agave cantala*. Ref: 2503.

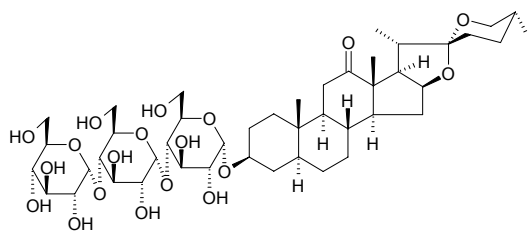
**723 *Agave cantala* Saponin 1**

$C_{39}H_{64}O_{14}$  (756.94). mp 245~246°C,  $[\alpha]_D = -78.0^\circ$ . Source: XIA YE LONG SHE LAN *Agave cantala*. Ref: 2503.

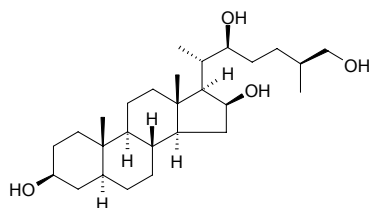


**724 *Agave cantala* Substance 1**

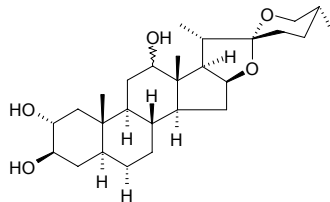
$C_{45}H_{72}O_{19}$  (917.06). mp 240–243°C,  $[\alpha]_D = +95.5^\circ$ . Source: XIA YE LONG SHE LAN *Agave cantala*. Ref: 2503.

**725 Agavegenin D**

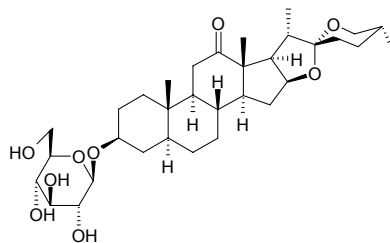
(22*S*,25*S*)-5 $\alpha$ -Cholestane-3 $\beta$ ,16 $\beta$ ,22,26-tetrol  $C_{27}H_{48}O_4$  (436.68). White amorphous powder,  $[\alpha]_D^{21} = -13.3^\circ$  ( $c = 0.017$ , pyridine). Source: FAN MA *Agave Americana* (leaf). Ref: 4293.

**726 Agavogenin**

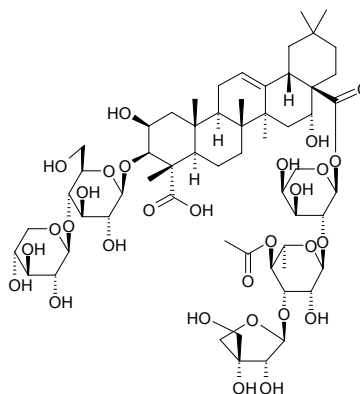
$C_{27}H_{44}O_5$  (448.65). mp 242°C. Source: *Agave huahucensis*. Ref: 2503.

**727 Agavoside A**

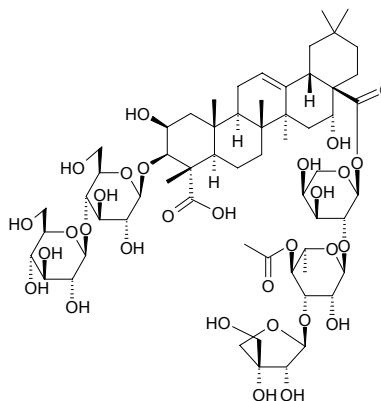
$C_{33}H_{52}O_9$  (592.78). Pharm: Antineoplastic (KB of tissue culture, leukemia). Source: FAN MA *Agave americana*. Ref: 658.

**728 Ageratoside A<sub>1</sub>**

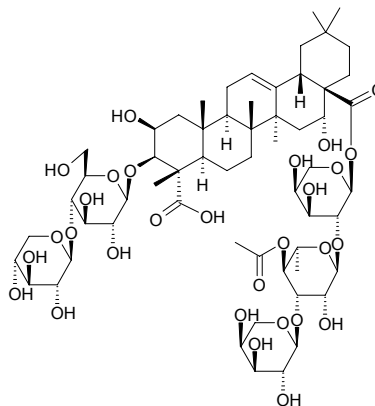
3-*O*-[*O*- $\beta$ -*D*-Xylopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl] 2 $\beta$ ,3 $\beta$ ,16 $\alpha$ -trihydroxyolean-12-ene-23,28-dioic acid (zanhic acid) 28-*O*- $\beta$ -*D*-apiofuranosyl-(1 $\rightarrow$ 3)-*O*-(4-*O*-acetyl)- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 2)-*O*- $\alpha$ -*L*-arabinopyranosyl ester  $C_{59}H_{92}O_{29}$  (1265.37). White powder,  $[\alpha]_D^{22} = -42.8^\circ$  ( $c = 1.0$ , MeOH). Source: LUAN YE SAN ZHE MAI ZI WAN *Aster ageratoides* var. *ovatus* (aerial parts). Ref: 2285.

**729 Ageratoside A<sub>2</sub>**

3-*O*-[*O*- $\beta$ -*D*-Glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl] zanhic acid 28-*O*- $\beta$ -*D*-apiofuranosyl-(1 $\rightarrow$ 3)-*O*-(4-*O*-acetyl)- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 2)-*O*- $\alpha$ -*L*-arabinopyranosyl ester  $C_{60}H_{94}O_{30}$  (1295.40). White powder,  $[\alpha]_D^{22} = -38.9^\circ$  ( $c = 1.0$ , MeOH). Source: LUAN YE SAN ZHE MAI ZI WAN *Aster ageratoides* var. *ovatus* (aerial parts). Ref: 2285.

**730 Ageratoside A<sub>3</sub>**

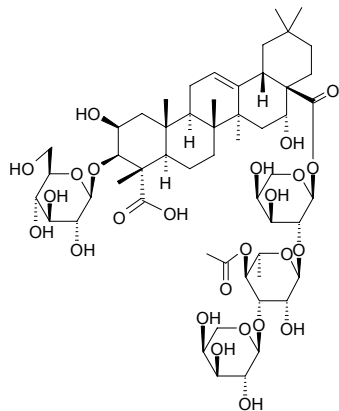
3-*O*-[*O*- $\beta$ -*D*-Xylopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl] zanhic acid 28-*O*- $\alpha$ -*L*-arabinopyranosyl-(1 $\rightarrow$ 3)-*O*-(4-*O*-acetyl)- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 2)-*O*- $\alpha$ -*L*-arabinopyranosyl ester  $C_{59}H_{92}O_{29}$  (1265.37). White powder,  $[\alpha]_D^{22} = -25.7^\circ$  ( $c = 1.0$ , MeOH). Source: LUAN YE SAN ZHE MAI ZI WAN *Aster ageratoides* var. *ovatus* (aerial parts). Ref: 2285.



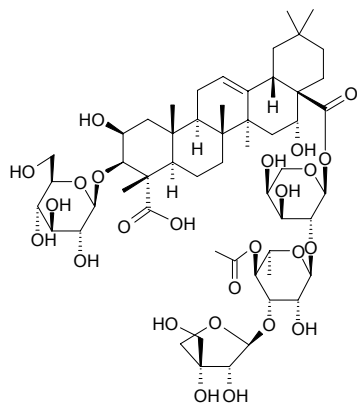
**731 Ageratoside A<sub>4</sub>**

3-*O*-β-*D*-Glucopyranosyl zanhic acid 28-*O*-α-*L*-arabinopyranosyl-(1→3)-*O*-(4-*O*-acetyl)-α-*L*-rhamnopyranosyl-(1→2)-*O*-α-*L*-arabinopyranosyl ester C<sub>54</sub>H<sub>84</sub>O<sub>25</sub> (1133.26). White powder, [α]<sub>D</sub><sup>22</sup> = -16.7° (*c* = 1.0, MeOH).

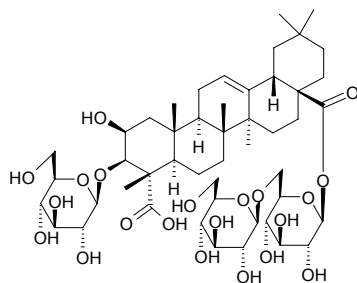
Source: LUAN YE SAN ZHE MAI ZI WAN *Aster ageratoides* var. *ovatus* (aerial parts). Ref: 2285.

**732 Ageratoside A<sub>5</sub>**

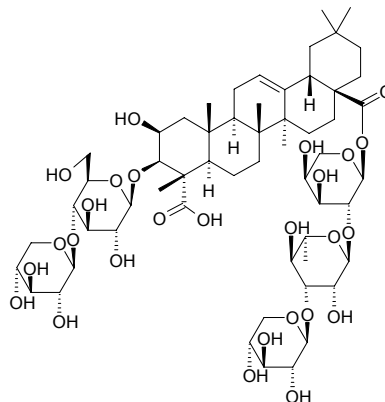
3-*O*-β-*D*-Glucopyranosyl zanhic acid 28-*O*-β-*D*-apiofuranosyl-(1→3)-*O*-(4-*O*-acetyl)-α-*L*-rhamnopyranosyl-(1→2)-*O*-α-*L*-arabinopyranosyl ester C<sub>54</sub>H<sub>84</sub>O<sub>25</sub> (1133.26). White powder, [α]<sub>D</sub><sup>22</sup> = -30.9° (*c* = 0.5, MeOH). Source: LUAN YE SAN ZHE MAI ZI WAN *Aster ageratoides* var. *ovatus* (aerial parts). Ref: 2285.

**733 Ageratoside B<sub>1</sub>**

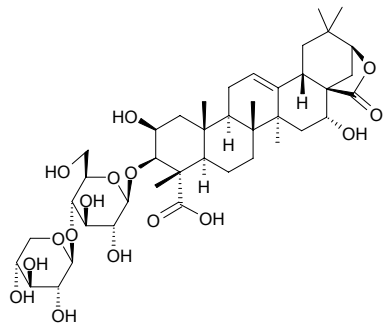
3-*O*-β-*D*-Glucopyranosyl-2β,3β-dihydroxyolean-12-ene-23,28-dioic acid (medicagenic acid) 28-*O*-β-*D*-glucopyranosyl-(1→6)-*O*-β-*D*-glucopyranosyl ester C<sub>48</sub>H<sub>76</sub>O<sub>21</sub> (989.13). White powder, [α]<sub>D</sub><sup>22</sup> = +18.3° (*c* = 0.5, MeOH). Source: LUAN YE SAN ZHE MAI ZI WAN *Aster ageratoides* var. *ovatus* (aerial parts). Ref: 2285.

**734 Ageratoside B<sub>2</sub>**

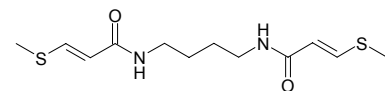
3-*O*-[*O*-β-*D*-Xylopyranosyl-(1→4)-β-*D*-glucopyranosyl] medicagenic acid 28-*O*-β-*D*-xylopyranosyl-(1→3)-*O*-α-*L*-rhamnopyranosyl-(1→2)-*O*-α-*L*-arabinopyranosyl ester [233761-49-4] C<sub>57</sub>H<sub>90</sub>O<sub>27</sub> (1207.34). White powder, [α]<sub>D</sub><sup>22</sup> = -12.8° (*c* = 0.5, MeOH). Source: LUAN YE SAN ZHE MAI ZI WAN *Aster ageratoides* var. *ovatus* (aerial parts). Ref: 2285.

**735 Ageratoside C<sub>1</sub>**

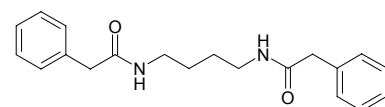
3-*O*-[*O*-β-*D*-Xylopyranosyl-(1→4)-β-*D*-glucopyranosyl]-2β,3β,16α,21β-tetrahydroxyolean-12-ene-23,28-dioic acid 21,28-lactone C<sub>41</sub>H<sub>62</sub>O<sub>16</sub> (810.94). White powder, [α]<sub>D</sub><sup>22</sup> = -2.3° (*c* = 0.5, MeOH). Source: LUAN YE SAN ZHE MAI ZI WAN *Aster ageratoides* var. *ovatus* (aerial parts). Ref: 2285.

**736 Aglaidithioduline**

*N*-[*N'*-(*E*)-(3-Methylthio-2-propenyl)-4-aminobutyl]-(*E*)-3-methylthiopropenamide C<sub>12</sub>H<sub>20</sub>N<sub>2</sub>O<sub>2</sub>S<sub>2</sub> (288.43). Pale orange needles (MeOH), mp 164–165°C. Pharm: Antiviral (HSV-1 and HSV-2, slight activity)<sup>[2382]</sup>. Source: KE SHI MI ZI LAN *Aglaiia edulis* (leaf). Ref: 2382.

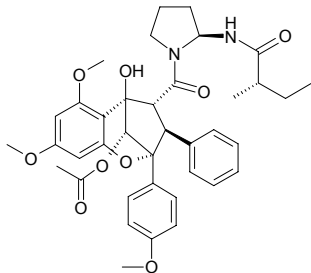
**737 Aglaiduline**

*N*-[*N'*-(Phenylacetyl)-4-aminobutyl]phenylacetamide C<sub>20</sub>H<sub>24</sub>N<sub>2</sub>O<sub>2</sub> (324.43). Colorless needles (MeOH), mp 162–163°C. Source: KE SHI MI ZI LAN *Aglaiia edulis* (leaf). Ref: 2382.

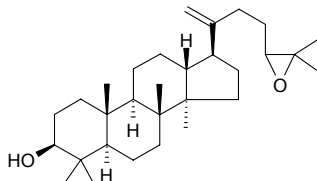


**738 Aglaine A**

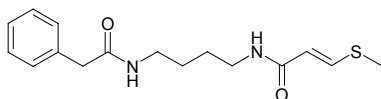
$C_{38}H_{44}N_2O_9$  (672.78). Amorphous powder. Source: TUE YUAN MI ZI LAN *Aglaiia elliptica* (leaf). Ref: 4127.

**739 Aglaiol**

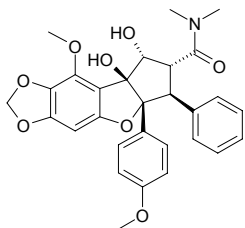
$C_{30}H_{50}O_2$  (442.73). mp 113–114°C. Source: MI ZI LAN *Aglaiia odorata*. Ref: 6.

**740 Aglalthioduline**

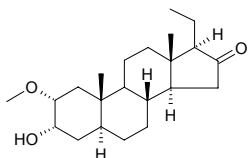
*N*-[*N'*-(*E*)-(3-Methylthio-2-propenyl)-4-aminobutyl] phenylacetamide  
 $C_{16}H_{22}N_2O_2S$  (306.43). Colorless needles (MeOH), mp 140–141°C. Pharm:  
 Antiviral (HSV-1 and HSV-2, slight activity). Source: KE SHI MI ZI  
 LAN *Aglaiia edulis* (leaf). Ref: 2382.

**741 Aglaroxin A**

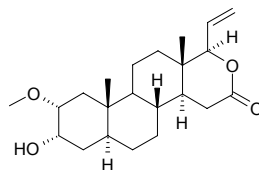
(-)-(1*R*,2*R*,3*S*,3*aR*)-16,7,8,8*a*-Tetrahydro-8,8*a*-dihydroxy-9-methoxy-5*a*-(4-methoxyphenyl)-6-phenyl-5*aH*-cyclopenta[4,5]furo[2,3-*f*]-1,3-benzodioxole-7-*N,N*-dimethyl amide  $C_{29}H_{29}NO_8$  (519.56).  $[\alpha]_D^{20} = -81^\circ$  ( $c = 0.4$ ,  $CHCl_3$ ). Pharm: Insecticidal (neonate larvae of *Spodoptera littoralis*, survival rate  $LC_{50} = 3.4 \mu\text{g/g}$ , control Azadirachtin, survival rate  $LC_{50} = 6.1 \mu\text{g/g}$ ; growth inhibition  $EC_{50} = 0.21 \mu\text{g/g}$ , Azadirachtin, growth inhibition  $EC_{50} = 0.11 \mu\text{g/g}$ ). Source: KE SHI MI ZI LAN *Aglaiia edulis*. Ref: 2355.

**742 Aglatomin A**

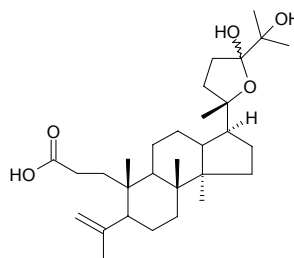
$C_{22}H_{36}O_3$  (348.53).  $[\alpha]_D = -32^\circ$  ( $c = 1$ ,  $CHCl_3$ ). Source: RONG MAO MI ZI LAN *Aglaiia tomentosa*. Ref: 2335.

**743 Aglatomin B**

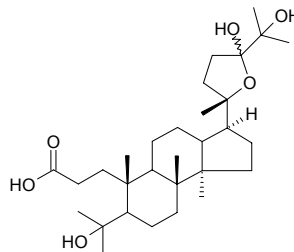
$C_{22}H_{34}O_4$  (362.51).  $[\alpha]_D = -6^\circ$  ( $c = 1$ ,  $CHCl_3$ ). Source: RONG MAO MI ZI LAN *Aglaiia tomentosa*. Ref: 2335.

**744 Aglinin A**

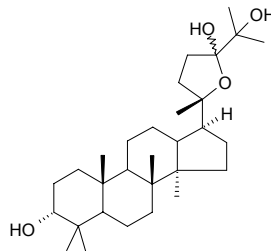
$C_{30}H_{50}O_5$  (490.73). Source: RONG MAO MI ZI LAN *Aglaiia tomentosa*, *Aglaiia lawii*. Ref: 2335.

**745 Aglinin B**

$C_{30}H_{52}O_6$  (508.75). Source: RONG MAO MI ZI LAN *Aglaiia tomentosa*, *Aglaiia lawii*. Ref: 2335.

**746 Aglinin C**

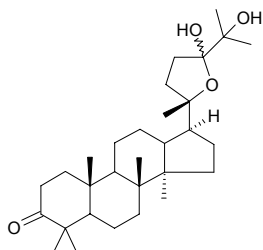
$C_{30}H_{52}O_4$  (476.75).  $[\alpha]_D = +17^\circ$  ( $c = 1$ ,  $CHCl_3$ ). Source: RONG MAO MI ZI LAN *Aglaiia tomentosa*, *Aglaiia lawii*. Ref: 2335.



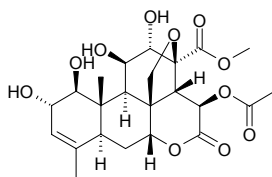


**747 Aglinin D**

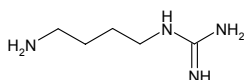
$C_{30}H_{50}O_4$  (474.73).  $[\alpha]_D^{25} = +14^\circ$  ( $c = 1$ ,  $CHCl_3$ ). Source: RONG MAO MI ZI LAN *Aglaiia tomentosa*, *Aglaiia lawii*. Ref: 2335.

**748 Aglycone of yadanzioside D**

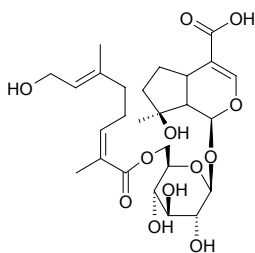
$C_{23}H_{30}O_{11}$  (482.49). Source: YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*] (seed: yield = 0.00055%dw). Ref: 4748.

**749 Agmatine**

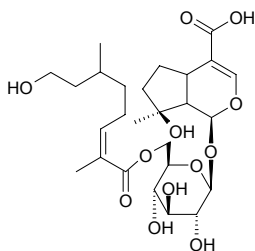
[306-60-5]  $C_5H_{14}N_4$  (130.19). Source: MAI JIAO *Claviceps purpurea*. Ref: 6.

**750 Agnucastoside A**

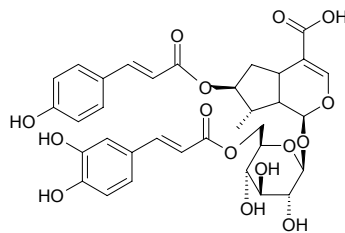
6'-*O*-Foliamenthylmussaenosidic acid  $C_{26}H_{38}O_{12}$  (542.59). Source: SUI HUA MU JING *Vitex agnuscastus*. Ref: 3429.

**751 Agnucastoside B**

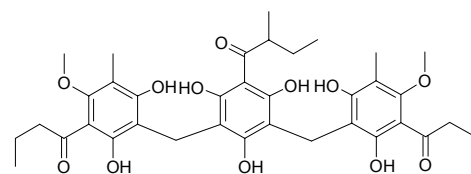
6'-*O*-(6,7-Dihydrofoliamenthyl)mussaenosidic acid  $C_{26}H_{40}O_{12}$  (544.60). Source: SUI HUA MU JING *Vitex agnuscastus*. Ref: 3429.

**752 Agnucastoside C**

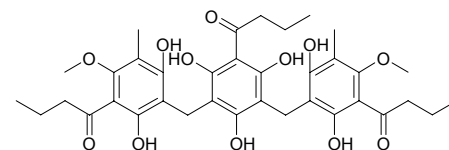
7-*O*-*trans*-*p*-Coumaroyl-6'-*O*-*trans*-caffeoyl-8-epiloganic acid  $C_{34}H_{36}O_{15}$  (684.66). Source: SUI HUA MU JING *Vitex agnuscastus*. Ref: 3429.

**753 (R)-(-)-Agrimol B**

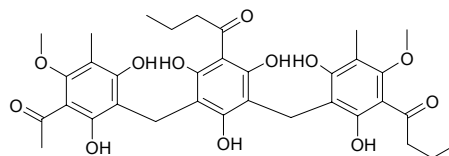
[55576-66-4]  $C_{37}H_{46}O_{12}$  (682.77). Yellow acicular crystals, mp 173–175°C,  $[\alpha]_D^{19} = -3.3^\circ$  ( $c = 1$ ,  $CHCl_3$ ). Source: XIAN HE CAO *Agrimonia pilosa* var. *japonica*. Ref: 129.

**754 Agrimol C**

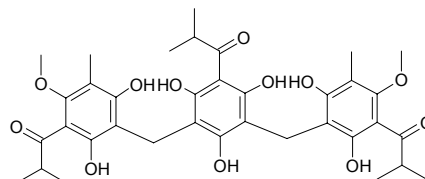
[55785-59-6]  $C_{36}H_{44}O_{12}$  (668.74). Pharm: Antibacterial. Source: LONG YA CAO *Agrimonia pilosa*, XIAN HE CAO *Agrimonia pilosa* var. *japonica*. Ref: 2, 658.

**755 Agrimol F**

[121693-16-1]  $C_{34}H_{40}O_{12}$  (640.69). Pharm: Antibacterial (*Staphylococcus aureus* MIC = 25.0μg/mL; *Bacillus cereus* MIC = 25.0μg/mL). Source: XIAN HE CAO *Agrimonia pilosa* var. *japonica*. Ref: 2, 1725.

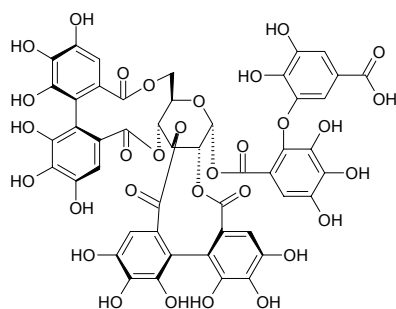
**756 Agrimol G**

[121693-17-2]  $C_{36}H_{44}O_{12}$  (668.75). Pharm: Antibacterial (*Staphylococcus aureus* MIC = 12.5μg/mL, *Bacillus cereus* MIC = 50μg/mL). Source: XIAN HE CAO *Agrimonia pilosa* var. *japonica*. Ref: 2, 1725.

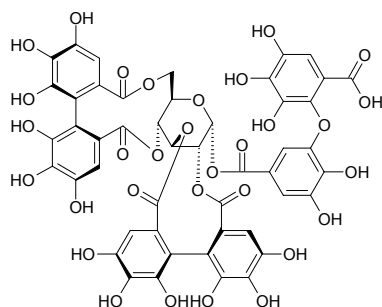


**757 Agrimonic acid A**

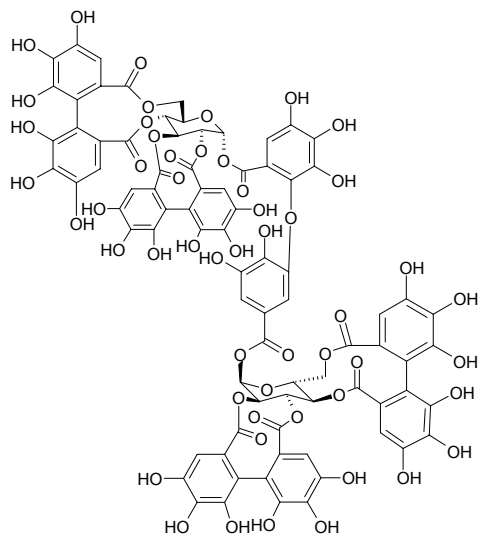
$C_{48}H_{32}O_{31}$  (1104.77). Source: JIN YING ZI *Rosa laevigata* (pericarp), RI BEN LONG YA CAO *Agrimonia japonica* (root). Ref: 660, 1521.

**758 Agrimonic acid B**

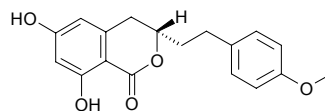
$C_{48}H_{32}O_{31}$  (1104.77). Source: JIN YING ZI *Rosa laevigata* (pericarp), RI BEN LONG YA CAO *Agrimonia japonica* (root). Ref: 660, 1521.

**759 Agrimoniin**

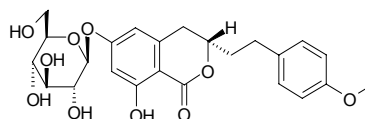
$C_{82}H_{54}O_{52}$  (1871.33). Pharm: Antineoplastic ( $S_{180}$ ); antidiarrheal; anthelmintic; hemostatic; antioxidant (rat, lipid in liver mitochondria). Source: LONG YA CAO *Agrimonia pilosa*, RI BEN LONG YA CAO *Agrimonia japonica*, SHE HAN WEI LING CAI *Potentilla kleiniana*. Ref: 658.

**760 Agrimonolide**

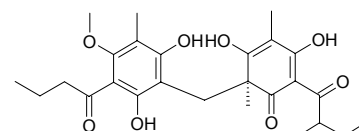
$C_{18}H_{18}O_5$  (314.34). Colorless columnar crystals, mp 173~175°C,  $[\alpha]_D^{18} = +8.1^\circ$ . Pharm: Intestinal smooth muscle relaxant (mus *in vivo*, rbt intestine *in vitro*). Source: XIAN HE CAO *Agrimonia pilosa* var. *japonica*. Ref: 1, 2, 5.

**761 Agrimonolide-6-O-β-D-glucopyranoside**

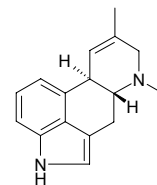
$C_{24}H_{28}O_{10}$  (476.48). White acicular crystals, mp 165~167°C,  $[\alpha]_D^{14} = -30.8^\circ$  ( $c = 1$ , acetone). Source: XIAN HE CAO *Agrimonia pilosa* var. *japonica*. Ref: 144.

**762 Agrimophol**

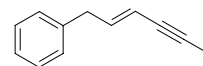
$C_{26}H_{34}O_8$  (474.55). Light yellow-green crystals, mp 138.5~139.5°C, easily soluble in chloroform, benzene, slightly soluble in alcohol, acetone, almost insoluble in water.<sup>[5507]</sup> Pharm: Antibacterial; anthelmintic (tapeworm, ascarid); schistosomacide; spermaticidal (0.0025g/mL, 1~5min, lethal rate = 100%). Source: LONG YA CAO *Agrimonia pilosa* (aerial part: mean content of 6 samples = 0.022%<sup>[5508]</sup>), XIAN HE CAO *Agrimonia pilosa* var. *japonica*, XIAN HE CAO GEN YA *Agrimonia pilosa* var. *japonica*. Ref: 1, 2, 4, 5, 6, 5501, 5507, 5508.

**763 Agroclavine**

[548-42-5]  $C_{16}H_{18}N_2$  (238.34). mp 203°C (dec). Pharm: Dopaminergic; uterine stimulant. Source: MAI JIAO *Claviceps purpurea*. Ref: 1, 6.

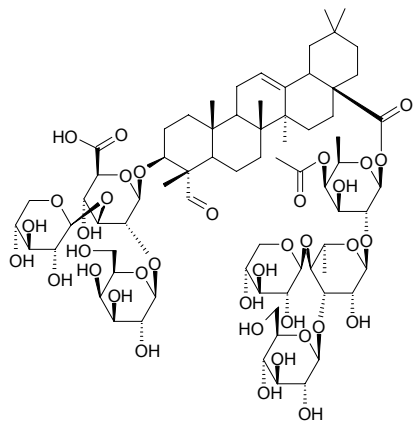
**764 Agropyrene**

$C_{12}H_{12}$  (156.23). bp 140~143°C/10mmHg. Source: HUANG HAO *Artemisia scoparia* [Syn. *Artemisia capillaris* var. *scoparia*]. Ref: 6, 660.

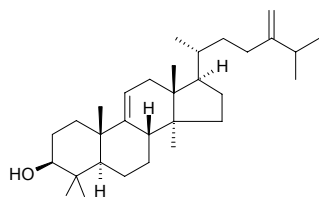


**765 Agrostemmasaponin 1**

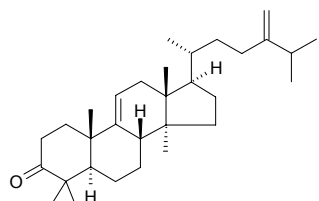
$C_{72}H_{112}O_{37}$  (1569.67). **Pharm:** Cytotoxic (showed mechanism of “cooperative toxicity”, combined with agrostin)<sup>[5464]</sup>. **Source:** MAI XIAN WENG *Agrostemma githago* (root). **Ref:** 5464.

**766 Agrostophyllinol**

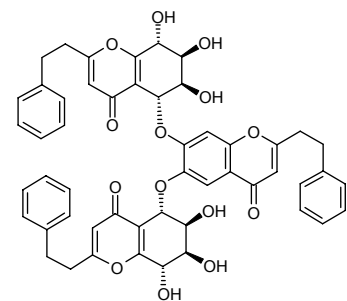
24-Methylene-lanosta-9(11)-en-3 $\beta$ -ol  $C_{31}H_{52}O$  (440.76). mp 175°C,  $[\alpha]_D = +46^\circ$  (CHCl<sub>3</sub>). **Source:** DUAN BING HE YE LAN *Agrostophyllum brevipes*. **Ref:** 3360.

**767 Agrostophyllinone**

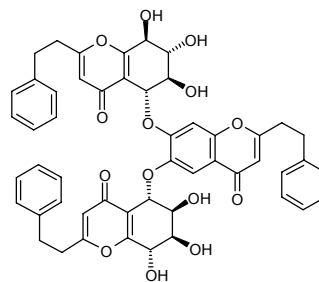
24-Methylene-lanosta-9(11)-en-3-one  $C_{31}H_{50}O$  (438.74). mp 125°C,  $[\alpha]_D = +79^\circ$  (CHCl<sub>3</sub>). **Source:** DUAN BING HE YE LAN *Agrostophyllum brevipes*, YING PI HE YE LAN *Agrostophyllum callosum*. **Ref:** 3360.

**768 AH18**

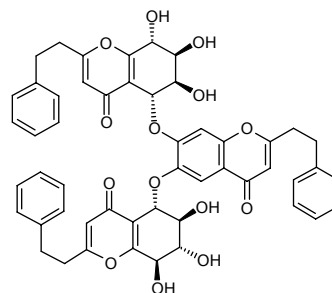
[113981-50-3]  $C_{51}H_{46}O_{14}$  (882.93). White powder, mp 147~148°C,  $[\alpha]_D = -109.1^\circ$ . **Source:** CHEN XIANG *Aquilaria agallocha*. **Ref:** 13.

**769 AH19a**

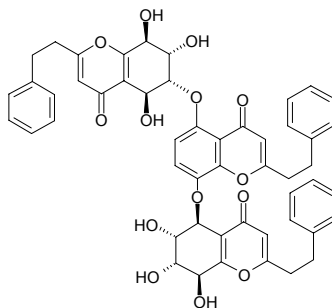
$C_{51}H_{46}O_{14}$  (882.93). White powder, mp 165~167°C,  $[\alpha]_D = -33.89^\circ$ . **Source:** CHEN XIANG *Aquilaria agallocha*. **Ref:** 13.

**770 AH19b**

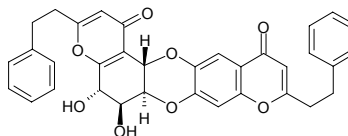
$C_{51}H_{46}O_{14}$  (882.93). White powder, mp 130~133°C,  $[\alpha]_D = -64.04^\circ$ . **Source:** CHEN XIANG *Aquilaria agallocha*. **Ref:** 13.

**771 AH20**

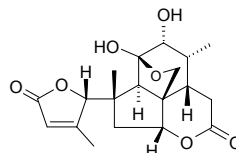
[135309-01-2]  $C_{51}H_{46}O_{14}$  (882.93). White powder, mp 143~145°C,  $[\alpha]_D = -27.83^\circ$ . **Source:** CHEN XIANG *Aquilaria agallocha*. **Ref:** 13.

**772 AH21**

[138822-70-5]  $C_{34}H_{28}O_8$  (564.60). White powder, mp 123~125°C,  $[\alpha]_D = -75.2^\circ$ . **Source:** CHEN XIANG *Aquilaria agallocha*. **Ref:** 13.

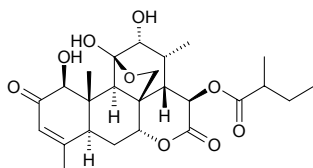
**773 Ailanquassin**

$C_{19}H_{24}O_7$  (364.40). **Source:** *Eurycoma harmandiana* (root). **Ref:** 5164.

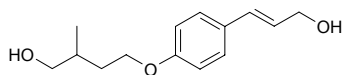


**774 Ailanthinone**

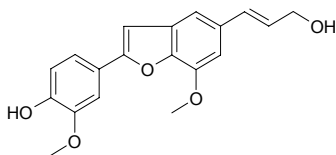
[53683-73-1]  $C_{25}H_{34}O_9$  (478.51). Acicular crystals (acetone–ethane), mp 227–230°C,  $[\alpha]_D^{27} = +90^\circ$  ( $c = 0.10$ ,  $CHCl_3$ ). **Pharm:** Antiamoebic. **Source:** CHU BAI PI *Ailanthus altissima*. **Ref:** 1, 5.

**775 Ailanthoidiol**

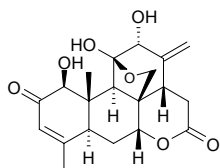
$C_{14}H_{20}O_3$  (236.31). **Source:** CHU YE HUA JIAO *Zanthoxylum ailanthoides*, *Zanthoxylum* sp. **Ref:** 1521, 2176.

**776 Ailanthoidol**

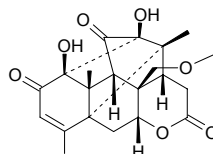
[156398-61-7]  $C_{19}H_{18}O_5$  (326.35). Colorless amorphous solid. **Source:** CHU YE HUA JIAO *Zanthoxylum ailanthoides*, *Zanthoxylum* sp., *Sarcomelicope megistophylla*. **Ref:** 1521, 2176, 5408.

**777 Ailanthone**

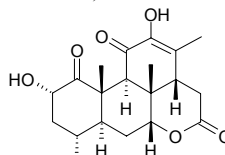
[981-15-7]  $C_{20}H_{24}O_7$  (376.41). mp 234–238°C (alcohol),  $[\alpha]_D = +12.5^\circ$  (EtOH). **Pharm:** Antiamoebic (amebic dysentery,  $IC_{50} = 0.14\mu g/mL$ ); antineoplastic ( $P_{388}$ , 0.12–4.00mg/kg); antimalarial (*Plasmodium falciparum* *in vitro*,  $IC_{50} = 0.015\mu g/mL$ , *mus Plasmodium* sp. *in vivo*,  $ED_{50} = 0.76mg/(kg \cdot d)$ ); antiulcerative (rat, ulcer induced by waterlogging, 1.0mg/kg or 1, InRt = 89.7%, induced by indometacin, 1.0mg/kg, InRt = 95.8%,  $ED_{50} = 0.36mg/kg$ ); cytotoxic (KB,  $ED_{50} = 0.001\text{--}0.01\mu g/mL$ ); gastric secretion inhibitor (rat,  $ED_{50} = 0.04mg/kg$ , 1.0mg/kg, InRt = 96.6%); plant growth inhibitor. **Source:** CHU BAI PI *Ailanthus altissima*, GAO CHU *Ailanthus excelsa*. **Ref:** 6, 900.

**778 Ailantinal E**

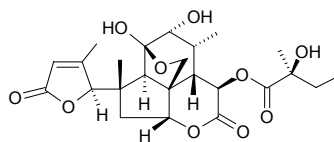
$C_{21}H_{24}O_7$  (388.42). Colorless amorphous powder, mp 144–146°C,  $[\alpha]_D^{25} = -166^\circ$  ( $c = 0.14$ , MeOH). **Pharm:** Antineoplastic (*in vitro*, inhibits TPA-induced EBV-EA activation in Raji cells, shows potent activity for antitumor without showing any cytotoxicity to Raji cells); antioxidant (inhibits NOR1 (nitric oxide donor) action, ratio of inhibitory = 2.9 with 350nmol/L, positive control NOR1, ratio of inhibitory = 1.0 with 350nmol/L). **Source:** CHU BAI PI *Ailanthus altissima* (aerial parts). **Ref:** 4332.

**779 Ailantinal F**

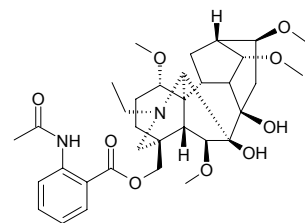
$C_{20}H_{26}O_6$  (362.43). Colorless amorphous powder, mp 93–95°C,  $[\alpha]_D^{25} = +23.3^\circ$  ( $c = 0.06$ , MeOH). **Pharm:** Antineoplastic (*in vitro*, inhibits TPA-induced EBV-EA activation in Raji cells, shows potent activity for antitumor without showing any cytotoxicity to Raji cells); antioxidant (inhibits NOR1 (nitric oxide donor) action, ratio of inhibitory = 3.0 with 350nmol/L, positive control NOR1, ratio of inhibitory = 1.0 with 350nmol/L). **Source:** CHU BAI PI *Ailanthus altissima* (aerial parts). **Ref:** 4332.

**780 Ailantinal G**

$C_{24}H_{32}O_{10}$  (480.52). Colorless needles, mp 230–232°C (dec),  $[\alpha]_D^{25} = +80.0^\circ$  ( $c = 0.12$ , MeOH). **Pharm:** Antineoplastic (*in vitro*, inhibits TPA-induced EBV-EA activation in Raji cells, shows potent activity for antitumor without showing any cytotoxicity to Raji cells); antioxidant (inhibits NOR1 (nitric oxide donor) action, ratio of inhibitory = 1.7 with 350nmol/L, positive control NOR1, ratio of inhibitory = 1.0 with 350nmol/L). **Source:** CHU BAI PI *Ailanthus altissima* (aerial parts). **Ref:** 4332.

**781 Ajacine**

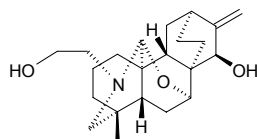
[509-17-1]  $C_{34}H_{48}N_2O_9$  (628.77). Acicular crystals (70% alcohol), mp 154°C,  $[\alpha]_D^{22} = +49.5^\circ$  ( $c = 2$ , anhydrous alcohol),  $[\alpha]_D^{16} = +53^\circ$  ( $c = 0.66$ , chloroform). **Pharm:** Pesticide (lousicide). **Source:** FEI YAN CAO *Consolida ajacis* [Syn. *Delphinium ajacis*], CAO DI WU TOU *Aconitum umbrosum*. **Ref:** 1, 6.



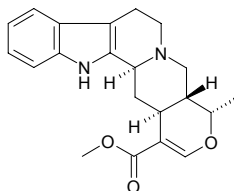
**782 Ajaconine**

[545-61-9] C<sub>22</sub>H<sub>33</sub>NO<sub>3</sub> (359.51). Prismatic crystals (dil. alcohol), mp 172°C, [ $\alpha$ ]<sub>D</sub><sup>18</sup> = -119° (c = 2, anhydrous alcohol), mp 167, [ $\alpha$ ]<sub>D</sub> = -122° (c = 1.75).

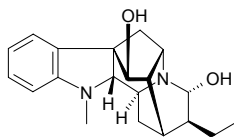
**Pharm:** Pesticide; toxin. **Source:** DAN LV CUI QUE *Delphinium virescens*, FEI YAN CAO *Consolida ajacis* [Syn. *Delphinium ajacis*], KA LUO LAI NA CUI QUE *Delphinium carolinianum*, KANG DING CUI QUE HUA *Delphinium tatsienense*. **Ref:** 1, 6.

**783 Ajmalicine**

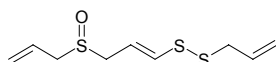
Ervine [483-04-5] C<sub>21</sub>H<sub>24</sub>N<sub>2</sub>O<sub>3</sub> (352.44). Prismatic crystals (methanol), mp 257°C (dec), [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -60° (c = 0.5, CHCl<sub>3</sub>), [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -45° (c = 0.5, pyridine), [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -39° (c = 0.25, methanol). **Pharm:** Antiarrhythmic (cat, iv, chloride ED = 0.5~1.0mg/kg, rat, induced by aconitine, ED = 5mg/kg, rat, induced by CaCl<sub>2</sub>); antibacterial; antihypertensive; antihypertensive; sedative; coronary and cerebral vasodilator. **Source:** BAN BIAN LIAN ZHUANG LI LU *Veratrum album* var. *lobelianum* [Syn. *Veratrum lobelianum*], CHANG CHUN HUA *Catharanthus roseus* [Syn. *Vinca rosea*; *Lochera rosea*], DONG FANG GOU TENG *Uncaria orientalis*, FEI ZHOU GOU TENG *Uncaria africana*, GUANG LIANG LUO FU MU *Rauwolfia nitida*, LUO FU MU *Rauwolfia verticillata*, YIN DU LUO FU MU *Rauwolfia serpentina*, TUO YUAN GOU TENG *Uncaria elliptica*, YUN NAN LUO FU MU *Rauwolfia yunnanensis*. **Ref:** 1, 2, 6, 660, 661, 5341.

**784 Ajmaline**

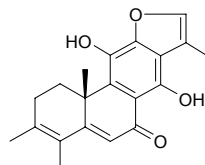
Rauwolfine; Aritmina; Tachmalin [4360-12-7] C<sub>20</sub>H<sub>26</sub>N<sub>2</sub>O<sub>2</sub> (326.44). mp 205~207°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +144° (chloroform), soluble in chloroform, ethanol, ether, slightly soluble in water.<sup>[55071]</sup> **Pharm:** Antihypertensive; antiviral; sedative; coronary vasodilator. **Source:** BEI SHI SHAN CHENG *Melodinus balansae*, CUI TU LUO FU MU *Rauwolfia vomitoria*, HAI NAN LUO FU MU *Rauwolfia verticillata* var. *hainanensis*, LUO FU MU *Rauwolfia verticillata*, PI LI LUO FU MU *Rauwolfia perakensis*, YIN DU LUO FU MU *Rauwolfia serpentina*. **Ref:** 1, 6, 660, 5507.

**785 Ajoene**

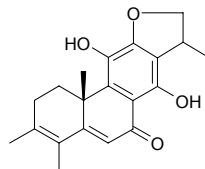
C<sub>9</sub>H<sub>14</sub>OS<sub>3</sub> (234.40). **Source:** DA SUAN *Allium sativum*. **Ref:** 660.

**786 Ajuforrestine A**

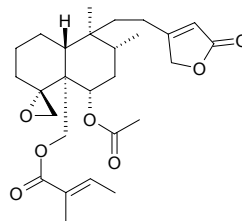
12,16-Epoxy-11,14-dihydroxy-3,5,8,11,13,15-abietahexaene-7-one [157110-18-4] C<sub>20</sub>H<sub>20</sub>O<sub>4</sub> (324.38). Red brown crystals, mp 245~248°C, [ $\alpha$ ]<sub>D</sub><sup>28</sup> = -51.5° (CHCl<sub>3</sub>). **Source:** LI ZHI HAO *Ajuga forrestii*. **Ref:** 319.

**787 Ajuforrestine B**

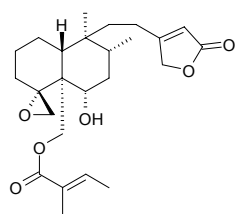
12,16-Epoxy-11,14-dihydroxy-3,5,8,11,13-abietapentaene-7-one C<sub>20</sub>H<sub>22</sub>O<sub>4</sub> (326.40). Yellow crystals, mp 182~185°C, [ $\alpha$ ]<sub>D</sub><sup>28</sup> = -61.8° (CHCl<sub>3</sub>). **Source:** LI ZHI HAO *Ajuga forrestii*. **Ref:** 319.

**788 Ajugacumbin A**

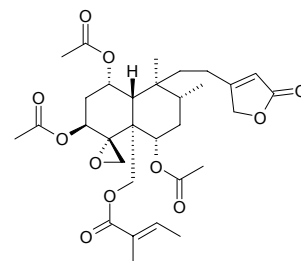
C<sub>27</sub>H<sub>38</sub>O<sub>7</sub> (474.60). **Pharm:** Insect antifeedant. **Source:** BAI MAO XIA KU CAO *Ajuga decumbens*. **Ref:** 660.

**789 Ajugacumbin B**

C<sub>25</sub>H<sub>36</sub>O<sub>6</sub> (432.56). **Pharm:** Insect antifeedant. **Source:** BAI MAO XIA KU CAO *Ajuga decumbens*. **Ref:** 660.

**790 Ajugacumbin C**

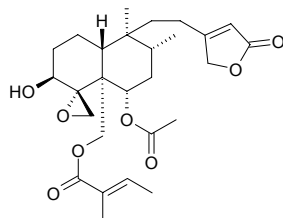
C<sub>31</sub>H<sub>42</sub>O<sub>11</sub> (590.67). **Source:** BAI MAO XIA KU CAO *Ajuga decumbens*. **Ref:** 660.



**791 Ajugacumbin D**

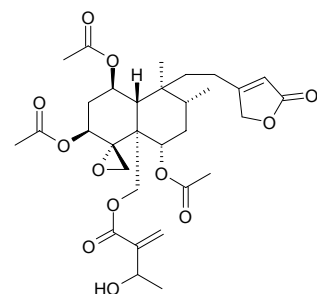
$C_{27}H_{38}O_8$  (490.60). Source: BAI MAO XIA KU CAO *Ajuga decumbens*.

Ref: 660.

**792 Ajugacumbin E**

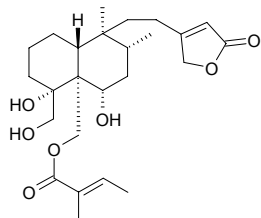
$C_{31}H_{42}O_{12}$  (606.67). Source: BAI MAO XIA KU CAO *Ajuga decumbens*.

Ref: 660.

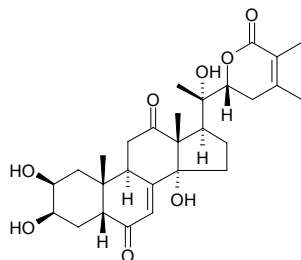
**793 Ajugacumbin F**

$C_{25}H_{38}O_7$  (450.58). Source: BAI MAO XIA KU CAO *Ajuga decumbens*.

Ref: 660.

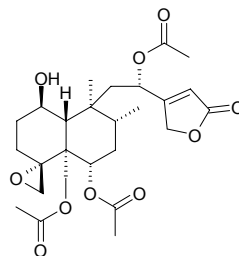
**794 Ajugalactone**

[42975-12-2]  $C_{29}H_{40}O_8$  (516.64). mp 225~235°C (dec). Pharm: Insect ecdysone. Source: BAI MAO XIA KU CAO *Ajuga decumbens*, HUANG JIN GU CAO *Ajuga chamaepitys*, PU FU JIN GU CAO *Ajuga reptans*, TAI WAN JIN GU CAO *Ajuga taiwanensis* (whole herb). Ref: 6, 658, 4483.

**795 Ajugalide A**

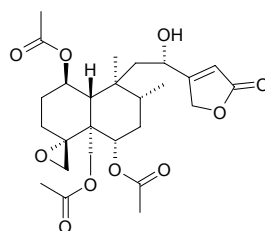
(12*S*)-6 $\alpha$ ,12,19-Triacetoxy-1 $\beta$ -hydroxy-4,18-epoxyneoclerod-13(14)-en-15,16-olide  $C_{26}H_{36}O_{10}$  (508.57). White amorphous solid, mp 205~206°C.

Source: TAI WAN JIN GU CAO *Ajuga taiwanensis*. Ref: 4431, 4483.

**796 Ajugalide B**

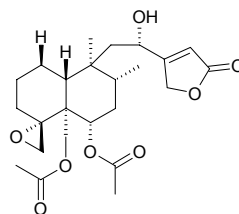
(12*S*)-1 $\beta$ ,6 $\alpha$ ,19-Triacetoxy-12-hydroxy-4,18-epoxyneoclerod-13(14)-en-15,16-olide  $C_{26}H_{36}O_{10}$  (508.57). White amorphous solid, mp 209~210°C,  $[\alpha]_D^{25} = +2.4^\circ$  ( $c = 0.27$ ,  $CHCl_3$ ).

Source: TAI WAN JIN GU CAO *Ajuga taiwanensis*. Ref: 4431, 4483.

**797 Ajugalide C**

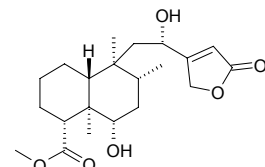
(12*S*)-6 $\alpha$ ,19-Diacetoxy-12-hydroxy-4,18-epoxyneoclerod-13(14)-en-15,16-olide  $C_{24}H_{34}O_8$  (450.53). White amorphous solid, mp 158~160°C,  $[\alpha]_D^{25} = -10.4^\circ$  ( $c = 0.07$ ,  $CHCl_3$ ).

Source: TAI WAN JIN GU CAO *Ajuga taiwanensis*. Ref: 4431, 4483.

**798 Ajugalide D**

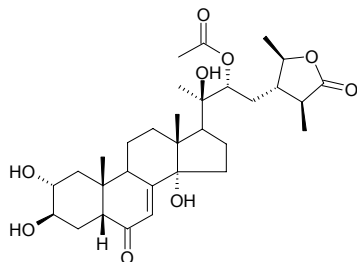
(12*S*)-Methyl-6 $\alpha$ ,12-dihydroxy-4 $\alpha$ -methoxycarbonyl-18-norneo-clerod-13(14)-en-15,16-olide  $C_{21}H_{32}O_6$  (380.49). White amorphous solid, mp 210~212°C,  $[\alpha]_D^{25} = -12.7^\circ$  ( $c = 0.05$ ,  $CHCl_3$ ).

Source: TAI WAN JIN GU CAO *Ajuga taiwanensis*. Ref: 4431, 4483.

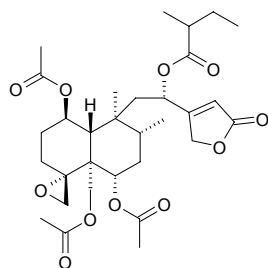


**799 Ajugalide E**

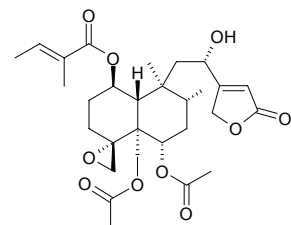
$C_{31}H_{46}O_9$  (562.71). White amorphous solid, mp 210~212°C,  $[\alpha]_D^{25} = +133.6^\circ$  ( $c = 0.007$ ,  $CHCl_3$ ). **Source:** TAI WAN JIN GU CAO *Ajuga taiwanensis* (whole herb). **Ref:** 4483.

**800 Ajugamacrin B**

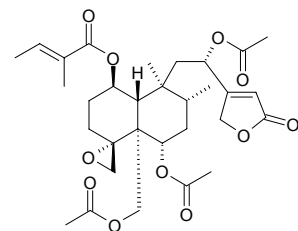
[123313-59-7]  $C_{31}H_{44}O_{11}$  (592.69). **Source:** DA ZI JIN GU CAO *Ajuga macrosperma* TAI WAN JIN GU CAO *Ajuga taiwanensis* (whole herb). **Ref:** 1521, 4431, 4483.

**801 Ajugamarin**

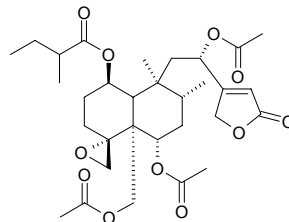
$C_{29}H_{40}O_{10}$  (548.64). **Source:** BAI MAO XIA KU CAO *Ajuga decumbens*, ZI BEI JIN PAN *Ajuga nipponensis*. **Ref:** 660.

**802 Ajugamarin A<sub>2</sub>**

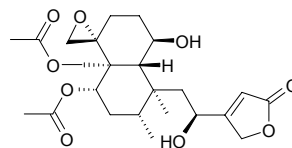
$C_{31}H_{42}O_{11}$  (590.67). **Source:** BAI MAO XIA KU CAO *Ajuga decumbens*, ZI BEI JIN PAN *Ajuga nipponensis*. **Ref:** 660.

**803 Ajugamarin B<sub>2</sub>**

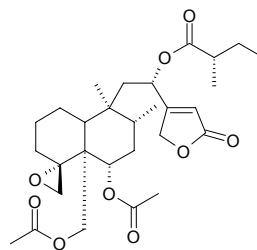
$C_{31}H_{44}O_{11}$  (592.69). **Source:** BAI MAO XIA KU CAO *Ajuga decumbens*, ZI BEI JIN PAN *Ajuga nipponensis*. **Ref:** 660.

**804 Ajugamarin C<sub>1</sub>**

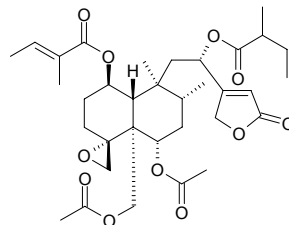
$C_{24}H_{34}O_9$  (466.53). **Source:** TAI WAN JIN GU CAO *Ajuga taiwanensis* (whole herb). **Ref:** 4431, 4483.

**805 Ajugamarin F<sub>4</sub>**

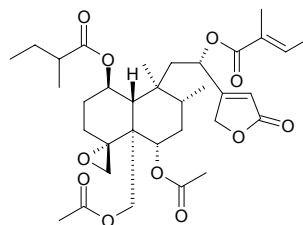
$C_{29}H_{42}O_9$  (534.65). **Source:** BAI MAO XIA KU CAO *Ajuga decumbens*, ZI BEI JIN PAN *Ajuga nipponensis*. **Ref:** 660.

**806 Ajugamarin G<sub>1</sub>**

$C_{34}H_{48}O_{11}$  (632.76). **Source:** BAI MAO XIA KU CAO *Ajuga decumbens*, ZI BEI JIN PAN *Ajuga nipponensis*. **Ref:** 660.

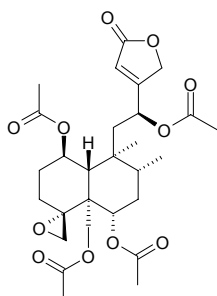
**807 Ajugamarin H<sub>1</sub>**

$C_{34}H_{48}O_{11}$  (632.76). **Source:** BAI MAO XIA KU CAO *Ajuga decumbens*, ZI BEI JIN PAN *Ajuga nipponensis*. **Ref:** 660.

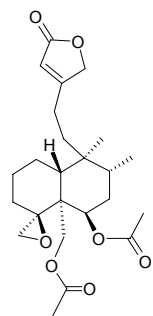


**808 Ajugapantin A**

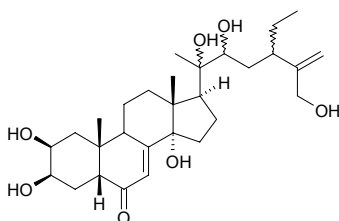
$C_{28}H_{38}O_{11}$  (550.61). Source: TAI WAN JIN GU CAO *Ajuga taiwanensis* (whole herb). Ref: 4431, 4483.

**809 Ajugarin I**

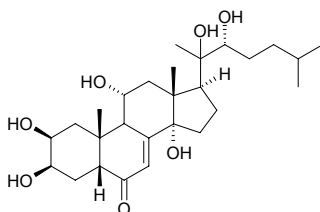
[62640-05-5]  $C_{24}H_{34}O_7$  (434.54). Pharm: Insect antifeedant (African armyworm). Source: YUAN JU JIN GU CAO *Ajuga remota*. Ref: 658.

**810 Ajugasterone B**

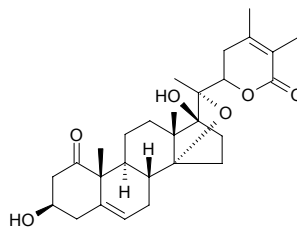
$C_{29}H_{46}O_7$  (506.69). Source: BAI MAO XIA KU CAO *Ajuga decumbens*, ZI BEI JIN PAN *Ajuga nipponensis*. Ref: 660.

**811 Ajugasterone C**

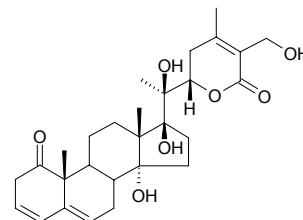
$C_{27}H_{44}O_7$  (480.65). Pharm: Insect ecdysone (molting hormone). Source: BAI MAO XIA KU CAO *Ajuga decumbens*, LU CAO *Rhaponticum carthamoides*, ZHEN ZHU LU SHUI CAO *Cyanotis arachnoidea* [Syn. *Cyanotis bodinieri*]. Ref: 6, 658, 660.

**812 Ajugin**

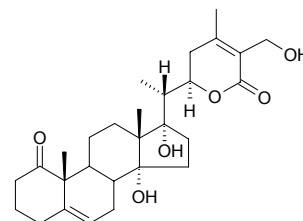
$3\beta,17\beta$ -Dihydroxy-14,20-epoxy-1-oxo-22R-witha-5,24-dienolide  $C_{28}H_{38}O_6$  (470.61). Amorphous powder,  $[\alpha]_D^{21} = +70.5^\circ$  ( $c = 0.23$ , MeOH). Source: XIAO HUA XIA KU CAO *Ajuga parviflora*. Ref: 2308.

**813 Ajugin E**

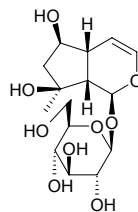
$C_{28}H_{38}O_7$  (486.61). White amorphous solid,  $[\alpha]_D^{21} = +125^\circ$  ( $c = 0.058$ , MeOH). Source: XIAO HUA XIA KU CAO *Ajuga parviflora*. Ref: 2396.

**814 Ajugin F**

$C_{28}H_{40}O_6$  (472.63). White amorphous,  $[\alpha]_D^{21} = +57^\circ$  ( $c = 0.063$ , MeOH). Source: XIAO HUA XIA KU CAO *Ajuga parviflora*. Ref: 2396.

**815 Ajugol**

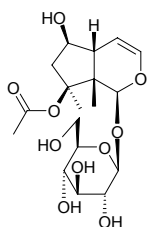
Leonuride [52949-83-4]  $C_{15}H_{24}O_9$  (348.35). Pharm: Antitrypanosomal (*Trypanosoma brucei rhodesiense*,  $IC_{50} = 31.8\mu\text{g/mL}$ , control Melarsoprol,  $IC_{50} = 0.0033\mu\text{g/mL}$ ; *Trypanosoma cruzi*,  $IC_{50} > 90\mu\text{g/mL}$ , control Benznidazole,  $IC_{50} = 0.70\mu\text{g/mL}$ )<sup>[5251]</sup>; antileishmanial (*Leishmania donovani*,  $IC_{50} = 7.2\mu\text{g/mL}$ , control Miltefosine,  $IC_{50} = 0.32\mu\text{g/mL}$ )<sup>[5251]</sup>; antimalarial (*Plasmodium falciparum*,  $IC_{50} > 50\mu\text{g/mL}$ , control Artemisinin,  $IC_{50} = 0.002\mu\text{g/mL}$ )<sup>[5251]</sup>; cytotoxic (L6 cells,  $IC_{50} > 90\mu\text{g/mL}$ , control Podophyllotoxin,  $IC_{50} = 0.0075\mu\text{g/mL}$ )<sup>[5251]</sup>. Source: CHA RU SHI WAN CUO *Asystasia intrusa*, GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *Huechingensis*], LIN PIAN XUAN SHEN *Scrophularia lepidota* (root), ROU CONG RONG *Cistanche deserticola*. Ref: 2, 7, 628, 2589, 5251.



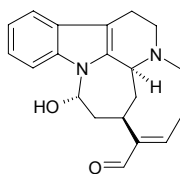


**816 Ajugoside**

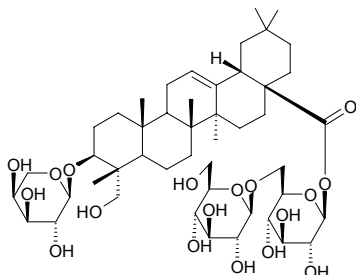
[51916-96-8] C<sub>17</sub>H<sub>26</sub>O<sub>10</sub> (390.39). **Pharm:** Antitrypanosomal (*Trypanosoma brucei rhodesiense*, IC<sub>50</sub> = 56.4 μg/mL, control Melarsoprol, IC<sub>50</sub> = 0.0033 μg/mL; *Trypanosoma cruzi*, IC<sub>50</sub> > 90 μg/mL, control Benznidazole, IC<sub>50</sub> = 0.70 μg/mL)<sup>[5251]</sup>; antileishmanial (*Leishmania donovani*, IC<sub>50</sub> = 8.5 μg/mL, control Miltefosine, IC<sub>50</sub> = 0.32 μg/mL)<sup>[5251]</sup>; antimalarial (*Plasmodium falciparum*, IC<sub>50</sub> > 50 μg/mL, control Artemisinin, IC<sub>50</sub> = 0.002 μg/mL)<sup>[5251]</sup>; cytotoxic (L6 cells, IC<sub>50</sub> > 90 μg/mL, control Podophyllotoxin, IC<sub>50</sub> = 0.0075 μg/mL)<sup>[5251]</sup>. **Source:** DU ZHONG *Eucommia ulmoides*, GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *huechingensis*], LONG TU ZHU *Clerodendrum thomsonae*, PU FU JIN GU CAO *Ajuga reptans*, WEI YI MU CAO *Leonurus cardiaca*, XIAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *huechingensis*], LIN PIAN XUAN SHEN *Scrophularia lepidota* (root). **Ref:** 2, 7, 660, 1521, 5251.

**817 Akagerine**

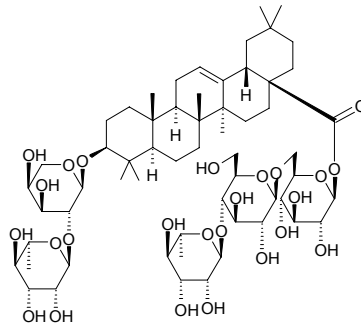
C<sub>20</sub>H<sub>24</sub>N<sub>2</sub>O<sub>2</sub> (324.43). mp 188°C, [α]<sub>D</sub><sup>20</sup> = -16.6° (c = 1, MeOH). **Source:** DONG FEI MA QIAN *Strychnos usambarensis* (root), DUI SHENG MA QIAN *Strychnos decussata* (root bark), *Strychnos camptoneura*, *Strychnos gardneri*, *Strychnos jobertiana*, *Strychnos parvifolia*, *Strychnos nigrifolia*, *Strychnos spinosa* (leaf), *Strychnos vanprukii* (stem). **Ref:** 1521, 3471.

**818 Akebia saponin D**

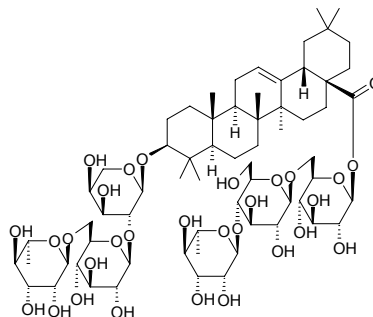
3-*O*- $\alpha$ -L-Arabinopyranosyl hederagenin  
28-*O*- $\beta$ -D-glucopyranosyl(1→6)- $\beta$ -D-glucopyranoside C<sub>47</sub>H<sub>76</sub>O<sub>18</sub> (929.12).  
**Source:** CHUAN XU DUAN *Dipsacus asperoides*. **Ref:** 660.

**819 Akeboside st<sub>4</sub>**

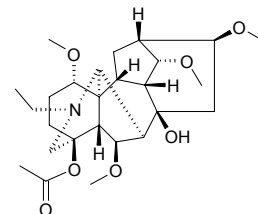
Hederasaponin B; Eleutheroside M; Hederacoside B; Hederacolchiside C; Tauroside G<sub>2</sub>; 3 $\beta$ -[(*O*- $\alpha$ -L-Rhamnopyranosyl (1→2)- $\alpha$ -L-arabinopyranosyl)oxy]olean-12-en-28-oic acid *O*- $\alpha$ -L-rhamnopyranosyl (1→4)-*O*- $\beta$ -D-glucopyranosyl (1→6)- $\beta$ -D-glucopyranosyl ester C<sub>59</sub>H<sub>96</sub>O<sub>25</sub> (1205.41). mp 221–222°C (dec). **Source:** CI WU JIA YE *Acanthopanax senticosus* [Syn. *Eleutherococcus senticosus*], MU TONG *Akebia quinata*, MU TONG GEN *Akebia quinata*, SAN YE MU TONG *Akebia trifoliata* (stem), XI ZANG TIE XIAN LIAN *Clematis tibetana* (aerial parts). **Ref:** 6, 660, 3530, 4545.

**820 Akeboside st<sub>3</sub>**

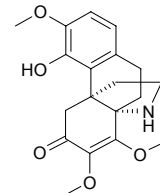
C<sub>65</sub>H<sub>106</sub>O<sub>30</sub> (1367.55). mp 224–226°C (dec). **Source:** MU TONG *Akebia quinata*, MU TONG GEN *Akebia quinata*. **Ref:** 6.

**821 Akirane**

C<sub>26</sub>H<sub>41</sub>NO<sub>7</sub> (479.62). Colorless needles, mp 126–130°C (acetone). **Source:** JI LIN WU TOU *Aconitum kirinense*. **Ref:** 2515.

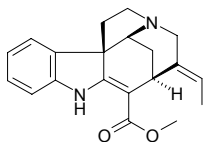
**822 Aknadicine**

[24148-89-8] C<sub>19</sub>H<sub>23</sub>NO<sub>5</sub> (345.40). **Pharm:** Antibacterial; used in treatment of fever, diarrhea and diseases of the urinary system. **Source:** RU LAN *Stephania hernandifolia*. **Ref:** 658.

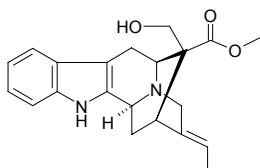


**823 Akuammicine**

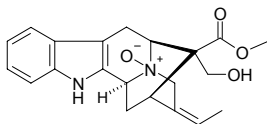
[639-43-0]  $C_{20}H_{22}N_2O_2$  (322.41). **Pharm:** Gonad stimulating principle. **Source:** CHANG CHUN HUA *Catharanthus roseus* [Syn. *Vinca rosea*; *Lochera rosea*], GOU TENG *Uncaria rhynchophylla* [Syn. *Nauclea rhynchophylla*]. **Ref:** 2, 658.

**824 19-(Z)-Akuammidine**

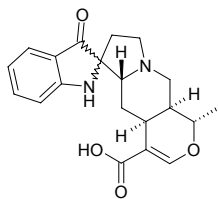
[639-36-1]  $C_{21}H_{24}N_2O_3$  (352.44). mp 247~250°C,  $[\alpha]_D = +9^\circ$ . **Pharm:** Local anesthetic; antihypertensive; skeletal muscle relaxant. **Source:** GOU WEN *Gelsemium elegans*. **Ref:** 14, 658.

**825 Akuammidine N-oxide**

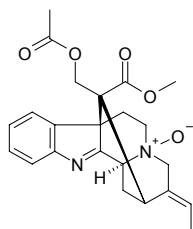
$C_{21}H_{24}N_2O_4$  (368.44). mp 250°C (dec). **Source:** GOU WEN *Gelsemium elegans*. **Ref:** 14.

**826 Akuammigine pseudoindoxyl**

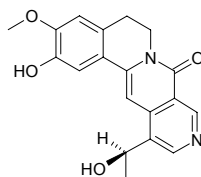
$C_{20}H_{22}N_2O_4$  (354.41). **Source:** TUO YUAN GOU TENG *Uncaria elliptica*. **Ref:** 5341.

**827 Akuammiline N(4)-oxide**

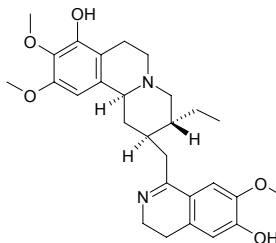
$C_{23}H_{26}N_2O_5$  (410.47).  $[\alpha]_D = -144^\circ$  ( $c = 0.13$ ,  $CHCl_3$ ). **Source:** MA LAI XI YA RUI MU *Kopsia griffithii*. **Ref:** 1854.

**828 Alamarine**

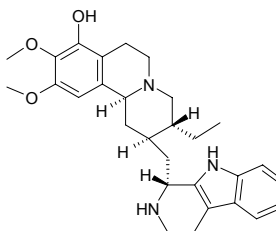
[77156-18-4]  $C_{19}H_{18}N_2O_4$  (338.37). **Pharm:** Treatment of leprosy; dermatitis suppressant. **Source:** AN GE LA BA JIAO FENG *Alangium lamarckii*. **Ref:** 658.

**829 Alangicine**

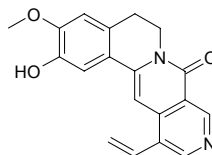
[16531-04-7]  $C_{28}H_{36}N_2O_5$  (480.61). **Pharm:** Treatment of leprosy; dermatitis suppressant. **Source:** AN GE LA BA JIAO FENG *Alangium lamarckii*. **Ref:** 658.

**830 Alangimarckine**

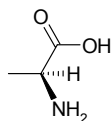
[13849-53-1]  $C_{29}H_{37}N_3O_3$  (475.64). **Pharm:** Treatment of leprosy; dermatitis suppressant. **Source:** AN GE LA BA JIAO FENG *Alangium lamarckii*. **Ref:** 658.

**831 Alangimarine**

[77156-16-2]  $C_{19}H_{16}N_2O_3$  (320.35). **Pharm:** Treatment of leprosy; dermatitis suppressant. **Source:** AN GE LA BA JIAO FENG *Alangium lamarckii*. **Ref:** 658.

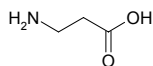
**832 L-Alanine**

[56-41-7]  $C_3H_7NO_2$  (89.09). **Pharm:** Food additive; reverses glucopenia and ketosis caused by starvation; glucagon secretion promotor (patients with pancreatitis). **Source:** BAN XIA *Pinellia ternata* (dried tuber: content scope of 4 origins = 0.74%~1.70%, mean content = 1.20%<sup>[5521]</sup>), CHANG JIAO DOU *Ceratonia siliqua*. **Ref:** 658, 5521.

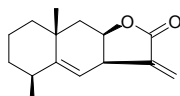


**833  $\beta$ -Alanine**

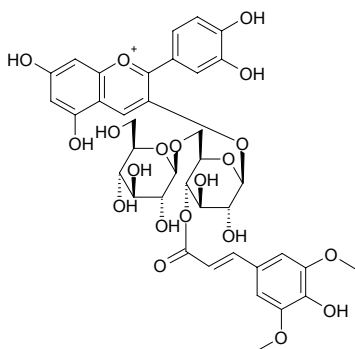
[107-95-9]  $C_3H_7NO_2$  (89.09). Pharm: Neurotoxin (bird). Source: DAN JI ER YUAN WEI *Iris tingitana*, *Lunaria* sp. Ref: 658.

**834 Alantolactone**

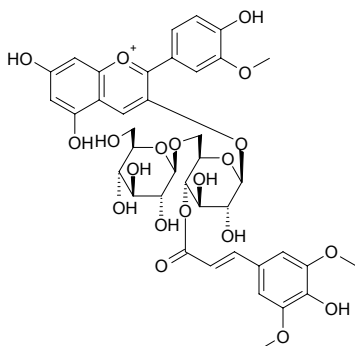
[546-43-0]  $C_{15}H_{20}O_2$  (232.33). mp 76–79°C, bp 275°C, soluble in benzene, diethyl ether, ethanol. Pharm: Antibacterial; antifungal; anthelmintic; choleric; used in treatment of urethral infection; antitussive (dispels phlegm); plant growth and germination inhibitor (seed); kills liver-fluke (*Fasciola hepatica*). Source: TU MU XIANG *Inula helenium* (root: content scope = 1.33%–2.79%<sup>[5501]</sup>, mean content of 3 batch samples = 1.19%<sup>[5508]</sup>), DA YE TU MU XIANG *Inula grandis*, MEI LI XUAN FU HUA *Inula magnifica*, DI TANG HUA *Kerria japonica*, KONG QUE CAO *Tagetes patula*, MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*], ZONG ZHUANG TU MU XIANG *Inula racemosa* (root: mean content of 4 batch samples = 2.02%<sup>[5508]</sup>). Ref: 1, 2, 5501, 5508.

**835 Alatanin 1**

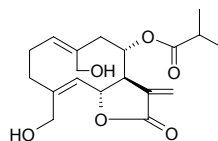
Cyanidin 3-*O*-(4"-*O*-sinapoyl gentiobioside)  $C_{38}H_{41}O_{20}^+$  (817.74). Source: MAO SHU *Dioscorea alata*. Ref: 660.

**836 Alatanin 2**

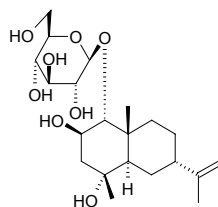
Peonidin 3-*O*-(4"-*O*-sinapoyl gentiobioside)  $C_{39}H_{43}O_{20}^+$  (831.77). Source: MAO SHU *Dioscorea alata*. Ref: 660.

**837 Alatolide**

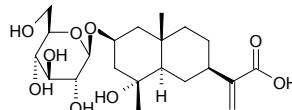
[41929-10-6]  $C_{19}H_{26}O_6$  (350.42). mp 59–61°C,  $[\alpha]_D^{25} = +64.4^\circ$ . Pharm: Antineoplastic (mus inoculated tumor, strongly inhibits cellular hyperplasia, EAC, InRt = 96%, HeLa, 56  $\mu$ mol/L, InRt to protein synthesis = 93.8%, InRt to DNA synthesis = 91.9%, HeLa, 28  $\mu$ mol/L, InRt to protein synthesis = 73%, InRt to DNA synthesis = 5.7%); cytotoxic (KB, hmn epicytoma HEPZ). Source: YI CHI LING JU *Jurinea alata*. Ref: 1.

**838 Alatoside A**

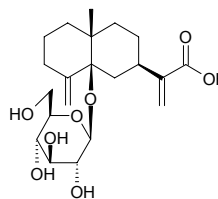
1 $\alpha$ -*O*-( $\beta$ -*D*-Glucopyranosyloxy)-7-epi-eudesma-11-en-2b,4 $\alpha$ -diol  $C_{21}H_{36}O_8$  (416.52). Gum,  $[\alpha]_D^{20} = -93.1^\circ$  ( $c = 0.44$ , MeOH). Source: LIU LENG JU *Laggera alata*. Ref: 3411.

**839 Alatoside B**

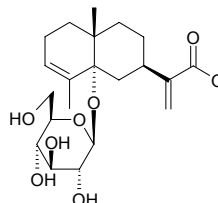
2 $\beta$ -*O*-( $\beta$ -*D*-Glucopyranosyloxy)-eudesma-4 $\alpha$ -hydroxyl-11(13)-en-12-oic-acid  $C_{21}H_{34}O_9$  (430.50). Gum,  $[\alpha]_D^{20} = -108.4^\circ$  ( $c = 0.20$ , MeOH). Source: LIU LENG JU *Laggera alata*. Ref: 3411.

**840 Alatoside C**

5 $\beta$ -*O*-( $\beta$ -*D*-Glucopyranosyloxy)-eudesma-4(15),11(13)-dien-12-oic-acid  $C_{21}H_{32}O_8$  (412.48). Gum,  $[\alpha]_D^{20} = -88.0^\circ$  ( $c = 0.17$ , MeOH). Source: LIU LENG JU *Laggera alata*. Ref: 3411.

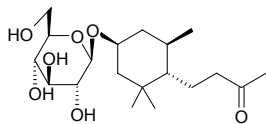
**841 Alatoside D**

5 $\alpha$ -*O*-( $\beta$ -*D*-Glucopyranosyloxy)-eudesma-3,11(13)-dien-12-oic acid  $C_{21}H_{32}O_8$  (412.48). Gum,  $[\alpha]_D^{20} = -16.5^\circ$  ( $c = 0.24$ , MeOH). Source: LIU LENG JU *Laggera alata*. Ref: 3411.

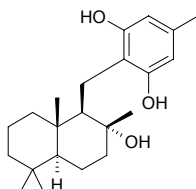


**842 Alatoside E**

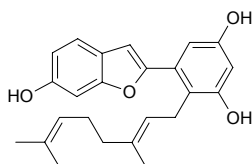
$3\beta$ -*O*-( $\beta$ -D-Glucopyranosyloxy)-megastigma-9-one  $C_{19}H_{34}O_7$  (374.48). Gum,  $[\alpha]_D^{20} = -18^\circ$  ( $c = 0.20$ , MeOH). Source: LIU LENG JU *Laggera alata*. Ref: 3411.

**843 Albaconol**

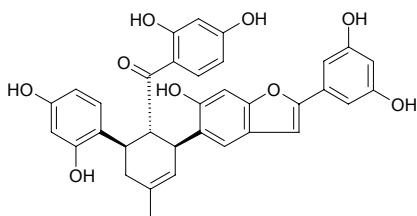
$C_{22}H_{34}O_3$  (346.51). Pharm: Vanilloid receptor 1 (VR1) antagonist ( $IC_{50} = 5\mu\text{mol/L}$ ); cytotoxic (inhibits significantly growth of hmn tumor cell lines: K562,  $IC_{50} = (8.0\pm 0.4)\mu\text{mol/L}$ ; A549,  $IC_{50} = (3.17\pm 0.89)\mu\text{mol/L}$ ; BGC823,  $IC_{50} = (4.18\pm 0.14)\mu\text{mol/L}$ ; Bcap-37,  $IC_{50} = (7.5\pm 2.5)\mu\text{mol/L}$ ; acts on DNA topo II)<sup>[5014]</sup>; smooth muscle contractor (tracheal,  $pEC_{50} = 4.23\pm 0.18$ ,  $n = 10$ )<sup>[5431]</sup>. Source: YUN NAN DI HUA JUN *Albatrellus confluens*. Ref: 2271, 5014, 5431.

**844 Albufuran A**

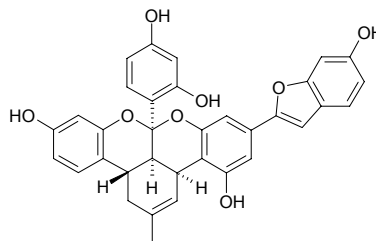
[84323-14-8]  $C_{24}H_{26}O_4$  (378.47). Pharm: Antifungal. Source: SANG YE *Morus alba*. Ref: 658.

**845 Albufuran C**

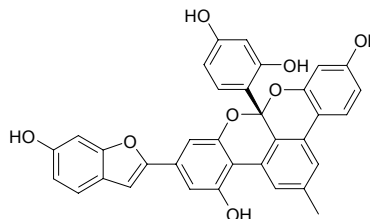
$C_{34}H_{28}O_9$  (580.60).  $[\alpha]_D^{29} = -463.8^\circ$  ( $c = 0.13$ , MeOH). Pharm: Antioxidant (100 $\mu\text{mol/L}$ , InRt of MDA = 94.2%, control Vitamin E, InRt of MDA = 81.5%; 10 $\mu\text{mol/L}$ , InRt of MDA = 76.2%, Vitamin E, InRt of MDA = 33.9%). Source: NAI SANG *Morus macroura* (stem bark). Ref: 5013.

**846 Albanol A**

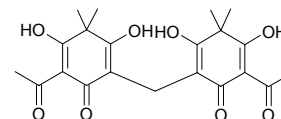
[87085-00-5]  $C_{34}H_{26}O_8$  (562.58). Pharm: Antihypertensive; cytotoxic (aromatase inhibitor)<sup>[5038]</sup>; aromatase inhibitor (*in vitro*,  $IC_{50} = 7.5\mu\text{mol/L}$ ; control Aminoglutethimide,  $IC_{50} = 6.4\mu\text{mol/L}$ )<sup>[3090]</sup>. Source: GOU SHU *Broussonetia papyrifera*, SANG YE *Morus alba*. Ref: 658, 3090, 5038.

**847 ( $\pm$ )-Albanol B**

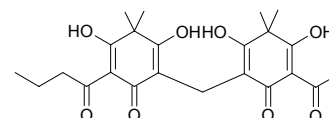
$C_{34}H_{22}O_8$  (558.55). Pharm: Antibacterial (*Enterococcus faecalis* JCM7783 (VSE), MIC = 3.13 $\mu\text{g/mL}$ , control Linezolid, MIC = 1.56 $\mu\text{g/mL}$ ; *Enterococcus faecalis* JU1856 (VRE, VanA), MIC = 3.13 $\mu\text{g/mL}$ , Linezolid, MIC = 0.78 $\mu\text{g/mL}$ ; *Enterococcus faecalis* JU1782 (VRE, VanB), MIC = 3.13 $\mu\text{g/mL}$ , Linezolid, MIC = 0.78 $\mu\text{g/mL}$ ; *Enterococcus faecium* JCM5804 (VSE) (= ATCC 29212), MIC = 6.25 $\mu\text{g/mL}$ , Linezolid, MIC = 1.56 $\mu\text{g/mL}$ ; *Enterococcus faecium* JU1858 (VRE, VanA), MIC = 3.13 $\mu\text{g/mL}$ , Linezolid, MIC = 0.78 $\mu\text{g/mL}$ ; *Enterococcus faecium* JU1777 (VRE, VanB), MIC = 3.13 $\mu\text{g/mL}$ , Linezolid, MIC = 1.56 $\mu\text{g/mL}$ ; *Enterococcus gallinarum* JU2786 (VRE, VanC), MIC = 3.13 $\mu\text{g/mL}$ , Linezolid, MIC = 0.78 $\mu\text{g/mL}$ ; *Staphylococcus aureus* JCM2874 (MSSA) (=ATCC29213), MIC = 3.13 $\mu\text{g/mL}$ , Linezolid, MIC = 1.56 $\mu\text{g/mL}$ ; *Staphylococcus aureus* (MRSA, 10 strains), MIC = 3.13 $\mu\text{g/mL}$ , Linezolid, MIC = 0.78 $\mu\text{g/mL}$ ; *Staphylococcus aureus* (MRSA, 8 strains), mean MIC<sub>80</sub> = 3.13 $\mu\text{g/mL}$ , Linezolid, mean MIC<sub>80</sub> = 0.78 $\mu\text{g/mL}$ ). Source: *Morus lhou*. Ref: 5007.

**848 Albaspidin AA**

$C_{21}H_{24}O_8$  (404.42). Source: DE LA MENG DE JIN SI TAO *Hypericum drummondii*. Ref: 1521.

**849 Albaspidin AB**

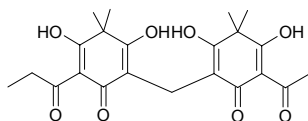
$C_{23}H_{28}O_8$  (432.47). Source: MAO GUAN ZHONG *Dryopteris championii*. Ref: 660.



**850 Albaspidin AP**

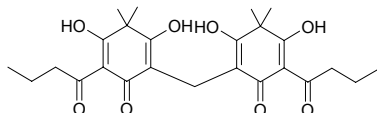
$C_{22}H_{26}O_8$  (418.45). Source: MAO GUAN ZHONG *Dryopteris championii*.

Ref: 660.

**851 Albaspidin BB**

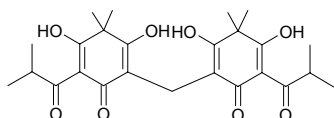
$C_{25}H_{32}O_8$  (460.53). Source: AO DI LI LIN MAO JUE *Dryopteris austriaca*,

MAO GUAN ZHONG *Dryopteris championii*. Ref: 660.

**852 Albaspidin iBiB**

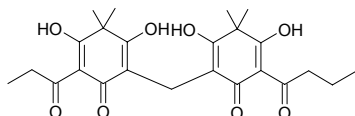
Japonicine A  $C_{25}H_{32}O_8$  (460.53). Source: DI ER CAO *Hypericum japonicum*.

Ref: 660.

**853 Albaspidin PB**

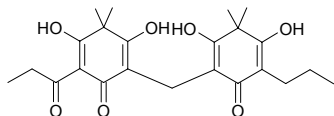
$C_{24}H_{30}O_8$  (446.50). Source: MAO GUAN ZHONG *Dryopteris championii*.

Ref: 660.

**854 Albaspidin PP**

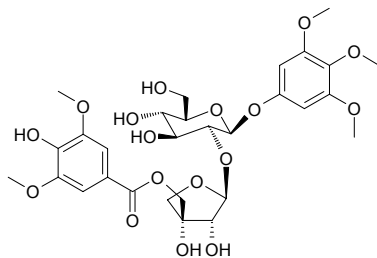
$C_{23}H_{30}O_7$  (418.49). Source: MAO GUAN ZHONG *Dryopteris championii*.

Ref: 660.

**855 Albibrissinoside A**

3,4,5-Trimethoxyphenyl-1-O-β-D-(5-O-syringoyl)-apiofuranosyl-(1→2)-β-D-glucopyranoside  $C_{29}H_{38}O_{17}$  (658.62). Amorphous powder,  $[\alpha]_D^{20} = +3.70^\circ$

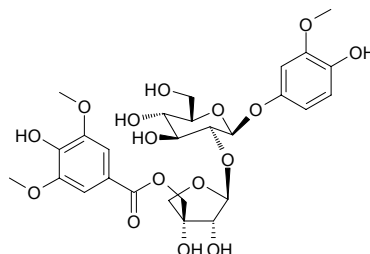
( $c = 0.015$ , MeOH). Source: HE HUAN PI *Albizzia julibrissin*. Ref: 2553.

**856 Albibrissinoside B**

4-Hydroxy-3-methoxyphenyl-1-O-β-D-(5-O-syringoyl)-apiofuranosyl-(1→2)-β-D-glucopyranoside  $C_{27}H_{34}O_{16}$  (614.56). Amorphous powder,  $[\alpha]_D^{20} =$

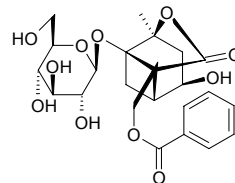
$+3.29^\circ$  ( $c = 0.002$ , MeOH). Pharm: Antioxidant (DPPH scavenger). Source:

HE HUAN PI *Albizzia julibrissin*. Ref: 2553.

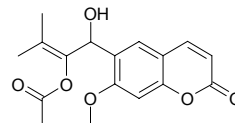
**857 Albiflorin**

[39011-90-0]  $C_{23}H_{28}O_{11}$  (480.47). Source: BAI SHAO *Paeonia albiflora*

[Syn. *Paeonia lactiflora*], CHI SHAO *Paeonia lactiflora* wild. Ref: 2.

**858 Albiflorin-1**

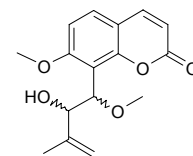
$C_{17}H_{18}O_6$  (318.33). mp 128°C. Source: YAN JIAO CAO *Boenninghausenia albiflora*. Ref: 2495.

**859 Albiflorin-2**

7-Methoxy-8-(1'-methoxy-2'-hydroxy-3'-methyl-3'-butenyl)coumarin

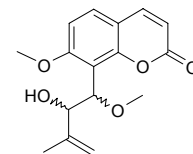
$C_{16}H_{18}O_5$  (290.32). mp 94~95°C. Source: JIU LI XIANG *Murraya*

*paniculata* [Syn. *Chalcas paniculata*], YAN JIAO CAO *Boenninghausenia albiflora*. Ref: 11, 2495.

**860 Albiflorin-3**

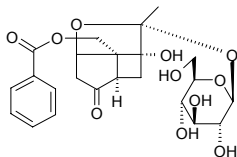
$C_{16}H_{18}O_5$  (290.32). Diastereomer of Albiflorin 2, mp 144~145°C. Source:

YAN JIAO CAO *Boenninghausenia albiflora*. Ref: 2495.

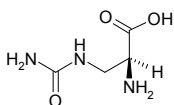


**861 Albiflorin R<sub>1</sub>**

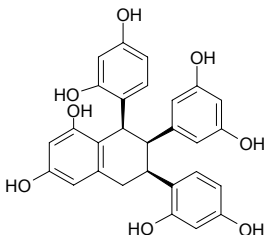
C<sub>23</sub>H<sub>28</sub>O<sub>11</sub> (480.47). Colorless needles, mp 203~205°C. Source: BAI SHAO *Paeonia albiflora* [Syn. *Paeonia lactiflora*]. Ref: 2239.

**862 L-Albizziine**

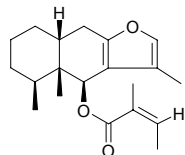
L-(−)-2-Amino-3-ureidopropionic acid [1483-07-4] C<sub>4</sub>H<sub>9</sub>N<sub>3</sub>O<sub>3</sub> (147.34). mp 214~215°C. Pharm: Pesticide. Source: HE HUAN PI *Albizia julibrissin*, YU ZHUANG HE HUAN *Albizia lophantha*, *Acacia* sp. Ref: 6, 658.

**863 Albotalol**

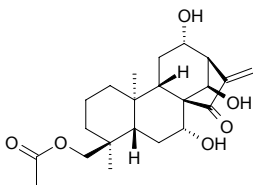
C<sub>28</sub>H<sub>24</sub>O<sub>8</sub> (488.50). Source: SANG ZHI *Morus alba*. Ref: 1521.

**864 Albopetasin**

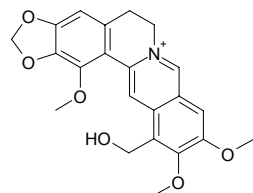
C<sub>20</sub>H<sub>28</sub>O<sub>3</sub> (316.44). mp 106~107°C. Source: FENG DOU CAI *Petasites japonicus*. Ref: 6.

**865 Albopilosin A**

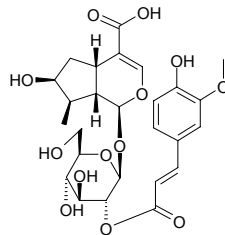
C<sub>22</sub>H<sub>32</sub>O<sub>6</sub> (392.50). mp 240~242°C, [α]<sub>D</sub><sup>26</sup> = −46.5° (c = 1.0, C<sub>5</sub>H<sub>5</sub>N). Source: BAI ROU MAO XIANG CHA CAI *Isodon albopilosus*. Ref: 4067.

**866 Alborine**

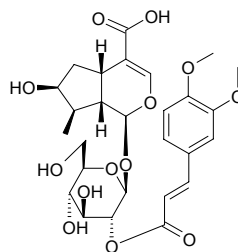
C<sub>22</sub>H<sub>22</sub>NO<sub>6</sub> (396.42). Source: HONG HUA LV RONG HAO *Meconopsis punicea*. Ref: 660.

**867 Alboside I**

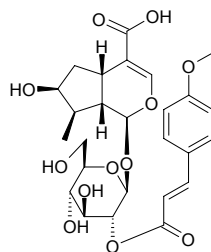
C<sub>26</sub>H<sub>32</sub>O<sub>13</sub> (552.54). Amorphous solid, [α]<sub>D</sub> = −46.7° (c = 2.4, H<sub>2</sub>O). Source: BAI XUE GUO MU *Chiococca alba*. Ref: 2313.

**868 Alboside II**

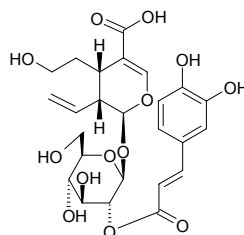
C<sub>27</sub>H<sub>34</sub>O<sub>13</sub> (566.56). Amorphous solid, [α]<sub>D</sub> = −30.7° (c = 0.9, MeOH). Source: BAI XUE GUO MU *Chiococca alba*. Ref: 2313.

**869 Alboside III**

C<sub>26</sub>H<sub>32</sub>O<sub>12</sub> (536.54). Amorphous solid, [α]<sub>D</sub> = −46.7° (c = 0.9, MeOH). Source: BAI XUE GUO MU *Chiococca alba*. Ref: 2313.

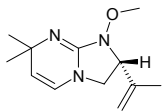
**870 Alboside IV**

C<sub>25</sub>H<sub>30</sub>O<sub>13</sub> (538.51). Gum, [α]<sub>D</sub> = −51.5° (c = 0.5, H<sub>2</sub>O). Pharm: Antimutant (DNA repair-deficient mutant of *Saccharomyces cerevisiae* RS321, moderate activity)<sup>[2313]</sup>. Source: BAI XUE GUO MU *Chiococca alba*. Ref: 2313.

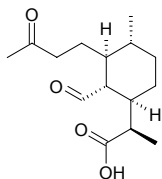


**871 Alchorneine**

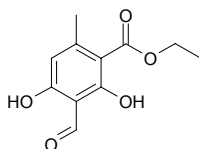
[28340-21-8] C<sub>12</sub>H<sub>19</sub>N<sub>3</sub>O (221.30). Pharm: Antispasmodic (dog); parasympathetic ganglionic blocker (anti-vagus); inhibits intestinal movement. Source: DUO HUA SHAN MA GAN *Alchornea floribunda*. Ref: 658.

**872 1 $\alpha$ -Aldehyde-2 $\beta$ -[3-butanone]-3 $\alpha$ -methyl-6 $\beta$ -[2-propanoic acid]-cyclohexane**

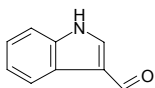
C<sub>15</sub>H<sub>24</sub>O<sub>4</sub> (268.36). Colorless oil, [ $\alpha$ ]<sub>D</sub> = -21.8° (*c* = 0.3, CHCl<sub>3</sub>). Source: HUANG HUA HAO *Artemisia annua* (seed). Ref: 3435.

**873 3-Aldehyde-6-methyl-2,4-dihydroxy-ethyl-benzoate**

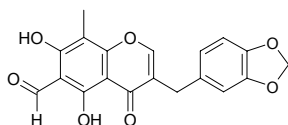
C<sub>11</sub>H<sub>12</sub>O<sub>5</sub> (224.22). White bar crystals. Source: JIN SI SHUA *Lethariella cladonioides*. Ref: 4582.

**874 3-Aldehydoindole**

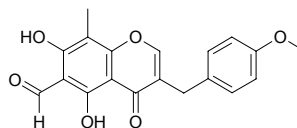
3-Formyl indole C<sub>9</sub>H<sub>7</sub>NO (145.16). Source: DUAN ROU MAO DA JI *Euphorbia pubescens*, NAN CHUAN GUAN CHUN HUA *Microtoena prainiana* (stem: yield = 0.00009%dw), RI BEN HUANG BAI *Phellodendron japonicum* (leaf), TAI WAN HUANG BO *Phellodendron amurense* var. *wilsonii* (leaf: yield = 0.00013%dw), TAI WAN PU GONG YING *Taraxacum formosanum* (fresh root), YI ZHU QIAN MA *Urtica dioica*. Ref: 660, 4488, 4502, 4722, 4752, 5384.

**875 6-Aldehyde-isoophiopogone A**

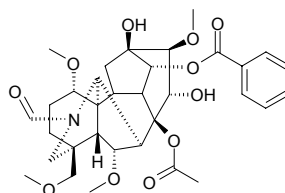
6-Aldehyde-isoophiopogonone A C<sub>19</sub>H<sub>14</sub>O<sub>7</sub> (354.32). Orange acicular crystals, mp 170-172°C. Source: MAI DONG *Ophiopogon japonicus* (tuber). Ref: 83, 4663.

**876 6-Aldehyde-isoophiopogone B**

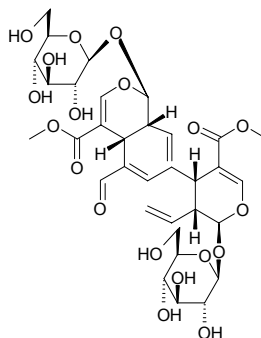
5,7-Dihydroxy-8-methyl-6-aldehyde-3-(4'-methoxybenzyl) chromone C<sub>19</sub>H<sub>16</sub>O<sub>6</sub> (340.34). Light red acicular crystals, mp 144-145°C. Source: MAI DONG *Ophiopogon japonicus*. Ref: 83.

**877 Aldohypaconitine**

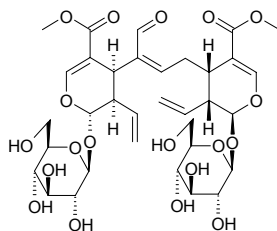
C<sub>33</sub>H<sub>43</sub>NO<sub>11</sub> (629.71). White clustered crystals, mp 262-264°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -56.9° (*c* = 0.30, CHCl<sub>3</sub>). Source: WU TOU *Aconitum carmichaeli*. Ref: 460.

**878 (E)-Aldosecologanin**

C<sub>34</sub>H<sub>46</sub>O<sub>19</sub> (758.73). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>26</sup> = -135.6° (*c* = 0.295, MeOH). Source: JIN YIN HUA *Lonicera japonica* (stem and leaf). Ref: 4220.

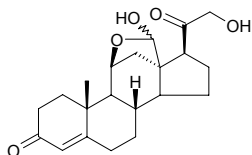
**879 (Z)-Aldosecologanin**

C<sub>34</sub>H<sub>46</sub>O<sub>19</sub> (758.73). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>26</sup> = -164.3° (*c* = 0.141, MeOH). Source: JIN YIN HUA *Lonicera japonica* (stem and leaf). Ref: 4220.

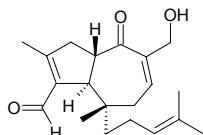


**880 Aldosterone**

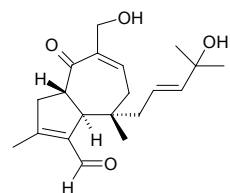
3,20-Diketo-11 $\beta$ ,18-oxido-4-pregnene-14,21-diol [52-39-1] C<sub>21</sub>H<sub>28</sub>O<sub>5</sub> (360.45). mp 164~169°C. Source: NIU SHEN *Bos taurus domesticus*; *Bubalus bubalis*. Ref: 6.

**881 Aldovibsanin B**

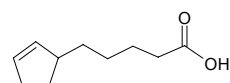
C<sub>20</sub>H<sub>28</sub>O<sub>3</sub> (316.44). Source: XIANG QI JIA MI *Viburnum odoratissimum* (leaf and flower: yield = 0.00001%dw)<sup>[3004]</sup>. Ref: 3004.

**882 Aldovibsanin C**

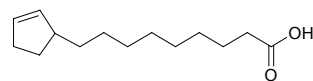
C<sub>20</sub>H<sub>28</sub>O<sub>4</sub> (332.44). Colorless amorphous solid, [ $\alpha$ ]<sub>D</sub> = +0.9° (c = 0.1, CHCl<sub>3</sub>). Source: XIANG QI JIA MI *Viburnum odoratissimum* (leaf and flower: yield = 0.00005%dw). Ref: 3004.

**883 Aleprestic acid**

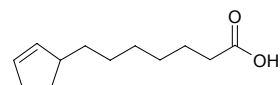
C<sub>10</sub>H<sub>16</sub>O<sub>2</sub> (168.24). Source: DA FENG ZI *Hydnocarpus anthelminticus*. Ref: 1.

**884 Aleptic acid**

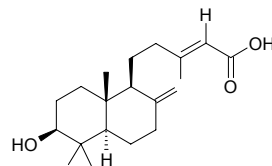
[2519-24-6] C<sub>14</sub>H<sub>24</sub>O<sub>2</sub> (224.35). mp 48°C. Source: DA FENG ZI *Hydnocarpus anthelminticus*. Ref: 1.

**885 Aleprylic acid**

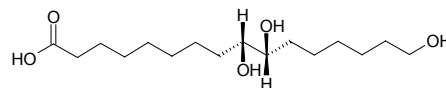
[2348-91-6] C<sub>12</sub>H<sub>20</sub>O<sub>2</sub> (196.29). mp 32°C. Source: DA FENG ZI *Hydnocarpus anthelminticus*. Ref: 1.

**886 Alepterolic acid**

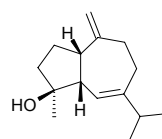
[63399-38-2] C<sub>20</sub>H<sub>32</sub>O<sub>3</sub> (320.48). mp 162.5~163.0°C. Source: TONG JING CAO *Aleuritopteris argentea*. Ref: 6.

**887 Aleuritic acid**

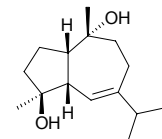
[533-87-9] C<sub>16</sub>H<sub>32</sub>O<sub>5</sub> (304.43). mp 102°C. Source: ZI CAO RONG *Laccifer lacca*. Ref: 6.

**888 Alismol**

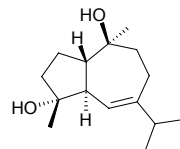
(+)-Alismol C<sub>15</sub>H<sub>24</sub>O (220.36). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +14.65° (c = 0.087, CHCl<sub>3</sub>). Source: ZE XIE *Alisma orientale* [Syn. *Alisma plantago-aquatica* var. *orientale*], *Lobophytum* sp. Ref: 660, 4565.

**889 Alismoxide 1**

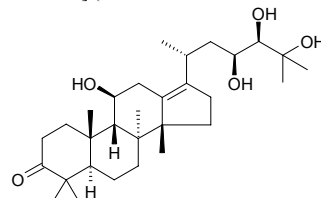
C<sub>15</sub>H<sub>26</sub>O<sub>2</sub> (238.37). Pharm: NO production inhibitor (mus peritoneal macrophages, induced by LPS, 100 $\mu$ mol/L, InRt = (33.1 $\pm$ 4.1)%), control *L*-NMMA, 100 $\mu$ mol/L, InRt = (79.2 $\pm$ 0.9)%, *p* < 0.01<sup>[4150]</sup>. Source: PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. Ref: 4150.

**890 Alismoxide 2**

C<sub>15</sub>H<sub>26</sub>O<sub>2</sub> (238.37). White solid. Source: *Lobophytum* sp. Ref: 4565.

**891 Alisol A**

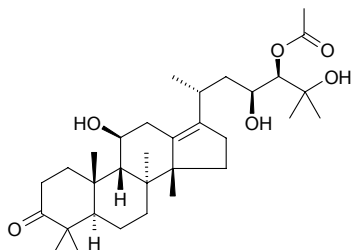
Epialisol A [19885-10-0] C<sub>30</sub>H<sub>50</sub>O<sub>5</sub> (490.73). mp 90~91°C. Pharm: Antihypercholesterolemic (mus, reduces the level of cholesterol in serum). Source: ZE XIE *Alisma orientale* [Syn. *Alisma plantago-aquatica* var. *orientale*] (tuber: content = 0.035%<sup>[5501]</sup>). Ref: 1, 6, 5501.



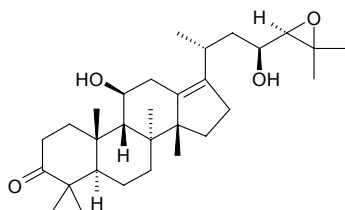


**892 Alisol A monoacetate**

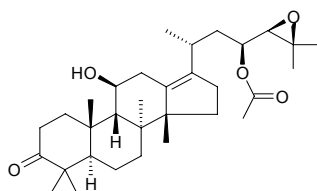
[18674-16-3]  $C_{32}H_{52}O_6$  (532.77). mp 194~196°C. **Pharm:** Antihypercholesterolemic (high-cholesterol rat, reduces blood-fat by 61%); anti-allergic (rat, orl, swollen foot model caused by antigen, 0.05mmol/kg and 0.20mmol/kg); antihepatotoxin (mus, liver damage caused by  $CCl_4$ ); diuretic (mus, sc, 100mg/kg, increases potassium drain). **Source:** ZE XIE *Alisma orientale* [Syn. *Alisma plantago-aquatica* var. *orientale*] (tuber: content = 0.15%<sup>[5501]</sup>). **Ref:** 6, 1661, 1662, 1663, 1664, 5501.

**893 Alisol B**

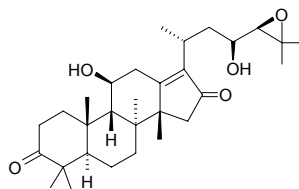
[18649-92-9]  $C_{30}H_{48}O_4$  (472.71). mp 166~168°C. **Pharm:** Antiallergic (rat, orl, swollen foot model caused by antigen, 0.05mmol/kg and 0.20mmol/kg); diuretic (rat, orl, 30mg/kg, increases amount of urine and sodium drain); acetylcholine transferase activator (*in vitro*); inhibits ileal contraction (rat, ileum *in vitro*, induced by 5-isoleucine+angiotensin I, InRt = 65%, induced by bradykinin, InRt = 63%, induced by acetylcholine, InRt = 50%); inhibits vasomotion (high concentration KCl-induced). **Source:** ZE XIE *Alisma orientale* [Syn. *Alisma plantago-aquatica* var. *orientale*] (tuber: content = 0.030%<sup>[5501]</sup>). **Ref:** 6, 1662, 1664, 1665, 1666, 1743, 5501.

**894 Alisol B monoacetate**

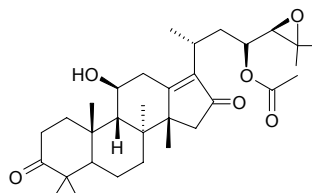
[26575-95-1]  $C_{32}H_{50}O_5$  (514.75). mp 162~163°C. **Pharm:** Antihypercholesterolemic (high-cholesterol rat, reduces blood-fat by 55%); antihepatotoxin (mus, liver damage by  $CCl_4$ ); acetylcholine transferase activator (*in vitro*); inhibits vasomotion (high concentration KCl-induced). **Source:** ZE XIE *Alisma orientale* [Syn. *Alisma plantago-aquatica* var. *orientale*] (tuber: content = 0.075%<sup>[5501]</sup>). **Ref:** 6, 1661, 1663, 1665, 1666, 5501.

**895 Alisol C**

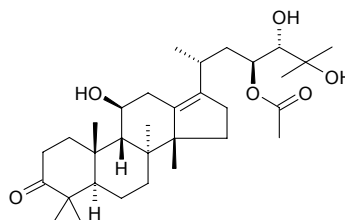
$C_{30}H_{46}O_5$  (486.70). **Source:** ZE XIE *Alisma orientale* [Syn. *Alisma plantago-aquatica* var. *orientale*]. **Ref:** 660.

**896 Alisol C monoacetate**

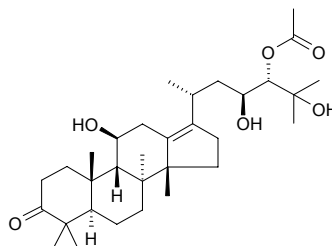
$C_{32}H_{48}O_6$  (528.74). **Pharm:** Antihypercholesterolemic (high-cholesterol rat, reduces blood-fat by 51%); antihepatotoxin (mus, liver damage caused by  $CCl_4$ ); acetylcholine transferase activator (*in vitro*); inhibits vasomotion (high concentration KCl-induced). **Source:** ZE XIE *Alisma orientale* [Syn. *Alisma plantago-aquatica* var. *orientale*] (tuber: content = 0.25%<sup>[5501]</sup>). **Ref:** 660, 5501.

**897 Alisol E 23-acetate**

$C_{32}H_{52}O_6$  (532.77). Needles, mp 167.5~169.0°C. **Source:** ZE XIE *Alisma orientale* [Syn. *Alisma plantago-aquatica* var. *orientale*]. **Ref:** 2213.

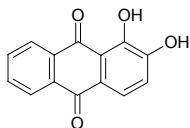
**898 Alisol E 24-acetate**

$C_{32}H_{52}O_6$  (532.77). Needles, mp 169~170°C. **Source:** ZE XIE *Alisma orientale* [Syn. *Alisma plantago-aquatica* var. *orientale*]. **Ref:** 2213.

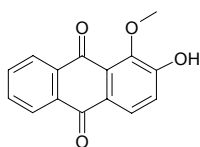


**899 Alizarin**

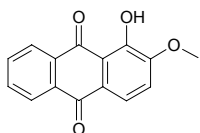
[72-48-0]  $C_{14}H_8O_4$  (240.22). mp 289~290°C, bp 430°C. **Pharm:** Antibacterial (*Staphylococcus aureus*); antineoplastic (leukemia); antihypertensive (animals, no influence on heart); anti-inflammatory (rat, inhibits phoroplast permeability); diuretic; immunosuppressant; Irritant (intestinal vasculature, *in vitro*). **Source:** HAI BA JI *Morinda citrifolia*, QIAN CAO GEN *Rubia cordifolia* (root: content scope = 0.0126%~0.0141%)<sup>[5501]</sup>, YANG QIAN CAO *Rubia tinctorum*, YANG JIAO TENG *Morinda umbellata*, XIANG CHE YE CAO *Asperula odorata*, ZHANG YE DA HUANG *Rheum palmatum*, *Galium* sp. **Ref:** 1, 4, 6, 7, 5501.

**900 Alizarin-1-methylether**

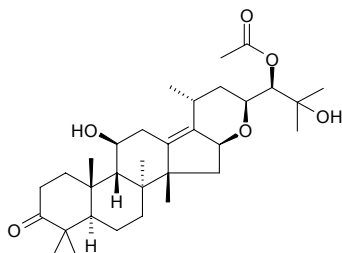
2-Hydroxy-1-methoxyanthraquinone  $C_{15}H_{10}O_4$  (254.24). mp 179°C. **Source:** GUANG JING QIAN CAO *Rubia wallichiana* (stem), HAI BA JI *Morinda citrifolia* (fruit), HU CI *Damnacanthus indicus*, YANG JIAO TENG *Morinda umbellata*. **Ref:** 6, 4369, 4542.

**901 Alizarin-2-methylether**

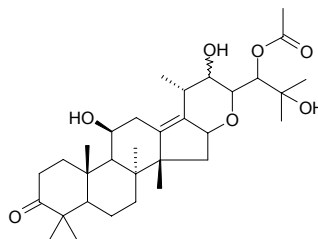
1-Hydroxy-2-methoxyanthraquinone  $C_{15}H_{10}O_4$  (254.24). mp 232~233°C. **Pharm:** Antibacterial (*Bacillus subtilis* and *Escherichia coli*); cytotoxic (KB, ED<sub>50</sub> > 25µg/mL, control Doxorubicin, ED<sub>50</sub> = 0.12µg/mL; Hep3B, ED<sub>50</sub> > 25µg/mL, Doxorubicin, ED<sub>50</sub> = 0.14µg/mL; Colon205, ED<sub>50</sub> > 25µg/mL, Doxorubicin, ED<sub>50</sub> = 0.10µg/mL; HeLa, ED<sub>50</sub> > 25µg/mL, Doxorubicin, ED<sub>50</sub> = 0.11µg/mL). **Source:** QIAN CAO GEN *Rubia cordifolia*, GUANG JING QIAN CAO *Rubia wallichiana* (stem), YANG QIAN CAO *Rubia tinctorum*, YANG JIAO TENG *Morinda umbellata*, XIANG CHE YE CAO *Asperula odorata*, *Galium* sp. **Ref:** 6, 658, 4369.

**902 Alizexol A**

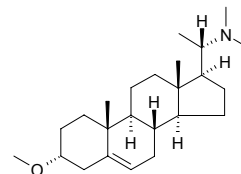
Alisol F 24-acetate; 16β,23β-Epoxy-11β,25-dihydroxy-24(R)-acetoxyprotost-13(17)-en-3-one  $C_{32}H_{50}O_6$  (530.75). Colorless prisms, mp 227~228°C; colorless acicular crystals, mp 203~205°C. **Source:** ZE XIE *Alisma orientale* [Syn. *Alisma plantago-aquatica* var. *orientale*] **Ref:** 8, 2151.

**903 Alizexol B**

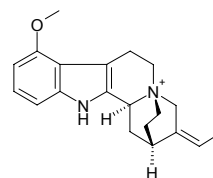
$C_{32}H_{50}O_7$  (546.75). White needles, mp 264~266°C. **Source:** ZE XIE *Alisma orientale* [Syn. *Alisma plantago-aquatica* var. *orientale*]. **Ref:** 8.

**904 Alkaloid C**

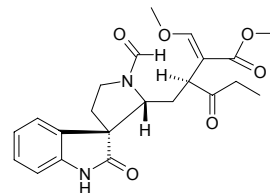
$C_{24}H_{41}NO$  (359.60). White amorphous powder, mp 156~157°C,  $[\alpha]_D^{20} = -29^\circ$  ( $c = 0.015$ ,  $CHCl_3$ ). **Pharm:** Spasmolytic (spontaneous contraction of rabbit jejunum, EC<sub>50</sub> = 215.0µg/mL, control Verapamil, EC<sub>50</sub> = 0.1µg/mL; K<sup>+</sup> 80mmol/L contracted rabbit jejunum, EC<sub>50</sub> = 200.5µg/mL, Verapamil, EC<sub>50</sub> = 0.1µg/mL); AChE inhibitor (EC<sub>50</sub> = 15.2µg/mL, Verapamil, EC<sub>50</sub> = 8.9µg/mL). **Source:** YE SHAN HUA *Sarcococca saligna* (whole herb). **Ref:** 5054.

**905 C-Alkaloid O**

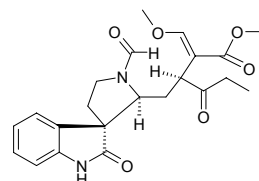
$C_{20}H_{25}N_2O$  (309.44). **Pharm:** Neuromuscular toxicity (neuromuscular transmission inhibitor, IC<sub>50</sub> = 290µmol/L; Venezuelan calabash curare, IC<sub>50</sub> = 6.5µmol/L). **Source:** *Strychnos guianensis* (stem bark). **Ref:** 5202.

**906 Alkaloid US-7**

$C_{22}H_{26}N_2O_6$  (414.46). **Source:** XIA GOU TENG *Uncaria attenuata*. **Ref:** 5341.

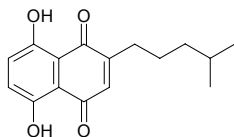
**907 Alkaloid US-8**

$C_{22}H_{26}N_2O_6$  (414.46). **Source:** XIA GOU TENG *Uncaria attenuata*. **Ref:** 5341.

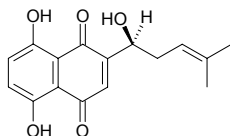


**908 Alkannan**

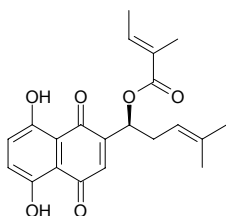
[517-90-8] C<sub>16</sub>H<sub>18</sub>O<sub>4</sub> (274.32). Source: ZI CAO *Lithospermum erythrorhizon*. Ref: 2.

**909 (-)-Alkannin**

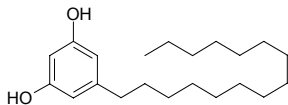
[517-88-4] C<sub>16</sub>H<sub>16</sub>O<sub>5</sub> (288.30). Brownish red prismatic crystals (benzene), mp 149°C, [α]<sub>D</sub><sup>20</sup> = -165° (benzene); -22.6° (CHCl<sub>3</sub>). Pharm: Antibacterial (*Staphylococcus aureus*, *Staphylococcus epidermidis*); antineoplastic; antifungal (*Candida albicans*); astringent; immunomodulator (low dose); inhibits granulocyte and lymphocyte (high dose); LD<sub>50</sub> (male mus) = (3.0±1.0)g/kg, (female mus) = (3.1±0.1)g/kg, (rat) > 1.0g/kg. Source: OU ZI CAO *Alkanna tinctoria*, GAO GUI JIA ZI CAO *Arnebia nobilis*, XIN ZANG JIA ZI CAO *Arnebia euchroma* (root). Ref: 661, 4916.

**910 Alkannin angelate**

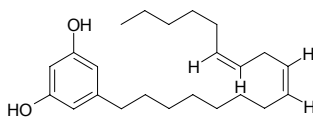
C<sub>21</sub>H<sub>22</sub>O<sub>6</sub> (370.41). Pharm: Antineoplastic (rat, Walker sarcoma). Source: GAO GUI JIA ZI CAO *Arnebia nobilis*, ZI CAO *Lithospermum erythrorhizon*. Ref: 2, 658.

**911 Alkylresorcinol A**

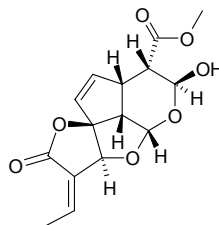
C<sub>21</sub>H<sub>36</sub>O<sub>2</sub> (320.52). Pharm: DPPH scavenger (IC<sub>50</sub> = 90 μmol/L, control Trolox, IC<sub>50</sub> = (25.4±0.8) μmol/L)<sup>[4244]</sup>; cytotoxic (murine breast cancer cell line FM3A, IC<sub>50</sub> = 2.8 μmol/L)<sup>[4244]</sup>. Source: YOU SE ZI JIN NIU *Ardisia colorata* (fruit). Ref: 4244.

**912 Alkylresorcinol C**

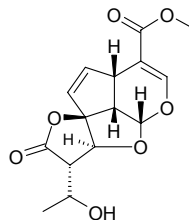
C<sub>23</sub>H<sub>36</sub>O<sub>2</sub> (344.54). Pharm: DPPH scavenger (IC<sub>50</sub> = 80 μmol/L, control Trolox, IC<sub>50</sub> = (25.4±0.8) μmol/L)<sup>[4244]</sup>; cytotoxic (murine breast cancer cell line FM3A, IC<sub>50</sub> = 2.2 μmol/L)<sup>[4244]</sup>. Source: YOU SE ZI JIN NIU *Ardisia colorata* (fruit). Ref: 4244.

**913 Allamandin**

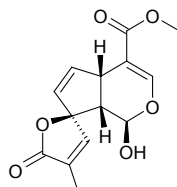
[51820-82-7] C<sub>15</sub>H<sub>16</sub>O<sub>7</sub> (308.29). Thin lamellar crystals (methanol-ethyl acetate), mp 212~215°C, [α]<sub>D</sub><sup>21</sup> = +15° (c = 0.06, methanol). Pharm: Cytotoxic (KB, ED<sub>50</sub> = 2.1 μg/mL; P<sub>388</sub>). Source: RUAN ZHI HUANG CHAN *Allemanda cathartica*. Ref: 658, 661.

**914 Allamansicin**

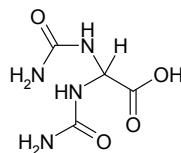
C<sub>15</sub>H<sub>16</sub>O<sub>7</sub> (308.29). Lamellar crystals (ether-hexane), mp 117~118°C, [α]<sub>D</sub><sup>21</sup> = +293° (c = 0.42, CHCl<sub>3</sub>). Pharm: Cytotoxic (KB, ED<sub>50</sub> > 10 μg/mL, P<sub>388</sub>). Source: RUAN ZHI HUANG CHAN *Allemanda cathartica*. Ref: 658, 661.

**915 Allamandin**

[51820-84-9] C<sub>15</sub>H<sub>16</sub>O<sub>6</sub> (292.29). Acicular crystals (ether-hexane), mp 131~132°C (dec), [α]<sub>D</sub><sup>21</sup> = -35° (c = 0.46, CHCl<sub>3</sub>). Pharm: Cytotoxic (KB, ED<sub>50</sub> > 10 μg/mL, P<sub>388</sub>). Source: RUAN ZHI HUANG CHAN *Allemanda cathartica*. Ref: 658, 661.

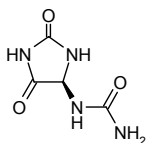
**916 Allantoic acid**

[99-16-1] C<sub>4</sub>H<sub>8</sub>N<sub>4</sub>O<sub>4</sub> (176.13). mp 173°C (dec). Source: ZI TENG *Wisteria sinensis*. Ref: 6.

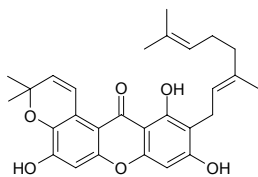


**917 Allantoin**

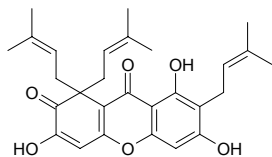
[97-59-6]  $C_4H_6N_4O_3$  (158.12). mp 238~240°C, soluble in water and ethanol, almost insoluble in diethyl ether. **Pharm:** Astringent (aluminum salt); deodorant (aluminum salt); sedative. **Source:** BEI MA DOU LING GEN *Aristolochia contorta*, BIAN ZHONG CHANG YE AN LUO *Polyalthia longifolia* var. *pendula*, GE GEN *Pueraria lobata* [Syn. *Pueraria thunbergiana*; *Pueraria pseudohirsuta*], GUANG FANG JI *Aristolochia fangchi*, LU JIAO QI SHU *Rhus typhina*, MA DOU LING *Aristolochia debilis* [Syn. *Aristolochia longa*], MIAN MAO MA DOU LING *Aristolochia mollissima* (root and stem: yield = 0.051%dw)<sup>[3026]</sup>, QING MU XIANG *Aristolochia debilis* [Syn. *Aristolochia longa*], SHAN YAO *Dioscorea batatas* [Syn. *Dioscorea opposita*] (tuber: content scope = 0.115%~0.570%, mean content = 0.387%<sup>[5508]</sup>), SHE XIANG *Moschus moschiferus*; *Moschus berezovskii*; *Moschus sifanicus*, XIAO MAI *Triticum aestivum* [Syn. *Triticum vulgare*], YAO YONG DAO TI HU *Cynoglossum officinale*, ZI TENG *Wisteria sinensis*. **Ref:** 4, 658, 660, 3026, 5386, 5501, 5508.

**918 Allanxanthone B**

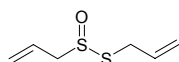
2-Geranyl-1,3,6-trihydroxy-2',2'-dimethyl[5',6':7,8]xanthone  $C_{28}H_{30}O_6$  (462.55). Yellow powder, mp 158~160°C. **Source:** *Allanblackia monticola* (stem bark). **Ref:** 3856.

**919 Allanxanthone C**

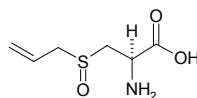
$C_{28}H_{32}O_6$  (464.56). Sticky yellow oil. **Pharm:** Antimalarial (antiplasmodial *in vitro*, FcM29-Cameroon (Chloroquine resistant),  $IC_{50}$  24h = (2.6±0.9)µg/mL,  $IC_{50}$  72h = (0.6±0.02)µg/mL), F32 (Chloroquine sensitive),  $IC_{50}$  24h = (3.2±0.0)µg/mL,  $IC_{50}$  72h = (3.2±0.3)µg/mL); cytotoxic (hmn melanoma cell A375 *in vitro*,  $IC_{50}$  24h = (83.8±7.1)µg/mL). **Source:** *Allanblackia monticola* (stem bark: yield = 0.0065%)<sup>[912]</sup>. **Ref:** 912.

**920 Allicin**

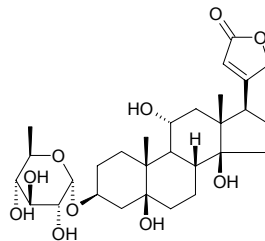
Diallyl disulfide oxide [539-86-6]  $C_6H_{10}OS_2$  (162.27). Yellow liquid, soluble in water, ethanol, diethyl ether and benzene. **Pharm:** Antibacterial; antidiabetic; antihypertensive; antithrombotic. **Source:** DA SUAN *Allium sativum* (bulb: content scope = 1.28%~6.63%<sup>[5501]</sup>), CONG BAI *Allium fistulosum*. **Ref:** 2, 4, 658, 5501, 5507.

**921 Alliin**

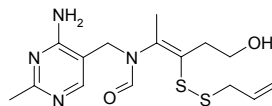
[556-27-4]  $C_6H_{11}NO_3S$  (177.22). **Pharm:** Antithrombotic; platelet aggregation inhibitor. **Source:** YANG CONG *Allium cepa*, DA SUAN *Allium sativum*. **Ref:** 2, 658.

**922 Alliside**

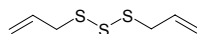
$C_{29}H_{44}O_{10}$  (552.67). **Source:** GUI ZHU XIANG *Cheiranthus cheiri*. **Ref:** 660.

**923 Allithiamine**

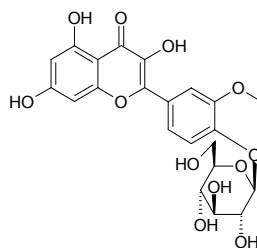
[554-44-9]  $C_{15}H_{22}N_4O_2S_2$  (354.50). mp 132~133°C (dec). **Source:** DA SUAN *Allium sativum*. **Ref:** 6.

**924 Allitridin**

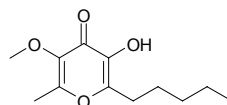
Diallyl trisulfide [2050-87-5]  $C_6H_{10}S_3$  (178.34). bp 87~88°C. **Pharm:** Antifungal (*Candida albicans*, EC = 1:51200; *Cryptococcus neoformans*, EC = 1:200800); cytotoxic (carcinoma of stomach cell, EC = 24µg/mL); antihepatotoxin (rat, liver damage caused by  $CCl_4$ ); Spermicidal (men, rat, 0.15%, 3min, inactivation);  $LD_{50}$  (mus, iv) = 70mg/kg, (mus, orl) = 600mg/kg. **Source:** DA SUAN *Allium sativum*. **Ref:** 4, 5501.

**925 Allioside A**

Quercetin 3'-methoxy-4'-O-β-D-glucopyranoside  $C_{22}H_{22}O_{12}$  (478.41). Light yellow powder, mp 252~254°C. **Source:** FEN NIE CONG TOU *Allium cepa* var. *agrogatum*. **Ref:** 859.

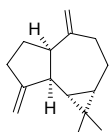
**926 Allixin**

$C_{12}H_{18}O_4$  (226.27). **Source:** DA SUAN *Allium sativum*. **Ref:** 660.

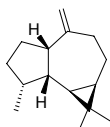


**927 (+)-(1R,5S,6S,7S)-Allo-aromadendra-4(15),10(14)-diene**

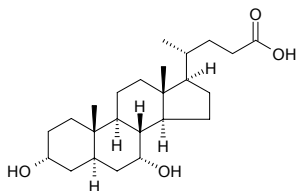
(+)-(1S,4aR,7aS,8S)-1,1-Dimethyl-4,7-dimethylenedecahydro-cyclopropa[e]azulene C<sub>15</sub>H<sub>22</sub> (202.34). Colorless oil. Source: *Saccogyna viticulosa* (essential oil). Ref: 3839.

**928 Alloaromadendrene**

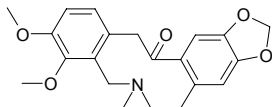
C<sub>15</sub>H<sub>24</sub> (204.36). Source: HOU PO *Magnolia officinalis*, GUANG HUO XIANG *Pogostemon cablin* [Syn. *Mentha cablin*], REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], SHENG JIANG *Zingiber officinale*, XIE CAO *Valeriana officinalis*. Ref: 2, 660.

**929 Allochenodeoxycholic acid**

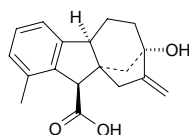
[15357-34-7] C<sub>24</sub>H<sub>40</sub>O<sub>4</sub> (392.58). mp 245~246°C. Source: LI YU DAN *Cyprinus carpio*. Ref: 6.

**930 Allocryptopine**

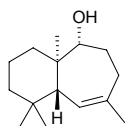
[24240-04-8] C<sub>21</sub>H<sub>23</sub>NO<sub>5</sub> (369.42). Colorless prisms, mp 162~164°C, mp 163°C. Pharm: Antiarrhythmic; antibacterial (*Staphylococcus* sp.); oxytocic; anti-HIV inactive (H9 lymphocytes, control AZT, IC<sub>50</sub> = 500µg/mL, EC<sub>50</sub> = 0.0317µg/mL, TI = 15,800)<sup>[53641]</sup>. Source: BAI QU CAI *Chelidonium majus*, BAN RUI TANG SONG CAO *Thalictrum petaloideum* (root: content < 0.001%)<sup>[5508]</sup>, BO LUO HUI *Macleaya cordata*, CHI BAN YAN HU SUO *Corydalis remota* [Syn. *Corydalis bulbosa* var. *typica*] (rhizome: content = 0.03%)<sup>[5508]</sup>, DA YE TANG SONG CAO *Thalictrum faberi* (root: content < 0.001%)<sup>[5508]</sup>, DONG BEI YAN HU SUO *Corydalis ambigua* var. *amurensis* [Syn. *Corydalis ambigua*] (rhizome: content = 0.01%)<sup>[5508]</sup>, HE QING HUA *Hylomecon japonica*, JI YING SU *Argemone mexicana*, JIN SI MA WEI LIAN *Thalictrum glandulosissimum* (root: content < 0.005%)<sup>[5508]</sup>, MA WEI LIAN *Thalictrum foliolosum* (root: content < 0.001%)<sup>[5508]</sup>, XIA XU TANG SONG CAO *Thalictrum atriplex* (root: content < 0.001%)<sup>[5508]</sup>, XIAO GUO TANG SONG CAO *Thalictrum microgynum* (root: content = 0.25%)<sup>[5508]</sup>, YAN GUO CAO *Thalictrum thumbergii* (root: content < 0.001%)<sup>[5508]</sup>, YAN HU SUO *Corydalis yanhusuo* [Syn. *Corydalis turtschaninovii* f. *yanhusuo*] (rhizome: content = 0.036%)<sup>[5508]</sup>, YING SHUI HUANG LIAN *Thalictrum simplex* [Syn. *Thalictrum simplex* var. *brevipes*] (root: content < 0.005%)<sup>[5508]</sup>. Ref: 6, 658, 5364, 5508.

**931 Allogibberic acid**

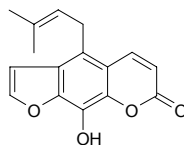
[427-79-2] C<sub>18</sub>H<sub>20</sub>O<sub>3</sub> (284.36). Pharm: Inhibits bloom. Source: XI MAI FU PING *Lemna perpusilla*. Ref: 658.

**932 Allohimachalol**

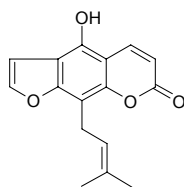
C<sub>15</sub>H<sub>26</sub>O (222.37). Source: XUE SONG *Cedrus deodara*. Ref: 660.

**933 Alloimperatorin**

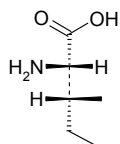
[642-05-7] C<sub>16</sub>H<sub>14</sub>O<sub>4</sub> (270.29). Pharm: Antimicrobial; Piscicide. Source: BAI ZHI *Angelica dahurica* [Syn. *Angelica porphyrocaulis*], DA A MI *Ammi majus*, GOU JU *Poncirus trifoliata*, MU<sup>(4)</sup> JU *Aegle marmelos*, NI BO ER DU HUO *Heracleum nepalense*, SHE CHUANG ZI *Cnidium monnieri*, SHUAN CHI QIN *Prangos pabularia*, YU SHU SHU *Zea mays*. Ref: 2, 6, 7, 658.

**934 Alloisioimperatorin**

5-Hydroxy-8-(1',1'-dimethylallyl) psoralen [35214-83-6] C<sub>16</sub>H<sub>14</sub>O<sub>4</sub> (270.29). Source: BAI ZHI *Angelica dahurica* [Syn. *Angelica porphyrocaulis*], HANG BAI ZHI *Angelica taiwaniana*, QIANG HUO *Notopterygium incisum*. Ref: 2, 660.

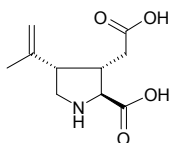
**935 Alloisoleucine**

L-Alloisoleucine C<sub>6</sub>H<sub>13</sub>NO<sub>2</sub> (131.18). mp 280~281°C (dec). Source: QUN DAI CAI *Undaria pinnatifida*. Ref: 6, 660.

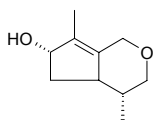


**936  $\alpha$ -Allokainic acid**

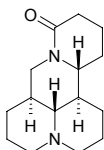
Kainic acid [4071-39-0]  $C_{10}H_{15}NO_4$  (213.24). mp 237~238°C (dec); mp 253~254°C (dec). **Pharm:** Anthelmintic (hmn, orl, ED = 20mg). **Source:** HAI REN CAO *Digenea simplex*, ZHE GU CAI *Caloglossa leprieurii*. **Ref:** 6, 658.

**937 Allomatatabiol**

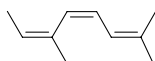
$C_{10}H_{16}O_2$  (168.24). **Source:** MU TIAN LIAO *Actinidia polygama*. **Ref:** 6.

**938 (+)-Allomatrine**

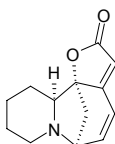
$C_{15}H_{24}N_2O$  (248.37). **Source:** KU SHEN *Sophora flavescens* [Syn. *Sophora angustifolia*]. **Ref:** 660.

**939 Alloocimene**

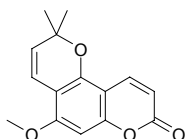
2,6-Dimethyl-2,4,6-octatriene  $C_{10}H_{16}$  (136.24). **Source:** DANG GUI *Angelica sinensis*. **Ref:** 2.

**940 Allosecurinine**

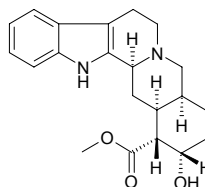
[884-68-4]  $C_{13}H_{15}NO_2$  (217.27). mp 136~138°C. **Source:** YI YE QIU *Securinega suffruticosa*. **Ref:** 6.

**941 Alloxanthoxyletin**

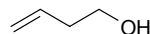
[731-75-9]  $C_{15}H_{14}O_4$  (258.28). **Pharm:** Cytotoxic (inhibits DNA biosynthesis by blocking thymidine to go into HL-60 cells). **Source:** MEI ZHOU HUA JIAO *Zanthoxylum americanum* [Syn. *Xanthoxylum americanum*] **Ref:** 2176.

**942 Alloyohimbine**

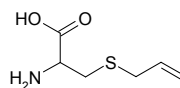
[522-94-1]  $C_{21}H_{26}N_2O_3$  (354.45). White powder, mp 139~140°C,  $[\alpha]_D^{24} = -76.7^\circ$  ( $c = 0.48$ , pyridine). **Source:** YANG JIAO MIAN *Alstonia maireri*. **Ref:** 633.

**943 Allylcarbinol**

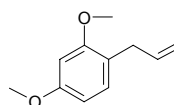
3-Buten-1-ol [627-27-0]  $C_4H_8O$  (72.11). Liquid, bp 112.5~113.5°C(755mmHg). **Source:** PU<sup>(2)</sup> TAO *Vitis vinifera* (seed oil). **Ref:** 1521.

**944 S-Allyl-L-cystein**

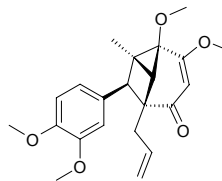
$C_6H_{11}NO_2S$  (161.22). **Source:** DA SUAN *Allium sativum*. **Ref:** 660.

**945 1-Allyl-2,4-dimethoxybenzene**

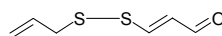
$C_{11}H_{14}O_2$  (178.23). **Source:** XIANG GEN QIN *Osmorhiza aristata* var. *laxa*. **Ref:** 6.

**946 6-Allyl-7-(3,4-dimethoxyphenyl)-2,3-dimethoxy-8-methyl-tricyclo-[4.2.0.0<sup>2,8</sup>]oct-3-en-5-one**

$C_{22}H_{26}O_5$  (370.45). Amorphous powder,  $[\alpha]_D = +67.2^\circ$  ( $c = 1.68$ ,  $CHCl_3$ ). **Source:** YU LAN *Magnolia denudata* [Syn. *Magnolia heptapata*]. **Ref:** 4439.

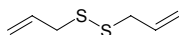
**947 3-Allyldisulfanyl-propenal**

$C_6H_8OS_2$  (160.26). Colorless oil liquid. **Source:** DA SUAN *Allium sativum*. **Ref:** 2186.

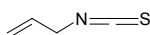


**948 Allyl disulfide**

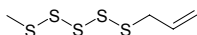
Diallyldisulfide [2179-57-9] C<sub>6</sub>H<sub>10</sub>S<sub>2</sub> (146.27). bp 100°C/48mmHg. **Pharm:** Pesticide. **Source:** BO NIANG HAO *Descurainia sophia*, DA SUAN *Allium sativum*, GE CONG *Allium victorialis*, JIU CAI *Allium tuberosum*, YANG CONG *Allium cepa*. **Ref:** 6, 658.

**949 Allyl isothiocyanate**

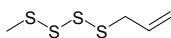
3-Isothiocyanato-1-propene [57-06-7] C<sub>4</sub>H<sub>5</sub>NS (99.16). mp -80°C, bp 151°C. **Source:** BO NIANG HAO *Descurainia sophia*, GAN LAN *Brassica oleracea* var. *capitata*, JIE ZI *Brassica juncea*. **Ref:** 6, 660.

**950 Allyl methyl pentasulfide**

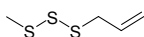
Methyl allyl pentasulfide C<sub>4</sub>H<sub>8</sub>S<sub>5</sub> (216.43). **Source:** DA SUAN *Allium sativum*. **Ref:** 2.

**951 Allyl methyl tetrasulfide**

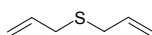
Methylallyltetrasulfide C<sub>4</sub>H<sub>8</sub>S<sub>4</sub> (184.36). **Source:** DA SUAN *Allium sativum*. **Ref:** 2, 1394.

**952 Allyl methyl trisulfide**

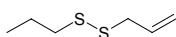
Methyl 2-propenyl trisulfide [34135-85-8] C<sub>4</sub>H<sub>8</sub>S<sub>3</sub> (152.30). **Pharm:** Platelet aggregation inhibitor (hmn, plasma with rich platelet, IC < 10µmol/L); antineoplastic (female mus, cardiaie sinus cancer induced by benzopyrene, activates glutathione S-transferase in cardiaie sinus). **Source:** XIE BAI *Allium macrostemon*, DA SUAN *Allium sativum*, GE CONG *Allium victorialis*. **Ref:** 2, 61, 391, 1471, 1683, 1684.

**953 Allyl monosulfide**

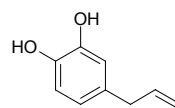
Allyl sulphide [592-88-1] C<sub>6</sub>H<sub>10</sub>S (114.21). bp 139°C/758mmHg. **Pharm:** Irritant (to skin and eyes). **Source:** CONG BAI *Allium fistulosum*, DA SUAN *Allium sativum*, YANG CONG *Allium cepa*. **Ref:** 2, 6, 658.

**954 Allyl propyl disulfide**

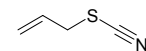
2-Propenyl propyl disulfide [2179-59-1] C<sub>6</sub>H<sub>12</sub>S<sub>2</sub> (148.29). **Source:** DA SUAN *Allium sativum*. **Ref:** 2, 1394.

**955 Allylpyrocatechol**

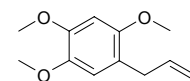
4-Allylpyrocatechol; 4-Allylcatechol [1126-61-0] C<sub>9</sub>H<sub>10</sub>O<sub>2</sub> (150.18). mp 48-49°C. **Pharm:** Cytotoxic (*in vitro*, hmn gastric tumor cell NUGC, 50µmol/L, InRt = 96%)<sup>[4676]</sup>; platelet aggregation inhibitor (rbt platelets induced by thrombin, 100µg/mL, add thrombin 0.1u/mL, AggRt = (90.8±0.4)%, control AggRt = (92.6±0.4)%; add ASA, 100µmol/L, 100µg/mL, AggRt = (0.0±0.0)%, 0.5µg/mL, AggRt = (79.9±3.9)%, control AggRt = (87.8±0.3)%, Aspirin 50µg/mL, AggRt = (11.7±10.1)%; add collagen 10µg/mL, 100µg/mL, AggRt = (7.6±3.9)%, 0.5µg/mL, AggRt = (86.9±0.7)%, control AggRt = (89.3±0.5)%, Aspirin 100µg/mL, AggRt = (81.3±0.5)%; add PAF 2ng/mL, 100µg/mL, AggRt = (88.7±0.9)%, control AggRt = (93.0±0.6)%)<sup>[4938]</sup>. **Source:** JU JIANG YE *Piper betle*, KAI KOU JIAN *Tupistra chinensis* (underground part), LONG XUE SHU *Dracaena draco* (stem bark), TAI WAN HU JIAO *Piper taiwanense* (stem). **Ref:** 6, 4676, 4696, 4938.

**956 Allylthiocyanate**

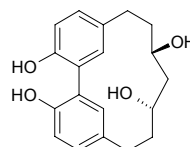
[764-49-8] C<sub>4</sub>H<sub>5</sub>NS (99.16). bp 161°C. **Source:** GUI ZHU TANG JIE *Erysimum cheiranthoides*. **Ref:** 6.

**957 1-Allyl-2,4,5-trimethoxy-benzene**

γ-Asarone; Isoasarone [5353-15-1] C<sub>12</sub>H<sub>16</sub>O<sub>3</sub> (208.26). Colorless acicular crystals (ethyl acetate), mp 28°C, bp 145-147°C (bath temperature). **Pharm:** Antiasthmatic; antibacterial (*Bacillus coli* and *Bacillus subtilis*, EC = 25mg/L); antispasmodic (gpg, trachea and ileum *in vitro*). **Source:** BAI CHANG *Acorus calamus*, JIA JU *Piper sarmentosum*, JIN QIAN PU *Acorus gramineus*, JIN QIAN PU YE *Acorus gramineus*, SHAN ZHU YU *Cornus officinalis* [Syn. *Macrocarpum officinale*]. **Ref:** 6, 660, 900.

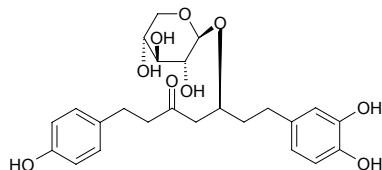
**958 Alnusdiol**

C<sub>19</sub>H<sub>22</sub>O<sub>4</sub> (314.38). **Source:** CHI YANG *Alnus japonica*. **Ref:** 660.

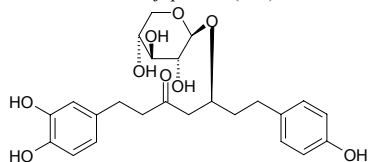


**959 Alnuside A**

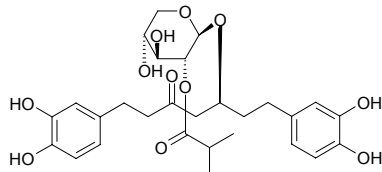
7-(3,4-Dihydroxyphenyl)-5-hydroxy-1-(4-hydroxyphenyl)-3-heptanone-5-*O*- $\beta$ -D-xylopyranoside C<sub>24</sub>H<sub>30</sub>O<sub>9</sub> (462.50). Colorless viscous liquid, [ $\alpha$ ]<sub>D</sub> = -19.5° (*c* = 0.03, MeOH). **Pharm:** Antioxidant (3.125 $\mu$ g/mL, superoxide radical scavenging activity = 14.0%, control Urcumin 16.1%; 6.25 $\mu$ g/mL, DPPH radical scavenging activity = 29.0%, control Urcumin 50.0%). **Source:** CHI YANG *Alnus japonica* (leaf). **Ref:** 4535.

**960 Alnuside B**

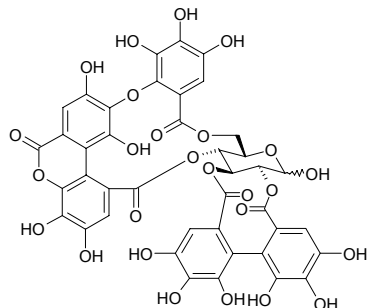
1-(3,4-Dihydroxyphenyl)-5-hydroxy-7-(4-hydroxyphenyl)-3-heptanone-5-*O*- $\beta$ -D-xylopyranoside C<sub>24</sub>H<sub>30</sub>O<sub>9</sub> (462.50). Colorless viscous liquid, [ $\alpha$ ]<sub>D</sub> = -15.5° (*c* = 0.04, MeOH). **Pharm:** Antioxidant (3.125 $\mu$ g/mL, superoxide radical scavenging activity = 14.5%, control Urcumin 16.1%; 6.25 $\mu$ g/mL, DPPH radical scavenging activity = 31.1%, control Urcumin 50.0%). **Source:** CHI YANG *Alnus japonica* (leaf). **Ref:** 4535.

**961 Alnuside C**

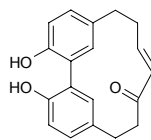
1,7-Bis-(3,4-dihydroxyphenyl)-5-hydroxy-3-heptanone-5-*O*-[2-(2-methylbutenyl)]- $\beta$ -D-xylopyranoside C<sub>29</sub>H<sub>38</sub>O<sub>11</sub> (562.62). Colorless viscous liquid, [ $\alpha$ ]<sub>D</sub> = -15.6° (*c* = 0.04, MeOH). **Pharm:** Antioxidant (3.125 $\mu$ g/mL, superoxide radical scavenging activity = 19.2%, control Urcumin 16.1%; 6.25 $\mu$ g/mL, DPPH radical scavenging activity = 31.5%, control Urcumin 50.0%). **Source:** CHI YANG *Alnus japonica* (leaf). **Ref:** 4535.

**962 Alnusiin**

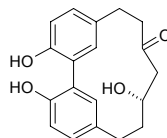
[78836-99-4] C<sub>41</sub>H<sub>26</sub>O<sub>26</sub> (934.65). **Pharm:** Antineoplastic (S<sub>180</sub>); antioxidant (lipid peroxidation inhibitor, rat, mitochondria of fat cells and macrosome of liver cells). **Source:** XI BO DE QI MU *Alnus sieboldiana*. **Ref:** 658.

**963 Alnusone**

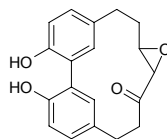
C<sub>19</sub>H<sub>18</sub>O<sub>3</sub> (294.35). **Source:** CHI YANG *Alnus japonica*. **Ref:** 660.

**964 Alnusonol**

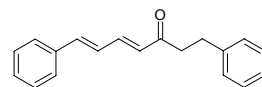
[52330-12-8] C<sub>19</sub>H<sub>20</sub>O<sub>4</sub> (312.37). **Source:** CHI YANG *Alnus japonica*. **Ref:** 660.

**965 Alnusoxide**

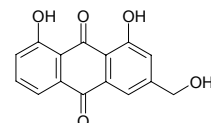
C<sub>19</sub>H<sub>18</sub>O<sub>4</sub> (310.35). **Source:** CHI YANG *Alnus japonica*. **Ref:** 660.

**966 Alnustone**

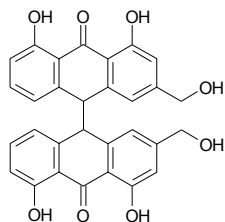
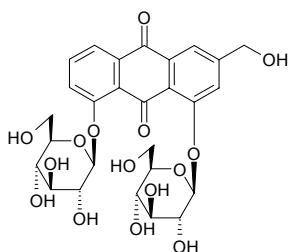
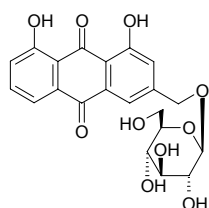
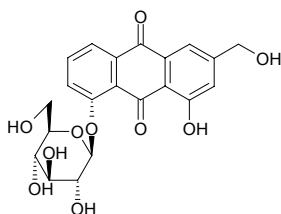
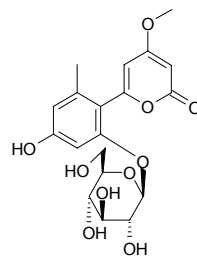
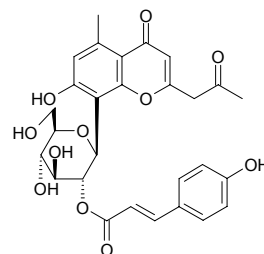
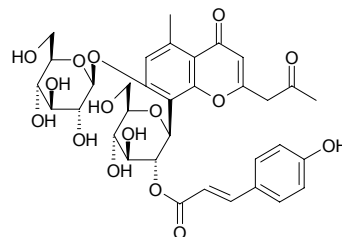
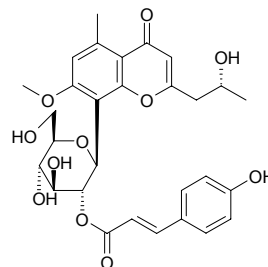
*trans,trans*-1,7-Diphenyl-1,3-heptadien-5-one [33457-62-4] C<sub>19</sub>H<sub>18</sub>O (262.35). Yellowish acicular crystals (heptane-acetone), mp 63–64°C. **Pharm:** Anti-inflammatory (swollen model by carrageenan). **Source:** CAO DOU KOU *Alpinia katsumadai*, CHUI QI MU *Alnus pendula*, HUANG GEN JIANG *HUANG Curcuma xanthorrhiza*. **Ref:** 952, 978, 1124, 1151, 1521.

**967 Aloemodin**

[481-72-1] C<sub>15</sub>H<sub>10</sub>O<sub>5</sub> (270.24). **Pharm:** Antibacterial (*Staphylococcus* sp., *Streptococcus* sp., *Bacillus diphtheriae*, *Bacillus subtilis*, *Bacillus anthracis*, *Bacillus paratyphosus*, *Bacillus dysenteriae*, EC = 15–25 $\mu$ g/mL); to treat leukemia; genotoxic; laxative. **Source:** BAN WEN LU HUI *Aloe vera* var. *chinensis*, DA HUANG *Rheum officinale*, DUN YE JUE MING *Cassia obtusifolia* (ripe seed: mean content = 0.0094%<sup>[5508]</sup>), HAO WANG JIAO LU HUI *Aloe ferox*, JIAN YE FAN XIE YE *Cassia acutifolia*, JUE MING ZI *Cassia tora* (ripe seed: content = 0.0034%<sup>[5508]</sup>), LU HUI *Aloe vera* [Syn. *Aloe barbadensis*], MU HU DIE *Oroxylum indicum*, NIU SHE CAO *Rumex dentatus*, NIU XI XI *Rumex patientia*, SHAN BIAN DOU ZI *Cassia mimosoides*, SHU LI *Rhamnus davurica*, TANG GU TE DA HUANG *Rheum tanguticum*, WANG JIANG NAN *Cassia occidentalis*, WANG JIANG NAN ZI *Cassia occidentalis*, YOU MU *Tectona grandis*, ZANG BIAN DA HUANG *Rheum emodi* [Syn. *Rheum australe*] (stem and rhizome: content < 0.01%<sup>[5508]</sup>), ZHANG YE DA HUANG *Rheum palmatum* (stem and rhizome: content = 0.23%<sup>[5508]</sup>), *Aloe* sp., *Hemerocallis* sp. **Ref:** 2, 534, 555, 658, 660, 2195, 5501, 5508.

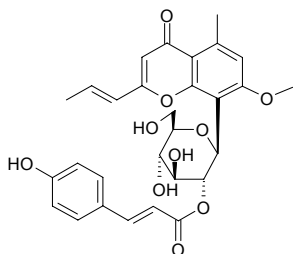




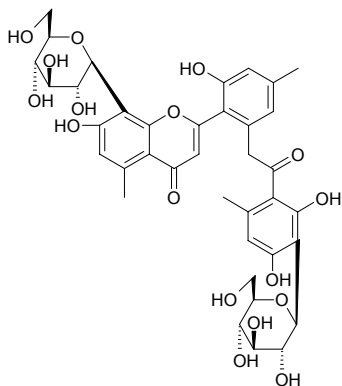
**968 Aloemodin bianthrone**[4461-75-0] C<sub>30</sub>H<sub>22</sub>O<sub>8</sub> (510.51). Dark brown solid, mp > 260°C (dec).Source: FAN XIE YE *Cassia angustifolia*, OU SHU LI *Rhamnus frangula* [Syn. *Frangula alnus*]. Ref: 2274.**969 Aloemodin diglucoside**C<sub>27</sub>H<sub>30</sub>O<sub>15</sub> (594.53). Source: ZHANG YE DA HUANG *Rheum palmatum*.Ref: 2, 660.**970 Aloemodin-*o*-O-β-D-glucopyranoside**C<sub>21</sub>H<sub>20</sub>O<sub>10</sub> (432.39). Source: DA HUANG *Rheum officinale*, TANG GU TE DA HUANG *Rheum tanguticum*, ZHANG YE DA HUANG *Rheum palmatum*. Ref: 2, 660.**971 Aloemodin-8-monoglucoside**C<sub>21</sub>H<sub>20</sub>O<sub>10</sub> (432.39). Pharm: Laxative. Source: TANG GU TE DA HUANG *Rheum tanguticum* (dried stem and rhizome: mean content of 3 origins = 0.38%<sup>[5517]</sup>), ZHANG YE DA HUANG *Rheum palmatum* (dried stem and rhizome: mean content of 4 origins = 0.36%<sup>[5517]</sup>). Ref: 658, 5517.**972 Aloenin**[38412-46-3] C<sub>19</sub>H<sub>22</sub>O<sub>10</sub> (410.38). Source: LU HUI *Aloe vera* [Syn. *Aloe barbadensis*]. Ref: 2, 5501.**973 Aloeresin A**2'-*O*-*p*-Coumaroylaloenin [74545-79-2] C<sub>28</sub>H<sub>28</sub>O<sub>11</sub> (540.53). Source: LU HUI *Aloe vera* [Syn. *Aloe barbadensis*], *Aloe* spp. Ref: 2, 727.**974 Aloeresin C**[98449-41-3] C<sub>34</sub>H<sub>38</sub>O<sub>16</sub> (702.67). mp 199~202°C, [α]<sub>D</sub><sup>30</sup> = -48.3° (c = 0.06, MeOH). Source: HAO WANG JIAO LU HUI *Aloe ferox*. Ref: 733.**975 Aloeresin D**C<sub>29</sub>H<sub>32</sub>O<sub>11</sub> (556.57). Source: HAO WANG JIAO LU HUI *Aloe ferox*. Ref: 660.

**976 Aloeresin G**

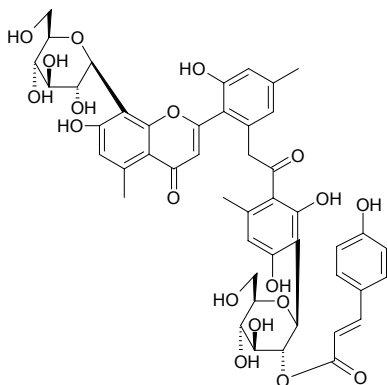
2-[*E*]-Propenyl-7-methoxy-8-*C*- $\beta$ -*D*-[2'-(*E*)-*p*-coumaroyl]-glucopyranosyl-5-methylchromone C<sub>29</sub>H<sub>30</sub>O<sub>10</sub> (538.56). White powder, mp 167~169°C. Source: LU HUI *Aloe vera* [Syn. *Aloe barbadensis*]. Ref: 841.

**977 Aloeresin H**

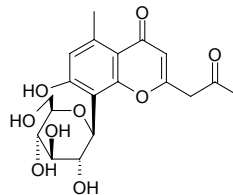
C<sub>38</sub>H<sub>42</sub>O<sub>17</sub> (770.75). Pharm: Anti-inflammatory (*in vivo*, mouse ear oedema induced by croton oil, 1.0 $\mu$ mol/cm<sup>2</sup>, oedema from (6.9 $\pm$ 0.3)mg to (4.8 $\pm$ 0.3)mg, InRt = 30%, control Indomethacin, 0.3 $\mu$ mol/cm<sup>2</sup>, oedema (2.7 $\pm$ 0.2)mg, InRt = 61%)<sup>[5047]</sup>. Source: HAO WANG JIAO LU HUI *Aloe ferox*. Ref: 5047.

**978 Aloeresin I**

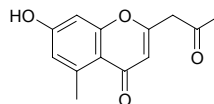
C<sub>47</sub>H<sub>48</sub>O<sub>19</sub> (916.90). Amorphous powder, mp 227~229°C (dec), [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -91.7° (*c* = 0.5, MeOH). Pharm: Anti-inflammatory (*in vivo*, mouse ear oedema induced by croton oil, 1.0 $\mu$ mol/cm<sup>2</sup>, oedema from (6.9 $\pm$ 0.3)mg to (4.2 $\pm$ 0.3)mg, InRt = 39%, control Indomethacin, 0.3 $\mu$ mol/cm<sup>2</sup>, oedema (2.7 $\pm$ 0.2)mg, InRt = 61%)<sup>[5047]</sup>. Source: HAO WANG JIAO LU HUI *Aloe ferox*. Ref: 5047.

**979 Aloesin**

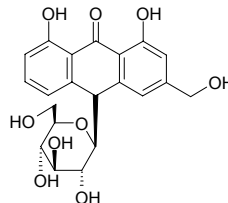
[30861-27-9] C<sub>19</sub>H<sub>22</sub>O<sub>9</sub> (394.38). Source: BAN WEN LU HUI *Aloe vera* var. *chinensis*. Ref: 2, 534, 660.

**980 Aloesone**

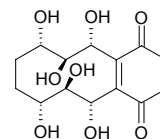
[40738-40-7] C<sub>13</sub>H<sub>12</sub>O<sub>4</sub> (232.24). Source: HAO WANG JIAO LU HUI *Aloe ferox*. Ref: 729.

**981 Aloin**

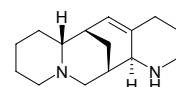
Isobarbaloin C<sub>21</sub>H<sub>22</sub>O<sub>9</sub> (418.40). Pharm: Laxative. Source: BAN WEN LU HUI *Aloe vera* var. *chinensis* (leaf: content scope of 11 origins = 0.0006%~0.0261%, mean content = 0.0106%<sup>[5508]</sup>), HAO WANG JIAO LU HUI *Aloe ferox*, LU HUI *Aloe vera* [Syn. *Aloe barbadensis*] (leaf: content = 0.0319%<sup>[5508]</sup>), PEI LI LU HUI *Aloe perryi*, WU GONG ZHANG *Aloe arborescens* var. *natalensis*. Ref: 2, 660, 5501, 5508.

**982 Alopecuquinone**

5 $\alpha$ ,6 $\beta$ ,7 $\alpha$ ,10 $\alpha$ ,11 $\beta$ ,12 $\alpha$ -Hexahydroxycyclodeca-1,4-benzoquinone C<sub>14</sub>H<sub>18</sub>O<sub>8</sub> (314.29). Orange amorphous material. Source: KAN MAI NIANG ZHUANG SHA CAO *Cyperus alopecuroides*. Ref: 1959.

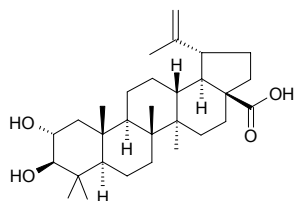
**983 Aloperine**

[56293-29-9] C<sub>15</sub>H<sub>24</sub>N<sub>2</sub> (232.37). Pharm: Antiallergic (allergic reaction of type III and IV); antiarrhythmic (rat, arrhythmia induced by aconitine, ED = 10mg/kg, mus, ventricular fibrillation induced by chloroform, ip); anti-inflammatory (variety of acute inflammation); CNS depressant; platelet aggregation inhibitor (rbt, caused by arachidonic acid and collagen of low concentration, IC<sub>50</sub> = 184 $\mu$ g/L and 38.3 $\mu$ g/L respectively); antihypertensive; paralyzes CNS and respiration; slows heart rate; toxin; treatment of bacillary dysentery. Source: KU DOU ZI *Sophora alopecuroides*. Ref: 658.

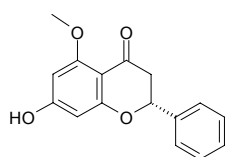


**984 Alphitolic acid**

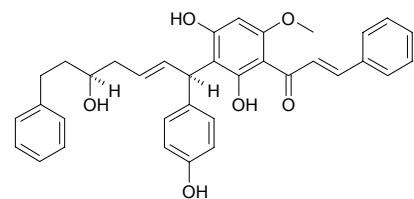
2 $\alpha$ ,3 $\beta$ -Dihydroxylup-20(29)-en-28-oic acid [19533-92-7] C<sub>30</sub>H<sub>48</sub>O<sub>4</sub> (472.71). Colorless needles (CHCl<sub>3</sub>-MeOH), mp 275~278°C, [ $\alpha$ ]<sub>D</sub><sup>19</sup> = -4.0° (c = 1.0, pyridine). **Pharm:** Cytotoxic inactive (K562, ED<sub>50</sub> > 20 $\mu$ mol/L, control Adriamycin, ED<sub>50</sub> = (0.09 $\pm$ 0.03) $\mu$ mol/L; B-16 (F-10), ED<sub>50</sub> > 20 $\mu$ mol/L, Adriamycin, ED<sub>50</sub> = (0.06 $\pm$ 0.10) $\mu$ mol/L; SK-MEL-2, ED<sub>50</sub> > 20 $\mu$ mol/L, Adriamycin, ED<sub>50</sub> = (0.09 $\pm$ 0.3) $\mu$ mol/L; PC3, ED<sub>50</sub> > 20 $\mu$ mol/L, Adriamycin, ED<sub>50</sub> = (0.83 $\pm$ 0.18) $\mu$ mol/L; LOX-IMVI, ED<sub>50</sub> > 20 $\mu$ mol/L, Adriamycin, ED<sub>50</sub> = (0.38 $\pm$ 0.33) $\mu$ mol/L; A549, ED<sub>50</sub> > 20 $\mu$ mol/L, Adriamycin, ED<sub>50</sub> = (0.67 $\pm$ 0.21) $\mu$ mol/L)<sup>[5479]</sup>. **Source:** BING PIAN *Dryobalanops aromatica*, DA ZAO *Ziziphus jujuba*, SAN YE MU TONG *Akebia trifoliata* (stem), SUAN ZAO REN *Ziziphus jujuba* var. *spinosa*, YANG MEI SHU PI *Myrica rubra*. **Ref:** 2, 4163, 4545, 5479.

**985 Alpinetin**

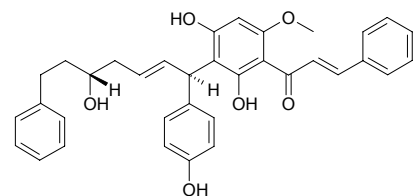
[36052-37-6] C<sub>16</sub>H<sub>14</sub>O<sub>4</sub> (270.29). mp 225°C. **Source:** CAO DOU KOU *Alpinia katsumadai* (dried closing-ripe seed: mean content = 0.74%<sup>[5508]</sup>), DA CAO KOU *Alpinia speciosa*, LIAN JIANG *Alpinia chinensis*. **Ref:** 6, 5508.

**986 Alpinnanin A**

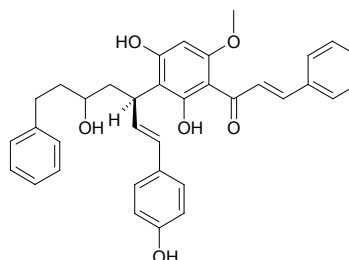
C<sub>35</sub>H<sub>34</sub>O<sub>6</sub> (550.66). Pale yellow amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -33.3° (c = 0.21, MeOH). **Source:** ZHU SUI SHAN JIANG *Alpinia pinnanensis* (rhizome). **Ref:** 4522.

**987 Alpinnanin B**

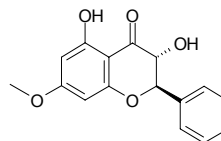
C<sub>35</sub>H<sub>34</sub>O<sub>6</sub> (550.66). Pale yellow amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -39.3° (c = 0.28, MeOH). **Source:** ZHU SUI SHAN JIANG *Alpinia pinnanensis* (rhizome). **Ref:** 4522.

**988 Alpinnanin C**

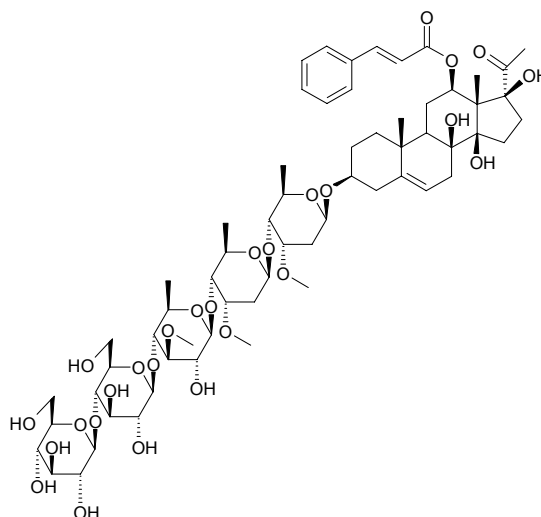
C<sub>35</sub>H<sub>34</sub>O<sub>6</sub> (550.66). Pale yellow amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +42.9° (c = 0.14, MeOH). **Source:** ZHU SUI SHAN JIANG *Alpinia pinnanensis* (rhizome). **Ref:** 4522.

**989 Alpinone**

[480-13-7] C<sub>16</sub>H<sub>14</sub>O<sub>5</sub> (286.29). mp 186~187°C. **Source:** TU SHA REN *Alpinia japonica*. **Ref:** 6.

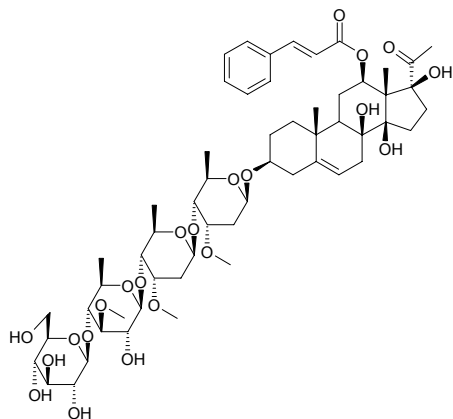
**990 Alpinoside A**

Kidjolanin-3-*O*- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-thevetopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-cymaropyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-cymaropyranoside C<sub>63</sub>H<sub>94</sub>O<sub>27</sub> (1283.44). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -32.8° (c = 0.1, MeOH). **Source:** BIAN ZHONG JIAN HUI TENG *Oxystelma esculentum* var. *alpinii* (leaf). **Ref:** 3798.

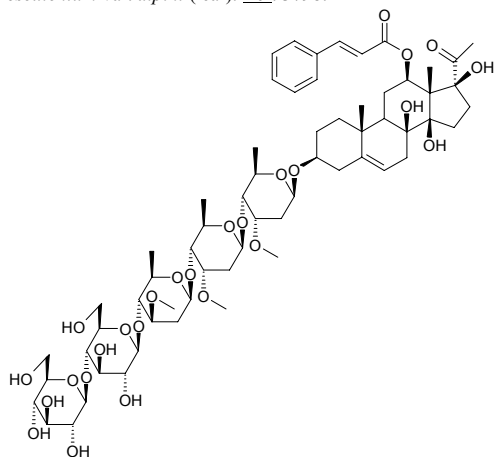


**991 Alpinoside B**

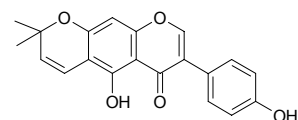
Kidjolanin 3-*O*- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-thevetopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-cymaropyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-cymaropyranoside C<sub>57</sub>H<sub>84</sub>O<sub>22</sub> (1121.29). Amorphous powder,  $[\alpha]_D^{25} = -14.6^\circ$  ( $c = 0.1$ , MeOH). Source: BIAN ZHONG JIAN HUI TENG *Oxystelma esculentum* var. *alpini* (leaf). Ref: 3798.

**992 Alpinoside C**

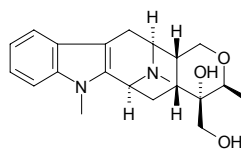
Kidjolanin 3-*O*- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-oleandropyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-cymaropyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-cymaropyranoside C<sub>63</sub>H<sub>94</sub>O<sub>26</sub> (1267.44). Amorphous powder,  $[\alpha]_D^{25} = -26.2^\circ$  ( $c = 0.1$ , MeOH). Source: BIAN ZHONG JIAN HUI TENG *Oxystelma esculentum* var. *alpini* (leaf). Ref: 3798.

**993 Alpinumisoflavone**

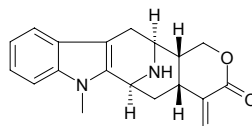
C<sub>20</sub>H<sub>16</sub>O<sub>5</sub> (336.35). Pharm: Cytotoxic (HSC-2 cells, CC<sub>50</sub> = 0.40mmol/L; HGF, CC<sub>50</sub> > 0.60mmol/L)<sup>[3025]</sup>, cytotoxic (KB, EC<sub>50</sub> = 4.13 $\mu$ g/mL)<sup>[5220]</sup>, hepatoprotective (mus primary cultured hepatocytes, antihepatotoxin induced by *D*-galactosamine (GalN), 100 $\mu$ mol/L, InRt = (1.1 $\pm$ 0.8)%, inactive, control Silybin, 100 $\mu$ mol/L, InRt = (77.0 $\pm$ 5.5)%)<sup>[4095]</sup>. Source: CI TONG *Erythrina variegata* [Syn. *Erythrina indica*] (stem bark), GOU JI *Cudrania cochinchinensis* (root: yield = 0.00017%dw), GUANG BU DING GONG TENG *Erycibe expansa*. Ref: 3025, 4095, 5220.

**994 Alstohentine**

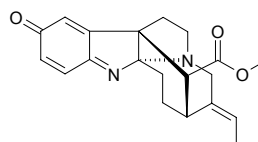
C<sub>21</sub>H<sub>28</sub>N<sub>2</sub>O<sub>3</sub> (356.49). Yellowish oil,  $[\alpha]_D = -58^\circ$  ( $c = 0.22$ , CHCl<sub>3</sub>). Source: DA YE TANG JIAO SHU *Alstonia macrophylla* (leaf: yield = 0.0003%). Ref: 3020.

**995 Alstolactone**

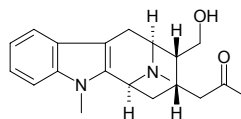
C<sub>20</sub>H<sub>22</sub>N<sub>2</sub>O<sub>2</sub> (322.41). Light yellowish oil,  $[\alpha]_D = -10^\circ$  ( $c = 0.05$ , CHCl<sub>3</sub>). Source: XIA YE JI GU CHANG SHAN *Alstonia angustifolia* (leaf). Ref: 3780.

**996 Alstomaline**

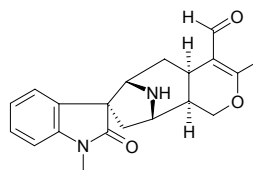
C<sub>20</sub>H<sub>22</sub>N<sub>2</sub>O<sub>3</sub> (338.41). Source: DA YE TANG JIAO SHU *Alstonia macrophylla* (leaf: yield = 0.00006%). Ref: 3020.

**997 Alstomicine**

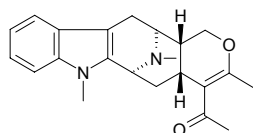
C<sub>20</sub>H<sub>26</sub>N<sub>2</sub>O<sub>2</sub> (326.44). Light yellowish oil,  $[\alpha]_D = +74^\circ$  ( $c = 0.14$ , CHCl<sub>3</sub>). Source: DA YE TANG JIAO SHU *Alstonia macrophylla* (leaf: yield = 0.0002%). Ref: 3020.

**998 Alstonal**

C<sub>20</sub>H<sub>22</sub>N<sub>2</sub>O<sub>3</sub> (338.41). Source: DA YE TANG JIAO SHU *Alstonia macrophylla* (leaf: yield = 0.00003%). Ref: 3020.

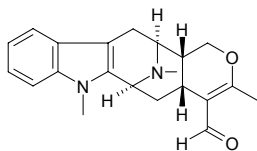
**999 Alstonerinal**

C<sub>22</sub>H<sub>26</sub>N<sub>2</sub>O<sub>2</sub> (350.46). Source: DA YE TANG JIAO SHU *Alstonia macrophylla* (leaf: yield = 0.0022%). Ref: 3020.

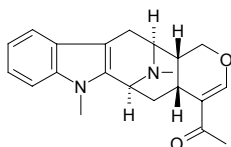


**1000 Alstonerinal II\***

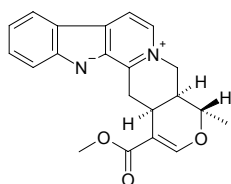
$C_{21}H_{24}N_2O_2$  (336.44).  $[\alpha]_D = -32^\circ$  ( $c = 0.03$ ,  $CHCl_3$ ). Source: DA YE TANG JIAO SHU *Alstonia macrophylla*. Ref: 2320.

**1001 Alstonerine**

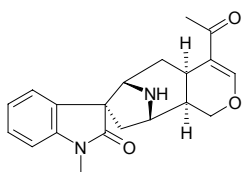
$C_{21}H_{24}N_2O_2$  (336.44). Source: DA YE TANG JIAO SHU *Alstonia macrophylla* (leaf: yield = 0.0070%). Ref: 3020.

**1002 Alstonine**

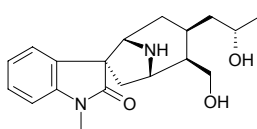
[47485-83-6]  $C_{21}H_{20}N_2O_3$  (348.43). Pharm: Antineoplastic (mus, mammary cancer MS301, 400 $\mu$ g/d for 15 days, weight of tumor was reduced to 1.6~1.7g on average, whereas 3.2g for control). Source: CHANG CHUN HUA *Catharanthus roseus* [Syn. *Vinca rosea*; *Lochera rosea*], CUI TU LUO FU MU *Rauwolfia vomitoria*, GANG GUO LUO FU MU *Rauwolfia obscura*, SHU JI GU CHANG SHAN *Alstonia constricta*. Ref: 2, 658, 660.

**1003 Alstonisine**

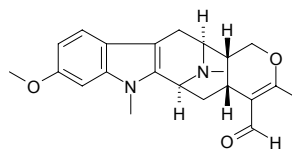
$C_{20}H_{22}N_2O_3$  (338.41). Source: DA YE TANG JIAO SHU *Alstonia macrophylla* (leaf: yield = 0.0001%). Ref: 3020.

**1004 Alstonoxine B**

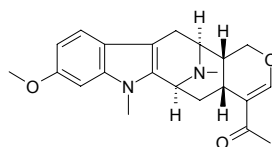
$C_{19}H_{26}N_2O_3$  (330.43). Source: DA YE TANG JIAO SHU *Alstonia macrophylla* (leaf: yield = 0.0040%). Ref: 3020.

**1005 Alstophyllal**

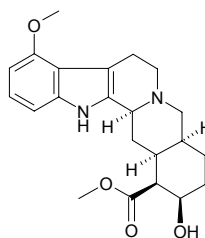
$C_{22}H_{26}N_2O_3$  (366.46). Light yellowish oil. Source: DA YE TANG JIAO SHU *Alstonia macrophylla* (leaf: yield = 0.0096%). Ref: 3020.

**1006 Alstophylline**

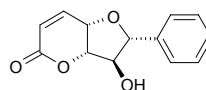
$C_{22}H_{26}N_2O_3$  (366.46). Light yellowish oil. Source: DA YE TANG JIAO SHU *Alstonia macrophylla* (leaf: yield = 0.0027%). Ref: 3020.

**1007 Alstovenine**

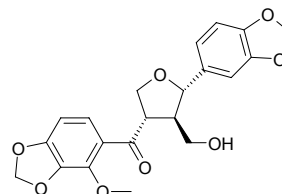
[4837-79-0]  $C_{22}H_{28}N_2O_4$  (384.48). Chloride quaternary amine salt: mp 216 $^\circ$ C (dec); quaternary amine salt of picric acid: mp 257~258 $^\circ$ C; free alkali: mp 170~172 $^\circ$ C. Pharm: Monoamine oxidase inhibitor (low dose); CNS stimulant (high dose). Source: YIN DU YA JIAO SHU *Alstonia venenata*. Ref: 66, 658.

**1008 Altholactone**

Goniothalenol [65408-91-5]  $C_{13}H_{12}O_4$  (232.24). Pharm: NADH oxidase inhibitor (mammalian mitochondrial respiratory chain inhibitor,  $IC_{50} = (25 \pm 7) \mu\text{mol/L}$ ,  $IC_{100} = (84 \pm 6) \mu\text{mol/L}$ )<sup>[3961]</sup>; cytotoxic ( $P_{388}$ ); toxin (sea shrimp). Source: DA GE NA XIANG *Goniothalamus giganteus*, TIAN YE GE NA XIANG *Goniothalamus arvensis* (stem bark). Ref: 658, 3961.

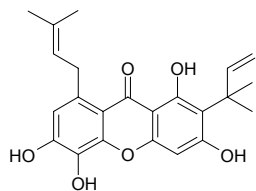
**1009 (-)-Altissinone**

$C_{21}H_{20}O_8$  (400.39). Pale green flakes, mp 151~152 $^\circ$ C,  $[\alpha]_D^{25} = -40.3^\circ$  ( $c = 0.5$ ,  $CHCl_3$ ). Source: ZUI GAO MU JING YE *Vitex altissima* (leaf). Ref: 5309.

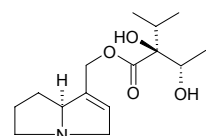


**1010 Alvaxanthone**

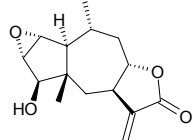
$C_{23}H_{24}O_6$  (396.44). **Pharm:** Cytotoxic (HSC-2 cells,  $CC_{50} = 0.022\text{mmol/L}$ ; HGF,  $CC_{50} = 0.025\text{mmol/L}$ ). **Source:** GOU JI *Cudrania cochinchinensis* (root: yield = 0.0045%dw). **Ref:** 3025.

**1011 Amabiline**

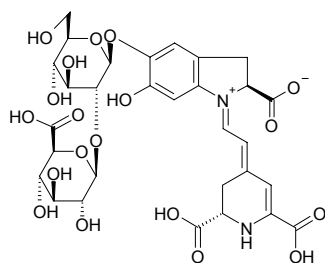
[17958-43-9]  $C_{15}H_{25}NO_4$  (283.37). **Pharm:** Toxin (exhibits hepatic toxicity). **Source:** NAN FANG LIU LI CAO *Cynoglossum australe*, GOU SHI HUA *Cynoglossum amabile*. **Ref:** 6, 658.

**1012 Amaralin**

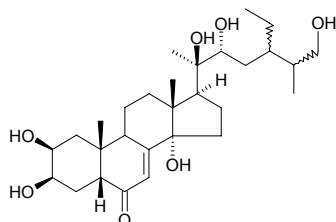
[6831-10-3]  $C_{15}H_{20}O_4$  (264.32). Colorless acicular crystals, mp 195–198°C,  $[\alpha]_D^{25} = +5^\circ$  (chloroform). **Pharm:** Analgesic; cytotoxic (KB *in vitro*,  $ED_{50} = 4.9\mu\text{g/mL}$ ). **Source:** KU WEI DUI XIN JU *Helenium amarum*. **Ref:** 658, 661.

**1013 Amaranthin**

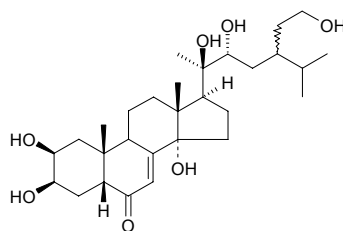
[15167-84-7]  $C_{30}H_{34}N_2O_{19}$  (726.61). **Pharm:** Purple phytochrome. **Source:** JI GUAN HUA *Celosia cristata*, QIAN RI HONG *Gomphrena globosa*, WEI SUI XIAN *Amaranthus caudatus*, XIAN SE LI *Chenopodium amaranticolor*, YAN LAI HONG *Amaranthus tricolor*. **Ref:** 5, 15, 658.

**1014 Amarasterone A**

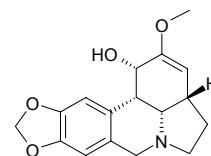
[20853-88-7]  $C_{29}H_{48}O_7$  (508.70). mp 210–211°C. **Source:** MA NIU XI *Cyathula capitata*. **Ref:** 6.

**1015 Amarasterone B**

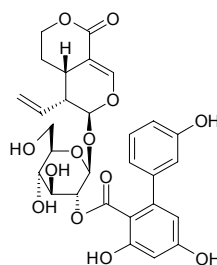
[21132-15-0]  $C_{30}H_{50}O_7$  (522.73). mp 284–285°C. **Source:** MA NIU XI *Cyathula capitata*. **Ref:** 6.

**1016 (-)-Amarbellisine**

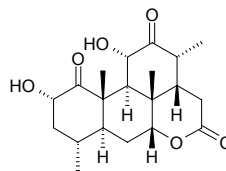
$C_{17}H_{19}NO_4$  (301.35). White needles, mp < 300°C,  $[\alpha]_D^{25} = -39.2^\circ$  ( $c = 0.7$ ). **Pharm:** Antibacterial (*Staphylococcus aureus*, IZD = 22mm, MIC = 125µg/mL; *Escherichia coli*, IZD = 22mm); antifungal (*Candida albicans*, IZD = 24mm, MIC = 63µg/mL). **Source:** GU TING HUA *Amaryllis belladonna* (bulb). **Ref:** 3829.

**1017 Amarogentin**

[21018-84-8]  $C_{29}H_{30}O_{13}$  (586.55). **Pharm:** Bitter principle; tonic (using source plant *Gentiana*). **Source:** HUANG LONG DAN *Gentiana lutea*, LONG DAN *Gentiana scabra*, DONG BEI LONG DAN *Gentiana manshurica*, DIAN LONG DAN *Gentiana rigescens*, DANG YAO *Swertia chinensis* (in 1966, the compound was isolated from the plant by H.Inouye, et al.<sup>[5505]</sup>). **Ref:** 2, 658, 660, 5505.

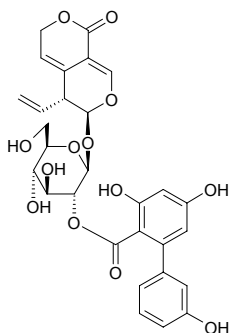
**1018 Amarolide**

[29913-86-8]  $C_{20}H_{28}O_6$  (364.44). mp 253–255°C. **Source:** CHU BAI PI *Ailanthus altissima*. **Ref:** 6.

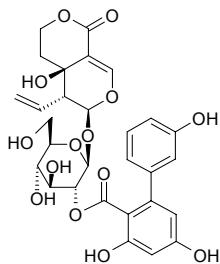


**1019 Amaronitidin**

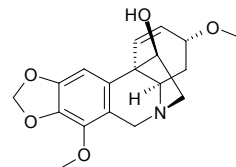
$C_{29}H_{28}O_{13}$  (584.54). Colorless amorphous powder,  $[\alpha]_D^{23} = -76.1^\circ$  ( $c = 1.40$ , MeOH). Source: GUANG LIANG JIA LONG DAN *Gentianaella nitida* (whole herb). Ref: 3542.

**1020 Amaroswerin**

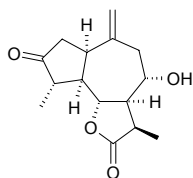
[21233-18-1]  $C_{29}H_{30}O_{14}$  (602.55). Pharm: Antihepatotoxin (rat, liver damage caused by  $CCl_4$ , GPT = 83% of control, liver damage caused by galactosamine Ga1N, GPT = 75% of control); mutagen (*S. typhimurium* TA98 and TA100, treated by nitrite); prevention and cure of ulcer and gastritis. Source: LONG DAN *Gentiana scabra*, DONG BEI LONG DAN *Gentiana manshurica*, SAN HUA LONG DAN *Gentiana triflora*, DIAN LONG DAN *Gentiana rigescens*, DANG YAO *Swertia chinensis* (in 1966, the compound was isolated from the plant by H.Inouye, et al.)<sup>[5505]</sup>. Ref: 2, 7, 660, 1676, 1796, 1797, 5505.

**1021 Ambelline**

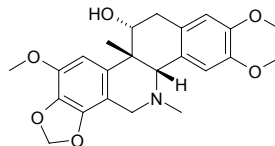
[3660-62-6]  $C_{18}H_{21}NO_5$  (331.37). Pharm: Analgesic; supertoxic agent. Source: GU TING HUA *Amaryllis belladonna*, LAO SHI WEN SHU LAN *Crinum laurentii*. Ref: 658.

**1022 Amberboin**

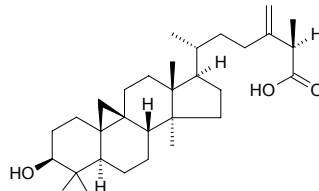
[22339-28-2]  $C_{15}H_{20}O_4$  (264.32). mp  $145^\circ C$ ,  $[\alpha]_D^{20} = +169^\circ$ . Pharm: Cytotoxic (HeLa,  $IC_{50} = 50 \mu g/mL$ ). Source: LI PU PO JU *Amberboa lippii*. Ref: 658, 661.

**1023 Ambinine**

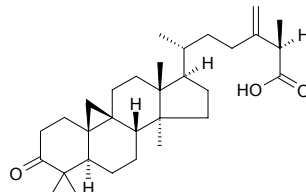
$C_{23}H_{27}NO_6$  (413.47). Source: DONG BEI YAN HU SUO *Corydalis ambigua* var. *amurensis* [Syn. *Corydalis ambigua*]. Ref: 660.

**1024 Ambolic acid**

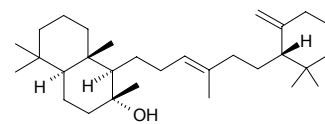
[13878-93-8]  $C_{31}H_{50}O_3$  (470.74). mp  $168-170^\circ C$ . Source: MANG GUO *Mangifera indica*. Ref: 6.

**1025 Ambonic acid**

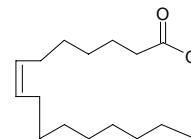
[17984-17-7]  $C_{31}H_{48}O_3$  (468.73). mp  $149-150^\circ C$ . Source: MANG GUO *Mangifera indica*, MANG GUO SHU PI *Mangifera indica*. Ref: 6.

**1026 Ambrein**

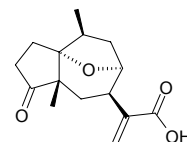
[473-03-0]  $C_{30}H_{52}O$  (428.75). mp  $81-83^\circ C$ . Source: LONG XIAN XIANG *Physeter catodon*, XIAN CHI SHE PU TAO *Ampelopsis grossedentata* [Syn. *Ampelopsis cantoniensis* var. *grossedentata*]. Ref: 6.

**1027 Ambrettolide**

[123-69-3]  $C_{16}H_{28}O_2$  (252.40). bp  $154-156^\circ C/1mmHg$ . Source: HUANG KUI *Abelmoschus moschatus* [Syn. *Hibiscus abelmoschus*]. Ref: 6.

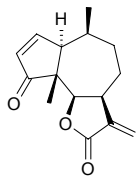
**1028 Ambrosic acid**

$C_{15}H_{20}O_4$  (264.32). Source: MEI ZHOU TUN CAO *Ambrosia artemisiaefolium* (in 1972, the compound was isolated from the plant). Ref: 5505.

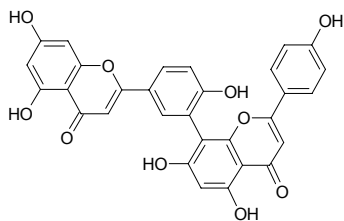


**1029 Ambrosin**

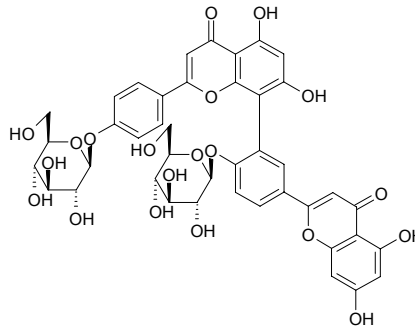
[509-93-3] C<sub>15</sub>H<sub>18</sub>O<sub>3</sub> (246.31). mp 146°C, [α]<sub>D</sub><sup>22</sup> = -154.50° (c = 2, ethanol). **Pharm:** Antineoplastic (P<sub>388</sub>); molluscicide. **Source:** YAN HAI TUN CAO *Ambrosia maritima*, MEI GUO HAI MO JU *Hymenoclea salsola*. **Ref:** 658, 661.

**1030 Amentoflavone**

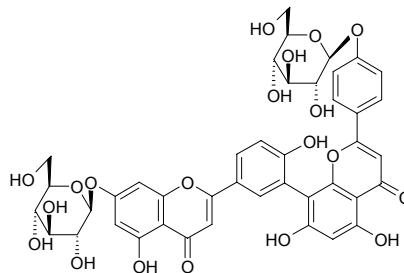
[1617-53-4] C<sub>30</sub>H<sub>18</sub>O<sub>10</sub> (538.47). Yellow amorphous powder (MeOH), mp 298~300°C, [α]<sub>D</sub><sup>17.8</sup> = +7.71° (c = 0.23, C<sub>5</sub>H<sub>5</sub>N). **Pharm:** Antifungal (*Aspergillus fumigatus*, *Botrytis cinerea* and *Trichoderma glaucum*); nucleotide diphosphatase inhibitor; anti-HIV-1 inactive (*in vitro*)<sup>[4234]</sup>; tissue proteinase B inhibitor (IC<sub>50</sub> = 1.75 μmol/L); cytotoxic (BGC823, IC<sub>50</sub> = 3.51 μmol/L); vasorelaxant (via endothelium-dependent nitric oxide-cGMP signaling, with possible involvement of non-specific K<sup>+</sup> and Ca<sup>2+</sup> channels)<sup>[5010]</sup>. **Source:** BAI GUO *Ginkgo biloba*, CE BAI YE *Thuja orientalis* [Syn. *Platyclusus orientalis*; *Biota orientalis*], CUI YUN CAO *Selaginella uncinata* (dried whole herb: content = 0.131%<sup>[5508]</sup>), DA YE CAI *Selaginella doederleinii* (dried whole herb: mean content = 0.182%<sup>[5508]</sup>), DIAN ZHUANG JUAN BAI *Selaginella pulvinata* (dried whole herb: mean content = 0.185%<sup>[5508]</sup>), DU SONG SHI *Juniperus rigida*, E MEI JUAN BAI *Selaginella omeiensis* (dried whole herb: content = 0.326%<sup>[5508]</sup>), HUI<sup>(4)</sup> YE *Sobina chinensis*, HAN SHENG JUAN BAI *Selaginella stauntoniana* (dried whole herb: content = 0.750%<sup>[5508]</sup>), JIANG NAN JUAN BAI *Selaginella moellendorffii* (dried whole herb: mean content = 0.963%<sup>[5508]</sup>), JUAN BAI *Selaginella tamariscina* (dried whole herb: mean content = 0.439%<sup>[5508]</sup>), LIN BEI ZI *Toxicodendron succedaneum* [Syn. *Rhus succedanea*], MAN SHENG JUAN BAI *Selaginella davidii* (dried whole herb: mean content = 1.154%<sup>[5508]</sup>), MAO ZHI JUAN BAI *Selaginella braunii* (dried whole herb: mean content = 0.276%<sup>[5508]</sup>), MO XI GE LUO YU SHAN *Taxodium mucronatum* (twig and leaf), SAN JIAN SHAN *Cephalotaxus fortunei*, SHAN DI LUO HAN SONG *Podocarpus montanus*, SU TIE SHU GUO *Cycas revoluta*, XI FANG CI BAI *Juniperus occidentalis* (leaf), YAN ZHOU JUAN BAI *Selaginella involvens* (dried whole herb: content = 0.685%<sup>[5508]</sup>), YUAN ZHI JUAN BAI *Selaginella sanguinolenta* (dried whole herb: content = 0.678%<sup>[5508]</sup>), YUN NAN FEI SHU *Torreya yunnanensis* (leaf and twig: yield = 0.0076%<sup>[4707]</sup>), ZHONG HUA JUAN BAI *Selaginella sinensis* (dried whole herb: content = 1.364%<sup>[5508]</sup>). **Ref:** 2, 6, 658, 4234, 4398, 4571, 4707, 5010, 5508.

**1031 Amentoflavone-4',4'''-di-O-β-D-glucopyranoside**

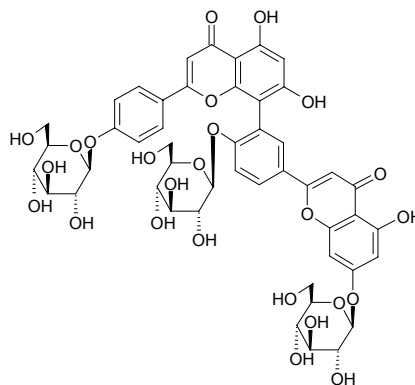
C<sub>42</sub>H<sub>38</sub>O<sub>20</sub> (862.76). **Source:** SHI SHUA BA *Psilotum nudum*. **Ref:** 660.

**1032 Amentoflavone-7,4'''-di-O-β-D-glucopyranoside**

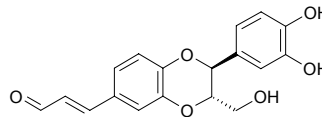
C<sub>42</sub>H<sub>38</sub>O<sub>20</sub> (862.76). **Source:** SHI SHUA BA *Psilotum nudum*. **Ref:** 660.

**1033 Amentoflavone-7,4',4'''-tri-O-β-D-glucopyranoside**

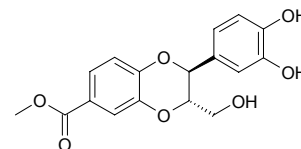
C<sub>48</sub>H<sub>48</sub>O<sub>25</sub> (1024.90). **Source:** SHI SHUA BA *Psilotum nudum*. **Ref:** 660.

**1034 Americanin A**

C<sub>18</sub>H<sub>16</sub>O<sub>6</sub> (328.32). **Source:** MEI SHANG LU *Phytolacca americana* [Syn. *Phytolacca decandra*]. **Ref:** 660.

**1035 Americanoic acid methyl ester**

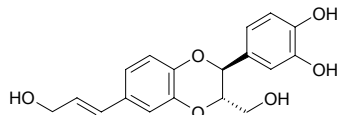
C<sub>17</sub>H<sub>16</sub>O<sub>7</sub> (332.31). [α]<sub>D</sub><sup>20</sup> = 0° (c = 0.31, MeOH). **Pharm:** Neurite outgrowth enhancer (0.01~1.0 μmol/L)<sup>[4407]</sup>. **Source:** MEI SHANG LU *Phytolacca americana* [Syn. *Phytolacca decandra*] (seed). **Ref:** 4407.



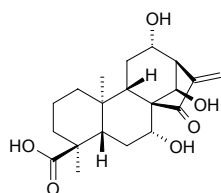


**1036 Americanol**

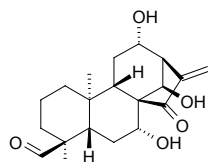
$C_{18}H_{18}O_6$  (330.34). Colorless arris crystals, mp 125–128°C (ethyl acetate–acetone)  $[\alpha]_D^{27} = 0^\circ$  ( $c = 1.11$ , alcohol). **Pharm:** Nourishes nerve, cholinesterase activator (rat cerebrum, EC = 10  $\mu$ mol/L). **Source:** MEI SHANG LU *Phytolacca americana* [Syn. *Phytolacca decandra*]. **Ref:** 1022.

**1037 Amethystoic acid**

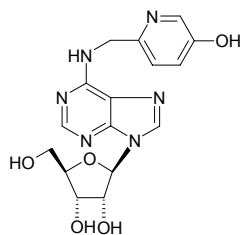
$C_{20}H_{28}O_6$  (364.44). mp > 300°C,  $[\alpha]_D^{13} = -86.1^\circ$  ( $c = 0.33$ ,  $C_5H_5N$ ). **Source:** XIANG CHA CAI *Isodon amethystoides*. **Ref:** 4067.

**1038 Amethystonal**

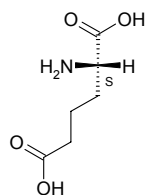
Macrocalyxin C  $C_{20}H_{28}O_5$  (348.44). mp 185.6–189°C,  $[\alpha]_D^{29} = -75.8^\circ$  ( $c = 0.2$ ,  $C_5H_5N$ ). **Source:** XIANG CHA CAI *Isodon amethystoides*. **Ref:** 4067.

**1039 AMG-1**

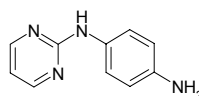
Adenosine, *N*–[(5-hydroxy-2-pyridinyl)methyl] [123369-41-5]  $C_{16}H_{18}N_6O_5$  (374.36). Colorless powder. **Pharm:** Antidote; CNS depressant; protects cerebrum (mus); treatment of mental disorder. **Source:** ZHEN MO *Armillariella mellea*. **Ref:** 900.

**1040  $\alpha$ -Aminoadipic acid**

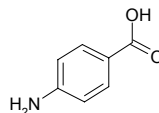
[1118-90-7]  $C_6H_{11}NO_4$  (161.16). mp 206°C. **Source:** MO GU *Agaricus campestris*, MU XU GEN *Medicago sativa*. **Ref:** 6.

**1041 2-(4'-Aminobenzenamine)-pyrimidine**

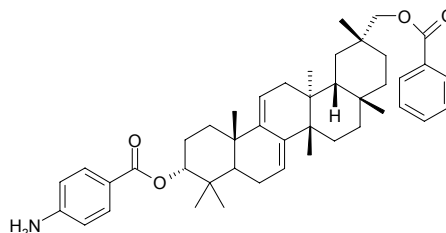
$C_{10}H_{10}N_4$  (186.22). White needles (MeOH), mp 270–271°C. **Pharm:** Adrenergic  $\alpha_1$ -receptor antagonist. **Source:** MA DE LI MIAN ZAO ER *Scilla maderensis* [Syn. *Autonoë madeirensis*]. **Ref:** 5482.

**1042 *p*-Aminobenzoic acid**

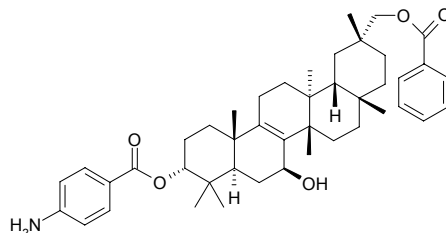
[150-13-0]  $C_7H_7NO_2$  (137.14). mp 186–187°C. **Pharm:** Sulfonamide antagonist; ultraviolet screen. **Source:** JI ZI BAI *Gallus gallus domesticus*, JI ZI HUANG *Gallus gallus domesticus*. **Ref:** 6, 658.

**1043****3-*O*-*p*-Aminobenzoyl-29-*O*-benzoylmultiflora-7,9(11)-diene-3 $\alpha$ ,29-diol**

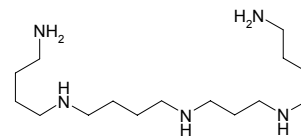
$C_{44}H_{57}NO_4$  (663.95). Powder (Et<sub>2</sub>O), mp = 204–206°C,  $[\alpha]_D^{25} = -130^\circ$  ( $c = 0.90$ , CHCl<sub>3</sub>). **Source:** XI HU LU *Cucurbita pepo*. **Ref:** 2334.

**1044 3-*O*-*p*-Aminobenzoyl-29-*O*-benzoylmultiflora-8-ene-3 $\alpha$ ,7 $\beta$ ,29-triol**

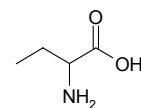
$C_{44}H_{59}NO_5$  (681.96). Powder (Et<sub>2</sub>O), mp 158–160°C,  $[\alpha]_D^{25} = -52^\circ$  ( $c = 0.90$ ,  $C_5H_5N$ ). **Source:** XI HU LU *Cucurbita pepo*. **Ref:** 2334.

**1045 Aminobutyl canavalmine**

$C_{15}H_{37}N_5$  (287.50). **Source:** DAO DOU *Canavalia gladiata*. **Ref:** 660.

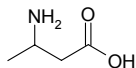
**1046  $\alpha$ -Aminobutyric acid**

$C_4H_9NO_2$  (103.12). mp (+) 292°C (dec), (–) 292°C (dec). **Source:** KU GUA *Momordica charantia*, XI GUA *Citrullus vulgaris* [Syn. *Citrullus lanatus*]. **Ref:** 6.

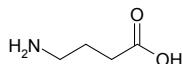


**1047  $\beta$ -Aminobutyric acid**

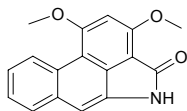
$C_4H_9NO_2$  (103.12). mp 220°C (dec). Source: BAN XIA *Pinellia ternata*, CAO YUAN LAO GUAN CAO *Geranium pratense*. Ref: 6.

**1048  $\gamma$ -Aminobutyric acid**

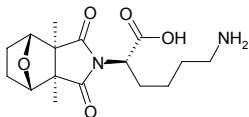
[56-12-2]  $C_4H_9NO_2$  (103.12). Pharm: Adrenergic antagonist; neurotransmitter (inhibitory); antihypertensive; diuretic; hypnotic; vasodilator. Source: BAN LAN GEN *Isatis indigotica*, CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus*, CHONG BAN XUAN CAO *Hemerocallis fulva* var. *kwanso*, DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*], DUO XU YAN HUANG QI *Hedysarum polybotrys*, GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *huechingensis*], GAN ZHE *Saccharum sinensis*, GOU QI ZI *Lycium chinense*, GUA LOU *Trichosanthes kirilowii*, JI NAO *Gallus gallus domesticus*, LI ZI *Prunus salicina*, MING DANG SHEN *Changium smyrnioides*, MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*], QIANG HUO *Notopterygium incisum*, SU MI *Setaria italica*, TIAN HUA FEN *Trichosanthes kirilowii*, XI GUA *Citrullus vulgaris* [Syn. *Citrullus lanatus*], *Pisum* sp., *Vicia* sp., *Phaseolus* sp., occurs in many plants. Ref: 2, 4, 506, 658, 660, 5501.

**1049 10-Amino-2,4-dimethoxyphenanthrene-1-carboxylic acid lactam**

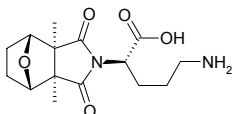
$C_{17}H_{13}NO_3$  (279.30). Yellow acicular crystals (acetone), mp 242–244°C. Source: DA HUA GE NA XIANG *Goniiothalamus griffithii*. Ref: 822.

**1050 (2S)-6-Amino-2-[(3aR\*,4S\*,7R\*,7aS\*)-3a,7a-dimethyl-1,3-dioxo-4,7-epoxyoctahydroisoindol-2-yl]-hexanoic Acid**

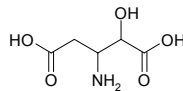
$C_{16}H_{24}N_2O_5$  (234.38). Powder, mp 159.0–162.0°C,  $[\alpha]_D = -23.3^\circ$  ( $c = 0.30$ , MeOH). Source: BAN MAO *Mylabris phalerata*; *Mylabris cichorii*. Ref: 4052.

**1051 (2S)-5-Amino-2-[(3aR\*,4S\*,7R\*,7aS\*)-3a,7a-dimethyl-1,3-dioxo-4,7-epoxyoctahydroisoindol-2-yl]-pentanoic acid**

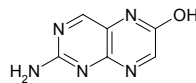
$C_{15}H_{22}N_2O_5$  (310.35). Powder, mp 157.0–160.0°C,  $[\alpha]_D = -26.9^\circ$  ( $c = 0.26$ , MeOH). Source: BAN MAO *Mylabris phalerata*; *Mylabris cichorii*. Ref: 4052.

**1052 3-Amino-2-hydroxy pentanedioic acid**

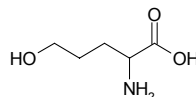
$C_5H_9NO_5$  (163.13). White powder, mp 114–116°C,  $[\alpha]_D^{25} = +16.33^\circ$  ( $c = 0.049$ , water). Source: BAO BAN E GAO *Amanita pantherina*. Ref: 335.

**1053 2-Amino-6-hydroxypteridine**

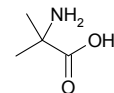
$C_6H_5N_5O$  (163.14). Source: HEI MA YI *Formica fusca*. Ref: 6.

**1054 L- $\alpha$ -Amino- $\delta$ -hydroxyvaleric acid**

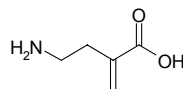
$C_5H_{11}NO_3$  (133.15). mp 223–224°C. Source: DAO DOU *Canavalia gladiata*. Ref: 6.

**1055 Aminoisobutyric acid**

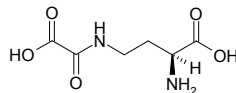
2-Amino-2-methylpropionic acid [62-57-7]  $C_4H_9NO_2$  (103.12). mp 280°C (sub). Source: MO GU *Agaricus campestris*. Ref: 6.

**1056  $\gamma$ -Amino- $\alpha$ -methylene butyric acid**

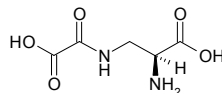
[65370-67-4]  $C_5H_9NO_2$  (115.13). Source: LUO HUA SHENG *Arachis hypogaea*. Ref: 6.

**1057 L- $\alpha$ -Amino- $\gamma$ -oxalylaminobutyric acid**

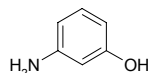
$C_6H_{10}N_2O_5$  (190.16). Pharm: Neurotoxin. Source: SU GEN XIANG WAN DOU *Lathyrus latifolius*, *Acacia* sp. Ref: 658.

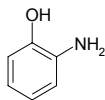
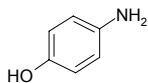
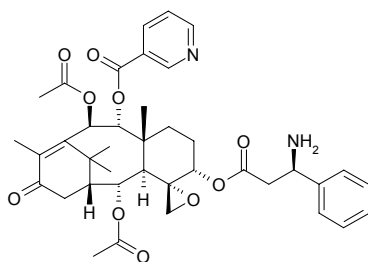
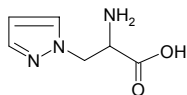
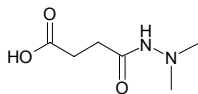
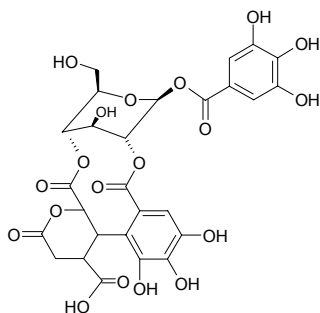
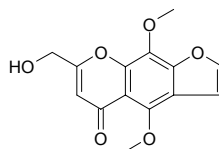
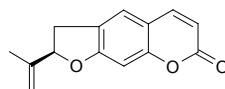
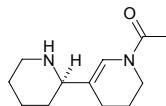
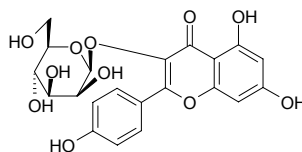
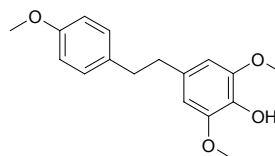
**1058 L- $\alpha$ -Amino- $\beta$ -oxalylaminopropionic acid**

$\beta$ -N-Oxalyl-L- $\alpha$ , $\beta$ -diaminopropionic acid  $C_5H_8N_2O_5$  (176.31). Pharm: Neurotoxin; stanch bleeding. Source: CAO XIANG WAN DOU *Lathyrus sativus*, SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. Ref: 2, 658, 2790.

**1059 m-Aminophenol**

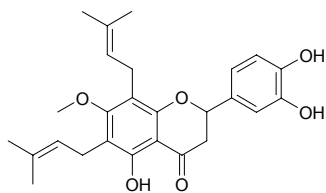
$C_6H_7NO$  (109.13). Source: FU ZI *Aconitum carmichaeli*. Ref: 2.



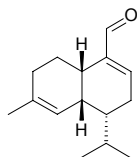
**1060 *o*-Aminophenol**[95-55-6] C<sub>6</sub>H<sub>7</sub>NO (109.13). Source: FU ZI *Aconitum carmichaeli*. Ref: 2.**1061 *p*-Aminophenol**C<sub>6</sub>H<sub>7</sub>NO (109.13). Source: FU ZI *Aconitum carmichaeli*. Ref: 2.**1062 5 $\alpha$ -O-(3'-Amino-3'-phenylpropionyl)nicotaxine**C<sub>39</sub>H<sub>46</sub>N<sub>2</sub>O<sub>10</sub> (702.81). Source: AO DA LI YA HONG DOU SHAN *Austrotaxus spicata*. Ref: 662.**1063  $\alpha$ -Amino- $\beta$ -(pyrazolyl-*N*)propionic acid**C<sub>6</sub>H<sub>9</sub>N<sub>3</sub>O<sub>2</sub> (155.16). mp 236–238°C (dec). Source: XI GUA *Citrullus vulgaris* [Syn. *Citrullus lanatus*], XI GUA ZI REN *Citrullus vulgaris* [Syn. *Citrullus lanatus*]. Ref: 6.**1064 Aminozide**Mono(2,2-dimethylhydrazide) butanedioic acid [1596-84-5] C<sub>6</sub>H<sub>12</sub>N<sub>2</sub>O<sub>3</sub> (160.17). Source: JU HUA *Chrysanthemum morifolium* [Syn. *Dendranthema morifolium*]. Ref: 6.**1065 Amlaic acid**C<sub>27</sub>H<sub>24</sub>O<sub>19</sub> (652.48). mp 206°C. Source: YOU GAN YE *Phyllanthus emblica*. Ref: 6.**1066 Ammiol**[668-10-0] C<sub>14</sub>H<sub>12</sub>O<sub>6</sub> (276.25). mp 211°C. Source: YE SHENG MA *Cimicifuga simplex*. Ref: 6.**1067 Ammirin**C<sub>14</sub>H<sub>12</sub>O<sub>3</sub> (228.25). Pharm: Phytogrowth inhibitor (100μg/mL, *Amaranthus hypochondriacus*, InRt = (61.1±1.7)%, *P*<0.05; *E. crusgalli*, InRt = (61.6±1.9)%, *P*<0.05); cytotoxic (*in vitro*, A549, ED<sub>50</sub> = 27.5μg/mL, control Adriamycin, ED<sub>50</sub> = 0.0322μg/mL; MCF7, ED<sub>50</sub> = 46.9μg/mL, Adriamycin, ED<sub>50</sub> = 0.0204μg/mL; HT29, ED<sub>50</sub> = 34.8μg/mL, Adriamycin, ED<sub>50</sub> = 0.0421μg/mL; A498, ED<sub>50</sub> = 34.1μg/mL, Adriamycin, ED<sub>50</sub> = 0.00348μg/mL; PC3, ED<sub>50</sub> = 37.9μg/mL, Adriamycin, ED<sub>50</sub> = 0.241μg/mL; PACA-2, ED<sub>50</sub> = 37.0μg/mL, Adriamycin, ED<sub>50</sub> = 0.0120μg/mL). Source: *Stauranthus perforatus* (root). Ref: 5253.**1068 (+)-Ammodendrine**[27542-15-0] C<sub>12</sub>H<sub>20</sub>N<sub>2</sub>O (208.31). Pharm: Toxin (insects). Source: MIN HUA I *Sophora franchetiana*. Ref: 658.**1069 Amoenin A<sub>3</sub>**Kaempferol 3- $\beta$ -D-mannoside C<sub>27</sub>H<sub>20</sub>O<sub>11</sub> (448.39). Yellow-white acicular crystals, mp 235–236°C. Source: SHAN YE WAN DOU *Vicia amoena*. Ref: 375.**1070 Amoenylin**C<sub>17</sub>H<sub>20</sub>O<sub>4</sub> (288.35). mp 112°C. Source: KE AI SHI HU *Dendrobium amoenum*. Ref: 2397.

**1071 Amoradicin**

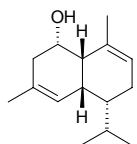
$C_{26}H_{30}O_6$  (438.53). **Pharm:** TNF- $\alpha$  production inhibitor (murine macrophages, LPS-stimulated,  $IC_{50}$  = 28.5  $\mu$ mol/mL). **Source:** ZI SUI HUIAI *Amorpha fruticosa*. **Ref:** 4416.

**1072 Amorpha-4,9-dien-14-al**

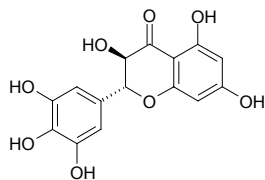
(+)-(4*R*,4*aR*,8*aS*)-3,4,4*a*,7,8,8*a*-Hexahydro-6-methyl-4-(1-methylethyl)-naphthalene-1-carbaldehyde  $C_{15}H_{22}O$  (218.34). Colorless oil. **Source:** DONG YA ZHI YE TAI *Lepidozia fauriana* (essential oil). **Ref:** 5209.

**1073 Amorpha-4,9-dien-2-ol**

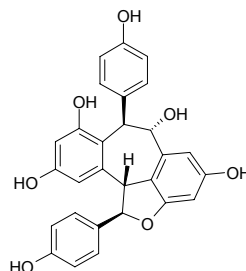
(+)-(1*S*,4*aS*,5*R*,8*aS*)-1,2,4*a*,5,6,8*a*-Hexahydro-3,8-dimethyl-5-(1-methylethyl)-naphthalenol  $C_{15}H_{24}O$  (220.36). Colorless oil. **Source:** DONG YA ZHI YE TAI *Lepidozia fauriana* (essential oil). **Ref:** 5209.

**1074 Ampelopsin**

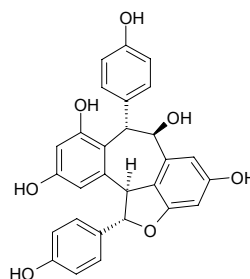
Dihydromyricetin [27200-12-0]  $C_{15}H_{12}O_8$  (320.26). White acicular crystals, mp 245~246°C. **Pharm:** Antioxidant. **Source:** BAI LIAN *Ampelopsis japonica* [Syn. *Paullinia japonica*], DA YE SHE PU TAO *Ampelopsis megalophylla* (stem and leaf: mean content = 58.54%<sup>[5508]</sup>), RI BEN LIAN XIANG SHU *Cercidiphyllum japonicum*, XIAN CHI SHE PU TAO *Ampelopsis grossedentata* [Syn. *Ampelopsis cantoniensis* var. *grossedentata*], ZHI JU ZI *Hovenia dulcis*, ZHU SHA DU JUAN *Rhododendron cinnabarinum*, *Pinus* sp., *Cedrus* sp. **Ref:** 6, 391, 466, 605, 658, 5508.

**1075 (+)-Ampelopsin A**

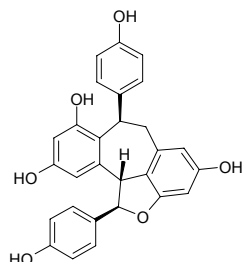
[130608-11-6]  $C_{28}H_{22}O_7$  (470.48). **Source:** GUANG YE SHE PU TAO *Ampelopsis brevipedunculata* var. *hancei*. **Ref:** 2233, 2234.

**1076 (-)-Ampelopsin A**

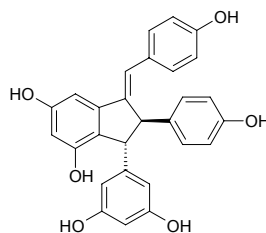
$C_{28}H_{22}O_7$  (470.48). Colorless solid.  $[\alpha]_D = -170^\circ$  ( $c = 0.09$ , MeOH). **Source:** XIAO HUA PO LEI *Hopea parviflora* (bark). **Ref:** 3936.

**1077 Ampelopsin B**

[130518-19-3]  $C_{28}H_{22}O_6$  (454.48). **Source:** GUANG YE SHE PU TAO *Ampelopsis brevipedunculata* var. *hancei*. **Ref:** 2233, 2234.

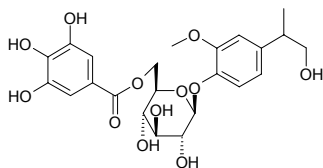
**1078 Ampelopsin D**

[149418-37-1]  $C_{28}H_{22}O_6$  (454.48). **Source:** GUANG YE SHE PU TAO *Ampelopsis brevipedunculata* var. *hancei*. **Ref:** 2234.

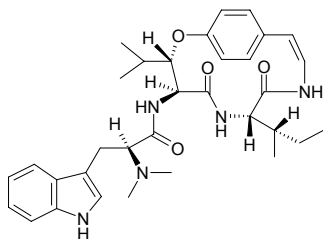


**1079 Ampelopsisin**

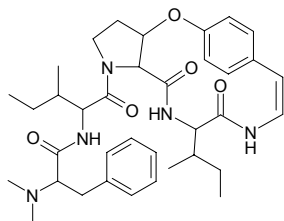
$C_{23}H_{28}O_{12}$  (496.47). White amorphous powder. Source: YU YE SHE PU TAO *Ampelopsis chaffanjonii*. Ref: 434.

**1080 Amphibine A**

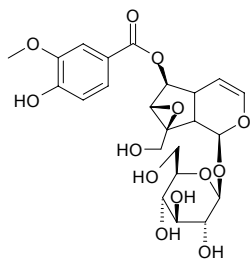
[36535-97-4]  $C_{33}H_{43}N_5O_4$  (573.74). Pharm: Antibacterial. Source: SHUI LU ZAO *Ziziphus amphibia*. Ref: 658.

**1081 Amphibine D**

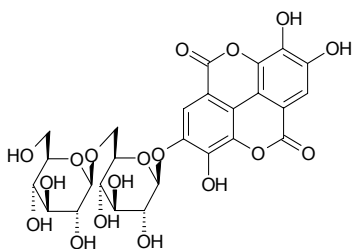
[38496-02-5]  $C_{36}H_{49}N_5O_5$  (631.82). Source: MIAN ZAO *Ziziphus mauritiana*. Ref: 6.

**1082 Amphicoside**

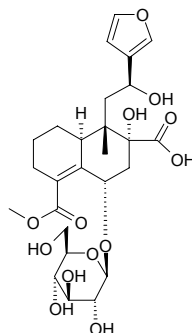
$C_{23}H_{28}O_{13}$  (512.47). Source: A LA BO PO PO NA *Veronica persica* (aerial parts). Ref: 4211.

**1083 Amritoside**

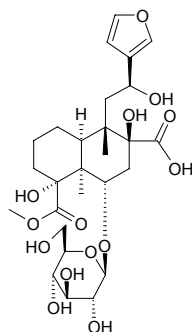
$C_{26}H_{26}O_{18}$  (626.49). mp 248~250°C. Source: FAN SHI LIU PI *Psidium guajava*, FAN SHI LIU YE *Psidium guajava*. Ref: 6.

**1084 Amritoside A**

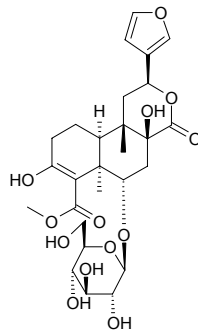
$C_{26}H_{36}O_{13}$  (556.57). Amritoside A pentaacetate: White crystals (MeOH), mp 138~139°C,  $[\alpha]_D^{22} = -53.6^\circ$  ( $c = 0.110$ ,  $CHCl_3$ ). Source: XIN XING YE QING NIU DAN *Tinospora cordifolia* (stem). Ref: 3822.

**1085 Amritoside B**

$C_{27}H_{40}O_{14}$  (588.61). Amritoside B pentaacetate: White solid, mp 157~158°C,  $[\alpha]_D^{22} = -37.9^\circ$  ( $c = 0.131$ ,  $CHCl_3$ ). Source: XIN XING YE QING NIU DAN *Tinospora cordifolia* (stem). Ref: 3822.

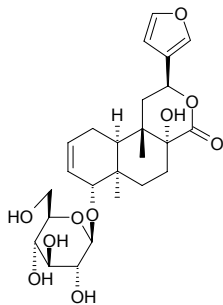
**1086 Amritoside C**

$C_{27}H_{36}O_{13}$  (568.58). Amritoside C pentaacetate: Powder,  $[\alpha]_D^{22} = -77.9^\circ$  ( $c = 0.101$ ,  $CHCl_3$ ). Source: XIN XING YE QING NIU DAN *Tinospora cordifolia* (stem). Ref: 3822.

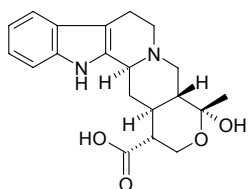


**1087 Amritoside D**

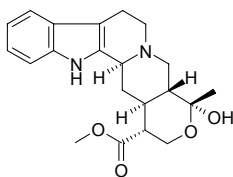
$C_{25}H_{34}O_{10}$  (494.54). Amritoside D pentaacetate: Powder,  $[\alpha]_D^{22} = -17.2^\circ$  ( $c = 0.120$ ,  $CHCl_3$ ). Source: XIN XING YE QING NIU DAN *Tinospora cordifolia* (stem). Ref: 3822.

**1088 Amsonic acid**

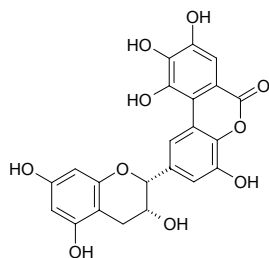
$C_{20}H_{24}N_2O_4$  (356.43). White powder, mp 278–280°C,  $[\alpha]_D^{12} = -16.7^\circ$  (MeOH). Source: SHUI GAN CAO *Amsonia sinensis*. Ref: 2092.

**1089 Amsosinine**

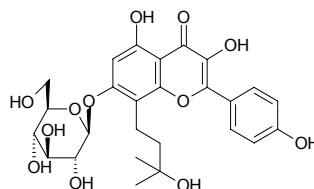
[136092-57-4]  $C_{21}H_{26}N_2O_4$  (370.45). Source: SHUI GAN CAO *Amsonia sinensis*. Ref: 2093.

**1090 Amurenisin**

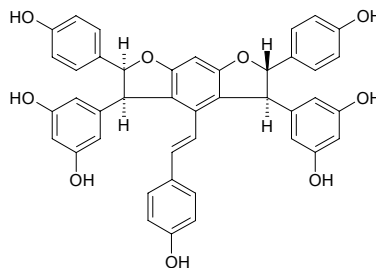
$C_{22}H_{16}O_{10}$  (440.37). White powder,  $[\alpha]_D^{22} = -47^\circ$  ( $c = 0.03$ , MeOH). Source: SHAN PU TAO *Vitis amurensis*. Ref: 772.

**1091 Amurenisin**

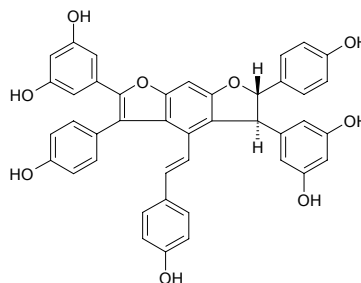
[641-94-1]  $C_{26}H_{30}O_{12}$  (534.52). mp 290°C. Pharm: Antioxidant (DPPH scavenger,  $IC_{50} = 94.0\mu\text{mol/L}$ , control Vitamin E,  $IC_{50} = 27.0\mu\text{mol/L}$ )<sup>[4502]</sup>, antioxidant (DPPH scavenger,  $IC_{50} = 88.3\mu\text{mol/L}$ ; control Vitamin E,  $IC_{50} = 8.3\mu\text{mol/L}$ ); tyrosinase inhibitor ( $333\mu\text{mol/L}$ , InRt = 15.4%; control Kojic acid,  $IC_{50} = 125\mu\text{mol/L}$ )<sup>[4722]</sup>. Source: HUANG BAI *Phellodendron amurense* (in 1935, the compound was isolated from the plant)<sup>[5505]</sup>, RI BEN HUANG BAI *Phellodendron japonicum* (leaf), TAI WAN HUANG BO *Phellodendron amurense* var. *wilsonii* (leaf: 2.57%dw)<sup>[4722]</sup>. Ref: 6, 4502, 4722, 5505.

**1092 Amurenisin B**

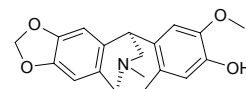
$C_{42}H_{32}O_9$  (680.72). Source: SHAN PU TAO *Vitis amurensis*. Ref: 2233, 2234.

**1093 Amurenisin D**

$C_{42}H_{30}O_9$  (678.70). Source: SHAN PU TAO *Vitis amurensis*. Ref: 2233, 2234.

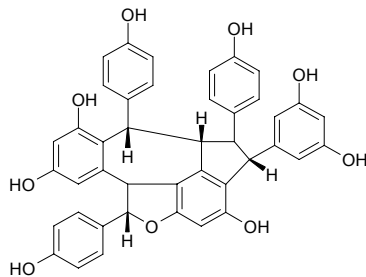
**1094 Amurensine**

[10481-92-2]  $C_{19}H_{19}NO_4$  (325.37). Pharm: Analgesic; antitussive (dispels phlegm); sedative. Source: GAO SHAN YING SU *Papaver alpinum*, HEI SHUI YE YING SU *Papaver nudicaule* ssp. *amurense*. Ref: 658.

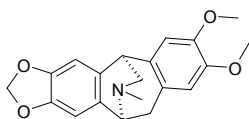


**1095 Amurensin G**

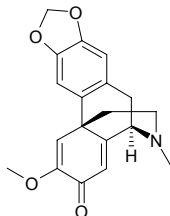
$C_{42}H_{32}O_9$  (680.72). Source: SHAN PU TAO *Vitis amurensis*. Ref: 2233, 2234.

**1096 Amuresinin**

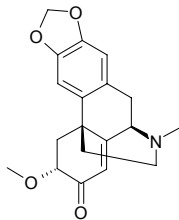
$C_{20}H_{21}NO_4$  (339.39). Source: DUO CI LV RONG HAO *Meconopsis horridula*, LIE YE YE YING SU *Papaver nudicaule* var. *chinense*. Ref: 660.

**1097 Amurine**

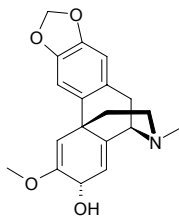
[4984-99-0]  $C_{19}H_{19}NO_4$  (325.34). Pharm: Analgesic; antitussive (dispels phlegm); sedative. Source: HEI SHUI YE YING SU *Papaver nudicaule* ssp. *amurense*, JU HUANG YING SU *Papaver auranticum*. Ref: 658.

**1098 Amurinine**

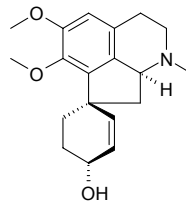
$C_{19}H_{21}NO_4$  (327.38). Source: YE YING SU *Papaver nudicaule*. Ref: 660.

**1099 Amurinol I**

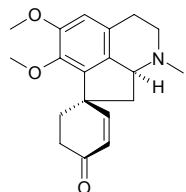
Nudaaurine  $C_{19}H_{21}NO_4$  (327.38). Source: YE YING SU *Papaver nudicaule*. Ref: 660.

**1100 Amuroline**

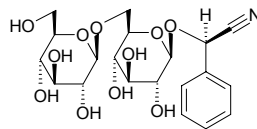
$C_{19}H_{25}NO_3$  (315.42). Source: HEI SHUI YE YING SU *Papaver nudicaule* ssp. *amurense*, LIE YE YE YING SU *Papaver nudicaule* var. *chinense*. Ref: 660.

**1101 Amuronine**

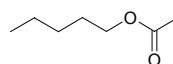
$C_{19}H_{23}NO_3$  (313.40). Source: HEI SHUI YE YING SU *Papaver nudicaule* ssp. *amurense*. Ref: 660.

**1102 Amygdalin**

[29883-15-6]  $C_{20}H_{27}NO_{11}$  (457.44). Colorless crystals, mp 223~226°C,  $[\alpha]_D^{20} = -41.96^\circ$ , easily soluble in boiling water, slightly soluble in EtOH, almost insoluble in ether.<sup>[5507]</sup> Pharm: MLD (hmn) = 0.5~3.5mg/kg. Source: BA DAN XING REN *Prunus amygdalus*, CI WU JIA *Acanthopanax senticosus* [Syn. *Eleutherococcus senticosus*], FU LANG HUA *Gerbera jamesonii*, LI HE REN *Prunus salicina*, LI ZI *Prunus salicina*, MEI HE REN *Prunus mume*, PI PA *Eriobotrya japonica*, PI PA HE *Eriobotrya japonica*, PI PA YE *Eriobotrya japonica*, SHAN XING REN *Prunus armeniaca* var. *ansu* ( $\approx 2\%$ <sup>[5507]</sup>), SHAN XING REN *Prunus armeniaca* var. *ansu* (dried ripe seed: content = 5.02%<sup>[5508]</sup>), SHAN ZHA *Crataegus pinnatifida*, TAO *Prunus persica*, TAO REN *Prunus persica* (dried ripe seed: content scope = 2.24%~3.68%, mean content = 3.84%<sup>[5508]</sup>), TIAN SHAN HUA QIU *Sorbus tianschanica*, WEN PO *Cydonia oblonga*, WU MEI *Prunus mume*, XING REN *Prunus armeniaca* (content scope = 3.19%~5.50%<sup>[5501]</sup>), XING REN *Prunus armeniaca* (dried ripe seed: mean content of 2 origins = 5.51%<sup>[5508]</sup>), YING GUO SHAN ZHA *Crataegus oxyacantha*, YU LI REN *Prunus japonica* [Syn. *Cerasus japonica*]. Ref: 2, 4, 530, 658, 660, 5501, 5507, 5508.

**1103 Amyl acetate**

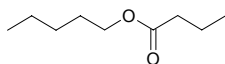
Pentyl ethanoate [628-63-7]  $C_7H_{14}O_2$  (130.19). bp 148°C/737mmHg. Source: JIU Liquor. Ref: 6.



**1104 Amyl butyrate**

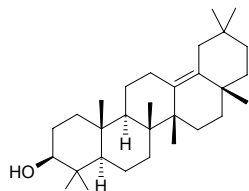
Pentyl butanoate [540-18-1]  $C_9H_{18}O_2$  (158.24). bp 185°C. Source: JIU Liquor.

Ref: 6.

**1105  $\delta$ -Amyrenol**

$C_{30}H_{50}O$  (426.73). mp 212.0~213.5°C. Source: XIAO JIAN CAO *Sedum*

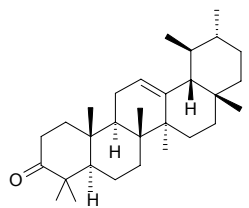
*bulbiferum*. Ref: 6.

**1106  $\alpha$ -Amyrenone**

[638-96-0]  $C_{30}H_{48}O$  (424.72). Colorless acicular crystals

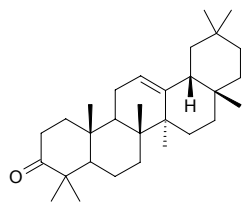
(chloroform-methanol), mp 119~121°C. Source: QIU HUA NIU NAI CAI

*Marsdenia globifera*. Ref: 464.

**1107  $\beta$ -Amyrenone**

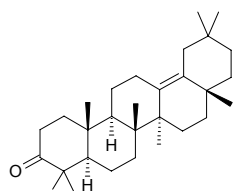
$C_{30}H_{48}O$  (424.72). Pharm: DPPH scavenger inactive (for 40  $\mu$ mol/L DPPH radical,  $SC_{50} > 40 \mu$ mol/L)<sup>[4378]</sup>; cytotoxic inactive (A2780 ovarian cancer cell line,  $IC_{50} = 26.8 \text{ mg/mL}$ )<sup>[5379]</sup>. Source: MU SHU DI SHANG BU FEN

*Manihot esculenta*, SUO LA MU *Salacia prinooides* [Syn. *Salacia chinensis*] (stem). Ref: 4378, 5379.

**1108  $\delta$ -Amyrenone**

$\delta$ -Amyrone [20248-08-2]  $C_{30}H_{48}O$  (424.72). mp 198~201°C. Source: XIAO

JIAN CAO *Sedum bulbiferum*. Ref: 6.

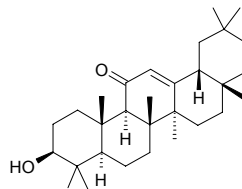
**1109  $\beta$ -Amyrenonol**

11-Oxo-3 $\beta$ -hydroxy-olean-12-ene  $C_{30}H_{48}O_2$  (440.72). Grained crystals

(EtOAc), easily soluble in  $CHCl_3$ , MeOH, mp 188~190°C; mp 229~230°C.

Source: SHAN REN YE *Rhodomyrtus tomentosa*, SI CHUAN QING FENG

TENG *Sabia schumanniana* (aerial parts). Ref: 6, 4883.

**1110  $\alpha$ -Amyrin**

Urs-12-en-3 $\beta$ -ol [638-95-9]  $C_{30}H_{50}O$  (426.73). White acicular crystals

(chloroform-methanol), mp 180~186°C. Pharm: 15-Lipoxygenase inhibitor

( $IC_{50} = (15 \pm 3) \mu$ mol/L)<sup>[4953]</sup>. Source: AI YE *Artemisia argyi*, CHI YANG

*Alnus japonica*, DA JI<sup>(4)</sup> *Cirsium japonicum*, HUANG LONG DAN *Gentiana*

*lutea* (rhizome and root), HUI BAO HAO *Artemisia roxbugiana*, JU QU

*Cichorium intybus*, LUO DI SHENG GEN *Bryophyllum pinnatum*, MA QIAN

ZI *Strychnos nux-vomica*, MAO LIAN HAO *Artemisia vestita*, MI DIE

XIANG *Rosmarinus officinalis*, PAI QIAN CAO GEN *Desmodium*

*pulchellum* [Syn. *Phyllodium pulchellum*], QING GUO *Canarium album*,

QIU HUA NIU NAI CAI *Marsdenia globifera*, SAI ER WEI YA SHI CAO

*Achillea alexandri-regis*, SHAN LI HONG *Crataegus pinnatifida* var. *major*,

XI CHANG NAN MEI DOU *Anadenanthera colubrine* (aerial parts), XIANG

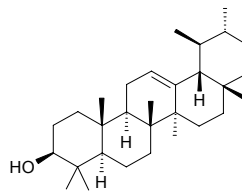
JIA PI *Periploca sepium*, XIANG PI MU *Alstonia scholaris*, XIAO QIAO

MU ZI JIN NIU *Ardisia arborescens* (whole herb)<sup>[4769]</sup>, XIN JIANG LAN CI

TOU *Echinops ritro*, YANG MEI *Myrica rubra*, ZAN BI XI BA DOU *Croton*

*zambesicus* (leaf), occurs in many plants. Ref: 6, 464, 474, 503, 620, 660,

2545, 3807, 4307, 4769, 4953.

**1111  $\alpha$ -Amyrin acetate**

$C_{32}H_{52}O_2$  (468.77). White scale crystals (chloroform-methanol), mp

220~226°C. Source: AI YE *Artemisia argyi*, CHANG CHUN HUA

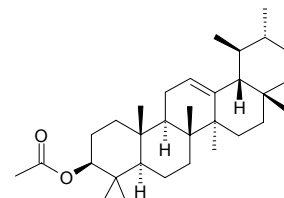
*Catharanthus roseus* [Syn. *Vinca rosea*; *Lochera rosea*], HUI BAO HAO

*Artemisia roxbugiana*, LU ZHU GEN *Arundo donax*, QIU HUA NIU NAI

CAI *Marsdenia globifera*, WU MU XIE *Diospyros ebenum*, XIANG JIA PI

*Periploca sepium*, XIANG PI MU *Alstonia scholaris*, XIN JIANG LAN CI

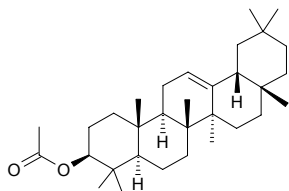
TOU *Echinops ritro*. Ref: 6, 503, 660.



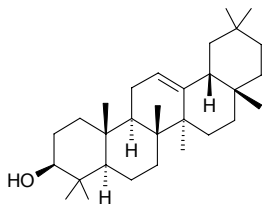


**1112  $\beta$ -Amyrin acetate**

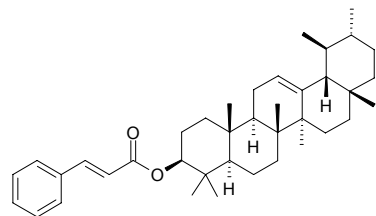
$C_{32}H_{52}O_2$  (468.77). mp 236°C. Source: BI LI *Ficus pumila*, DA JI<sup>(4)</sup> *Cirsium japonicum*, DI SHAO GUA *Cynanchum thesioides*, FU LING *Poria cocos*, HUI BAO HAO *Artemisia roxburgiana*, LU ZHU GEN *Arundo donax*, WU TONG YE, *Firmiana simplex*, XIANG JIA PI *Periploca sepium*. Ref: 6, 236, 503, 536.

**1113  $\beta$ -Amyrin**

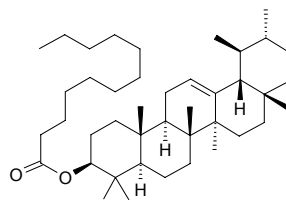
[559-70-6]  $C_{30}H_{50}O$  (426.73). mp 197.0~197.5°C. Pharm: DPPH scavenger inactive (for 40 $\mu$ mol/L DPPH radical,  $SC_{50} > 40\mu$ mol/L)<sup>[4378]</sup>; cytotoxic inactive (A2780 ovarian cancer cell line,  $IC_{50} = 21.6\text{mg/mL}$ )<sup>[5379]</sup>. Source: CHI YANG *Alnus japonica*, CU LIU GUO *Hippophae rhamnoides*, DA FEI YANG CAO *Euphorbia hirta*, DA JI<sup>(4)</sup> *Cirsium japonicum*, DA YE DONG QING *Ilex latifolia*, DUO SUI SHI KE YE *Lithocarpus polystachyus*, GE XUN *Balanophora japonica*, GOU QI ZI *Lycium chinense*, HUANG LONG DAN *Gentiana lutea* (rhizome and root), HUO YANG LE *Euphorbia antiquorum*, JIU BI YING *Ilex rotunda*, LONG XU CAO *Poa sphondylodes*, LUO DI SHENG GEN *Bryophyllum pinnatum*, MAO YE BA DOU *Croton caudatus* var. *tomentosus*, MI DIE XIANG *Rosmarinus officinalis*, MU SHU DI SHANG BU FEN *Manihot esculenta*, QIU FENG MU *Bischofia javanica* [Syn. *Bischofia trifoliata*], SAI ER WEI YA SHI CAO *Achillea alexandri-regis*, SANG JI SHENG *Loranthus parasiticus* [Syn. *Loranthus chinensis*; *Taxillus chinensis*], SHAN REN YE *Rhodomyrtus tomentosa*, SHAN WO JU *Lactuca indica*, SHE PU TAO *Ampelopsis brevipedunculata*, SUO LA MU *Salacia prinoides* [Syn. *Salacia chinensis*] (stem), TAI WAN XIU XIAN JU *Spiraea formosana*, WU HUA GUO YE *Ficus carica*, WU TONG YE, *Firmiana simplex*, XI YE DA JI *Euphorbia esula* var. *cyparissoides*, XIANG JIA PI *Periploca sepium*, XIANG SI ZI *Abrus precatorius*, YANG MEI *Myrica rubra*, YAO YONG PU GONG YING *Taraxacum officinale*, occurs in many plants. Ref: 2, 6, 408, 552, 660, 2545, 2575, 4307, 4378, 5379.

**1114  $\alpha$ -Amyrin cinnamate**

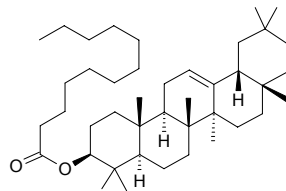
$C_{39}H_{56}O_2$  (556.88). Crystals, mp 97~100°C. Source: SU KU BA DOU HUA *Himatanthus succuba*. Ref: 4143.

**1115  $\alpha$ -Amyrin laurate**

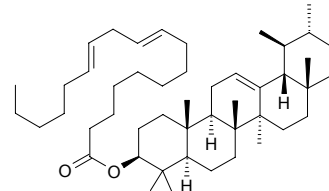
$C_{42}H_{72}O_2$  (609.04). Source: TIAN WEN CAO *Spilanthes acmella*. Ref: 6.

**1116  $\beta$ -Amyrin laurate**

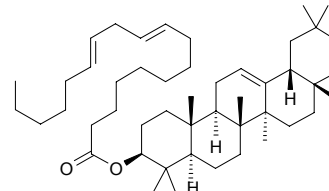
$C_{42}H_{72}O_2$  (609.04). Source: TIAN WEN CAO *Spilanthes acmella*. Ref: 6.

**1117  $\alpha$ -Amyrin linoleate**

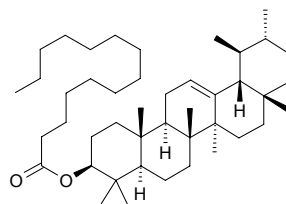
$C_{48}H_{80}O_2$  (689.17). Source: TIAN WEN CAO *Spilanthes acmella*. Ref: 6.

**1118  $\beta$ -Amyrin linoleate**

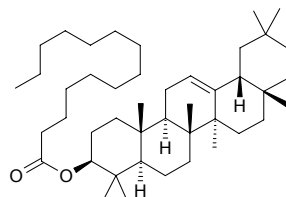
$C_{48}H_{80}O_2$  (689.17). Source: TIAN WEN CAO *Spilanthes acmella*. Ref: 6.

**1119  $\alpha$ -Amyrin myristate**

$C_{44}H_{76}O_2$  (637.10). Source: TIAN WEN CAO *Spilanthes acmella*. Ref: 6.

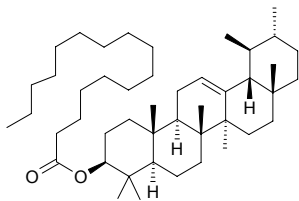
**1120  $\beta$ -Amyrin myristate**

$C_{44}H_{76}O_2$  (637.10). Source: TIAN WEN CAO *Spilanthes acmella*. Ref: 6.

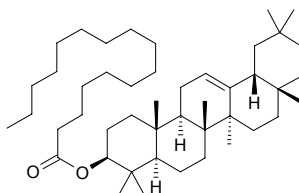


**1121  $\alpha$ -Amyrin palmitate**

[22255-10-3] C<sub>46</sub>H<sub>80</sub>O<sub>2</sub> (665.15). White lamellar crystals (acetone-methanol), mp 114~116°C. Source: MENG GU SHAN LUO BO *Scabiosa comosa*, QIU HUA NIU NAI CAI *Marsdenia globifera*, TIAN WEN CAO *Spilanthes acmella*. Ref: 6, 464.

**1122  $\beta$ -Amyrin palmitate**

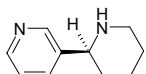
Balanophorin A C<sub>46</sub>H<sub>80</sub>O<sub>2</sub> (665.15). White amorphous powder (acetone), mp 77°C, soluble in chloroform and benzene. Source: MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*], TIAN WEN CAO *Spilanthes acmella*, YIN DU SHE GU *Balanophora indica* [Syn. *Langodorfia indica*]. Ref: 2, 6, 423, 660.

**1123  $\alpha$ -Amyrin stearate**

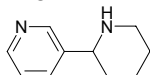
C<sub>48</sub>H<sub>84</sub>O<sub>2</sub> (693.20). Source: MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*]. Ref: 2.

**1124 Anabasine**

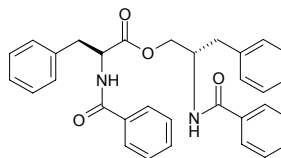
Neonicotine; 3-(2-Piperidinyl)pyridine [494-52-0] C<sub>10</sub>H<sub>14</sub>N<sub>2</sub> (162.24). bp (-) 276°C; soluble in water and most of organic solvents<sup>[5507]</sup>. Pharm: Insecticidal; respiratory stimulant. Source: BAI RI CAO *Zinnia elegans*, GUA MU *Alangium platanifolium*, JIAN XING YAN CAO *Nicotiana acuminata*, MAO BA JIAO FENG *Alangium kurzii*, WU YE JIA MU ZEII *Anabasis aphylla*, YAN CAO *Nicotiana tabacum*. Ref: 6, 658, 5507.

**1125 ( $\pm$ )-Anabasine**

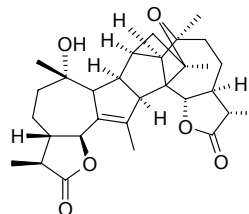
[13078-04-1] C<sub>10</sub>H<sub>14</sub>N<sub>2</sub> (162.24). Alkaline colorless crystals liquid, slightly pungent, easy dissolved in water and common organic solvent, can be distilled with vapor, bp 110°C/1mmHg, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = 0°. Pharm: Muscle relaxant; neuromuscular blocker (effective component in *Alangium chinense* BA JIAO FENG); pesticide; toxin (acute or inferior acute). Source: BA JIAO FENG *Alangium chinense*, YAN CAO *Nicotiana tabacum*. Ref: 658, 661.

**1126 Anabellamide**

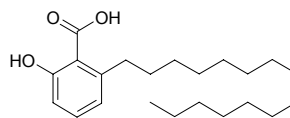
C<sub>32</sub>H<sub>30</sub>N<sub>2</sub>O<sub>4</sub> (506.61). Source: LIU JI NU *Artemisia anomala*. Ref: 660.

**1127 Anabsinthin**

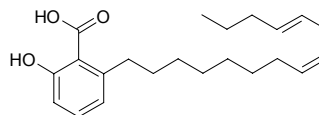
C<sub>30</sub>H<sub>40</sub>O<sub>6</sub> (496.65). mp 267°C, [ $\alpha$ ]<sub>D</sub> = +113° (c = 0.10, CHCl<sub>3</sub>). Source: YOU RUI XIANG *Daphne oleoides*. Ref: 2302.

**1128 Anacardic acid A**

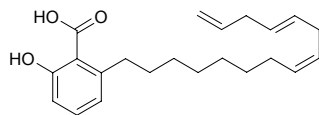
Hydroginkgolic acid [16611-84-0] C<sub>22</sub>H<sub>36</sub>O<sub>3</sub> (348.53). mp 92.5~93°C. Pharm: Antineoplastic. Source: BAI GUO *Ginkgo biloba*, BAI GUO YE *Ginkgo biloba*, DU XIAN ZI *Anacardium occidentale*. Ref: 2, 6, 658, 660.

**1129 Anacardic acid C**

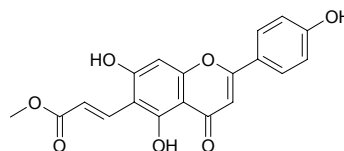
C<sub>22</sub>H<sub>32</sub>O<sub>3</sub> (344.50). Source: BAI GUO *Ginkgo biloba*. Ref: 2.

**1130 Anacardic acid D**

C<sub>22</sub>H<sub>30</sub>O<sub>3</sub> (342.48). Source: BAI GUO *Ginkgo biloba*. Ref: 2.

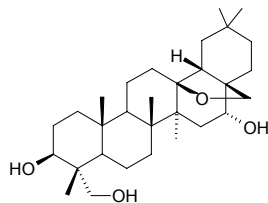
**1131 Anadanthoflavone**

C<sub>19</sub>H<sub>14</sub>O<sub>7</sub> (354.32). Yellow powder, mp 290°C (dec). Pharm: 12-Lipoxygenase inhibitor (hmn platelet, IC<sub>50</sub> = (13±3)μmol/L); 15-lipoxygenase inhibitor (hmn reticulocyte, IC<sub>50</sub> = (17±3)μmol/L). Source: XI CHANG NAN MEI DOU *Anadenanthera colubrina* (aerial parts). Ref: 4953.

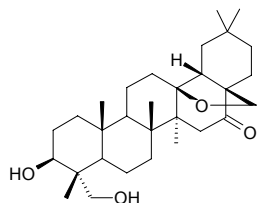


**1132 Anagalligenin B**

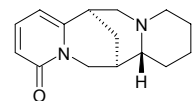
$C_{30}H_{50}O_4$  (474.73). Source: LIU LI FAN LV *Anagallis arvensis*. Ref: 660.

**1133 Anagalligenone B**

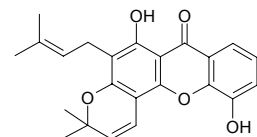
$C_{30}H_{48}O_4$  (472.71). Source: LIU LI FAN LV *Anagallis arvensis*. Ref: 660.

**1134 Anagryrine**

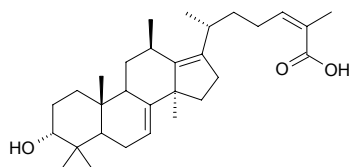
[486-89-5]  $C_{15}H_{20}N_2O$  (244.34). bp (–) 210–215°C/4mmHg. Pharm: Causes tachycardia; ganglionic blocker; CNS stimulant (reflective); teratogen; supertoxic agent. Source: CHOU WEI HONG DOU *Anagryis foetida*, DU DOU *Laburnum anagyroides*, SHAN DOU GEN *Sophora subprostrata* [Syn. *Sophora tonkinensis*], KU SHEN *Sophora flavescens* [Syn. *Sophora angustifolia*], MU MA DOU *Thermopsis lanceolata*. Ref: 6, 658.

**1135 Ananixanthone**

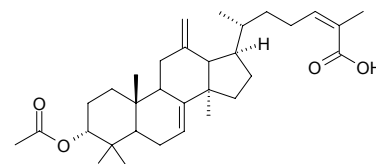
1-Deoxymorusignin J  $C_{23}H_{22}O_5$  (378.43). Pharm: Antibacterial (MRSA, MIC = 32µg/mL; control Vancomycin, MIC = 2µg/mL)<sup>[4735]</sup>. Source: HEI XIAN TIAO TENG HUANG *Garcinia nigrolineata* (leaf: yield = 0.0002%dw)<sup>[4735]</sup>, KA MAI LONG XIN FO NI A *Symphonia globulifera*. Ref: 1521, 4735.

**1136 Ananolic acid A**

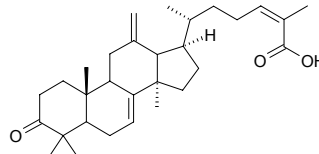
18-(13→12β)-Abeo-lanostene triterpenoid acid  $C_{30}H_{46}O_3$  (454.70). Colorless crystals, mp 132–134°C,  $[\alpha]_D = -67.7^\circ$  ( $c = 0.65$ ,  $CHCl_3$ ). Pharm: Cytotoxic (*in vitro*, murine leukemia ATCC: CCRF-CEM,  $IC_{50} = 45.4\mu g/mL$ ; HeLa ATCC-17 cells,  $IC_{50} = 0.46\mu g/mL$ )<sup>[4749]</sup>. Source: BO LUO XIANG TENG *Kadsura ananosma*, BO LUO XIANG TENG *Kadsura ananosma* (stem bark). Ref: 4749, 5242.

**1137 Ananolic acid B**

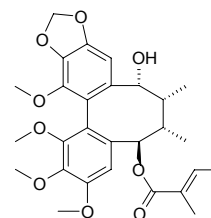
$C_{32}H_{48}O_4$  (496.74). Amorphous powder,  $[\alpha]_D = -55.0^\circ$  ( $c = 0.10$ ,  $CHCl_3$ ). Pharm: Cytotoxic (*in vitro*, murine leukemia ATCC: CCRF-CEM,  $IC_{50} = 49.6\mu g/mL$ ; HeLa ATCC-17 cells,  $IC_{50} = 0.54\mu g/mL$ ). Source: BO LUO XIANG TENG *Kadsura ananosma* (stem: yield = 0.0029%dw). Ref: 4749.

**1138 Ananolic acid C**

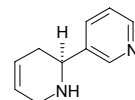
$C_{30}H_{44}O_3$  (452.68). Amorphous powder,  $[\alpha]_D = -62.0^\circ$  ( $c = 0.1$ ,  $CHCl_3$ ). Pharm: Cytotoxic (*in vitro*, murine leukemia ATCC: CCRF-CEM,  $IC_{50} = 45.2\mu g/mL$ ; HeLa ATCC-17 cells,  $IC_{50} = 0.48\mu g/mL$ ). Source: BO LUO XIANG TENG *Kadsura ananosma* (stem: yield = 0.0013%dw). Ref: 4749.

**1139 Ananosin A**

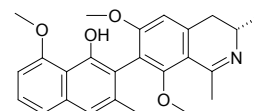
Dibenzocyclooctadiene lignan  $C_{28}H_{34}O_9$  (514.58). Colorless crystals, mp 132–134°C,  $[\alpha]_D = -16.5^\circ$  ( $c = 0.59$ ,  $CHCl_3$ ). Source: BO LUO XIANG TENG *Kadsura ananosma* (stem bark). Ref: 5242.

**1140 Anatabine**

[581-49-7]  $C_{10}H_{12}N_2$  (160.22). bp (–) 145–146°C/10mmHg. Source: YAN CAO *Nicotiana tabacum*. Ref: 6.

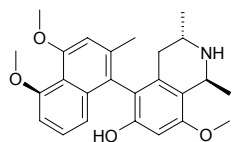
**1141 Ancistrocladidine**

$C_{25}H_{27}NO_4$  (405.50). Amorphous solid,  $[\alpha]_D^{25} = -122.3^\circ$  ( $c = 0.05$ , MeOH);  $[\alpha]_D^{25} = -129.7^\circ$  ( $c = 0.06$ ,  $CHCl_3$ ). Pharm: Antimalarial (*Plasmodium falciparum* K1,  $IC_{50} = 0.3\mu g/mL$ , control Chloroquine,  $IC_{50} = 0.041\mu g/mL$ ); antileishmanial (*Leishmania donovani*,  $IC_{50} = 2.9\mu g/mL$ ; control Miltefosine,  $IC_{50} = 0.31\mu g/mL$ ); antitrypanosomal (Chagas' disease, *Trypanosoma cruzi*,  $IC_{50} = 23.4\mu g/mL$ , control Benznidazole,  $IC_{50} = 0.53\mu g/mL$ ; African sleeping sickness, *Trypanosoma brucei rhodesiense*,  $IC_{50} = 2\mu g/mL$ , control Melarsoprol,  $IC_{50} = 0.00046\mu g/mL$ ). Source: HAI NI GOU ZHI TENG *Ancistrocladus heyneanus*. Ref: 3872.

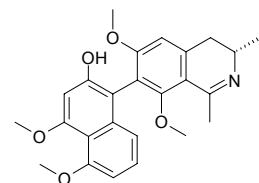


**1142 Ancistrocladine**

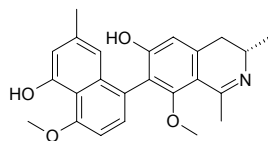
$C_{25}H_{29}NO_4$  (407.51). Source: HAI NI GOU ZHI TENG *Ancistrocladus heyneanus*. Ref: 3872.

**1143 Ancistrocladisine**

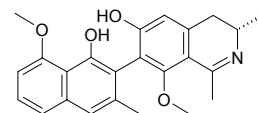
$C_{25}H_{27}NO_5$  (421.50). Source: HAI NI GOU ZHI TENG *Ancistrocladus heyneanus*. Ref: 3872.

**1144 Ancistroheynine A**

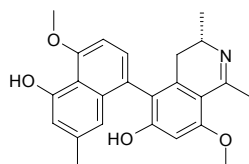
$C_{24}H_{25}NO_4$  (391.47). Source: HAI NI GOU ZHI TENG *Ancistrocladus heyneanus*. Ref: 3872.

**1145 Ancistroheynine B**

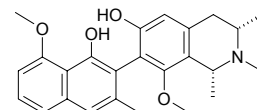
$C_{24}H_{25}NO_4$  (391.47). Yellow oil,  $[\alpha]_D^{25} = -194.9^\circ$  ( $c = 0.025$ , MeOH). Pharm: Antimalarial (*Plasmodium falciparum* K1,  $IC_{50} = 0.5\mu\text{g/mL}$ , control Chloroquine,  $IC_{50} = 0.041\mu\text{g/mL}$ ); antileishmanial (*Leishmania donovani*,  $IC_{50} = 22.3\mu\text{g/mL}$ ; control Miltefosine,  $IC_{50} = 0.31\mu\text{g/mL}$ ); antitrypanosomal (Chagas' disease, *Trypanosoma cruzi*,  $IC_{50} = 47.5\mu\text{g/mL}$ , control Benznidazole,  $IC_{50} = 0.53\mu\text{g/mL}$ ); African sleeping sickness, *Trypanosoma brucei rhodesiense*,  $IC_{50} = 2.9\mu\text{g/mL}$ , Melarsoprol,  $IC_{50} = 0.00046\mu\text{g/mL}$ ). Source: HAI NI GOU ZHI TENG *Ancistrocladus heyneanus*. Ref: 3872.

**1146 Ancistrolidikine D**

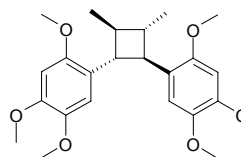
$C_{24}H_{25}NO_4$  (391.47). Colorless solid, mp 122~124°  $[\alpha]_D^{25} = +191.6^\circ$  ( $c = 0.15$ ,  $CHCl_3$ ). Pharm: Antileishmanial (*Leishmania donovani*); antitrypanosomal (*Trypanosoma cruzi*, and *Trypanosoma brucei rhodesiense*). Source: ZHONG FEI GOU ZHI TENG *Ancistrocladus likoko*. Ref: 2024.

**1147 Ancistrotanzanine C**

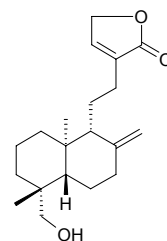
$C_{25}H_{29}NO_4$  (407.51). Yellow oil,  $[\alpha]_D^{25} = -76.0^\circ$  ( $c = 0.01$ ,  $CHCl_3$ );  $[\alpha]_D^{25} = -75.5^\circ$  ( $c = 0.01$ ,  $CHCl_3$ ). Pharm: Antimalarial (*Plasmodium falciparum* K1,  $IC_{50} = 0.1\mu\text{g/mL}$ , control Chloroquine,  $IC_{50} = 0.041\mu\text{g/mL}$ ); antitrypanosomal (Chagas' disease, *Trypanosoma cruzi*,  $IC_{50} = 14\mu\text{g/mL}$ , control Benznidazole,  $IC_{50} = 0.53\mu\text{g/mL}$ ); African sleeping sickness, *Trypanosoma brucei rhodesiense*,  $IC_{50} = 1.3\mu\text{g/mL}$ , control Melarsoprol,  $IC_{50} = 0.00046\mu\text{g/mL}$ ). Source: HAI NI GOU ZHI TENG *Ancistrocladus heyneanus*. Ref: 3872.

**1148 Andamanicin**

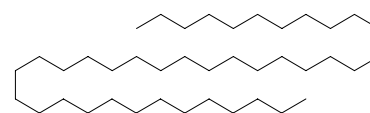
[130323-08-9]  $C_{24}H_{32}O_6$  (416.52). Source: SHI JI NING *Mosla scabra* [Syn. *Mosla punctata*]. Ref: 740.

**1149 Andrograpanin**

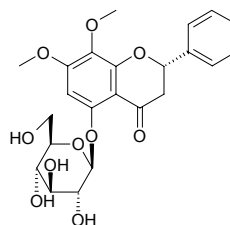
$C_{20}H_{30}O_3$  (318.46). Source: CHUAN XIN LIAN *Andrographis paniculata* [Syn. *Justicia paniculata*]. Ref: 660.

**1150 Andrographan**

$C_{40}H_{82}$  (563.10). Source: CHUAN XIN LIAN *Andrographis paniculata* [Syn. *Justicia paniculata*]. Ref: 2.

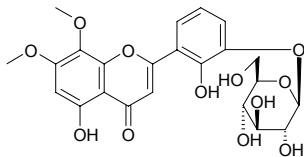
**1151 Andrographidine A**

[113963-37-4]  $C_{23}H_{26}O_{10}$  (462.46). Source: CHUAN XIN LIAN *Andrographis paniculata* [Syn. *Justicia paniculata*]. Ref: 2.

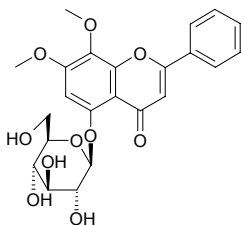


**1152 Andrographidine B**

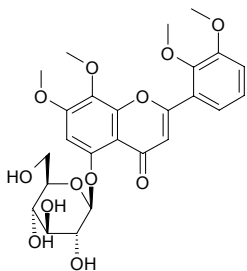
[113963-38-5] C<sub>23</sub>H<sub>24</sub>O<sub>12</sub> (492.44). Source: CHUAN XIN LIAN *Andrographis paniculata* [Syn. *Justicia paniculata*]. Ref: 2.

**1153 Andrographidine C**

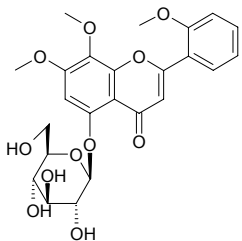
[113963-39-6] C<sub>23</sub>H<sub>24</sub>O<sub>10</sub> (460.44). Source: CHUAN XIN LIAN *Andrographis paniculata* [Syn. *Justicia paniculata*]. Ref: 2.

**1154 Andrographidine D**

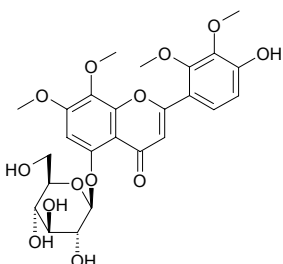
[113963-40-9] C<sub>25</sub>H<sub>28</sub>O<sub>12</sub> (520.49). Source: CHUAN XIN LIAN *Andrographis paniculata* [Syn. *Justicia paniculata*]. Ref: 2.

**1155 Andrographidine E**

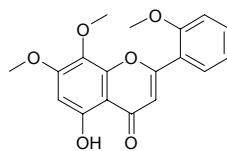
[113963-41-0] C<sub>24</sub>H<sub>26</sub>O<sub>11</sub> (490.47). Source: CHUAN XIN LIAN *Andrographis paniculata* [Syn. *Justicia paniculata*]. Ref: 2.

**1156 Andrographidine F**

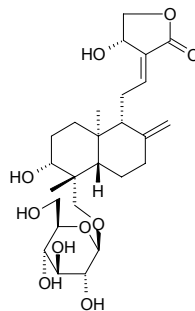
C<sub>25</sub>H<sub>28</sub>O<sub>13</sub> (536.49). Source: CHUAN XIN LIAN *Andrographis paniculata* [Syn. *Justicia paniculata*]. Ref: 2, 660.

**1157 Andrographin**

[1165-40-8] C<sub>18</sub>H<sub>16</sub>O<sub>6</sub> (328.22). mp 190–191°C. Source: CHUAN XIN LIAN *Andrographis paniculata* [Syn. *Justicia paniculata*]. Ref: 2.

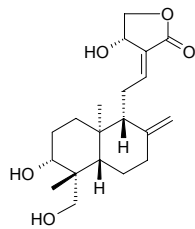
**1158 Andrographoside**

Andrographoside [82209-76-5] C<sub>26</sub>H<sub>40</sub>O<sub>10</sub> (512.60). Source: CHUAN XIN LIAN *Andrographis paniculata* [Syn. *Justicia paniculata*]. Ref: 2, 660, 1521.

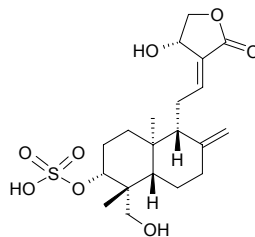
**1159 Andrographolide**

[5508-58-7] C<sub>20</sub>H<sub>30</sub>O<sub>5</sub> (350.46). mp 230–231°C, [α]<sub>D</sub><sup>17</sup> = –126.6° (ice vinegar), slightly soluble in water, soluble in ethanol, chloroform, acetone, ether.<sup>[5507]</sup>

Pharm: Antibacterial; treatment of bacillary dysentery and inflammation of upper-respiratory tract, anti-inflammatory (NO production inhibitor)<sup>[4415]</sup>. Source: CHUAN XIN LIAN *Andrographis paniculata* [Syn. *Justicia paniculata*] (dried aerial parts: content = 1.5%<sup>[5508]</sup>, in 1971 isolated from the plant by H.W.Fehlhaber<sup>[5505]</sup>). Ref: 4, 658, 1521, 4415, 5501, 5505, 5507, 5508.

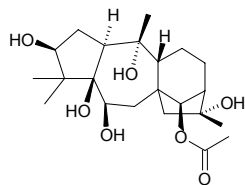
**1160 Andrographolide-3-O-sulfate**

C<sub>20</sub>H<sub>30</sub>O<sub>8</sub>S (430.52). White amorphous powder. Source: REN NIAO *Homo sapiens*. Ref: 4300.

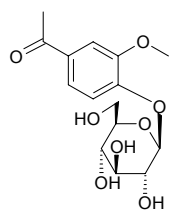


**1161 Andromedotoxin**

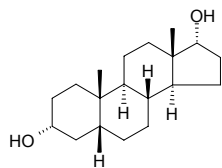
[4720-09-6] C<sub>22</sub>H<sub>36</sub>O<sub>7</sub> (412.53). mp 267~270°C. **Pharm:** Cytotoxic (mus *in vitro*, ED<sub>50</sub> = 60µg/mL); LD<sub>50</sub> (mus, ip) = 1.31mg/kg. **Source:** DU JUAN HUA *Rhododendron simsii*, DU JUAN HUA YE *Rhododendron simsii*, LONG SHU DU JUAN *Rhododendron przewalskii* (leaf: content = 0.10%<sup>[5508]</sup>), MAN SHAN HONG *Rhododendron dauricum*, MEI TE NI DU JUAN HUA *Rhododendron metternichii* var. *hondoese*, NAO YANG HUA *Rhododendron molle*, ZHAO SHAN BAI *Rhododendron micranthum*. **Ref:** 4, 6, 658, 5508.

**1162 Androsin**

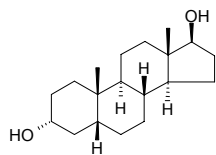
[531-28-2] C<sub>15</sub>H<sub>20</sub>O<sub>8</sub> (328.32). White acicular crystals (hot water), mp 226°C, [ $\alpha$ ]<sub>D</sub> = -47.1° (c = 0.01, water). **Pharm:** Antihepatotoxin (rat, liver damage caused by CCl<sub>4</sub> or GalN); antiasthmatic (gpg, bronchus contraction caused by ovalbumin and PAF); 11- $\beta$ -hydroxylase inhibitor; antioxidant inactive (hydroxyl radical scavenger, IC<sub>50</sub> > 400µmol/L, control Ascorbic acid, IC<sub>50</sub> = 51.8µmol/L, superoxide anion radical scavenger, IC<sub>50</sub> > 400µmol/L, control Ascorbic acid, IC<sub>50</sub> = 86.2µmol/L)<sup>[4289]</sup>. **Source:** FAN QIE *Lycopersicon esculentum*, HU HUANG LIAN *Picrorhiza kurrooa*, XI ZANG HU HUANG LIAN *Picrorhiza scrophulariiflora*. **Ref:** 900, 4289.

**1163 5 $\beta$ -Androstan-3 $\alpha$ ,17 $\alpha$ -diol**

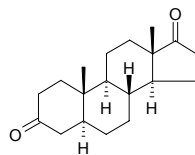
3 $\alpha$ ,17 $\alpha$ -Dihydroxy-5 $\beta$ -androstan-3 $\alpha$ ,17 $\alpha$ -diol [5856-10-0] C<sub>19</sub>H<sub>32</sub>O<sub>2</sub> (292.47). **Source:** SHE XIANG *Moschus moschiferus*; *Moschus berezovskii*; *Moschus sifanicus*. **Ref:** 2.

**1164 5 $\beta$ -Androstan-3 $\alpha$ ,17 $\beta$ -diol**

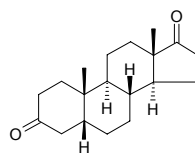
3 $\alpha$ ,17 $\beta$ -Dihydroxy-5 $\beta$ -androstan-3 $\alpha$ ,17 $\beta$ -diol [1851-23-6] C<sub>19</sub>H<sub>32</sub>O<sub>2</sub> (292.47). **Source:** SHE XIANG *Moschus moschiferus*; *Moschus berezovskii*; *Moschus sifanicus*. **Ref:** 2, 660.

**1165 5 $\alpha$ -Androstan-3,17-dione**

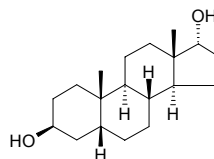
[846-46-8] C<sub>19</sub>H<sub>28</sub>O<sub>2</sub> (288.43). **Source:** SHE XIANG *Moschus moschiferus*; *Moschus berezovskii*; *Moschus sifanicus*. **Ref:** 2.

**1166 5 $\beta$ -Androstan-3,17-dione**

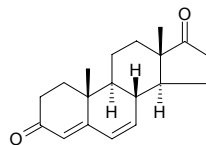
[1229-12-5] C<sub>19</sub>H<sub>28</sub>O<sub>2</sub> (288.43). **Source:** SHE XIANG *Moschus moschiferus*; *Moschus berezovskii*; *Moschus sifanicus*. **Ref:** 2.

**1167 5 $\alpha$ -Androstane-3 $\beta$ ,17 $\alpha$ -diol**

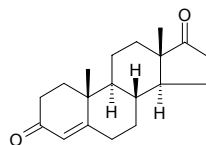
3 $\beta$ ,17 $\alpha$ -Dihydroxy-5 $\alpha$ -androstan-3 $\beta$ ,17 $\alpha$ -diol C<sub>19</sub>H<sub>32</sub>O<sub>2</sub> (292.47). **Source:** SHE XIANG *Moschus moschiferus*; *Moschus berezovskii*; *Moschus sifanicus*. **Ref:** 2, 660.

**1168 Androst-4,6-diene-3,17-dione**

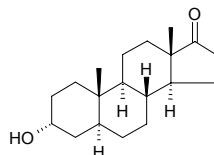
[633-34-1] C<sub>19</sub>H<sub>24</sub>O<sub>2</sub> (284.40). **Source:** SHE XIANG *Moschus moschiferus*; *Moschus berezovskii*; *Moschus sifanicus*. **Ref:** 2.

**1169 Androst-4-ene-3,17-dione**

[63-05-8] C<sub>19</sub>H<sub>26</sub>O<sub>2</sub> (286.42). **Pharm:** Androgen (similar action with androgen). **Source:** OU ZHOU CHI SONG *Pinus sylvestris*, SHE XIANG *Moschus moschiferus*; *Moschus berezovskii*; *Moschus sifanicus*. **Ref:** 2, 658.

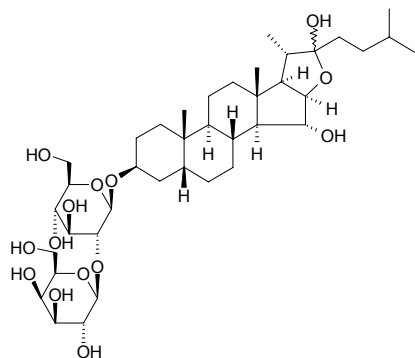
**1170 Androsterone**

3-Epihydroxyetioallocholan-17-one [53-41-8] C<sub>19</sub>H<sub>30</sub>O<sub>2</sub> (290.45). mp 178°C. **Source:** SHE XIANG *Moschus moschiferus*; *Moschus berezovskii*; *Moschus sifanicus*, ZI HE CHE *Homo sapiens*. **Ref:** 2, 6.

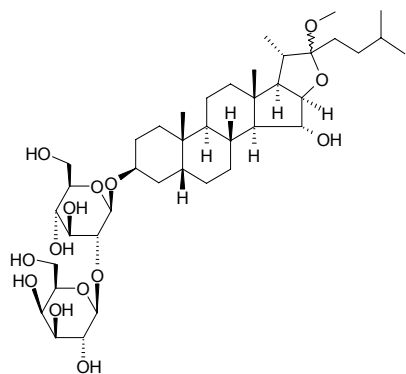


**1171 Anemarrhenasaponin I**

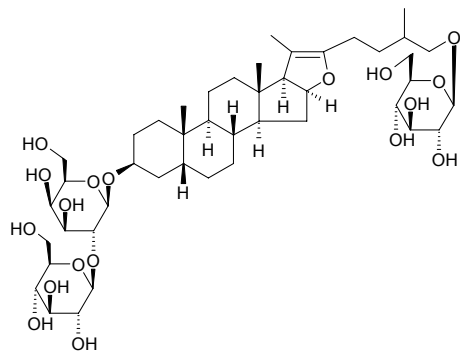
$C_{39}H_{66}O_{14}$  (758.95). White powder. Source: ZHI MU *Anemarrhena asphodeloides*. Ref: 443.

**1172 Anemarrhenasaponin Ia**

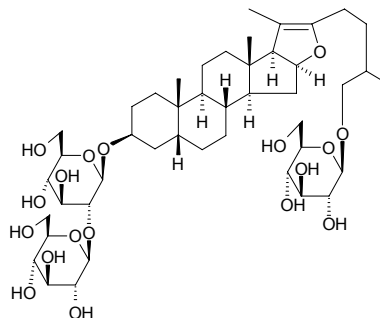
$C_{40}H_{68}O_{14}$  (772.98). White powder. Source: ZHI MU *Anemarrhena asphodeloides*. Ref: 443.

**1173 Anemarsaponin B**

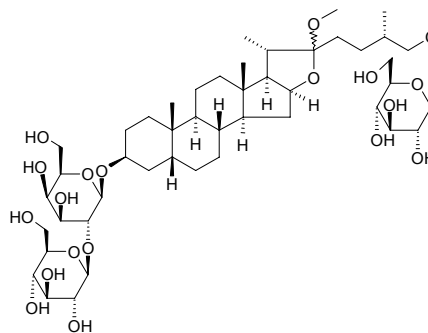
Pseudoprotimosaponin AIII [139051-27-7]  $C_{45}H_{74}O_{18}$  (903.08). White thin acicular crystals, mp 226°C (dec). Pharm: Platelet aggregation inhibitor (rbt, *in vitro*, induced by PAF,  $IC_{50} = 25\mu\text{mol/L}$ ). Source: ZHI MU *Anemarrhena asphodeloides*. Ref: 213, 2990.

**1174 Anemarsaponin C**

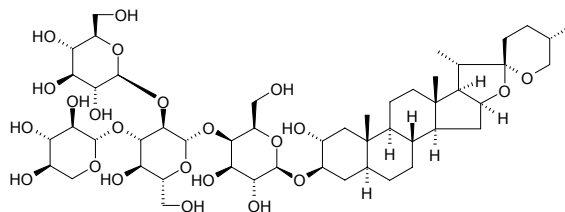
(2S)-O-β-D-Glucopyranosyl-5β-furost-20(22)-ene-3β,26-diol-3-O-β-D-glucopyranosyl-(1→2)-β-D-glucopyranoside  $C_{45}H_{74}O_{18}$  (903.08). White amorphous powder, mp >212°C (dec). Pharm: Free radical scavenger. Source: ZHI MU *Anemarrhena asphodeloides*. Ref: 353, 658.

**1175 Anemarsaponin E**

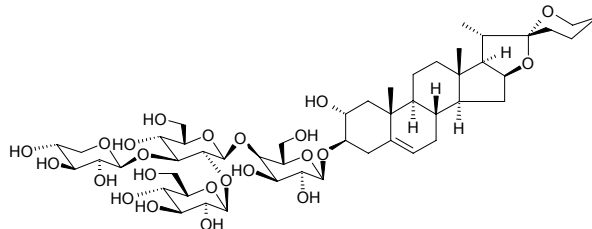
Timosaponin B<sub>1</sub> [136565-73-6]  $C_{46}H_{78}O_{19}$  (935.11). White amorphous powder, mp 244°C; 240~242°C (dec). Pharm: Free radical scavenger. Source: ZHI MU *Anemarrhena asphodeloides*. Ref: 353, 1075.

**1176 Anemarsaponin F**

Timosaponin F [195304-79-1]  $C_{50}H_{82}O_{23}$  (1050.2). White amorphous powder, mp 247°C (dec). Source: ZHI MU *Anemarrhena asphodeloides*. Ref: 719.

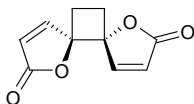
**1177 Anemarsaponin G**

Timosaponin G [195304-82-6]  $C_{50}H_{80}O_{23}$  (1049.18). White amorphous powder, mp 258°C (dec). Pharm: Cytotoxic (HSC-2 cells,  $LD_{50} = 12\mu\text{g/mL}$ ; HGF,  $LD_{50} = 37\mu\text{g/mL}$ )<sup>[3023]</sup>. Source: YE XIANG SHU *Cestrum nocturnum* (leaf; yield = 0.0068%fw)<sup>[3023]</sup>, ZHI MU *Anemarrhena asphodeloides*. Ref: 719, 3023.

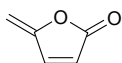


**1178 Anemonin**

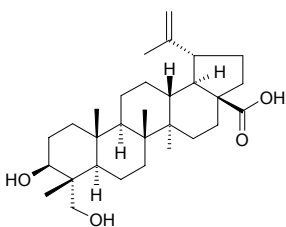
[508-44-1] C<sub>10</sub>H<sub>8</sub>O<sub>4</sub> (192.17). **Pharm:** Analgesic; antibacterial (*Staphylococcus* sp., *Streptococcus* sp. and *Bacillus diphtheriae*, IC = 1:12500, *Mycobacterium tuberculosis* and *Escherichia coli*, IC = 1:50000); antifungal; sedative. **Source:** BAI MAO GEN<sup>(1)</sup> *Imperata cylindrica* var. *major*, BAI TOU WENG *Pulsatilla chinensis*, DA PO WAN HUA *Anemone hupehensis*, MA TI YE *Caltha palustris*, MAO GEN *Ranunculus japonicus*, SHI LONG RUI *Ranunculus sceleratus*, WEI LING XIAN *Clematis chinensis*, YING MAO TI GEN CAO *Helleborus orientalis* var. *hirsutus*. **Ref:** 2, 6, 658, 5501.

**1179 Anemonol**

Protoanemonin [108-28-1] C<sub>5</sub>H<sub>4</sub>O<sub>2</sub> (96.09). Pale-yellow oil, bp 45°C/1.5mmHg, steam-volatile, readily polymerized in air. **Pharm:** Vesicant; antibiotic; antibacterial (*Bacillus coli*, MIC = 12~30µmol/L; *Staphylococcus aureus*, MIC = 16.7µmol/L; *Shigella shigae*, MIC = 16.7µmol/L; *Mycobacterium tuberculosis*, MIC = 2.5µmol/L). **Source:** BAI TOU WENG *Pulsatilla chinensis*, MA TI YE *Caltha palustris*, MAO GEN *Ranunculus japonicus*, SHI LONG RUI *Ranunculus sceleratus*, WEI LING XIAN *Clematis chinensis*, ZI KOU CAO *Ranunculus cantoniensis*, family Ranunculaceae spp. **Ref:** 6, 1521, 5501.

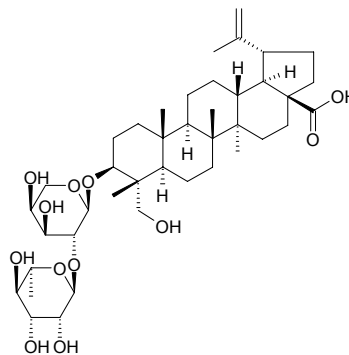
**1180 Anemosapogenin**

[85999-40-2] C<sub>30</sub>H<sub>48</sub>O<sub>4</sub> (472.71). **Source:** BAI TOU WENG *Pulsatilla chinensis*. **Ref:** 2.

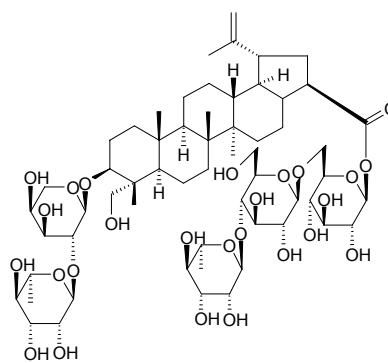
**1181 Anemoside A<sub>3</sub>**

Pulchinenoside A<sub>3</sub> C<sub>41</sub>H<sub>66</sub>O<sub>12</sub> (750.98). Purity >= 99%, [α]<sub>D</sub><sup>20</sup> = -6.0° (c = 0.55, CH<sub>3</sub>OH). **Pharm:** Anti-apoptosis (Protects PC12 Cells apoptosis Induced by sodium cyanide (NaCN, 10mmol/L) and glucose deprivation: MTT assay, control normal cells, survival rate = 100%, injured cells, survival rate = 70.5%, injured cells + 10.0µg/mL Anemoside A<sub>3</sub>, survival rate = 96.4%; LDH release assay, control normal cells, LDH activity = (71.4±5.3)unit/mL, injured cells, LDH activity = (134.4±1.1)unit/mL, injured cells + 10.0µg/mL Anemoside A<sub>3</sub>, LDH activity = (71.1±6.0)unit/mL; flow cytometry assay, control normal cells, apoptosis rate = (2.01±0.81)%, injured cells, apoptosis rate = (18.70±1.90)%, injured cells + 10.0µg/mL

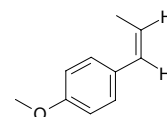
Anemoside A<sub>3</sub>, apoptosis rate = (6.36±1.32)%<sup>[5360]</sup>. **Source:** BAI TOU WENG *Pulsatilla chinensis*. **Ref:** 2, 2985, 3117, 5360.

**1182 Anemoside B<sub>4</sub>**

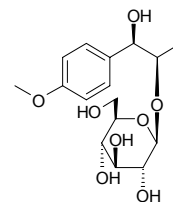
C<sub>59</sub>H<sub>96</sub>O<sub>26</sub> (1221.41). **Source:** BAI TOU WENG *Pulsatilla chinensis*. **Ref:** 2.

**1183 cis-Anethole**

cis-4-(1-Propenyl)anisole [25679-28-1] C<sub>10</sub>H<sub>12</sub>O (148.21). **Source:** HUI XIANG *Foeniculum vulgare*. **Ref:** 6, 7.

**1184 (1'R,2'R)-Anethole Glycol 2'-O-β-D-glucopyranoside**

1-(4'-Methoxyphenyl)-(1R,2R)-propan-1-ol 2-O-β-D-glucopyranoside C<sub>16</sub>H<sub>24</sub>O<sub>8</sub> (344.36). Colorless needles (MeOH), mp 80~84°C, [α]<sub>D</sub><sup>22</sup> = -59° (c = 0.4, MeOH); yellow powder, mp 152~155°C, [α]<sub>D</sub><sup>25</sup> = +42.10° (c = 0.142, MeOH). **Pharm:** Anti-sepsis inactive (mouse, TNF-α/D-GaIN-induced lethality, 8mg/kg, SuRt = 20%, control SuRt = 20%, Dexamethasone, 10mg/kg, SuRt = 100%)<sup>[5446]</sup>. **Source:** BA JIAO HUI XIANG *Illicium verum*, HUI QIN *Pimpinella anisum* (fruit). **Ref:** 4242, 5446.

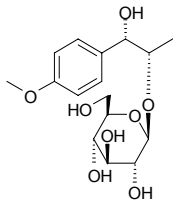




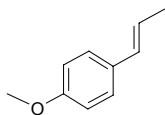
**1185 (1'S,2'S)-Anethole glycol 2'-O-β-D-Glucopyranoside**

[1-(4'-Methoxyphenyl)]-(1S,2S)-propan-1-ol 2-O-β-D-glucopyranoside C<sub>16</sub>H<sub>24</sub>O<sub>8</sub> (344.36). Colorless needles (MeOH), mp 75–78°C, [α]<sub>D</sub><sup>22</sup> = +11° (c = 0.3, MeOH); yellow crystals, mp 64–65°C, [α]<sub>D</sub><sup>25</sup> = +47.95° (c = 0.225, MeOH). **Pharm:** Anti-sepsis inactive (mouse, TNF-α/D-GaIN-induced lethality, 14mg/kg, SuRt = 20%, control SuRt = 20%, Dexamethasone, 10mg/kg, SuRt = 100%)<sup>[5446]</sup>. **Source:** BA JIAO HUI *Illicium verum*, HUI QIN

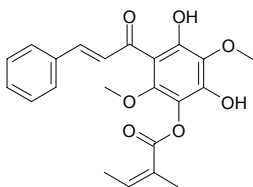
*Pimpinella anisum* (fruit). **Ref:** 4242, 5446.

**1186 Anethole**

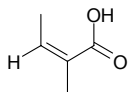
1-Methoxy-4-(1-propenyl)benzene [4180-23-8] C<sub>10</sub>H<sub>12</sub>O (148.21). **Pharm:** Carminative (animal model); leukopoietic. **Source:** BA JIAO HUANG PI *Clausena anisata*, BA JIAO HUI XIANG *Illicium verum* (fruit: content scope of 15 origins = 4.58%–8.88%, mean content = 6.42%<sup>[5508]</sup>), DU SONG SHI *Juniperus rigida*, HUI QIN *Pimpinella anisum*, HUI XIANG *Foeniculum vulgare* (dried ripe fruit: mean content of 3 origins = 0.204%<sup>[5508]</sup>), HUO XIANG *Agastache rugosus*, LIU YE MU LAN *Magnolia salicifolia*, LUO LE *Ocimum basilicum*, QING JIAO *Zanthoxylum schinifolium*, SHEN HAO *Artemisia porrecta*, SHUI HUI XIANG *Limnophila rugosa*, XIANG GEN QIN *Osmorhiza aristata* var. *laxa*, ZI WAN *Aster tataricus*. **Ref:** 2, 6, 7, 660, 1297, 5501, 5508.

**1187 Angelafolone**

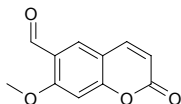
C<sub>22</sub>H<sub>22</sub>O<sub>7</sub> (398.42). **Source:** YU LIAO *Polygonum lapathifolium*. **Ref:** 660.

**1188 Angelic acid**

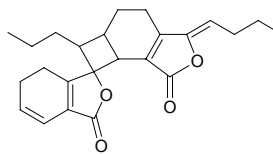
*cis*-2,3-Dimethylacrylic acid [565-63-9] C<sub>5</sub>H<sub>8</sub>O<sub>2</sub> (100.12). **Source:** DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*], FENG DOU CAI *Petasites japonicus*. **Ref:** 2.

**1189 Angelical**

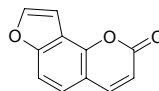
C<sub>11</sub>H<sub>8</sub>O<sub>4</sub> (204.18). mp 250°C. **Source:** YAN JIAO CAO *Boenninghausenia albiflora*. **Ref:** 2495.

**1190 Angelicid**

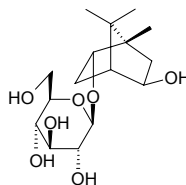
C<sub>24</sub>H<sub>28</sub>O<sub>4</sub> (380.49). **Source:** DANG GUI *Angelica sinensis*. **Ref:** 2.

**1191 Angelicin**

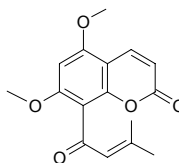
Isopsoralen; Bakuchicin [523-50-2] C<sub>11</sub>H<sub>6</sub>O<sub>3</sub> (186.17). mp 135.0–139.5°C, 142°C. **Pharm:** Antispasmodic (rbt, duodenum smooth muscle relaxant, EC = 20μg/mL, gpg, inhibits ileal contraction induced by acetylcholine, histamine, BaCl<sub>2</sub> and 5-HT by 50%); CNS depressant (mus, ip, 20mg/kg, inhibits spontaneous motion, presents dose-response relationship); photosensitizer; anti-early-pregnancy; anti-rejection symptom in skin grafting; LD<sub>50</sub> (rat, ip) = 165mg/kg, (mus, ip) = 254mg/kg. **Source:** BAI ZHI *Angelica dahurica* [Syn. *Angelica porphyrocaulis*], BU GU ZHI *Psoralea corylifolia* (dried ripe fruit: mean content of 10 origins = 0.427%<sup>[5508]</sup>), GAN SONG *Nardostachys chinensis*, CHAI HU *Bupleurum chinense*, DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*], YONG NING DU HUO *Heracleum yungningense*. **Ref:** 2, 6, 541, 545, 658, 5501, 5508.

**1192 (1R,2S,4S,5R)-Angelicoidenol 2-O-β-D-glucopyranoside**

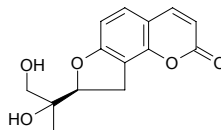
C<sub>16</sub>H<sub>28</sub>O<sub>7</sub> (332.40). **Source:** SUO SHA MI *Amomum xanthioides* (seed). **Ref:** 4365.

**1193 Angelicone**

Glabralactone [37719-98-5] C<sub>16</sub>H<sub>16</sub>O<sub>5</sub> (288.30). mp 129–130°C. **Source:** BEI FANG DANG GUI *Angelica ursina*, DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*], GUANG HUA DANG GUI *Angelica glabra*. **Ref:** 2, 6, 660, 1521.

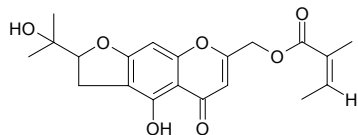
**1194 Angelidiol**

Heramandiol C<sub>14</sub>H<sub>14</sub>O<sub>5</sub> (262.26). Colorless needles, mp 148–150°C, [α]<sub>D</sub> = +122.5° (c = 0.2, CHCl<sub>3</sub>). **Source:** DA YE NIU FANG FENG *Heracleum mantegazzianum*, DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*]. **Ref:** 8, 344, 1521.

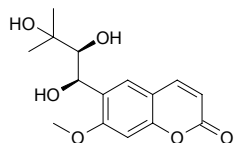


**1195 Angelitin A**

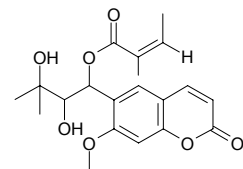
$C_{20}H_{22}O_7$  (374.39). White granular crystals, mp 177~178°C. Source: GUAI QIN *Angelica polymorpha*. Ref: 340.

**1196 Angelitriol**

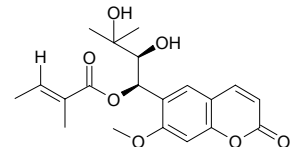
$C_{15}H_{18}O_6$  (294.31). Colorless needles, mp 167~169°C,  $[\alpha]_D^{22} = -69^\circ$  ( $c = 0.12$ ,  $CHCl_3$ ). Source: DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*]. Ref: 8.

**1197 Angelol**

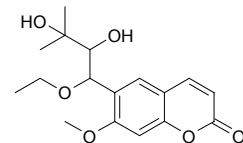
$C_{20}H_{24}O_7$  (376.41). mp 104~105°C. Source: DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*]. Ref: 6.

**1198 Angelol D**

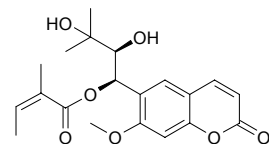
[83199-39-7]  $C_{20}H_{24}O_7$  (376.41). Source: DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*]. Ref: 7.

**1199 Angelol J**

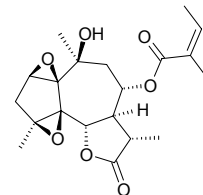
$C_{17}H_{22}O_6$  (322.36). Colorless hyaloid oil,  $[\alpha]_D = -76.4^\circ$  ( $c = 0.30$ ,  $CHCl_3$ ). Source: DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*]. Ref: 8.

**1200 Angelol K**

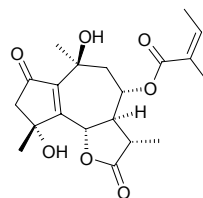
$C_{20}H_{24}O_7$  (376.41). Colorless powder, mp 116~118°C,  $[\alpha]_D = -20.6^\circ$  ( $c = 0.32$ ,  $CHCl_3$ ). Source: DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*]. Ref: 8.

**1201 8α-Angeloxo-1β,2β:4β,5β-diepoxy-10β-hydroxy-6βH,7αH,11βH-12,6α-guaianolide**

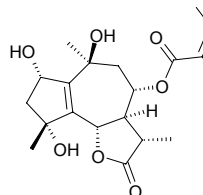
$C_{20}H_{26}O_7$  (378.43).  $[\alpha]_D^{20} = +2.7^\circ$  ( $c = 0.16$ ,  $CHCl_3$ ). Source: YA ZHOU SHI *Achillea asiatica* (aerial parts). Ref: 5229.

**1202 8α-Angeloxo-4α,10β-dihydroxy-2-oxo-6βH,7αH,11βH-1(5)-guaien-12,6α-olide**

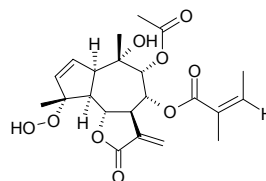
$C_{20}H_{26}O_7$  (378.43).  $[\alpha]_D^{20} = +9.5^\circ$  ( $c = 0.44$ ,  $CHCl_3$ ). Source: YA ZHOU SHI *Achillea asiatica* (aerial parts). Ref: 5229.

**1203 8α-Angeloxo-2α,4α,10β-trihydroxy-6βH,7αH,11βH-1(5)-guaien-12,6α-olide**

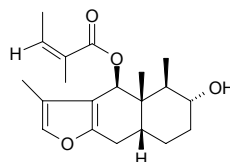
$C_{20}H_{28}O_7$  (380.44).  $[\alpha]_D^{20} = +7.4^\circ$  ( $c = 0.11$ ,  $CHCl_3$ ). Source: YA ZHOU SHI *Achillea asiatica* (aerial parts). Ref: 5229.

**1204 8-O-Angeloyl-9-O-acetylanthemolide B**

$C_{22}H_{28}O_9$  (436.46). Colorless solid. Source: MENG DA NA CHUN HUANG JU *Anthemis cretica* ssp. *cretica* [Syn. *Anthemis montana*]. Ref: 1893.

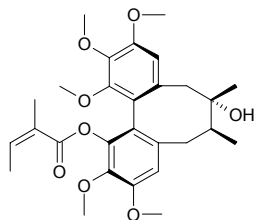
**1205 6-Angeloylfuranofukinol**

$C_{20}H_{28}O_4$  (332.44). Source: FENG DOU CAI *Petasites japonicus*. Ref: 6.

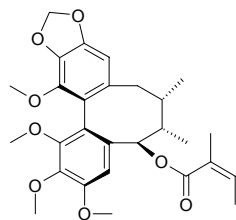


**1206 Angeloyl gomisin H**

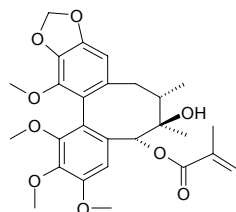
$C_{28}H_{36}O_8$  (500.59). Source: CHANG GENG NAN WU WEI ZI *Kadsura peltigera* [Syn. *Kadsura longipedunculata*], WU WEI ZI *Schisandra chinensis*. Ref: 2, 660.

**1207 Angeloyl gomisin O**

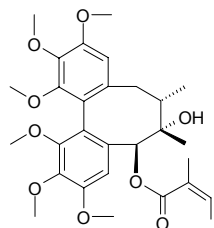
$C_{28}H_{34}O_8$  (498.58). Source: CHANG GENG NAN WU WEI ZI *Kadsura peltigera* [Syn. *Kadsura longipedunculata*], WU WEI ZI *Schisandra chinensis*. Ref: 2, 660.

**1208 Angeloyl gomisin P**

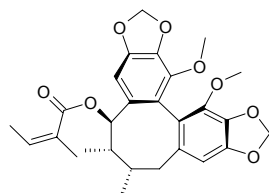
$C_{28}H_{34}O_9$  (514.58). Source: CHANG GENG NAN WU WEI ZI *Kadsura peltigera* [Syn. *Kadsura longipedunculata*], WU WEI ZI *Schisandra chinensis*. Ref: 660.

**1209 Angeloylgomisin Q**

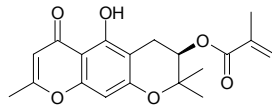
$C_{29}H_{38}O_9$  (530.62). Source: WU WEI ZI *Schisandra chinensis*. Ref: 2.

**1210 Angeloylgomisin R**

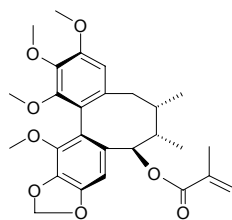
$C_{27}H_{30}O_8$  (482.54). Pharm: Antineoplastic (screened as potential antitumor promoters, EBV-EA induced by TPA, mol ratio/TPA = 1000, relative percentage of EBV-EA = (10.6±0.4)% (positive control value 32pmol, 20ng TPA =100%), viability of Raji cells = 60%). Source: NEI NAN WU WEI ZI *Kadsura interior* (stem). Ref: 4644.

**1211 3-O-Angeloylhamaudol**

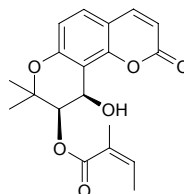
$C_{20}H_{22}O_6$  (358.39). Yellowish columnar crystals (pet. Ether-EtOAc), mp 128–129°C,  $[\alpha]_D = -57^\circ$  (CDCl<sub>3</sub>). Source: MO GUO QIN *Sphallerocarpus gracilis*. Ref: 2500.

**1212 Angeloylisogomisin O**

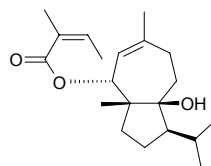
[83864-70-4]  $C_{28}H_{34}O_8$  (498.58). Source: WU WEI ZI *Schisandra chinensis*. Ref: 2.

**1213 3'-Angeloyl-cis-khellactone**

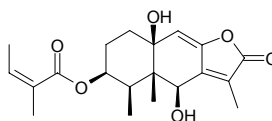
$C_{19}H_{20}O_6$  (344.37). Pharm: NO Production inhibitor (LPS-activated mouse peritoneal macrophages, IC<sub>50</sub> = 82μmol/L, control L-NMMA, IC<sub>50</sub> = 28μmol/L). Source: FEN CHA DANG GUI *Angelica furcijuga* (flower). Ref: 4454.

**1214 1α-Angeloyloxycarotol**

$C_{20}H_{32}O_3$  (320.48). Source: FEN CHA DANG GUI *Angelica furcijuga* (flower). Ref: 4454.

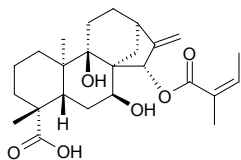
**1215 3β-Angeloyloxy-6β,10β-dihydroxyremophila-7(11),8(9)-dien-8,12-olide**

$C_{20}H_{26}O_6$  (362.43). Colorless gum,  $[\alpha]_D^{20} = +122.6^\circ$  (c = 0.60, CHCl<sub>3</sub>). Pharm: Antibacterial inactive (gram-positive and gram-negative bacteria). Source: TU ER FENG XIE JIA CAO *Cacalia ainsliaeflora*. Ref: 5428.

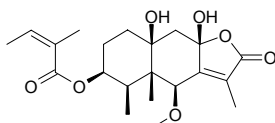


**1216 ent-15 $\beta$ -Angeloyloxy-7 $\alpha$ ,9 $\alpha$ -dihydroxy-kaur-16-en-19-oic acid**

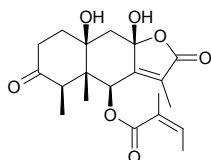
C<sub>25</sub>H<sub>36</sub>O<sub>6</sub> (432.56). [ $\alpha$ ]<sub>D</sub> = -32.75° (*c* = 1.83, MeOH). Source: *Oyedaea verbesinoides*. Ref: 3379.

**1217 3 $\beta$ -Angeloyloxy-8 $\beta$ ,10 $\beta$ -dihydroxy-6 $\beta$ -methoxyeremophilenolide**

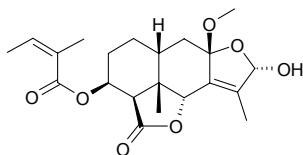
C<sub>21</sub>H<sub>30</sub>O<sub>7</sub> (394.47). Colorless crystals, mp 213.4~214.6°C, [ $\alpha$ ]<sub>D20</sub> = +107.8° (*c* = 4.3, CHCl<sub>3</sub>). Pharm: Antibacterial inactive (gram-positive and gram-negative bacteria). Source: TU ER FENG XIE JIA CAO *Cacalia ainsliaeflora*. Ref: 5428.

**1218 6 $\beta$ -Angeloyloxy-8 $\beta$ ,10 $\beta$ -dihydroxy-3-oxo-eremophilenolide**

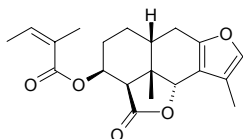
C<sub>20</sub>H<sub>26</sub>O<sub>7</sub> (378.43). Colorless gum, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +114.9° (*c* = 1.05, CHCl<sub>3</sub>). Source: TU ER FENG XIE JIA CAO *Cacalia ainsliaeflora*. Ref: 5428.

**1219 3 $\beta$ -Angeloyloxy-8,12-epoxy-12 $\alpha$ -hydroxy-8 $\beta$ -methoxyeremophil-7(11)-en-14 $\beta$ ,6 $\alpha$ -olide**

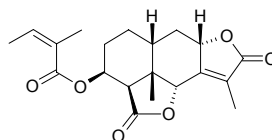
C<sub>21</sub>H<sub>28</sub>O<sub>7</sub> (392.45). Amorphous powder, mp 214~215°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +56.5° (*c* = 0.67, CHCl<sub>3</sub>). Source: NIU BANG YE DU WU *Ligularia lapathifolia* (root and rhizome). Ref: 4948.

**1220 3 $\beta$ -Angeloyloxyeremophil-7,11-dien-14 $\beta$ ,6 $\alpha$ -olide**

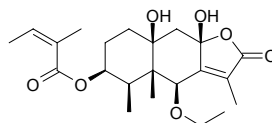
C<sub>20</sub>H<sub>24</sub>O<sub>5</sub> (344.41). Amorphous powder, mp 140~141°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +47.4° (*c* = 0.44, CHCl<sub>3</sub>). Source: NIU BANG YE DU WU *Ligularia lapathifolia* (root and rhizome). Ref: 4948.

**1221 3 $\beta$ -Angeloyloxy-8 $\beta$ H-eremophil-7(11)-ene-12,8 $\alpha$ (14 $\beta$ ,6 $\alpha$ )-diolide**

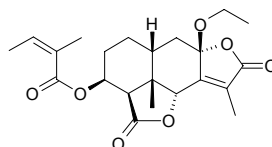
C<sub>20</sub>H<sub>24</sub>O<sub>6</sub> (360.41). Amorphous powder, mp 193~194°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +128.8° (*c* = 0.41, CHCl<sub>3</sub>). Source: NIU BANG YE DU WU *Ligularia lapathifolia* (root and rhizome). Ref: 4948.

**1222 3 $\beta$ -Angeloyloxy-6 $\beta$ -ethoxy-8 $\beta$ ,10 $\beta$ -dihydroxyeremophilenolide**

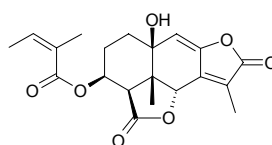
C<sub>22</sub>H<sub>32</sub>O<sub>7</sub> (408.50). Colorless gum, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +117.4° (*c* = 0.60, CHCl<sub>3</sub>). Pharm: Antibacterial inactive (gram-positive and gram-negative bacteria). Source: TU ER FENG XIE JIA CAO *Cacalia ainsliaeflora*. Ref: 5428.

**1223 3 $\beta$ -Angeloyloxy-8 $\beta$ -ethoxyeremophil-7(11)-ene-12,8 $\alpha$ (14 $\beta$ ,6 $\alpha$ )-diolide**

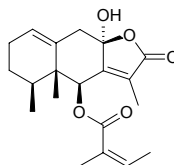
C<sub>22</sub>H<sub>28</sub>O<sub>7</sub> (404.46). Amorphous powder, mp 178~179°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +79.6° (*c* = 0.52, CHCl<sub>3</sub>). Source: NIU BANG YE DU WU *Ligularia lapathifolia* (root and rhizome). Ref: 4948.

**1224 3 $\beta$ -Angeloyloxy-10 $\beta$ -hydroxyeremophil-8(9),7(11)-diene-12,8(14 $\beta$ ,6 $\alpha$ )-diolide**

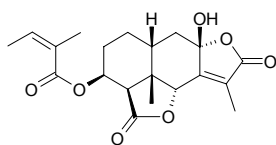
C<sub>20</sub>H<sub>22</sub>O<sub>7</sub> (374.39). Amorphous powder, mp 198~199°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +211.2° (*c* = 1.00, CHCl<sub>3</sub>). Source: NIU BANG YE DU WU *Ligularia lapathifolia* (root and rhizome). Ref: 4948.

**1225 6 $\beta$ -Angeloyloxy-8 $\alpha$ -hydroxyeremophil-1(10),7(11)-dien-8 $\beta$ (12)-olide**

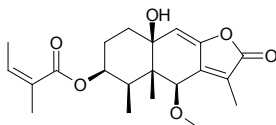
C<sub>20</sub>H<sub>26</sub>O<sub>5</sub> (346.43). Colorless gum, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -107° (*c* = 0.18, acetone). Source: JIA TUO WU *Ligulariopsis shichuana* (whole herb: 00022%dw). Ref: 4627.



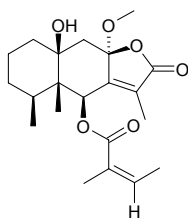
**1226 3 $\beta$ -Angeloyloxy-8 $\beta$ -hydroxyremophil-7(11)-ene-12,8 $\alpha$ (14 $\beta$ ,6 $\alpha$ )-diolide**  
 C<sub>20</sub>H<sub>24</sub>O<sub>7</sub> (376.41). Amorphous powder, mp 201~202°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +136.6° (c = 0.80, CHCl<sub>3</sub>). Source: NIU BANG YE DU WU *Ligularia lapathifolia* (root and rhizome). Ref: 4948.



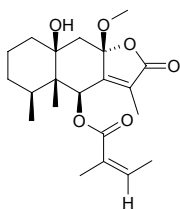
**1227 3 $\beta$ -Angeloyloxy-10 $\beta$ -hydroxy-6 $\beta$ -methoxyremophila-7(11),8(9)-dien-8,12-olide**  
 C<sub>21</sub>H<sub>28</sub>O<sub>6</sub> (376.45). Colorless gum, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +43.3° (c = 0.58, CHCl<sub>3</sub>). Source: TU ER FENG XIE JIA CAO *Cacalia ainsliaeflora*. Ref: 5428.



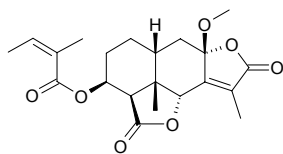
**1228 6 $\beta$ -Angeloyloxy-10 $\beta$ -hydroxy-8 $\alpha$ -methoxyremophil-7(11)-en-12,8 $\beta$ -olide**  
 C<sub>21</sub>H<sub>30</sub>O<sub>6</sub> (378.47). Source: JIAN YE TOU WU GEN *Ligularia sagitta*. Ref: 5382.



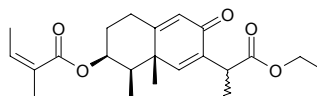
**1229 6 $\beta$ -Angeloyloxy-10 $\beta$ -hydroxy-8 $\beta$ -methoxyremophil-7(11)-en-12,8 $\alpha$ -olide**  
 C<sub>21</sub>H<sub>30</sub>O<sub>6</sub> (378.47). Source: JIAN YE TOU WU GEN *Ligularia sagitta*. Ref: 5382.



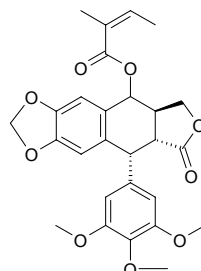
**1230 3 $\beta$ -Angeloyloxy-8 $\beta$ -methoxyremophil-7(11)-ene-12,8 $\alpha$ (14 $\beta$ ,6 $\alpha$ )-diolide**  
 C<sub>21</sub>H<sub>26</sub>O<sub>7</sub> (390.44). Amorphous powder, mp 180~181°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +71.6° (c = 0.54, CHCl<sub>3</sub>). Source: NIU BANG YE DU WU *Ligularia lapathifolia* (root and rhizome). Ref: 4948.



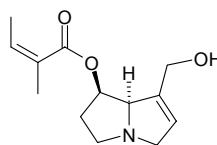
**1231 3 $\beta$ -Angeloyloxy-8-oxoeremophila-6,9-dien-12-oic acid ethyl ester**  
 C<sub>22</sub>H<sub>30</sub>O<sub>5</sub> (374.48). Colorless gum, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +47.6° (c = 0.43, CHCl<sub>3</sub>). Source: TU ER FENG XIE JIA CAO *Cacalia ainsliaeflora*. Ref: 5428.



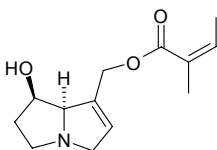
**1232 Angeloylpodophyllotoxin**  
 C<sub>27</sub>H<sub>28</sub>O<sub>9</sub> (496.52). Source: E SHEN *Anthriscus sylvestris*. Ref: 5499.



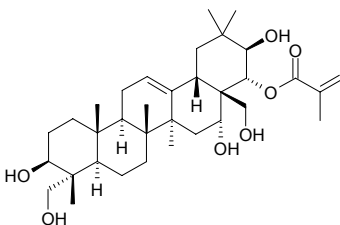
**1233 O<sup>7</sup>-Angeloylretronecine**  
 C<sub>13</sub>H<sub>19</sub>NO<sub>3</sub> (237.30). Source: ZI CAO *Lithospermum erythrorhizon*, XIN ZANG JIA ZI CAO *Arnebia euchroma*. Ref: 2193.



**1234 O<sup>9</sup>-Angeloylretronecine**  
 C<sub>13</sub>H<sub>19</sub>NO<sub>3</sub> (237.30). Source: ZI CAO *Lithospermum erythrorhizon*, XIN ZANG JIA ZI CAO *Arnebia euchroma*. Ref: 2193.

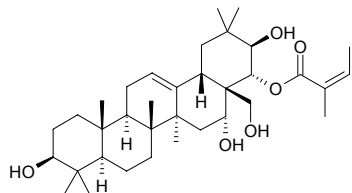


**1235 22-O-Angeloyl theasapogenol A**  
 C<sub>35</sub>H<sub>56</sub>O<sub>7</sub> (588.83). Source: PU ER CHA *Camellia sinensis* var. *assamica*. Ref: 581.

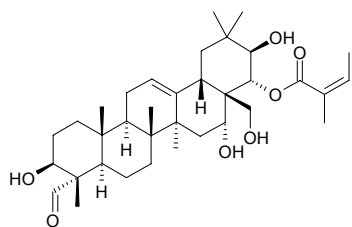


**1236 22-O-Angeloyl theasapogenol B**

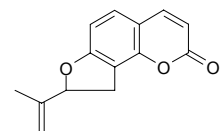
$C_{35}H_{56}O_6$  (573.83). Source: PU ER CHA *Camellia sinensis* var. *assamica*. Ref: 581.

**1237 22-O-Angeloyl theasapogenol E**

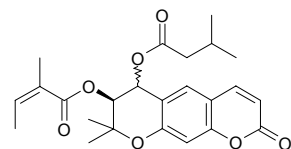
$C_{35}H_{54}O_7$  (586.82). Source: PU ER CHA *Camellia sinensis* var. *assamica*. Ref: 581.

**1238 Angenomalin**

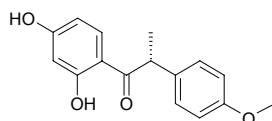
[33792-75-5]  $C_{14}H_{12}O_3$  (228.25). mp 105~126°C. Source: HANG BAI ZHI *Angelica taiwaniana*. Ref: 6.

**1239 3'(S)-Angeroxyloxy-4'(R)-isovaleryloxy-3',4'-dihydroxanthyletin**

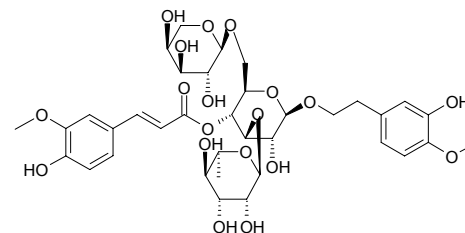
Praeruptorin III  $C_{24}H_{28}O_7$  (428.49). Source: BAI HUA QIAN HU *Peucedanum praeruptorum*. Ref: 660.

**1240 Angolensin**

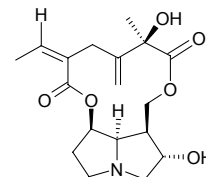
[4842-48-2]  $C_{16}H_{16}O_4$  (272.30). mp (-) 120.5~121.0°C. Source: ZI TAN *Pterocarpus indicus*. Ref: 6.

**1241 Angoroside C**

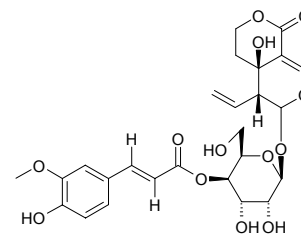
$C_{36}H_{48}O_{19}$  (784.77). Pharm: Antitrypanosomal (*Trypanosoma brucei rhodesiense*,  $IC_{50} = 29.3\mu\text{g/mL}$ , control Melarsoprol,  $IC_{50} = 0.0033\mu\text{g/mL}$ ; *Trypanosoma cruzi*,  $IC_{50} > 90\mu\text{g/mL}$ , control Benznidazole,  $IC_{50} = 0.70\mu\text{g/mL}$ ); antileishmanial (*Leishmania donovani*,  $IC_{50} = 8.0\mu\text{g/mL}$ , control Miltefosine,  $IC_{50} = 0.32\mu\text{g/mL}$ ); antimalarial (*Plasmodium falciparum*,  $IC_{50} > 50\mu\text{g/mL}$ , control Artemisinin,  $IC_{50} = 0.002\mu\text{g/mL}$ )<sup>[5251]</sup>; cytotoxic (L6 cells,  $IC_{50} > 90\mu\text{g/mL}$ , control Podophyllotoxin,  $IC_{50} = 0.0075\mu\text{g/mL}$ ). Source: LIN PIAN XUAN SHEN *Scrophularia lepidota* (root). Ref: 5251.

**1242 Angularine**

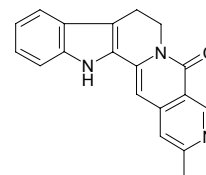
$C_{18}H_{25}NO_6$  (351.40). Pharm: Toxin (exhibits hepatic toxicity, causes necrosis of ox liver cells). Source: LENG JIAO QIAN LI GUANG *Senecio angularatus*. Ref: 658.

**1243 Angustiamarin**

$C_{26}H_{30}O_{13}$  (550.52). Light yellow amorphous powder, mp 115~118°C. Source: XIA YE ZHANG YA CAI *Swertia angustifolia*. Ref: 340.

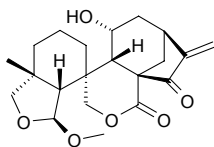
**1244 Angustidine**

[40217-50-3]  $C_{19}H_{15}N_3O$  (301.35). Pharm: Antibacterial (*in vitro*: *Staphylococcus aureus*, *Bacillus subtilis*, *Bacillus coli*, *Bacillus diphtheriae*, *Streptococcus* sp., *Salmonella* sp., *Bacillus proteus*, *Aspergillus niger*, *Bacillus lactis*, *Klebsiella* sp.); antileishmanial. Source: GOU TENG *Uncaria rhynchophylla* [Syn. *Nauclea rhynchophylla*]. Ref: 2, 2178.

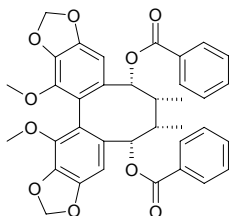


**1245 Angustifolin**

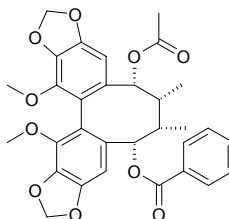
[66548-01-4]  $C_{21}H_{28}O_6$  (376.45). mp 258~261°C,  $[\alpha]_D^{20} = -60.2^\circ$  ( $c = 1.25$ ,  $C_5H_5N$ ). **Pharm:** Cytotoxic (*in vitro*, K562,  $IC_{50} = 0.23\mu g/mL$ ; control *cis*-Platin,  $IC_{50} = 0.52\mu g/mL$ )<sup>[4732]</sup>. **Source:** LU SHI DONG LING CAO *Isodon rubescens* var. *lushiensis* (leaf: yield = 0.00029%dw<sup>[4732]</sup>), XIA YE XIANG CHA CAI *Isodon angustifolia*. **Ref:** 1521, 4067, 4732.

**1246 Angustifolin A**

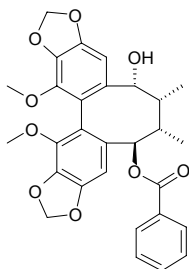
[211632-04-1]  $C_{36}H_{32}O_{10}$  (624.65). **Source:** XIA XIE NAN WU WEI ZI *Kadsura angustifolia*. **Ref:** 2436.

**1247 Angustifolin B**

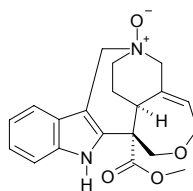
[211632-06-3]  $C_{31}H_{30}O_{10}$  (562.58). **Source:** XIA XIE NAN WU WEI ZI *Kadsura angustifolia*. **Ref:** 2436.

**1248 Angustifolin C**

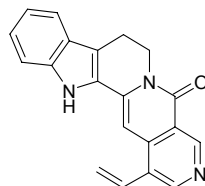
[211632-08-5]  $C_{29}H_{28}O_9$  (520.54). **Source:** XIA XIE NAN WU WEI ZI *Kadsura angustifolia*, BO LUO XIANG TENG *Kadsura ananosma* (stem bark). **Ref:** 2436, 5242.

**1249 Angustilobine B N4-oxide**

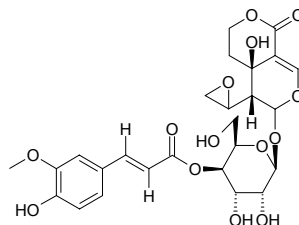
$C_{20}H_{22}N_2O_4$  (354.41). **Source:** XIANG PI MU *Alstonia scholaris* (leaf). **Ref:** 5283.

**1250 Angustine**

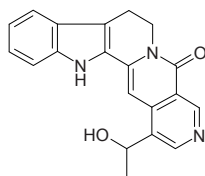
[40041-96-1]  $C_{20}H_{15}N_3O$  (313.36). **Pharm:** Antibacterial (*in vitro*: *Staphylococcus aureus*, *Bacillus subtilis*, *Bacillus coli*, *Bacillus diphtheriae*, *Streptococcus* sp., *Salmonella* sp., *Bacillus proteus*, *Aspergillus niger*, *Bacillus lactis*, *Klebsiella* sp.); antileishmanial; toxin. **Source:** NIU YAN MA QIAN *Strychnos angustiflora*. **Ref:** 658, 2178.

**1251 Angustioside**

$C_{26}H_{30}O_{14}$  (566.52). Light yellow amorphous powder, bitter flavor, mp 124~128°C. **Source:** XIA YE ZHANG YA CAI *Swertia angustifolia*. **Ref:** 220.

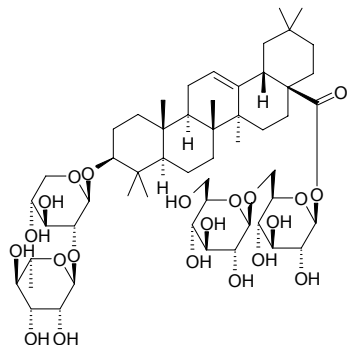
**1252 Angustoline**

[40041-95-0]  $C_{20}H_{17}N_3O_2$  (331.38). **Pharm:** Antibacterial (*in vitro*: *Staphylococcus aureus*, *Bacillus subtilis*, *Bacillus coli*, *Bacillus diphtheriae*, *Streptococcus* sp., *Salmonella* sp., *Bacillus proteus*, *Aspergillus niger*, *Bacillus lactis*, *Klebsiella* sp.); antileishmanial. **Source:** GOU TENG *Uncaria rhynchophylla* [Syn. *Nauclea rhynchophylla*]. **Ref:** 2, 2178.

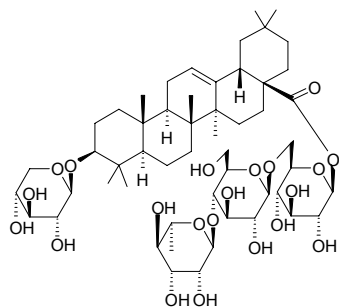


**1253 Anhuienoside C**

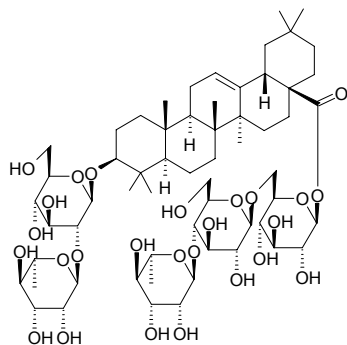
3-*O*- $\alpha$ -*L*-Rhamnopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -*D*-xylopyranosyl oleanolic acid 28-*O*- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranosyl ester C<sub>53</sub>H<sub>86</sub>O<sub>21</sub> (1059.26). White powder (MeOH), mp 238~241°C,  $[\alpha]_D^{20} = -8.6^\circ$  ( $c = 0.42$ , MeOH).  
Source: AN HUI YIN LIAN HUA *Anemone anhuiensis* (rhizome). Ref: 3529.

**1254 Anhuienoside D**

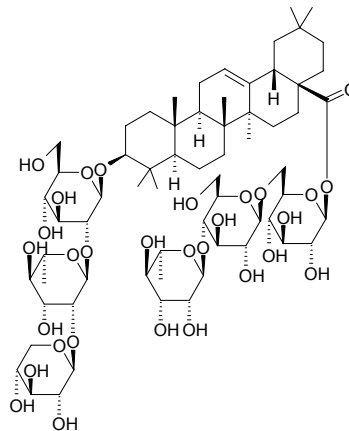
3-*O*- $\beta$ -*D*-Xylopyranosyl oleanolic acid 28-*O*- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranosyl ester C<sub>53</sub>H<sub>86</sub>O<sub>21</sub> (1059.26). White powder (MeOH), mp 251~253°C,  $[\alpha]_D^{20} = -63.6^\circ$  ( $c = 0.33$ , MeOH).  
Source: AN HUI YIN LIAN HUA *Anemone anhuiensis* (rhizome). Ref: 3529.

**1255 Anhuienoside E**

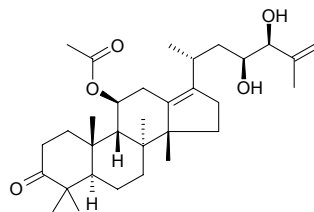
3-*O*- $\alpha$ -*L*-Rhamnopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -*D*-glucopyranosyl oleanolic acid 28-*O*- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranosyl ester C<sub>60</sub>H<sub>98</sub>O<sub>26</sub> (1235.43). White powder (MeOH), mp 224~226°C.  
Source: AN HUI YIN LIAN HUA *Anemone anhuiensis* (rhizome). Ref: 3529.

**1256 Anhuienoside F**

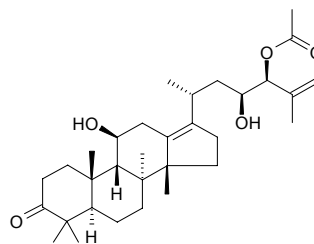
3-*O*- $\beta$ -*D*-Glucopyranosyl-(1 $\rightarrow$ 3)- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -*D*-xylopyranosyl oleanolic acid 28-*O*- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranosyl ester C<sub>65</sub>H<sub>106</sub>O<sub>30</sub> (1367.55). White powder (MeOH), mp 235~236°C. Source: AN HUI YIN LIAN HUA *Anemone anhuiensis* (rhizome). Ref: 3529.

**1257 25-Anhydroalisol A 11-acetate**

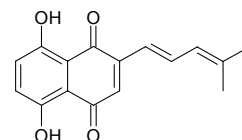
C<sub>32</sub>H<sub>50</sub>O<sub>5</sub> (514.75). Colorless needles, mp 215~216°C. Source: ZE XIE *Alisma orientale* [Syn. *Alisma plantago-aquatica* var. *orientale*]. Ref: 2202.

**1258 25-Anhydroalisol A 24-acetate**

C<sub>32</sub>H<sub>50</sub>O<sub>5</sub> (514.75). Colorless needles, mp 212~213°C. Source: ZE XIE *Alisma orientale* [Syn. *Alisma plantago-aquatica* var. *orientale*]. Ref: 2202.

**1259 Anhydroalkannin**

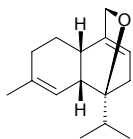
C<sub>16</sub>H<sub>14</sub>O<sub>4</sub> (270.29). Source: ZI CAO *Lithospermum erythrorhizon*, XIN ZANG JIA ZI CAO *Arnebia euchroma*. Ref: 2193.



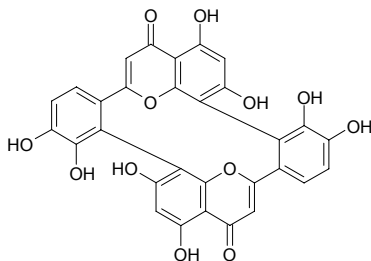


**1260 7,14-Anhydro-amorpha-4,9-diene**

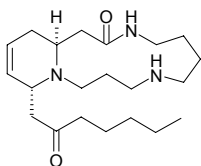
(+)-(2*S*,7*R*,8*S*)-5-Methyl-8-(1-methylethyl)-9-oxa-tricyclo[6.2.2.0<sup>2,7</sup>]dodeca-1(11),5-diene C<sub>15</sub>H<sub>22</sub>O (218.34). Colorless oil. Source: DONG YA ZHI YE TAI *Lepidozia fauriana* (essential oil). Ref: 5209.

**1261 Anhydrobartramiaflavone**

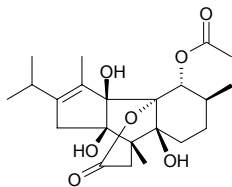
C<sub>30</sub>H<sub>16</sub>O<sub>12</sub> (568.45). Source: LI SHUO ZHU XIAN *Bartramia pomiformis*. Ref: 4549.

**1262 Anhydrocannabisativine**

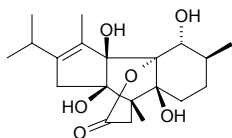
C<sub>21</sub>H<sub>37</sub>N<sub>3</sub>O<sub>2</sub> (363.55). Source: MA GEN *Cannabis sativa*, MA YE *Cannabis sativa*. Ref: 660.

**1263 Anhydrocinnzeylanine**

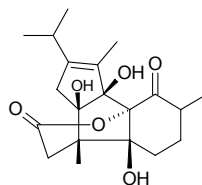
C<sub>23</sub>H<sub>34</sub>O<sub>7</sub> (422.52). Source: GUI ZHI *Cinnamomum cassia* [Syn. *Cinnamomum aromaticum*]. Ref: 660.

**1264 Anhydrocinnzeylanol**

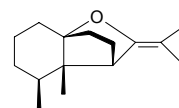
C<sub>21</sub>H<sub>32</sub>O<sub>6</sub> (380.49). Pharm: Antifeedant (*Spodoptera littoralis*, EC<sub>50</sub> = 0.22nmol/cm<sup>2</sup>, *Leptinotarsa decemlineata*, EC<sub>50</sub> = 2.29nmol/cm<sup>2</sup>)<sup>[5128]</sup>. Source: GUI ZHI *Cinnamomum cassia* [Syn. *Cinnamomum aromaticum*], YIN DU E LI *Persea indica* (aerial parts). Ref: 660, 5128.

**1265 Anhydrocinnzeylanone**

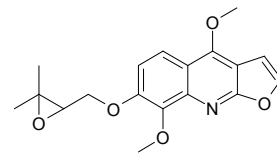
C<sub>20</sub>H<sub>28</sub>O<sub>6</sub> (364.44). Pharm: Antifeedant (*Spodoptera littoralis*, EC<sub>50</sub> > 27nmol/cm<sup>2</sup>, *Leptinotarsa decemlineata*, EC<sub>50</sub> > 27nmol/cm<sup>2</sup>)<sup>[5128]</sup>. Source: YIN DU E LI *Persea indica* (aerial parts). Ref: 5128.

**1266 7,10-Anhydro-11,12-dihydrochiloscypholone**

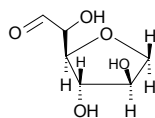
(+)-(1*R*,5*S*,6*S*,7*S*)-5,6-Dimethyl-9-oxo-8-isopropylidene-tricyclo[5.2.2.0<sup>1,6</sup>]undecane C<sub>15</sub>H<sub>24</sub>O (220.36). Colorless oil. Source: DONG YA ZHI YE TAI *Lepidozia fauriana* (essential oil). Ref: 5209.

**1267 Anhydroevoxine**

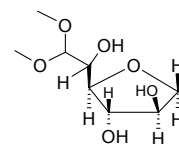
C<sub>18</sub>H<sub>19</sub>NO<sub>5</sub> (329.36). Needles, mp 133–134°C. Source: GAO GUI YOU MU YUN XIANG *Teclea nobilis* (aerial parts). Ref: 3503.

**1268 3,6-Anhydrogalactose**

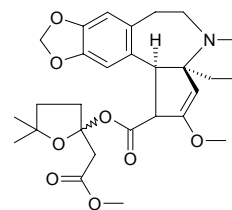
C<sub>6</sub>H<sub>10</sub>O<sub>5</sub> (162.14). Source: QI LIN CAI *Eucheuma muricatum*. Ref: 6.

**1269 3,6-Anhydro-L-galactose dimethyl acetal**

C<sub>8</sub>H<sub>16</sub>O<sub>6</sub> (208.21). Source: LU JIAO CAI *Gloiopeltis furcata*. Ref: 6.

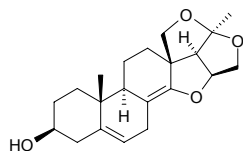
**1270 Anhydroharringtonine**

[142735-74-8] C<sub>28</sub>H<sub>35</sub>NO<sub>8</sub> (513.59). Source: SAN JIAN SHAN *Cephalotaxus fortunei*. Ref: 2.

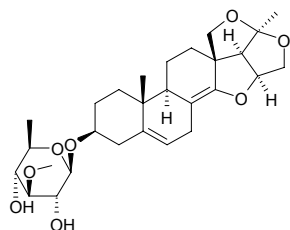


**1271 Anhydrohirundigenin**

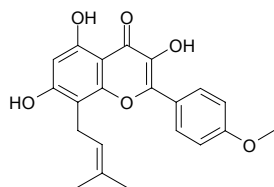
$C_{21}H_{28}O_4$  (344.45). Amorphous powder,  $[\alpha]_D^{25} = -19.62^\circ$  ( $c = 0.107$ , MeOH). **Pharm:** Vasodilator inactive (*in vitro*, rat isolated aortic rings with endothelium, pre-contracted by  $0.1\mu\text{mol/L}$  phenylephrine or  $100\text{mmol/L}$  KCl). **Source:** LIU YE BAI QIAN *Cynanchum stauntonii*. **Ref:** 4077.

**1272 Anhydrohirundigenin monothevetoside**

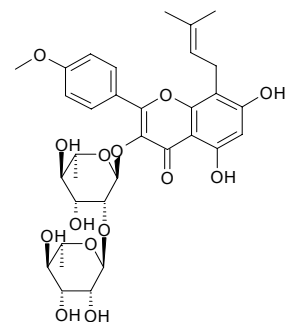
$C_{28}H_{40}O_8$  (504.63). Amorphous powder,  $[\alpha]_D^{25} = -22.82^\circ$  ( $c = 0.241$ , MeOH). **Pharm:** Vasodilator inactive (*in vitro*, rat isolated aortic rings with endothelium, pre-contracted by  $0.1\mu\text{mol/L}$  phenylephrine or  $100\text{mmol/L}$  KCl). **Source:** LIU YE BAI QIAN *Cynanchum stauntonii*. **Ref:** 4077.

**1273 Anhydroicaritin**

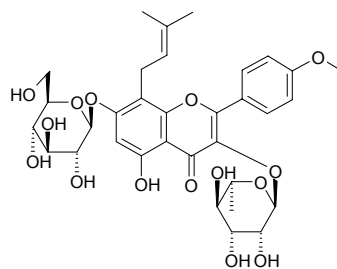
Icaritin [118525-40-9]  $C_{21}H_{20}O_6$  (368.39). Yellow powder, mp  $228\text{--}229^\circ\text{C}$ ; mp  $230\text{--}231^\circ\text{C}$ . **Source:** CHAO XIAN YIN YANG HUO *Epimedium koreanum*, CHUAN DIAN YIN YANG HUO *Epimedium davidii*, CU MAO YIN YANG HUO *Epimedium acuminatum*, WAN SHAN YIN YANG HUO *Epimedium wanshanense*, WU SHAN YIN YANG HUO *Epimedium wushanense*. **Ref:** 465, 458, 539, 660, 1521.

**1274 Anhydroicaritin-3-O- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -L-rhamnopyranoside**

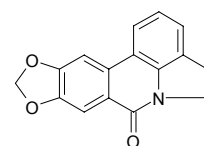
[135293-13-9]  $C_{33}H_{40}O_{14}$  (660.68). **Source:** WAN SHAN YIN YANG HUO *Epimedium wanshanense*. **Ref:** 574.

**1275 Anhydroicaritin-3-O- $\alpha$ -L-rhamnosyl-7-O- $\beta$ -D-glucopyranoside**

Icariin [489-32-7]  $C_{33}H_{40}O_{15}$  (676.68). **Pharm:** Antihypertensive (rbt, mild); coronary vasodilator (increases coronary flow, using original plant *Sagittate Epimedium*, JIAN YE YIN YANG HUO *Epimedium sagittatum*, used in treatment of AP); antidote (significant reduces release of alanine-amino-ferase and sorbito-dehydrogenase,  $1\text{--}20\mu\text{mL}$ , antidotic rate =  $76\%$ )<sup>[5501]</sup>; increases tolerance to anoxia (rat cerebral anoxia, treated by tubocurare)<sup>[5501]</sup>; osteoblastic differentiation stimulator (promotes synthesis and secretion of alkaline phosphatase (AKP) and type I collagen in osteoblasts)<sup>[5501]</sup>; cytotoxic (leukemia)<sup>[5501]</sup>; vasodilator<sup>[5501]</sup>; immunoenhancer (mouse)<sup>[5501]</sup>; antineoplastic<sup>[5501]</sup>. **Source:** CHAO XIAN YIN YANG HUO *Epimedium koreanum* (aerial parts: content scope =  $0.72\%\text{--}3.69\%$ , mean content =  $1.61\%$ )<sup>[5508]</sup>, CHUAN DIAN YIN YANG HUO *Epimedium davidii* (aerial parts: content =  $0.72\%$ )<sup>[5508]</sup>, CHUAN E YIN YANG HUO *Epimedium fargesii* (aerial parts: content =  $0.66\%$ )<sup>[5508]</sup>, CHUAN XI YIN YANG HUO *Epimedium elongatum* (aerial parts: content =  $0.48\%$ )<sup>[5508]</sup>, CU MAO YIN YANG HUO *Epimedium acuminatum* (aerial parts: mean content of 2 origins =  $1.14\%$ )<sup>[5508]</sup>, DA HUA YIN YANG HUO *Epimedium grandiflorum*, JIAN YE YIN YANG HUO *Epimedium sagittatum* (aerial parts: content scope =  $0.33\%\text{--}1.60\%$ , mean content =  $1.11\%$ )<sup>[5508]</sup>, ROU MAO YIN YANG HUO *Epimedium pubescens* (aerial parts: content scope =  $0.29\%\text{--}1.62\%$ , mean content =  $1.21\%$ )<sup>[5508]</sup>, SI CHUAN YIN YANG HUO *Epimedium sutchuenense* (aerial parts: content =  $0.57\%$ )<sup>[5508]</sup>, WU JU YIN YANG HUO *Epimedium ecalcaratum* (aerial parts: content =  $0.67\%$ )<sup>[5508]</sup>, WU SHAN YIN YANG HUO *Epimedium wushanense* (aerial parts: content scope =  $0.44\%\text{--}2.78\%$ , mean content =  $1.26\%$ )<sup>[5508]</sup>, YIN YANG HUO *Epimedium brevicornum* (aerial parts: content scope =  $1.01\%\text{--}8.81\%$ )<sup>[5501]</sup>, mean content =  $1.27\%$ )<sup>[5508]</sup>. **Ref:** 2, 514, 568, 635, 658, 660, 5501, 5508.

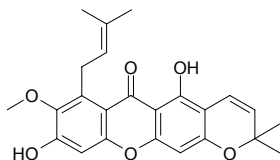
**1276 Anhydrolycorin-6-one**

$C_{16}H_{11}NO_3$  (265.27). **Pharm:** Antiplasmodial (strain D10,  $IC_{50} = 6.1\mu\text{g/mL}$ , control Hamayne,  $IC_{50} = 15.6\mu\text{g/mL}$ , Chloroquine,  $IC_{50} = 0.002\mu\text{g/mL}$ ; strain FAC8,  $IC_{50} = 6.4\mu\text{g/mL}$ , Hamayne,  $IC_{50} = 18.2\mu\text{g/mL}$ , Chloroquine,  $IC_{50} = 0.01\mu\text{g/mL}$ ; cytotoxic, BL6,  $IC_{50} = 3.3\mu\text{g/mL}$ , Hamayne,  $IC_{50} = 9.4\mu\text{g/mL}$ , Chloroquine,  $IC_{50} = 20.9\mu\text{g/mL}$ , Daunomycin,  $IC_{50} = 0.43\mu\text{g/mL}$ ). **Source:** BU LANG WEI JI *Brunsvigia radulosa* (bulb). **Ref:** 3931.

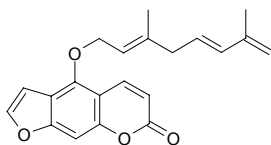


**1277 Anhydromangostanol\***

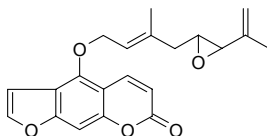
1,6-Dihydroxy-7-methoxy-8-(3-methylbut-2-enyl)6',6'-dimethylpyrano(2',3':3,2)xantheone C<sub>24</sub>H<sub>24</sub>O<sub>6</sub> (408.46). **Pharm:** Cytotoxic (KB cancer cell lines, IC<sub>50</sub> = 3.72µg/mL, control Ellipticine, IC<sub>50</sub> = 1.33µg/mL; BC-1, IC<sub>50</sub> = 3.02µg/mL, Ellipticine, IC<sub>50</sub> = 1.46µg/mL; NCI-H187, IC<sub>50</sub> = 2.19µg/mL Ellipticine, IC<sub>50</sub> = 0.39µg/mL)<sup>[1619]</sup>; antitubercular (*Mycobacterium tuberculosis*, MIC = 12.5µg/mL)<sup>[4358]</sup>. **Source:** DAO NIAN ZI *Garcinia mangostana* (young fruit: yield = 0.018%dw). **Ref:** 1619, 4358.

**1278 Anhydronoptol**

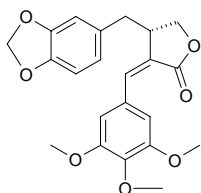
C<sub>21</sub>H<sub>20</sub>O<sub>4</sub> (336.39). **Source:** QIANG HUO *Notopterygium incisum*. **Ref:** 2, 507.

**1279 Anhydronoptoloxide**

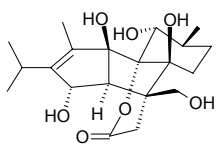
5-[(2E)-3,7-Dimethyl-5,6-epoxy-2,7-octadienyloxy] psoralen C<sub>21</sub>H<sub>20</sub>O<sub>5</sub> (352.39). Colorless oleaginous substance. **Source:** QIANG HUO *Notopterygium incisum*. **Ref:** 325.

**1280 Anhydropodorhizol**

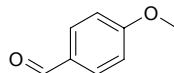
C<sub>22</sub>H<sub>22</sub>O<sub>7</sub> (398.42). **Source:** E SHEN *Anthriscus sylvestris*. **Ref:** 5499.

**1281 Anhydrospiganthol**

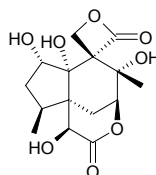
C<sub>20</sub>H<sub>30</sub>O<sub>7</sub> (382.46). Amorphous. **Source:** QU CHONG CAO *Spigelia anthelmia* (aerial parts). **Ref:** 5139.

**1282 p-Anisaldehyde**

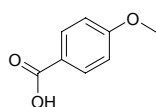
[123-11-5] C<sub>8</sub>H<sub>8</sub>O<sub>2</sub> (136.15). **Pharm:** Antifungal. **Source:** BA JIAO HUI XIANG *Illicium verum*, HUI QIN *Pimpinella anisum*, HUI XIANG *Foeniculum vulgare*, HUO XIANG *Agastache rugosus*, KONG SHI CHUN *Uva pertusa*, LIU YE MU LAN *Magnolia salicifolia*, XIANG GEN QIN *Osmorhiza aristata* var. *laxa*, *Cassia* sp., *Acacia* sp., *Vanilla* sp., *Pinus* sp. **Ref:** 2, 6, 660.

**1283 Anisatin**

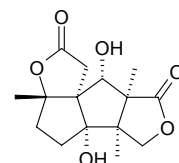
[5230-87-5] C<sub>15</sub>H<sub>20</sub>O<sub>8</sub> (328.32). White acicular crystals (ethyl acetate), mp 211~213°C, [α]<sub>D</sub><sup>20</sup> = -28° (c = 2, dioxocyclohexane). **Pharm:** Antipyretic (mus orl, ED = 0.5mg/kg); analgesic (mus, ED < 0.1mg/kg); toxin (hmn); LD<sub>50</sub> (mus, ip) = 0.7mg/kg. **Source:** RI BEN MANG CAO *Illicium anisatum* (the compound was isolated from the plant in 1965)<sup>[5505]</sup>, HONG HUI XIANG *Illicium henryi*, *Illicium merrillianum* (pericarp: yield = 0.0013%dw)<sup>[3046]</sup>. **Ref:** 658, 900, 3046, 5505.

**1284 Anisic acid**

4-Methoxybenzoic acid [1335-08-6] C<sub>8</sub>H<sub>8</sub>O<sub>3</sub> (152.15). **Pharm:** NO production inhibitor inactive (LPS-activated macrophage-like J774.1 cells, IC<sub>50</sub> = 141µg/mL; control L-NMMA, IC<sub>50</sub> = 27.4µg/mL)<sup>[4473]</sup>. **Source:** BA JIAO HUI XIANG *Illicium verum*, BAI MU XIANG *Aquilaria sinensis*, DANG GUI *Angelica sinensis*, FEI JI CAO *Eupatorium odoratum*, HE SE ZHONG HUA SHU *Tabebuia avellanedae* (inner bark), HUI XIANG *Foeniculum vulgare*, HUI XIANG JING YE *Foeniculum vulgare*, SHUI HUI XIANG *Limnophila rugosa*, TAI WAN PU GONG YING *Taraxacum formosanum* (fresh root). **Ref:** 2, 13, 4473, 4488.

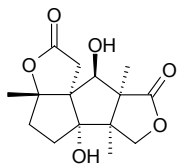
**1285 Anislactone A**

C<sub>15</sub>H<sub>20</sub>O<sub>6</sub> (296.32). **Source:** RI BEN MANG CAO *Illicium anisatum*, *Illicium merrillianum* (pericarp: yield = 0.00006%dw)<sup>[3046]</sup>. **Ref:** 1521, 3046.

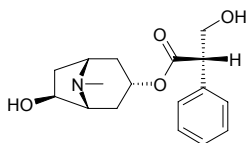


**1286 Anisactone B**

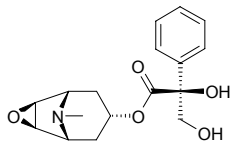
$C_{15}H_{20}O_6$  (296.32). Source: RI BEN MANG CAO *Illicium anisatum*, *Illicium merrillianum* (pericarp: yield = 0.016%dw)<sup>[3046]</sup>. Ref: 1521, 3046.

**1287 Anisodamine**

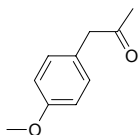
[17659-49-3]  $C_{17}H_{23}NO_4$  (305.38). mp 84.5–85.5°C. Pharm: Analgesic; antiarrhythmic; anticholinergic; antispasmodic (blood vessel); antiulcerative; platelet aggregation inhibitor; smooth muscle relaxant (stomach, duodenum and biliary tract). Source: LANG DANG ZI *Hyoscyamus niger* (dried ripe seed: mean content of 5 origins = 0.0447%<sup>[5508]</sup>), YANG JIN HUA *Datura metel* (flower: content scope of 3 origins = 0.005%–0.027%, mean content = 0.017%<sup>[5508]</sup>), ZANG QIE *Anisodus tanguticus* [Syn. *Scopolia tangutica*] (root: content scope of 3 origins = 0.036%–0.088%, mean content = 0.061%<sup>[5508]</sup>). Ref: 4, 6, 658, 5508.

**1288 Anisodine**

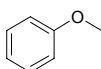
$C_{17}H_{21}NO_5$  (319.36). mp 62–64°C. Pharm: Anticholinergic; antispasmodic; salivary secretion inhibitor; mydriatic. Source: ZANG QIE *Anisodus tanguticus* [Syn. *Scopolia tangutica*] (root: content scope of 2 origins = 0.006%–0.200%, mean content = 0.103%<sup>[5508]</sup>). Ref: 4, 6, 658, 5508.

**1289 Anisolacetone**

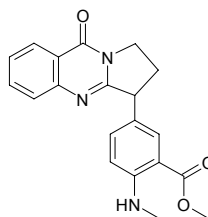
Anisic ketone [122-84-9]  $C_{10}H_{12}O_2$  (164.21). bp 267–269°C. Source: BA JIAO HUI XIANG *Illicium verum*, HUI XIANG *Foeniculum vulgare*. Ref: 6.

**1290 Anisole**

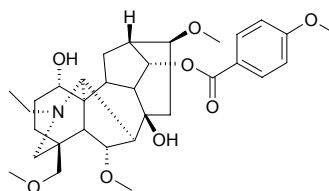
$C_7H_8O$  (108.14). Fragrant liquid, mp –37.3°C, bp 155.5°C/760mmHg; 93.0°C/100mmHg; 70.7°C/40mmHg; 55.8°C/20mmHg; 42.2°C/10mmHg; 30.0°C/5mmHg; 5.4°C/1.0mmHg. Pharm: Estrogenic activity. Source: SAI LE LUO LE *Ocimum selloi*. Ref: 658, 661.

**1291 Anisotine**

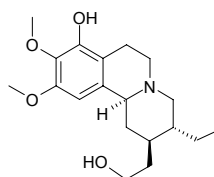
[16688-19-0]  $C_{20}H_{19}N_3O_3$  (349.39). mp 189–190°C. Source: DA BO GU *Adhatoda vasica*. Ref: 6.

**1292 14-O-Anisoylneoline**

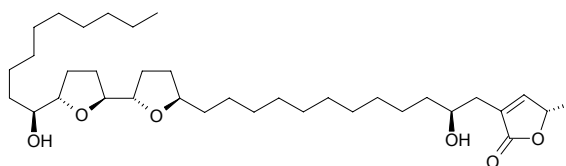
$C_{32}H_{45}NO_8$  (571.72). Amorphous powder (MeOH),  $[\alpha]_D^{22} = +22.3^\circ$  ( $c = 0.7$ ,  $CHCl_3$ ). Source: FU ZI *Aconitum carmichaeli* (tuber). Ref: 4373.

**1293 Ankorine**

[13849-54-2]  $C_{19}H_{29}NO_4$  (335.45). Pharm: Leprostatic (anti-leprosis, using source plants *Alangium lamarckii* and *A. kurzii*); antihypertensive; dermatitis suppressant (treatment of skin disease, using source plants *Alangium lamarckii*, and *A. kurzii*). Source: AN GE LA BA JIAO FENG *Alangium lamarckii*, MAO BA JIAO FENG *Alangium kurzii*. Ref: 658.

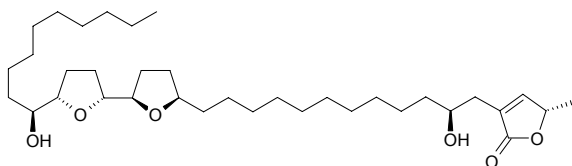
**1294 Annocatacin A**

$C_{35}H_{62}O_6$  (578.88). Yellowish waxy solid,  $[\alpha]_D^{25} = +21.3^\circ$  ( $c = 0.04$ ,  $CHCl_3$ ). Pharm: Cytotoxic (hmn hepatoma cell lines HepG2,  $IC_{50} = 12.11 \mu\text{g/mL}$ , control Adriamycin,  $IC_{50} = 0.241 \mu\text{g/mL}$ ; hmn hepatoma cells transfected with hepatitis B virus Hep2,2,15,  $IC_{50} = 0.0817 \mu\text{g/mL}$ , Adriamycin,  $IC_{50} = 0.450 \mu\text{g/mL}$ ). Source: CI GUO FAN LI ZHI *Annona muricata*. Ref: 5377.

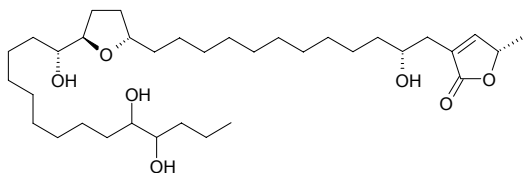


**1295 Annocatacin B**

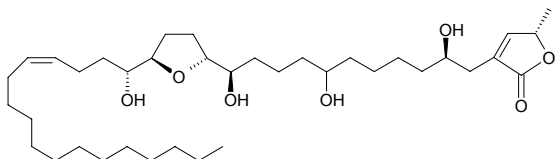
$C_{35}H_{62}O_6$  (578.88). Colorless oil,  $[\alpha]_D^{25} = +13.2^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (hmn hepatoma cell lines HepG2,  $IC_{50} = 0.0335\mu\text{g/mL}$ , control Adriamycin,  $IC_{50} = 0.241\mu\text{g/mL}$ ; hmn hepatoma cells transfected with hepatitis B virus Hep2,2,15,  $IC_{50} = 0.222\mu\text{g/mL}$ , Adriamycin,  $IC_{50} = 0.450\mu\text{g/mL}$ ). **Source:** CI GUO FAN LI ZHI *Annona muricata*. **Ref:** 5377.

**1296 Annocatalin**

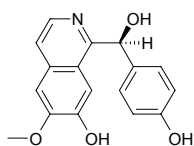
$C_{35}H_{64}O_7$  (596.9). White waxy solid,  $[\alpha]_D^{25} = +23.2^\circ$  ( $c = 0.05$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, HepG2,  $IC_{50} = 5.7\mu\text{g/mL}$ , control Adriamycin,  $IC_{50} = 0.241\mu\text{g/mL}$ ; Hep2,2,15,  $IC_{50} = 0.00348\mu\text{g/mL}$ , control Adriamycin,  $IC_{50} = 0.45\mu\text{g/mL}$ ). **Source:** CI GUO FAN LI ZHI *Annona muricata* (leaf: yield = 0.00013%dw). **Ref:** 4617.

**1297 Annocherimolin**

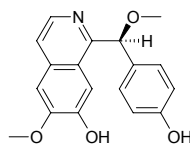
$C_{37}H_{66}O_7$  (622.93). White powder, mp 57.9–58.7°C,  $[\alpha]_D^{23} = -21^\circ$  ( $c = 0.02$ ,  $\text{CH}_2\text{Cl}_2$ ). **Pharm:** Cytotoxic (BST,  $LC_{50} = 0.0058\mu\text{g/mL}$ ; A549,  $ED_{50} = 1.56\mu\text{g/mL}$ , control Adriamycin,  $ED_{50} = 0.00113\mu\text{g/mL}$ ; MCF7,  $ED_{50} = 0.0000406\mu\text{g/mL}$ , Adriamycin,  $ED_{50} = 0.0182\mu\text{g/mL}$ ; HT29,  $ED_{50} = 0.0000249\mu\text{g/mL}$ , Adriamycin,  $ED_{50} = 0.0128\mu\text{g/mL}$ ; A498,  $ED_{50} = 0.153\mu\text{g/mL}$ , Adriamycin,  $ED_{50} = 0.00226\mu\text{g/mL}$ ; PC3,  $ED_{50} = 1.02\mu\text{g/mL}$ , Adriamycin,  $ED_{50} = 0.0502\mu\text{g/mL}$ ; MIA-PaCa-2,  $ED_{50} = 0.000012\mu\text{g/mL}$ , Adriamycin,  $ED_{50} = 0.00262\mu\text{g/mL}$ ). **Source:** MAO YE FAN LI ZHI *Annona cherimolia* (seed: yield = 0.00013%dw). **Ref:** 3049.

**1298 Annocherine A**

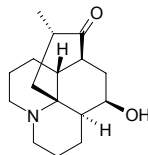
$C_{17}H_{15}NO_4$  (297.31). Yellow acicular crystals, mp 156–158°C,  $[\alpha]_D^{24} = 135^\circ$  ( $c = 0.1$ ,  $\text{CHCl}_3$ ). **Source:** MAO YE FAN LI ZHI *Annona cherimolia*. **Ref:** 751.

**1299 Annocherine B**

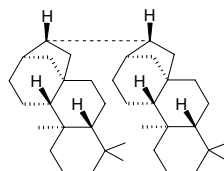
$C_{18}H_{17}NO_4$  (311.43). Yellow amorphous powder, mp 196–198°C,  $[\alpha]_D^{24} = 115^\circ$  ( $c = 0.1$ ,  $\text{CHCl}_3$ ). **Source:** MAO YE FAN LI ZHI *Annona cherimolia*. **Ref:** 751.

**1300 Annofoline**

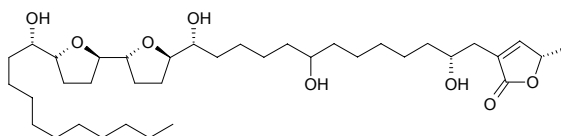
$C_{16}H_{25}NO_2$  (263.38). **Source:** DAN SUI SHI SONG *Lycopodium annotinum*. **Ref:** 660.

**1301 Annoglabayin**

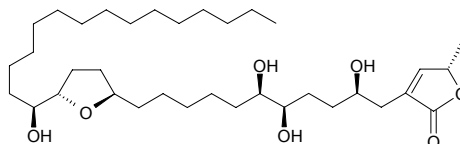
(16→16)-Bis-16β-hydro-*ent*-kaurane  $C_{38}H_{62}$  (518.92). White powder, mp 125–127°C,  $[\alpha]_D^{25} = -5.2^\circ$  ( $c = 0.75$ ,  $\text{CHCl}_3$ ). **Source:** YUAN HUA FAN LI ZHI *Annona glabra* (fruit: yield = 0.00215%fw). **Ref:** 4782.

**1302 Annoglaucin**

$C_{37}H_{66}O_8$  (638.93). Waxy solid,  $[\alpha]_D^{25} = +15.5^\circ$  ( $c = 0.25$ ,  $\text{CHCl}_3$ ). **Pharm:** Cytotoxic (hmn hepatoma cell lines HepG2,  $IC_{50} = 0.888\mu\text{g/mL}$ , control Adriamycin,  $IC_{50} = 0.241\mu\text{g/mL}$ ; hmn hepatoma cells transfected with hepatitis B virus Hep2,2,15,  $IC_{50} = 0.0173\mu\text{g/mL}$ , Adriamycin,  $IC_{50} = 0.450\mu\text{g/mL}$ ). **Source:** CI GUO FAN LI ZHI *Annona muricata*. **Ref:** 5377.

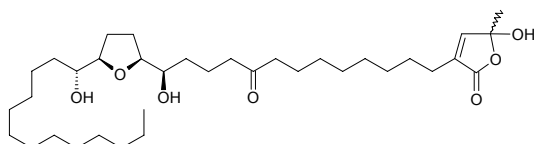
**1303 Annomolin**

$C_{35}H_{64}O_7$  (596.90). White powder, mp 60.5–61.2°C,  $[\alpha]_D^{23} = +4.0^\circ$  ( $c = 0.02$ ,  $\text{CH}_2\text{Cl}_2$ ). **Pharm:** Cytotoxic (BST,  $LC_{50} = 0.0094\mu\text{g/mL}$ ; A549,  $ED_{50} = 2.37\mu\text{g/mL}$ , control Adriamycin,  $ED_{50} = 0.00113\mu\text{g/mL}$ ; MCF7,  $ED_{50} = 0.000115\mu\text{g/mL}$ , Adriamycin,  $ED_{50} = 0.0182\mu\text{g/mL}$ ; HT29,  $ED_{50} = 0.0000892\mu\text{g/mL}$ , Adriamycin,  $ED_{50} = 0.0128\mu\text{g/mL}$ ; A498,  $ED_{50} = 0.000688\mu\text{g/mL}$ , Adriamycin,  $ED_{50} = 0.00226\mu\text{g/mL}$ ; PC3,  $ED_{50} = 0.0000539\mu\text{g/mL}$ , Adriamycin,  $ED_{50} = 0.0502\mu\text{g/mL}$ ; MIA-PaCa-2,  $ED_{50} = 2.18\mu\text{g/mL}$ , Adriamycin,  $ED_{50} = 0.00262\mu\text{g/mL}$ ). **Source:** MAO YE FAN LI ZHI *Annona cherimolia* (seed: yield = 0.00025%dw). **Ref:** 3049.

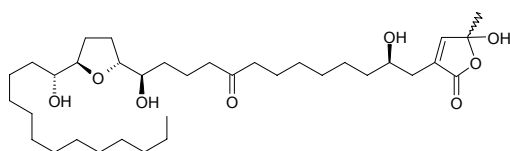


**1304 Annomolon A**

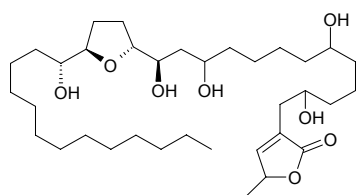
$C_{35}H_{62}O_7$  (594.88). White powder, mp 82.1~82.7°C,  $[\alpha]_D^{23} = -5.0^\circ$  ( $c = 0.02$ ,  $CH_2Cl_2$ ). **Pharm:** The data are from mixture of anomolon A and 34-*epi*-annomolon A: cytotoxic (BST,  $LC_{50} = 0.375\mu g/mL$ ); cytotoxic (*in vitro*, A549,  $ED_{50} = 1.26\mu g/mL$ ; MCF7,  $ED_{50} = 0.303\mu g/mL$ ; HT29,  $ED_{50} = 0.193\mu g/mL$ ; A498,  $ED_{50} = 0.93\mu g/mL$ ; PC3,  $ED_{50} = 0.198\mu g/mL$ ; MIA-PaCa-2,  $ED_{50} = 0.00312\mu g/mL$ ; control Adriamycin: A549,  $ED_{50} = 0.00113\mu g/mL$ ; MCF7,  $ED_{50} = 0.0182\mu g/mL$ ; HT29,  $ED_{50} = 0.0128\mu g/mL$ ; A498,  $ED_{50} = 0.00226\mu g/mL$ ; PC3,  $ED_{50} = 0.0502\mu g/mL$ ; MIA-PaCa-2,  $ED_{50} = 0.00262\mu g/mL$ ). **Source:** MAO YE FAN LI ZHI *Annona cherimolia* (seed). **Ref:** 4731.

**1305 Annomolon B**

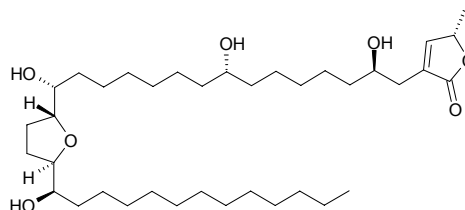
$C_{35}H_{62}O_8$  (610.88). White powder, mp 86.3~87.2°C,  $[\alpha]_D^{23} = +6.0^\circ$  ( $c = 0.02$ ,  $CH_2Cl_2$ ). **Pharm:** The data are from mixtures of anomolon B and 34-*epi*-annomolon B: cytotoxic (BST,  $LC_{50} = 0.07\mu g/mL$ ); cytotoxic (*in vitro*, A549,  $ED_{50} = 1.37\mu g/mL$ ; MCF7,  $ED_{50} = 0.047\mu g/mL$ ; HT29,  $ED_{50} = 0.0719\mu g/mL$ ; A498,  $ED_{50} = 0.377\mu g/mL$ ; PC3,  $ED_{50} = 0.0553\mu g/mL$ ; MIA-PaCa-2,  $ED_{50} = 0.00748\mu g/mL$ ; control Adriamycin: A549,  $ED_{50} = 0.00113\mu g/mL$ ; MCF7,  $ED_{50} = 0.0182\mu g/mL$ ; HT29,  $ED_{50} = 0.0128\mu g/mL$ ; A498,  $ED_{50} = 0.00226\mu g/mL$ ; PC3,  $ED_{50} = 0.0502\mu g/mL$ ; MIA-PaCa-2,  $ED_{50} = 0.00262\mu g/mL$ ). **Source:** MAO YE FAN LI ZHI *Annona cherimolia* (seed). **Ref:** 4731.

**1306 Annomonicin**

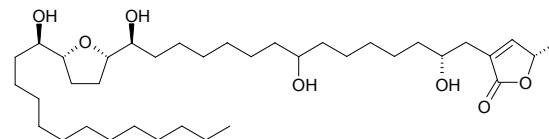
[128741-22-0]  $C_{35}H_{64}O_8$  (612.90). Light yellow wax solid, mp 85~87°C. **Pharm:** Cytotoxic ( $P_{388}$ ,  $ED_{50} = 0.24\mu g/mL$ , KB,  $ED_{50} = 1.73\mu g/mL$ ). **Source:** NIU XIN FAN LI ZHI *Annona reticulata*, SHAN FAN LI ZHI *Annona montana*. **Ref:** 432, 1050, 1521.

**1307 Annomontacin**

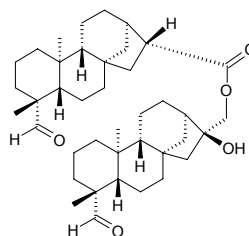
$C_{37}H_{68}O_7$  (624.95). **Pharm:** Produces apoptotic events (increases DNA damage in HepG2 cells, and induces a noticeable decrease in mitochondrial transmembrane potential)<sup>[4782]</sup>. **Source:** CI GUO FAN LI ZHI *Annona muricata* (seed: yield = 0.0045%dw)<sup>[4617]</sup>, SHAN FAN LI ZHI *Annona montana* (seed: yield = 0.00065%<sup>[4775]</sup>), YUAN HUA FAN LI ZHI *Annona glabra* (fruit: yield = 0.0117%fw)<sup>[4782]</sup>. **Ref:** 4617, 4775, 4782.

**1308 cis-Annomontacin**

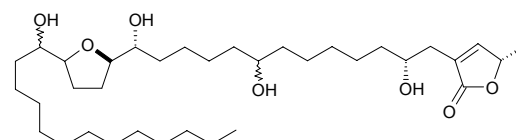
$C_{37}H_{68}O_7$  (624.95). White waxy solid,  $[\alpha]_D^{25} = +36.5^\circ$  ( $c = 0.03$ ,  $CHCl_3$ ). **Pharm:** Cytotoxic (*in vitro*, HepG2,  $IC_{50} = 0.298\mu g/mL$ , control Adriamycin,  $IC_{50} = 0.241\mu g/mL$ ; Hep2,2,15,  $IC_{50} = 0.0162\mu g/mL$ , control Adriamycin,  $IC_{50} = 0.45\mu g/mL$ )<sup>[4617]</sup>. **Source:** CI GUO FAN LI ZHI *Annona muricata* (seed: yield = 0.0026%dw)<sup>[4617]</sup>, SHAN FAN LI ZHI *Annona montana* (seed: yield = 0.0003%<sup>[4775]</sup>). **Ref:** 4617, 4775.

**1309 Annomosin A**

$C_{40}H_{60}O_5$  (620.92). White needles, mp 170~171°C,  $[\alpha]_D^{25} = -49.3^\circ$  ( $c = 0.12$ ,  $CHCl_3$ ). **Source:** FAN LI ZHI *Annona squamosa* (stem: yield = 0.00067%fw). **Ref:** 4654.

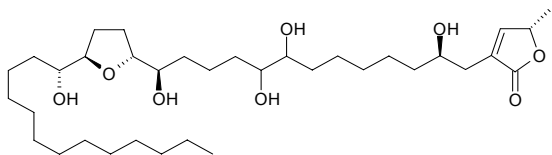
**1310 cis-Annomuricin**

[172586-13-9]  $C_{35}H_{64}O_7$  (596.90). White amorphous powder, mp 77°C,  $[\alpha]_D^{25} = 10^\circ$  ( $c = 17$ , chloroform). **Pharm:** Cytotoxic (BST,  $LC_{50} = 2.3\mu g/mL$ , PD,  $lnRt = 28\%$ , A549 *in vitro*,  $IC_{50} = 0.23\mu g/mL$ , MCF7 *in vitro*,  $IC_{50} = 1.18\mu g/mL$ , HT29 *in vitro*,  $IC_{50} = 1.0 \times 10^{-8}\mu g/mL$ ). **Source:** CI GUO FAN LI ZHI *Annona muricata*. **Ref:** 1062.

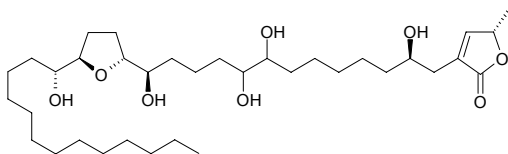


**1311 Annomuricin A**

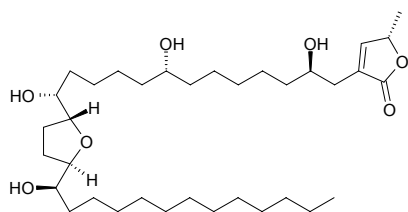
[167172-78-3] C<sub>35</sub>H<sub>64</sub>O<sub>8</sub> (612.90). White amorphous powder,  $[\alpha]_D^{22} = -6.4^\circ$  ( $c = 0.0025$ ). **Pharm:** Cytotoxic (A549 *in vitro*, ED<sub>50</sub> = 0.33 μg/mL; BST, LC<sub>50</sub> = 0.625 μg/mL). **Source:** CI GUO FAN LI ZHI *Annona muricata*. **Ref:** 1047.

**1312 Annomuricin B**

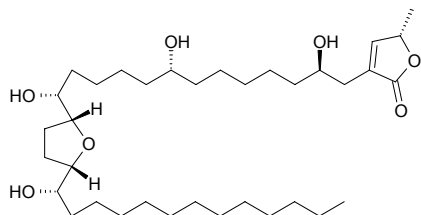
[167355-37-5] C<sub>35</sub>H<sub>64</sub>O<sub>8</sub> (612.89). White amorphous powder,  $[\alpha]_D^{22} = -11.7^\circ$  ( $c = 0.0064$ ). **Pharm:** Cytotoxic (A549, ED<sub>50</sub> = 0.159 μg/mL, HT29 *in vitro*, ED<sub>50</sub> = 0.435 μg/mL, BST *in vitro*, LC<sub>50</sub> = 0.687 μg/mL). **Source:** CI GUO FAN LI ZHI *Annona muricata*. **Ref:** 1047.

**1313 Annonacin**

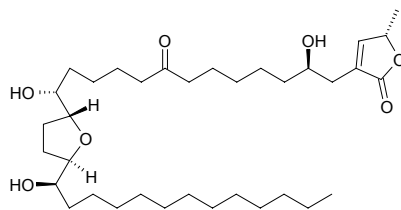
[111035-65-5] C<sub>35</sub>H<sub>64</sub>O<sub>7</sub> (596.90). White amorphous solid. **Pharm:** Antineoplastic (A549, IC<sub>50</sub> = 0.23 μg/mL, MCF7, IC<sub>50</sub> = 1.18 μg/mL, HT29, IC<sub>50</sub> = 1.0 × 10<sup>-8</sup> μg/mL); cytotoxic (BST, LC<sub>50</sub> = 2.3 μg/mL). **Source:** CI GUO FAN LI ZHI *Annona muricata* (seed: yield = 0.105% dw)<sup>[4617]</sup>, JIN PING GE NA XIANG *Goniotalamus leiocarpus*, SHAN FAN LI ZHI *Annona montana* (seed: yield = 0.052%)<sup>[4775]</sup>. **Ref:** 385, 420, 1062, 4617, 4775, 5035.

**1314 cis-Annonacin**

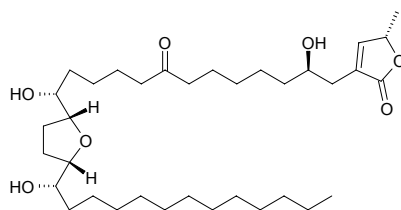
C<sub>35</sub>H<sub>64</sub>O<sub>7</sub> (596.90). **Source:** SHAN FAN LI ZHI *Annona montana* (seed: yield = 0.0011%)<sup>[4775]</sup>. **Ref:** 4775, 5035.

**1315 Annonacin-10-one**

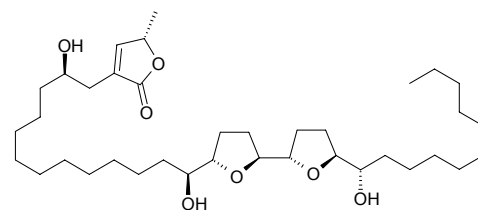
Annonacinone C<sub>35</sub>H<sub>62</sub>O<sub>7</sub> (594.88). **Source:** CI GUO FAN LI ZHI *Annona muricata* (seed: yield = 0.02% dw)<sup>[4617]</sup>, SHAN FAN LI ZHI *Annona montana* (seed). **Ref:** 4617, 5035.

**1316 cis-Annonacin-10-one**

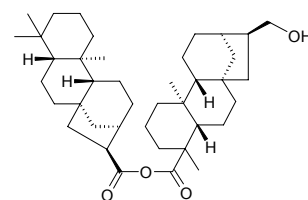
*cis*-Annonacinone C<sub>35</sub>H<sub>62</sub>O<sub>7</sub> (594.88). **Source:** SHAN FAN LI ZHI *Annona montana* (seed). **Ref:** 5035.

**1317 Annonareticin**

Asimicin C<sub>37</sub>H<sub>66</sub>O<sub>7</sub> (622.93). White crystals, mp 72–73°C,  $[\alpha]_D^{25} = +22.3^\circ$  ( $c = 0.1$ , MeOH). **Pharm:** Mitochondrial complex I selective inhibitor (NADH oxidase IC<sub>50</sub> = (0.33 ± 0.03) nmol/L,  $p < 0.001$ , control Rotenone, IC<sub>50</sub> = (5.10 ± 0.09) nmol/L)<sup>[5024]</sup>. **Source:** NIU XIN FAN LI ZHI *Annona reticulata*, MAO YE FAN LI ZHI *Annona cherimolia* (seed). **Ref:** 32, 5024.

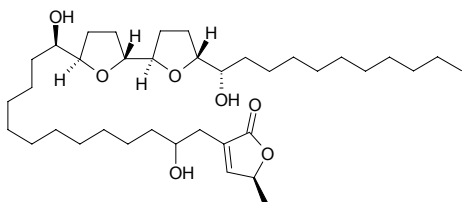
**1318 Annonabinide B**

C<sub>40</sub>H<sub>62</sub>O<sub>4</sub> (606.94). **Source:** YUAN HUA FAN LI ZHI *Annona glabra*. **Ref:** 2524.

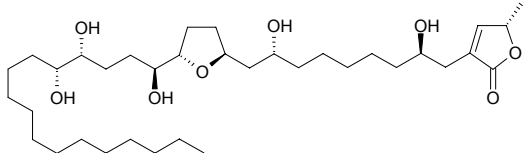


**1319 Annonin VI**

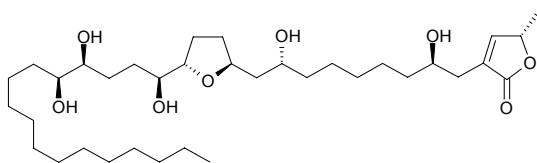
[129212-94-8] C<sub>37</sub>H<sub>66</sub>O<sub>7</sub> (622.93). Colorless solid,  $[\alpha]_D^{25} = +15.3^\circ$  ( $c = 0.4$ , CH<sub>2</sub>Cl<sub>2</sub>). **Pharm:** Anthelmintic (*Caenorhabditis elegans*); cytotoxic (HeLa *in vitro*, ED<sub>50</sub> = 0.05 μg/mL); NADH oxidase inhibitor (ox heart, *in vitro*); glucose dehydrogenase inhibitor (*Bacillus coli*); pesticide. **Source:** FAN LI ZHI *Annona squamosa*. **Ref:** 900.

**1320 Annonpentin A**

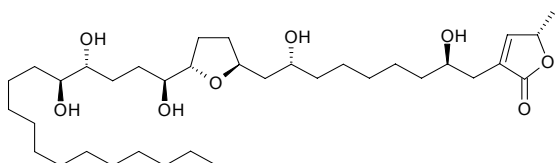
[184093-44-5] C<sub>35</sub>H<sub>64</sub>O<sub>8</sub> (612.89). White amorphous powder,  $[\alpha]_D^{25} = +12^\circ$  ( $c = 14$ , CHCl<sub>3</sub>). **Pharm:** Cytotoxic (*in vitro*, BST, LC<sub>50</sub> = 8.9 mg/L; A549, ED<sub>50</sub> = 0.171 μg/mL; MCF7, ED<sub>50</sub> = 17.93 μg/mL; HT29, ED<sub>50</sub> = 1.63 μg/mL; A498, ED<sub>50</sub> = 0.607 μg/mL; PC3, ED<sub>50</sub> = 1.14 μg/mL; PACA-2, ED<sub>50</sub> = 0.0358 μg/mL). **Source:** CI GUO FAN LI ZHI *Annona muricata*. **Ref:** 1058.

**1321 Annonpentin B**

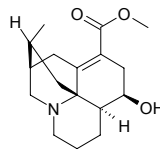
[184093-45-6] C<sub>35</sub>H<sub>64</sub>O<sub>8</sub> (612.89). White oil,  $[\alpha]_D^{25} = +15^\circ$  ( $c = 10$ , CHCl<sub>3</sub>). **Pharm:** Cytotoxic (*in vitro*, BST, LC<sub>50</sub> = 11.2 mg/L; A549, ED<sub>50</sub> = 0.0274 μg/mL; MCF7, ED<sub>50</sub> = 3.56 μg/mL; HT29, ED<sub>50</sub> = 1.64 μg/mL; A498, ED<sub>50</sub> = 0.379 μg/mL; PC3, ED<sub>50</sub> = 0.212 μg/mL; PACA-2, ED<sub>50</sub> = 0.162 μg/mL). **Source:** CI GUO FAN LI ZHI *Annona muricata*. **Ref:** 1058.

**1322 Annonpentin C**

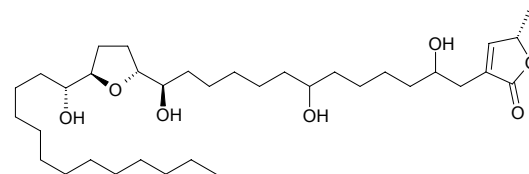
[184093-46-7] C<sub>35</sub>H<sub>64</sub>O<sub>8</sub> (612.89). White oil,  $[\alpha]_D^{25} = 9^\circ$  ( $c = 11$ , CHCl<sub>3</sub>). **Pharm:** Cytotoxic (*in vitro*, BST, LC<sub>50</sub> = 13.8 mg/L; A549, ED<sub>50</sub> = 0.0206 μg/mL; MCF7, ED<sub>50</sub> = 2.97 μg/mL; HT29, ED<sub>50</sub> = 1.24 μg/mL; A498, ED<sub>50</sub> = 0.258 μg/mL; PC3, ED<sub>50</sub> = 0.228 μg/mL; PACA-2, ED<sub>50</sub> = 0.428 μg/mL). **Source:** CI GUO FAN LI ZHI *Annona muricata*. **Ref:** 1058.

**1323 Annopodine**

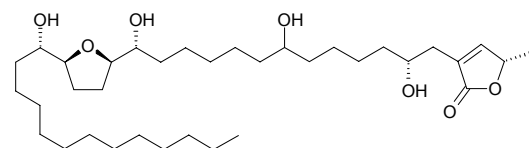
C<sub>17</sub>H<sub>25</sub>NO<sub>3</sub> (291.39). **Source:** DAN SUI SHI SONG *Lycopodium annotinum*. **Ref:** 660.

**1324 Annoreticuin**

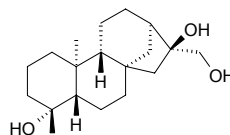
[142488-56-0] C<sub>35</sub>H<sub>64</sub>O<sub>7</sub> (596.90). Light yellow wax solid, mp 75~77°C. **Pharm:** Cytotoxic (*in vitro* HepG2, EC<sub>50</sub> = 0.0064 μg/mL; Hep3B, EC<sub>50</sub> = 2.45 μg/mL; control Doxorubicin, HepG2, EC<sub>50</sub> = 0.38 μg/mL, Hep3B, EC<sub>50</sub> = 0.36 μg/mL)<sup>[5035]</sup>. **Source:** NIU XIN FAN LI ZHI *Annona reticulata*, SHAN FAN LI ZHI *Annona montana* (seed). **Ref:** 432, 5035.

**1325 cis-Annoreticuin**

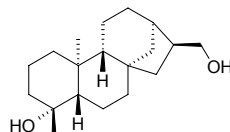
C<sub>35</sub>H<sub>64</sub>O<sub>7</sub> (596.90). Colorless waxy solid,  $[\alpha]_D^{25} = +3.5^\circ$  ( $c = 0.13$ , CHCl<sub>3</sub>). **Pharm:** Cytotoxic (*in vitro* HepG2, EC<sub>50</sub> = 0.0024 μg/mL, Hep3B, EC<sub>50</sub> = 1.98 μg/mL; control Doxorubicin, HepG2, EC<sub>50</sub> = 0.38 μg/mL, Hep3B, EC<sub>50</sub> = 0.36 μg/mL). **Source:** SHAN FAN LI ZHI *Annona montana* (seed). **Ref:** 5035.

**1326 Annosquamosin B**

19-Nor-*ent*-kaurane-4 $\alpha$ ,16 $\beta$ ,17-triol C<sub>19</sub>H<sub>32</sub>O<sub>3</sub> (308.47). **Pharm:** Platelet aggregation selected inhibitor (washed rabbit platelets, 200 μmol/L: 100 μmol/L AA induced, InRt = 8.7%; 10 μg/mL collagen induced, InRt = 21.1%; 1 ng/mL PAF induced, InRt = 8.5%; 0.05 U/mL thrombin induced, InRt = 1.6%). **Source:** FAN LI ZHI *Annona squamosa* (stem: yield = 0.00067%fw). **Ref:** 4654.

**1327 Annosquamosin C**

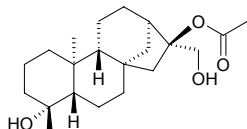
16 $\alpha$ -Hydro-17-hydroxy-19-nor-*ent*-kaurane-4 $\alpha$ -ol C<sub>19</sub>H<sub>32</sub>O<sub>2</sub> (292.47). White powder, mp 156~158°C,  $[\alpha]_D^{26} = -47.6^\circ$  ( $c = 0.03$ , MeOH). **Source:** FAN LI ZHI *Annona squamosa* (stem: yield = 0.00033%fw). **Ref:** 4654.



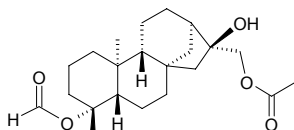


**1328 Annosquamosin D**

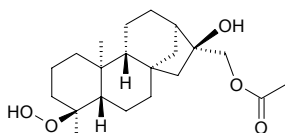
16 $\beta$ -Acetoxy-17-hydroxy-19-nor-*ent*-kauran-4 $\alpha$ -ol C<sub>21</sub>H<sub>34</sub>O<sub>4</sub> (350.5). White powder, mp 169–171°C,  $[\alpha]_D^{26} = -147.0^\circ$  ( $c = 0.02$ , MeOH). **Pharm:** Platelet aggregation inhibitor inactive (washed rabbit platelets, 200 $\mu$ mol/L: 100 $\mu$ mol/L AA induced, InRt = 4.9%; 10 $\mu$ g/mL collagen induced, InRt = 10.6%; 1ng/mL PAF induced, InRt = 9.3%; 0.05U/mL thrombin induced, InRt = 2.0%). **Source:** FAN LI ZHI *Annona squamosa* (stem: yield = 0.00047%fw). **Ref:** 4654.

**1329 Annosquamosin E**

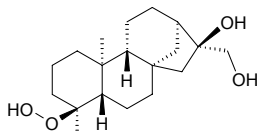
16 $\beta$ -Hydroxy-17-acetoxy-19-nor-*ent*-kauran-4 $\alpha$ -formate C<sub>22</sub>H<sub>34</sub>O<sub>5</sub> (378.51). White powder, mp 172–174°C,  $[\alpha]_D^{26} = -26.8^\circ$  ( $c = 0.05$ , MeOH). **Source:** FAN LI ZHI *Annona squamosa* (stem: yield = 0.00033%fw). **Ref:** 4654.

**1330 Annosquamosin F**

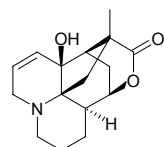
16 $\beta$ -Hydroxy-17-acetoxy-18-nor-*ent*-kauran-4 $\beta$ -hydroperoxide C<sub>21</sub>H<sub>34</sub>O<sub>5</sub> (366.5). White powder, mp 144–146°C,  $[\alpha]_D^{26} = -39.2^\circ$  ( $c = 0.05$ , MeOH). **Source:** FAN LI ZHI *Annona squamosa* (stem: yield = 0.00040%fw). **Ref:** 4654.

**1331 Annosquamosin G**

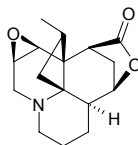
16 $\beta$ ,17-Dihydroxy-18-nor-*ent*-kauran-4 $\beta$ -hydroperoxide C<sub>19</sub>H<sub>32</sub>O<sub>4</sub> (324.46). White powder, mp 175–177°C,  $[\alpha]_D^{26} = -74.4^\circ$  ( $c = 0.02$ , MeOH). **Source:** FAN LI ZHI *Annona squamosa* (stem, yield = 0.00027%fw). **Ref:** 4654.

**1332 Annotine**

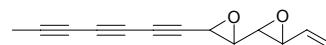
[5096-59-3] C<sub>16</sub>H<sub>21</sub>NO<sub>3</sub> (275.35). **Pharm:** Dermatitis suppressant (used in treatment of skin diseases, using source plants *Lycopodium* spp.). **Source:** DAN SUI SHI SONG *Lycopodium annotinum*. **Ref:** 658.

**1333 Annotinine**

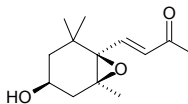
[559-49-9] C<sub>16</sub>H<sub>21</sub>NO<sub>3</sub> (275.35). Prismatic crystals (CHCl<sub>3</sub>–MeOH), mp 232°C. **Pharm:** Uterine stimulant. **Source:** DAN SUI SHI SONG *Lycopodium annotinum*. **Ref:** 658, 661.

**1334 Annuadiepoide**

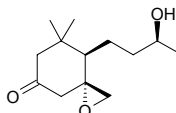
C<sub>13</sub>H<sub>10</sub>O<sub>2</sub> (198.22). **Source:** HUANG HUA HAO *Artemisia annua*. **Ref:** 660.

**1335 Annuionone D**

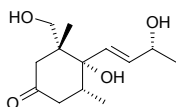
C<sub>13</sub>H<sub>20</sub>O<sub>3</sub> (224.30). Oil. **Source:** ZAI PEI XIANG RI KUI YE *Helianthus annuus* cv. **Ref:** 2370.

**1336 Annuionone E**

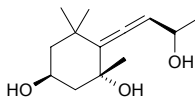
C<sub>13</sub>H<sub>22</sub>O<sub>3</sub> (226.32). Colorless oil,  $[\alpha]_D^{25} = +4.2^\circ$  ( $c = 0.1$ , CH<sub>3</sub>OH). **Source:** XIANG RI KUI YE *Helianthus annuus*. **Ref:** 1927.

**1337 Annuionone F**

(1*R*,5*R*,6*S*,9*R*)-3-Oxo-6,13-dihydroxy-5,6-dihydro- $\beta$ -ionol C<sub>13</sub>H<sub>22</sub>O<sub>4</sub> (242.32). Colorless oil. **Source:** ZAI PEI XIANG RI KUI YE *Helianthus annuus* cv. (fresh leaf). **Ref:** 3881.

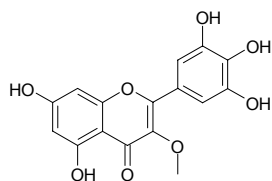
**1338 Annuionone G**

(3*R*,5*R*,7*R*)-3,5-Dihydroxy-5,6-dihydro-6,7-dehydro- $\beta$ -ionol C<sub>13</sub>H<sub>22</sub>O<sub>3</sub> (226.32). Colorless oil,  $[\alpha]_D^{25} = -15.5^\circ$  ( $c = 1.0$ , CHCl<sub>3</sub>). **Source:** ZAI PEI XIANG RI KUI YE *Helianthus annuus* cv. (fresh leaf). **Ref:** 3881.

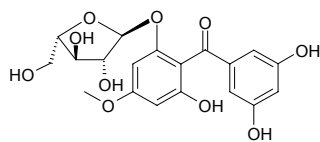


**1339 Annulatin**

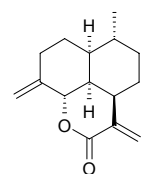
Myricetin-3-*O*-methyl ether C<sub>16</sub>H<sub>12</sub>O<sub>8</sub> (332.27). Yellow amorphous solid.  
 Source: *Goniotalamus thwaitesii* (aerial parts). Ref: 5096.

**1340 Annulatophenonoid**

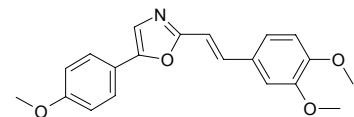
C<sub>19</sub>H<sub>20</sub>O<sub>10</sub> (408.37). Yellow crystalloid mass (H<sub>2</sub>O–EtOH), mp 162–164°C,  
 [α]<sub>D</sub><sup>20</sup> = –79.52° (c = 1.0550, MeOH). Source: HUAN ZHUANG JIN SI TAO  
*Hypericum annulatum*. Ref: 2009.

**1341 Annulide**

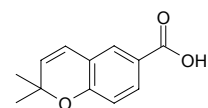
C<sub>15</sub>H<sub>20</sub>O<sub>2</sub> (232.33). Source: HUANG HUA HAO *Artemisia annua* (aerial  
 parts). Ref: 660, 5224.

**1342 Annuloline**

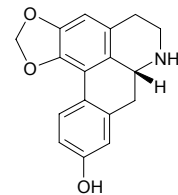
[3988-51-0] C<sub>20</sub>H<sub>19</sub>NO<sub>4</sub> (337.38). Pharm: Antifungal. Source: DUO HUA  
 HEI MAI CAO *Lolium multiflorum*. Ref: 658.

**1343 Anofinic acid**

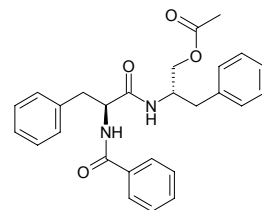
2,2-Dimethyl-2*H*-1-chromene-6-carboxylicacid [34818-56-9] C<sub>12</sub>H<sub>12</sub>O<sub>3</sub>  
 (204.23). Colorless columnar, acicular crystals (80% alcohol), mp 155–158°C,  
 [α]<sub>D</sub><sup>20</sup> = +15° (c = 0.8, alcohol). Pharm: Antifungal (*Cladosporium*  
*cucumerinum*, IC<sub>50</sub> = 50 μg/mL). Source: BAI HUA LONG DAN *Gentiana*  
*algida*, GOU ZHUANG HU JIAO *Piper aduncum*. Ref: 704, 900, 2323.

**1344 Anolobine**

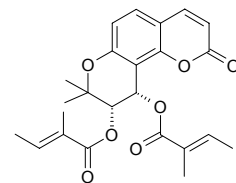
[641-17-8] C<sub>17</sub>H<sub>15</sub>NO<sub>3</sub> (281.31). mp 262°C. Source: YE HE HUA *Magnolia*  
*coco*. Ref: 6.

**1345 Anomalamide**

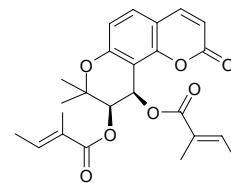
Lyciumamide [56121-42-7] C<sub>27</sub>H<sub>28</sub>N<sub>2</sub>O<sub>4</sub> (444.54). Source: BO LUO MI  
*Artocarpus heterophyllus*, E BU SHI CAO *Centipeda minima*, GOU QI GEN  
*Pi Lycium chinense*, HUANG HUA HAO *Artemisia annua*, LIU JI NU  
*Artemisia anomala*. Ref: 2, 660.

**1346 (+)-Anomalin**

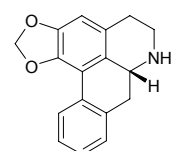
C<sub>24</sub>H<sub>26</sub>O<sub>7</sub> (426.47). mp 171–172°C. Source: LI JIANG QIAN HU  
*Peucedanum govanianum* var. *bicolor*. Ref: 557.

**1347 Anomalin**

[4970-26-7] C<sub>24</sub>H<sub>26</sub>O<sub>7</sub> (426.47). mp 173–174°C. Source: HANG BAI ZHI  
*Angelica taiwaniana*, XIA YE DANG GUI *Angelica anomala* (the compound  
 was isolated from the plant by Qingzhi Qin et al. in 1960)<sup>[5505]</sup>. Ref: 6, 5505.

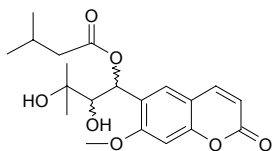
**1348 Anonaine**

(–)-Anonaine [1862-41-5] C<sub>17</sub>H<sub>15</sub>NO<sub>2</sub> (265.31). mp 122–123°C. Pharm:  
 Antibacterial; insecticidal. Source: NIU XIN FAN LI ZHI *Annona reticulata*,  
 LIAN ZI *Nelumbo nucifera*, FAN LI ZHI *Annona squamosa*, HE YE *Nelumbo*  
*nucifera*, HOU PO *Magnolia officinalis*, YOU GOU YING ZHAO *Artabotrys*  
*uncinatus* (root, stem, leaf)<sup>[3083]</sup>. Ref: 6, 221, 625, 658, 3083.

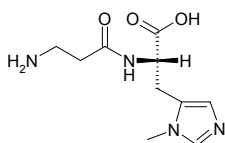


**1349 Anpubesol**

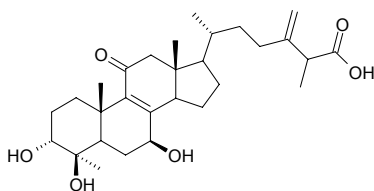
[110064-48-7] C<sub>20</sub>H<sub>26</sub>O<sub>7</sub> (378.43). Colorless and transparent, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -72.5° (c = 0.15, chloroform). Source: DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*]. Ref: 79.

**1350 Anserine**

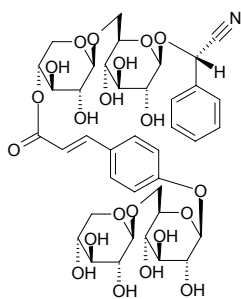
[584-85-0] C<sub>10</sub>H<sub>16</sub>N<sub>4</sub>O<sub>3</sub> (240.26). mp 238-239°C. Source: JI NAO *Gallus gallus domesticus*, XIA TIAN GAO *Bos taurus domesticus*, MAN LI YU *Anguilla japonica*. Ref: 6.

**1351 Antcin K**

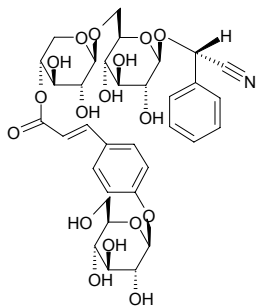
3 $\alpha$ ,4 $\beta$ ,7 $\beta$ -Trihydroxy-4 $\alpha$ -methylergosta-8,24(28)-dien-11-on-26-icoic acid C<sub>29</sub>H<sub>44</sub>O<sub>6</sub> (488.67). Source: *Antrodia camphorata* (fruit body). Ref: 4960.

**1352 Anthemis glycoside A**

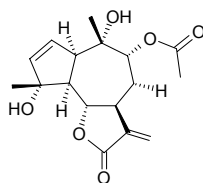
C<sub>39</sub>H<sub>49</sub>NO<sub>21</sub> (867.82). Pharm: Toxin. Source: GAO CHUN HUANG JU *Anthemis altissima*. Ref: 658.

**1353 Anthemis glycoside B**

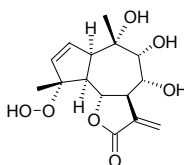
C<sub>34</sub>H<sub>41</sub>NO<sub>17</sub> (735.70). Pharm: Toxin. Source: GAO CHUN HUANG JU *Anthemis altissima*. Ref: 658.

**1354 Anthemolide A**

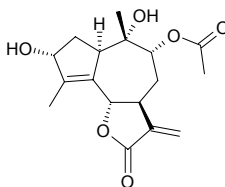
C<sub>17</sub>H<sub>22</sub>O<sub>6</sub> (322.36). Source: *Anthemis carpatica* (aerial parts). Ref: 3974.

**1355 Anthemolide B**

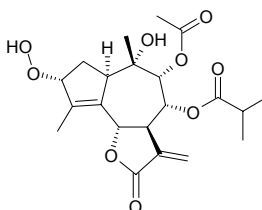
C<sub>15</sub>H<sub>20</sub>O<sub>7</sub> (312.32). colorless solid. Source: MENG DA NA CHUN HUANG JU *Anthemis cretica* ssp. *cretica* [Syn. *Anthemis montana*]. Ref: 1893.

**1356 Anthemolide C**

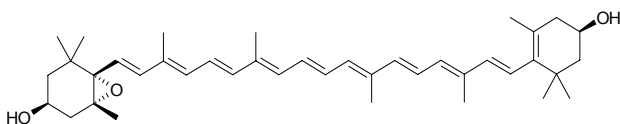
C<sub>17</sub>H<sub>22</sub>O<sub>6</sub> (322.36). Source: *Anthemis carpatica* (aerial parts). Ref: 3974.

**1357 Anthemolide F**

C<sub>21</sub>H<sub>28</sub>O<sub>9</sub> (424.45). Amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +97° (c = 0.33, MeOH). Source: *Anthemis carpatica* (aerial parts). Ref: 3974.

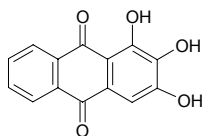
**1358 Antheraxanthin**

C<sub>40</sub>H<sub>56</sub>O<sub>3</sub> (584.89). mp (*cis*) 110°C, (*trans*) 207°C. Pharm: Yellow pigment. Source: DAO CAO *Oryza sativa*, FAN MU GUA *Carica papaya*, HAN LIAN HUA *Tropaeolum majus*, HONG HAI JIAO *Capsicum annuum*, HUA LING CAO *Eschscholzia californica*, JING MI *Oryza sativa*, JUAN DAN *Lilium tigrinum* [Syn. *Lilium lancifolium*], SHE XIANG BAI HE *Lilium longiflorum*, *Rosa* sp. Ref: 6, 660.

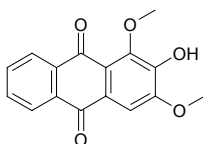


**1359 Anthragallol**

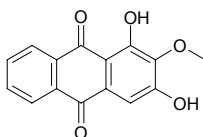
[602-64-2]  $C_{14}H_8O_5$  (256.22). mp 312–313°C. **Pharm:** Cytotoxic (macrophage, T lymphocyte and B lymphocyte in high dose); immunosuppressant (*in vitro*). **Source:** TU LIAN QIAO *Hymenodictyon excelsum*. **Ref:** 6, 658.

**1360 Anthragallol-1,3-dimethylether**

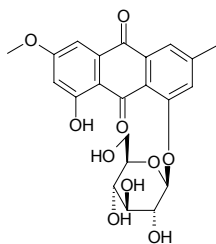
1,3-Dimethoxy-2-hydroxyanthraquinone  $C_{16}H_{12}O_5$  (284.27). **Source:** GUANG JING QIAN CAO *Rubia wallichiana* (stem), HAI BA JI *Morinda citrifolia* (fruit). **Ref:** 4369, 4542.

**1361 Anthragallol-2-methylether**

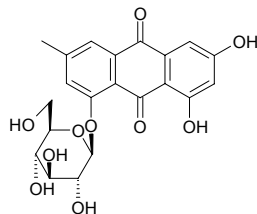
$C_{15}H_{10}O_5$  (270.24). **Source:** HAI BA JI *Morinda citrifolia* (fruit). **Ref:** 4542.

**1362 Anthraglycoside A**

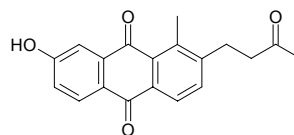
Physcion-8-*O*- $\beta$ -D-glucopyranoside  $C_{22}H_{22}O_{10}$  (446.41). mp 230–232°C. **Source:** HU ZHANG *Polygonum cuspidatum*. **Ref:** 6.

**1363 Anthraglycoside B**

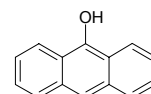
Emodin-8-*O*- $\beta$ -D-glucopyranoside  $C_{21}H_{20}O_{10}$  (432.39). mp 190–191°C. **Pharm:** Antioxidant inactive (DPPH radical scavenger,  $IC_{50} > 100\mu\text{g/mL}$ ; control Ascorbic acid,  $IC_{50} = 3.9\mu\text{g/mL}$ )<sup>[4711]</sup>. **Source:** DA HUANG *Rheum officinale*, HU ZHANG *Polygonum cuspidatum*, ZANG BIAN DA HUANG *Rheum emodi* [*Syn. Rheum australe*] (root: yield = 1.02%dw). **Ref:** 2, 6, 4186, 4711.

**1364 Anthrakunthone**

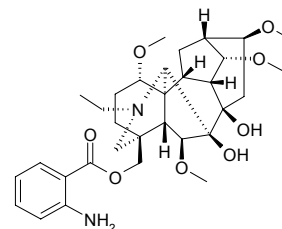
$C_{19}H_{16}O_4$  (308.34). Yellow oil. **Pharm:** Antimalarial (antiplasmodial); toxin (endothelial cell line ECV-304). **Source:** WU GAN DA YU YE QIU *Stereospermum kunthianum*. **Ref:** 2019.

**1365 Anthranol**

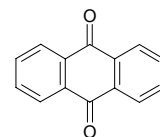
9-Anthracenol [529-86-2]  $C_{14}H_{10}O$  (194.24). **Source:** LU HUI *Aloe vera* [*Syn. Aloe barbadensis*]. **Ref:** 2.

**1366 Anthranoylcoctonine**

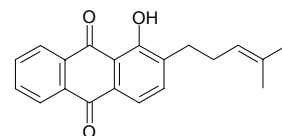
$C_{32}H_{46}N_2O_8$  (586.73). Colorless trapezoid crystals (cyclohexane-acetone). **Pharm:** Neuromuscular blocker (mus); toxin (animal, breathing faintness, palsy, convulsion until death). **Source:** BA BI CUI QUE HUA *Delphinium barbeyi*, E MEI CUI QUE HUA *Delphinium omeiense*, GUA YE WU TOUTOU *Aconitum hemsleyanum*, HEI SHUI CUI QUE HUA BIAN ZHONG *Delphinium potaninii* var. *juifengshanense* (root), XI MA XUAN FU HUA *Inula royleana*. **Ref:** 658, 2190, 2208, 4227.

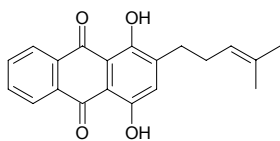
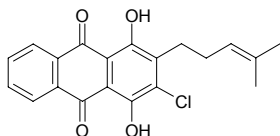
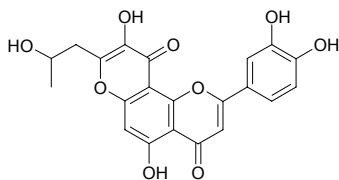
**1367 Anthraquinone**

9,10-Anthracenedione [84-65-1]  $C_{14}H_8O_2$  (208.22). mp 286°C, bp 379–381°C (sub). **Pharm:** Anti-inflammatory (NO production inhibitor)<sup>[4415]</sup>; cytotoxic ( $P_{388}$ ,  $ED_{50} = 8.29\mu\text{g/mL}$ , control Mithramycin,  $ED_{50} = 0.58\mu\text{g/mL}$ ; A549,  $ED_{50} = 37.33\mu\text{g/mL}$ , Mithramycin,  $ED_{50} = 0.073\mu\text{g/mL}$ ; HT29,  $ED_{50} = 20.81\mu\text{g/mL}$ , Mithramycin,  $ED_{50} = 0.076\mu\text{g/mL}$ )<sup>[5421]</sup>. **Source:** MO ZHI JIAO GU CUI *Casearia membranacea* (stem), HU ZHANG *Polygonum cuspidatum*, LUO BU MA *Apocynum venetum*. **Ref:** 6, 4415, 5421.

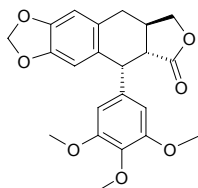
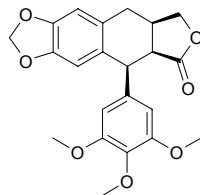
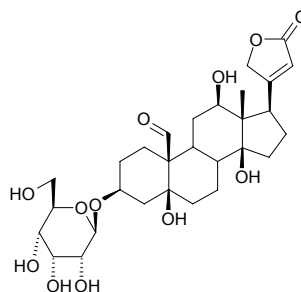
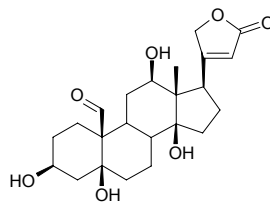
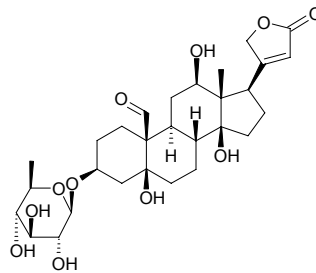
**1368 Anthrasesamone A**

1-Hydroxy-2-(4-methylpent-3-enyl)anthraquinone  $C_{20}H_{18}O_3$  (306.36). Yellow solid. **Source:** HU MA GEN *Sesamum indicum*. **Ref:** 3465.



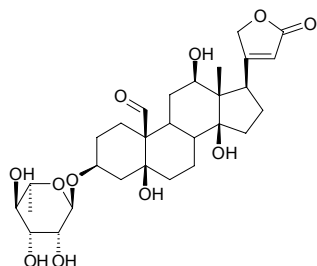
**1369 Anthrasesamone B**1,4-Dihydroxy-2-(4-methylpent-3-enyl)-anthraquinone C<sub>20</sub>H<sub>18</sub>O<sub>4</sub> (322.36).Red solid. Source: HU MA GEN *Sesamum indicum*. Ref: 3465.**1370 Anthrasesamone C**2-Chloro-1,4-dihydroxy-3-(4-methylpent-3-enyl)anthraquinone C<sub>20</sub>H<sub>17</sub>ClO<sub>4</sub>(356.81). Red solid. Source: HU MA GEN *Sesamum indicum*. Ref: 3465.**1371 Anthraxin**C<sub>21</sub>H<sub>16</sub>O<sub>9</sub> (412.36). mp 336°C. Source: JIN CAO *Arthroxon hispidus*. Ref: 6.**1372 Anthricin**Deoxypodophyllotoxin [19186-35-7] C<sub>22</sub>H<sub>22</sub>O<sub>7</sub> (398.42). Colorless prismatic crystals (absolute ethanol), mp 166~169°C, [ $\alpha$ ]<sub>D</sub><sup>27</sup> = (-113.9±1.6)<sup>o</sup> (c = 0.985, chloroform); mp 162~164°C (methanol), [ $\alpha$ ]<sub>D</sub> = -102.5<sup>o</sup> (c = 0.20, CHCl<sub>3</sub>).

Pharm: Cytotoxic (inhibition of TPA-induced ornithine decarboxylase activity with cultured mouse epidermal 308 cells)<sup>[5038]</sup>; antineoplastic (P<sub>388</sub>); antimetabolic; antiviral (HSV-1, measles virus); cytotoxic (KB, ED<sub>50</sub> ≤ 20µg/mL); antihepatotoxin (mus, sc, 10mg/kg, inhibits the rise of GPT in serum caused by CCl<sub>4</sub>). Source: BEI MEI YA BAI *Thuja occidentalis*, CHA ZI YUAN BAI *Juniperus sabina*, CHENG LIU YE YUAN BAI *Juniperus sabina* var. *tamariscifolia*, E SHEN *Anthriscus sylvestris*, LIU JIAO LIAN *Dysosma pleiantha* [Syn. *Podophyllum pleianthum*], LUO HAN BAI *Thujopsis dolobrata*, NAN MEI ZHOU GUI *Juniperus silicicola*, TAO ER QI *Podophyllum emodii* [Syn. *Podophyllum emodii* var. *chinense*; *Podophyllum sikkimensis*; *Sinopodophyllum emodii*] (rhizome: mean content of 2 origins = 0.265%<sup>[5508]</sup>), XIAO YE LIE LAN *Bursera microphylla*, *Libocedrus* sp. Ref: 4, 6, 658, 661, 3543, 5038, 5499, 5508.

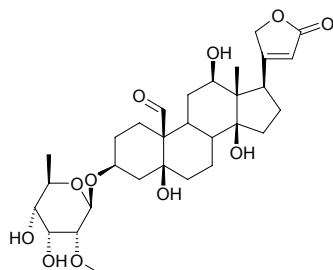
**1373 Anthricin isomer**C<sub>22</sub>H<sub>22</sub>O<sub>7</sub> (398.42). Pharm: Cytotoxic (soft agar transformation assay with JB6 cells); cytotoxic (inhibition of TPA-induced ornithine decarboxylase activity with cultured mouse epidermal 308 cells). Source: BEI MEI YA BAI *Thuja occidentalis*. Ref: 5038.**1374 Antialloside**C<sub>29</sub>H<sub>42</sub>O<sub>12</sub> (582.65). Source: JIAN XUE FENG HOU *Antiaris toxicaria* [Syn. *Ambora toxicaria*]. Ref: 660.**1375 Antiarigenin**C<sub>23</sub>H<sub>32</sub>O<sub>7</sub> (420.51). Source: JIAN XUE FENG HOU *Antiaris toxicaria* [Syn. *Ambora toxicaria*]. Ref: 660.**1376 α-Antiarin**[23605-05-2] C<sub>29</sub>H<sub>42</sub>O<sub>11</sub> (566.65). Pharm: LD<sub>50</sub> (cat, iv) = 0.116mg/kg. Source: JIAN XUE FENG HOU *Antiaris toxicaria* [Syn. *Ambora toxicaria*]. Ref: 658.

**1377  $\beta$ -Antiarin**

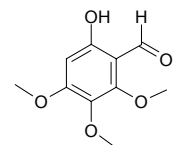
[639-13-4] C<sub>29</sub>H<sub>42</sub>O<sub>11</sub> (566.65). Source: FEI ZHOU JIAN XUE FENG HOU *Antiaris Africana*, GANG GUO JIAN XUE FENG HOU *Antiaris welwitschii*, JIAN XUE FENG HOU *Antiaris toxicaria* [Syn. *Ambora toxicaria*]. Ref: 660, 1521.

**1378 Antiarjavoside**

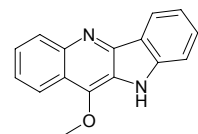
C<sub>30</sub>H<sub>44</sub>O<sub>11</sub> (580.68). Source: JIAN XUE FENG HOU *Antiaris toxicaria* [Syn. *Ambora toxicaria*]. Ref: 660.

**1379 Antiarolaldehyde**

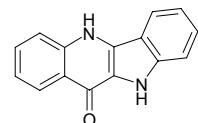
C<sub>10</sub>H<sub>12</sub>O<sub>5</sub> (212.20). mp 60–61°C. Pharm: Antifungal (*Trichophyton interdigitalis*) Source: HONG HUA PI *Betula platyphylla* var. *japonica*. Ref: 661.

**1380 Anticancer Alkaloid PMV70P691-050**

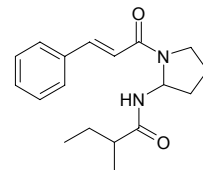
C<sub>16</sub>H<sub>12</sub>N<sub>2</sub>O (248.29). Pharm: Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). Source: HUANG HUA REN *Sida acuta*. Ref: 5038.

**1381 Anticancer Alkaloid PMV70P691-051**

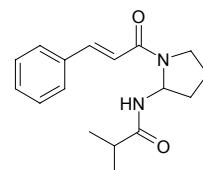
C<sub>15</sub>H<sub>10</sub>N<sub>2</sub>O (234.26). Pharm: Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). Source: HUANG HUA REN *Sida acuta*. Ref: 5038.

**1382 Anticancer Amide PMV70P691-052**

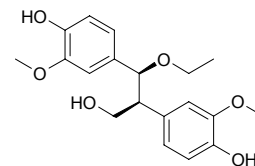
C<sub>18</sub>H<sub>24</sub>N<sub>2</sub>O<sub>2</sub> (300.40). Pharm: Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). Source: *Aglaia ponapensis*. Ref: 5038.

**1383 Anticancer Amide PMV70P691-053**

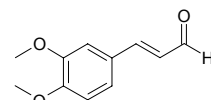
C<sub>17</sub>H<sub>22</sub>N<sub>2</sub>O<sub>2</sub> (286.38). Pharm: Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). Source: *Aglaia ponapensis*. Ref: 5038.

**1384 Anticancer Benzenoid PMV70P691-004**

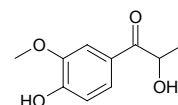
C<sub>10</sub>H<sub>24</sub>O<sub>6</sub> (348.40). Pharm: Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). Source: *Couepia ulei*. Ref: 5038.

**1385 Anticancer Benzenoid PMV70P691-57**

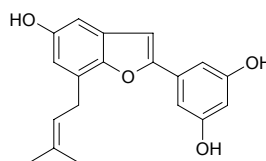
C<sub>11</sub>H<sub>12</sub>O<sub>3</sub> (192.22). Pharm: Cytotoxic (soft agar transformation assay with JB6 cells). Source: WU ZHU MAI DA JI *Euphorbia quinquecostata*. Ref: 5038.

**1386 Anticancer Benzenoid PMV70P691-58**

C<sub>10</sub>H<sub>12</sub>O<sub>4</sub> (196.20). Pharm: Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). Source: HUANG HUA REN *Sida acuta*. Ref: 5038.

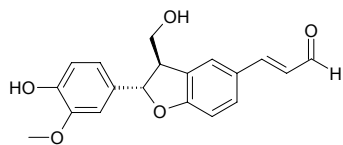
**1387 Anticancer Benzofuran PMV70P691-005**

C<sub>19</sub>H<sub>18</sub>O<sub>4</sub> (310.35). Pharm: Cytotoxic (cyclooxygenase-1 inhibitor); cytotoxic (cyclooxygenase-2 inhibitor). Source: DA DA HE MIAN BAO GUO *Artocarpus dadah*. Ref: 5038.

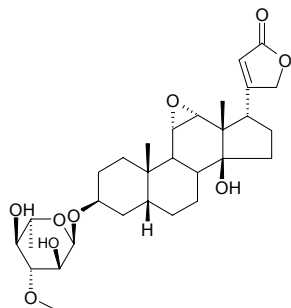


**1388 Anticancer Benzofuran PMV70P691-64**

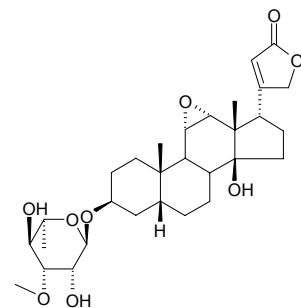
$C_{19}H_{18}O_5$  (326.35). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** XIANG DOU *Dipteryx odorata* (callus and root). **Ref:** 5038.

**1389 Anticancer Cardiac Glycoside PMV70P691-007**

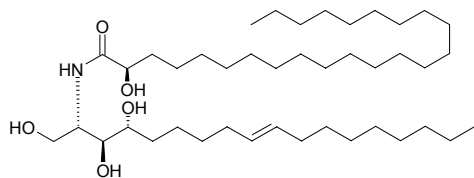
$C_{30}H_{44}O_9$  (548.68). **Pharm:** Cytotoxic (antiproliferative hmn colon cancer assay); cytotoxic (Ishikawa anti-E2 bioassay). **Source:** NIU XIN QIE ZI *Cerbera manghas*. **Ref:** 5038.

**1390 Anticancer Cardiac Glycoside PMV70P691-008**

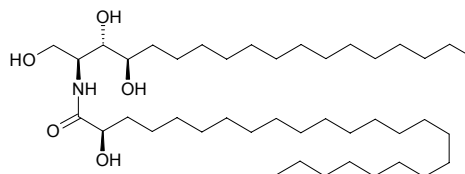
$C_{30}H_{44}O_9$  (548.68). **Pharm:** Cytotoxic (antiproliferative hmn colon cancer assay); cytotoxic (Ishikawa anti-E2 bioassay). **Source:** NIU XIN QIE ZI *Cerbera manghas*. **Ref:** 5038.

**1391 Anticancer Ceramide PMV70P691-009**

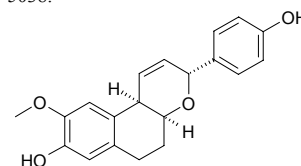
$C_{42}H_{83}NO_5$  (682.13). **Pharm:** Cytotoxic (soft agar transformation assay with JB6 cells). **Source:** FEI CHENG SUAN JIANG *Physalis philadelphica*. **Ref:** 5038.

**1392 Anticancer Ceramide PMV70P691-69**

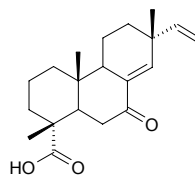
$C_{42}H_{85}NO_5$  (684.15). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** FEI CHENG SUAN JIANG *Physalis philadelphica*. **Ref:** 5038.

**1393 Anticancer Diarylheptanoid PMV70P691-010**

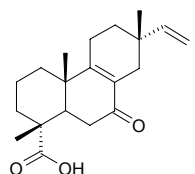
$C_{20}H_{20}O_4$  (324.38). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** FEN BA JIAO ZA JIAO ZHONG ZHI BIAN ZHONG *Musa x paradisiaca* cultivar. **Ref:** 5038.

**1394 Anticancer Diterpenoid PMV70P691-011**

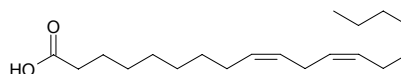
$C_{20}H_{28}O_3$  (316.44). **Pharm:** Cytotoxic (soft agar transformation assay with JB6 cells); cytotoxic (inhibition of TPA-induced ornithine decarboxylase activity with cultured mouse epidermal 308 cells). **Source:** BEI MEI YA BAI *Thuja occidentalis*. **Ref:** 5038.

**1395 Anticancer Diterpenoid PMV70P691-74**

$C_{20}H_{28}O_3$  (316.44). **Pharm:** Cytotoxic (soft agar transformation assay with JB6 cells); cytotoxic (inhibition of TPA-induced ornithine decarboxylase activity with cultured mouse epidermal 308 cells). **Source:** BEI MEI YA BAI *Thuja occidentalis*. **Ref:** 5038.

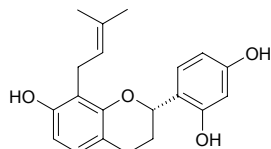
**1396 Anticancer Fatty acid PMV70P691-75**

$C_{19}H_{34}O_2$  (194.48). **Pharm:** Cytotoxic (cyclooxygenase-1 inhibitor); cytotoxic (cyclooxygenase-2 inhibitor). **Source:** SHI DIAO BAI *Asparagus officinalis*. **Ref:** 5038.

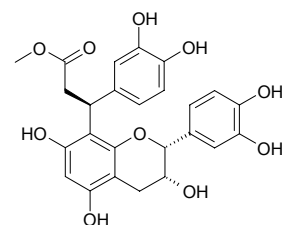


**1397 Anticancer Flavonoid PMV70P691-013**

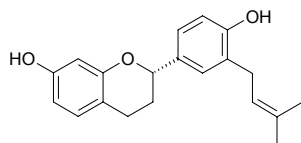
$C_{20}H_{22}O_4$  (326.40). **Pharm:** Cytotoxic (estrogen receptor-binding  $\alpha$  assay); cytotoxic (estrogen receptor-binding  $\beta$  assay); cytotoxic (cyclooxygenase-1 inhibitor). **Source:** GOU SHU *Broussonetia papyrifera*. **Ref:** 5038.

**1398 Anticancer Flavonoid PMV70P691-014**

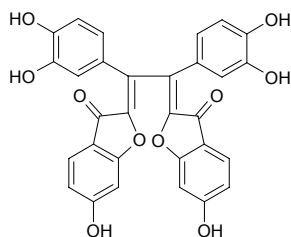
$C_{25}H_{24}O_{10}$  (484.46). **Pharm:** Cytotoxic (cytochrome C antioxidant assay). **Source:** JIAN RUI MAO CHA *Antirhea acutata*. **Ref:** 5038.

**1399 Anticancer Flavonoid PMV70P691-015**

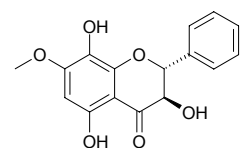
$C_{20}H_{22}O_3$  (310.40). **Pharm:** Cytotoxic (antiproliferative, hmn breast cancer cells). **Source:** HUANG LU *Cotinus coggygia*. **Ref:** 5038.

**1400 Anticancer Flavonoid PMV70P691-018**

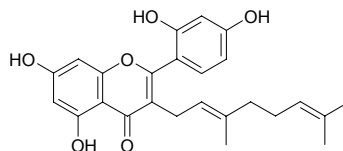
$C_{30}H_{18}O_{10}$  (538.47). **Pharm:** Cytotoxic (antioxidant assay). **Source:** HUANG LU *Cotinus coggygia*. **Ref:** 5038.

**1401 Anticancer Flavonoid PMV70P691-022**

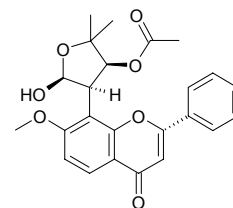
$C_{16}H_{14}O_6$  (302.29). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** YA MAI JIA YING TAO *Muntingia calabura*. **Ref:** 5038.

**1402 Anticancer Flavonoid PMV70P691-024**

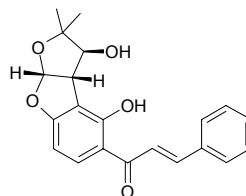
Anticancer Flavonoid PMV70P691-112  $C_{25}H_{26}O_6$  (422.48). **Pharm:** Cytotoxic (aromatase inhibitor). **Source:** GOU SHU *Broussonetia papyrifera*. **Ref:** 5038.

**1403 Anticancer Flavonoid PMV70P691-025**

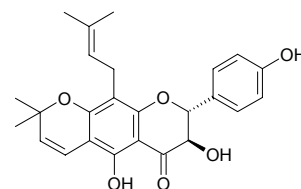
$C_{24}H_{24}O_7$  (424.45). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepal c1c7 mouse hepatoma cells). **Source:** HUI YE *Tephrosia purpurea*. **Ref:** 5038.

**1404 Anticancer Flavonoid PMV70P691-026**

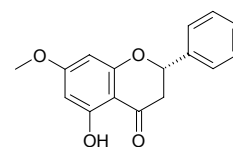
$C_{21}H_{20}O_5$  (352.39). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepal c1c7 mouse hepatoma cells). **Source:** HUI YE *Tephrosia purpurea*. **Ref:** 5038.

**1405 Anticancer Flavonoid PMV70P691-100**

$C_{25}H_{26}O_6$  (422.48). **Pharm:** Cytotoxic (cyclooxygenase-1 inhibitor). **Source:** ZHEN YE XUE TONG *Macaranga conifera*. **Ref:** 5038.

**1406 Anticancer Flavonoid PMV70P691-101**

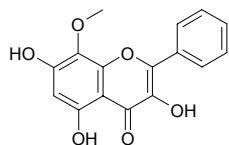
$C_{16}H_{14}O_4$  (270.29). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepal c1c7 mouse hepatoma cells). **Source:** YA MAI JIA YING TAO *Muntingia calabura*. **Ref:** 5038.



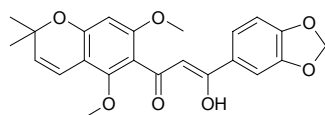


**1407 Anticancer Flavonoid PMV70P691-103**

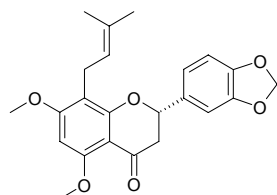
$C_{16}H_{12}O_6$  (300.27). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** YA MAI JIA YING TAO *Muntingia calabura*. **Ref:** 5038.

**1408 Anticancer Flavonoid PMV70P691-105**

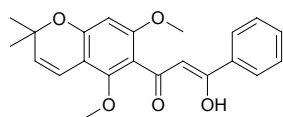
$C_{23}H_{22}O_7$  (410.43). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** SHUI LIU DOU *Pongamia pinnata*. **Ref:** 5038.

**1409 Anticancer Flavonoid PMV70P691-106**

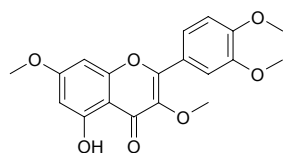
$C_{23}H_{24}O_6$  (396.44). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** SHUI LIU DOU *Pongamia pinnata*. **Ref:** 5038.

**1410 Anticancer Flavonoid PMV70P691-107**

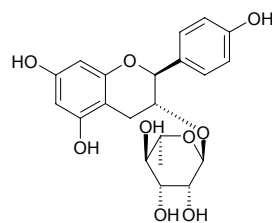
$C_{22}H_{22}O_5$  (366.42). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** SHUI LIU DOU *Pongamia pinnata*. **Ref:** 5038.

**1411 Anticancer Flavonoid PMV70P691-114**

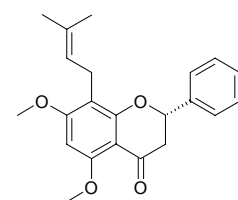
$C_{19}H_{18}O_7$  (358.35). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** SAN LIE XUE TONG *Macaranga triloba*. **Ref:** 5038.

**1412 Anticancer Flavonoid PMV70P691-77**

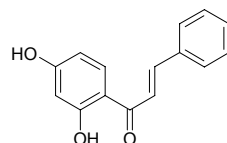
$C_{21}H_{24}O_9$  (420.42). **Pharm:** Cytotoxic (cyclooxygenase-1 inhibitor); cytotoxic (cyclooxygenase-2 inhibitor). **Source:** DA DA HE MIAN BAO GUO *Artocarpus dadah*. **Ref:** 5038.

**1413 Anticancer Flavonoid PMV70P691-82**

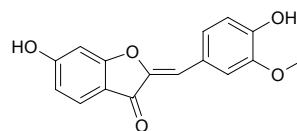
$C_{22}H_{24}O_4$  (352.43). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** SHUI LIU DOU *Pongamia pinnata*. **Ref:** 5038.

**1414 Anticancer Flavonoid PMV70P691-84**

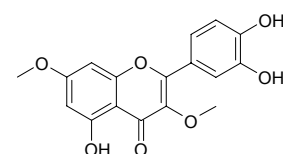
$C_{15}H_{12}O_3$  (240.26). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** YA MAI JIA YING TAO *Muntingia calabura*. **Ref:** 5038.

**1415 Anticancer Flavonoid PMV70P691-85**

$C_{16}H_{12}O_5$  (284.27). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** XIANG DOU *Dipteryx odorata* (callus and root). **Ref:** 5038.

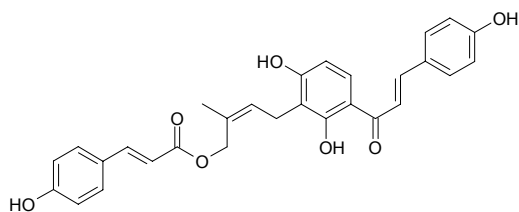
**1416 Anticancer Flavonoid PMV70P691-87**

$C_{17}H_{14}O_7$  (330.30). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** SAN LIE XUE TONG *Macaranga triloba*. **Ref:** 5038.

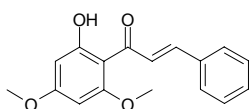


**1417 Anticancer Flavonoid PMV70P691-91**

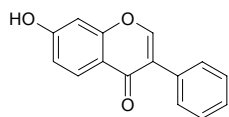
$C_{29}H_{26}O_7$  (486.53). **Pharm:** Cytotoxic (cyclooxygenase-1 inhibitor). **Source:** DA DA HE MIAN BAO GUO *Artocarpus dadah*. **Ref:** 5038.

**1418 Anticancer Flavonoid PMV70P691-93**

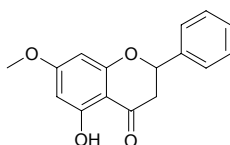
$C_{17}H_{16}O_4$  (284.31). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** *Renalmia nicolaioides*. **Ref:** 5038.

**1419 Anticancer Flavonoid PMV70P691-94**

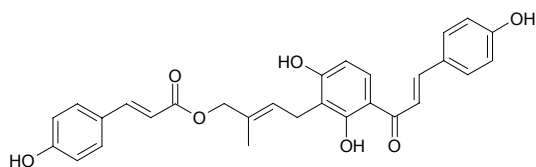
$C_{15}H_{10}O_3$  (238.25). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** YA MAI JIA YING TAO *Muntingia calabura*. **Ref:** 5038.

**1420 Anticancer Flavonoid PMV70P691-95**

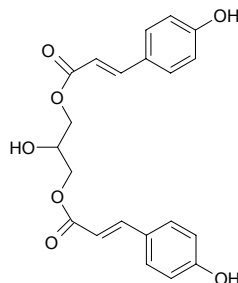
$C_{16}H_{14}O_4$  (270.29). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** *Renalmia nicolaioides*. **Ref:** 5038.

**1421 Anticancer Flavonoid PMV70P691-97**

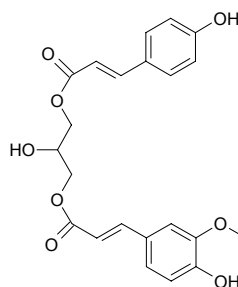
$C_{29}H_{26}O_7$  (486.53). **Pharm:** Cytotoxic (cyclooxygenase-1 inhibitor). **Source:** DA DA HE MIAN BAO GUO *Artocarpus dadah*. **Ref:** 5038.

**1422 Anticancer Glycerol Ester PMV70P691-117**

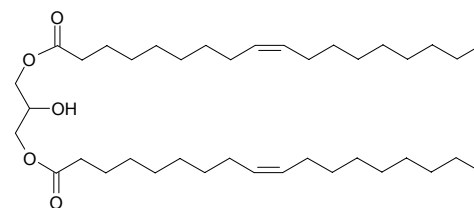
$C_{21}H_{20}O_7$  (384.39). **Pharm:** Cytotoxic (cyclooxygenase-1 inhibitor). **Source:** SHI DIAO BAI *Asparagus officinalis*. **Ref:** 5038.

**1423 Anticancer Glycerol Ester PMV70P691-118**

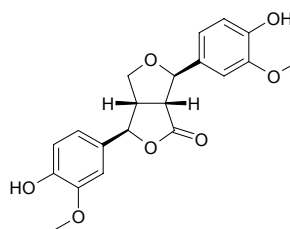
$C_{22}H_{22}O_8$  (414.42). **Pharm:** Cytotoxic (cyclooxygenase-1 inhibitor). **Source:** SHI DIAO BAI *Asparagus officinalis*. **Ref:** 5038.

**1424 Anticancer Glycerol Ester PMV70P691-119**

$C_{39}H_{72}O_5$  (621.01). **Pharm:** Cytotoxic (cyclooxygenase-2 inhibitor). **Source:** YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*]. **Ref:** 5038.

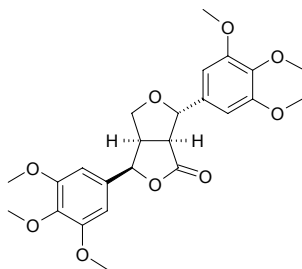
**1425 Anticancer Lignan PMV70P691-124**

$C_{20}H_{20}O_7$  (372.38). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** HUANG HUA REN *Sida acuta*. **Ref:** 5038.

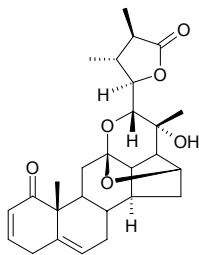


**1426 Anticancer Lignan PMV70P691-126**

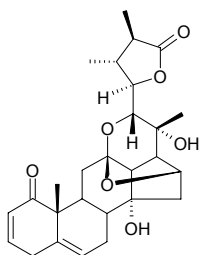
$C_{24}H_{28}O_9$  (460.49). **Pharm:** Cytotoxic (soft agar transformation assay with JB6 cells). **Source:** LIAN YE TONG *Hernandia Sonora* [Syn. *Hernandia ovigera*] (seed). **Ref:** 5038.

**1427 Anticancer Norwithanolide PMV70P691-029**

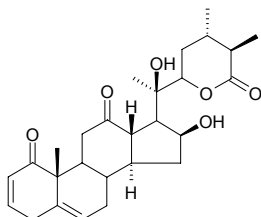
$C_{27}H_{34}O_6$  (454.57). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** *Deprea subtriflora*. **Ref:** 5038.

**1428 Anticancer Norwithanolide PMV70P691-030**

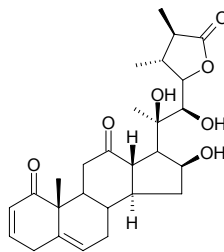
$C_{27}H_{34}O_7$  (470.57). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells); cytotoxic (soft agar transformation assay with JB6 cells). **Source:** *Deprea subtriflora*. **Ref:** 5038.

**1429 Anticancer Norwithanolide PMV70P691-031**

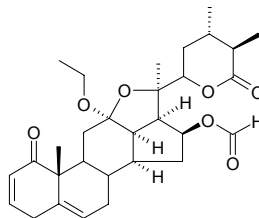
$C_{27}H_{36}O_6$  (456.58). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells); cytotoxic (soft agar transformation assay with JB6 cells). **Source:** *Deprea subtriflora*. **Ref:** 5038.

**1430 Anticancer Norwithanolide PMV70P691-032**

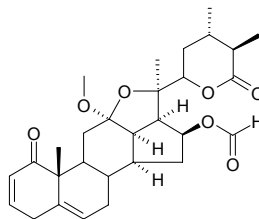
$C_{27}H_{36}O_7$  (472.58). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** *Deprea subtriflora*. **Ref:** 5038.

**1431 Anticancer Norwithanolide PMV70P691-033**

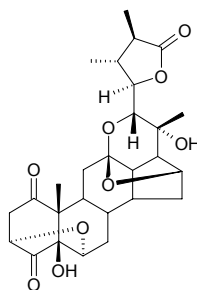
$C_{30}H_{40}O_7$  (512.65). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** *Deprea subtriflora*. **Ref:** 5038.

**1432 Anticancer Norwithanolide PMV70P691-034**

$C_{29}H_{38}O_7$  (498.62). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** *Deprea subtriflora*. **Ref:** 5038.

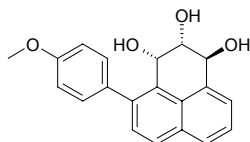
**1433 Anticancer Norwithanolide PMV70P691-035**

$C_{27}H_{34}O_9$  (502.57). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells); cytotoxic (soft agar transformation assay with JB6 cells). **Source:** *Deprea subtriflora*. **Ref:** 5038.

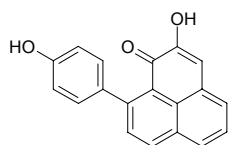


**1434 Anticancer Phenylphenalone PMV70P691-129**

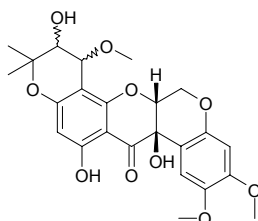
$C_{20}H_{18}O_4$  (322.36). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** FEN BA JIAO ZA JIAO ZHONG ZHI BIAN ZHONG *Musa x paradisiaca* cultivar. **Ref:** 5038.

**1435 Anticancer Phenylphenalone PMV70P691-130**

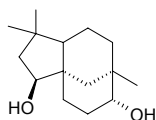
$C_{19}H_{12}O_3$  (288.31). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** FEN BA JIAO ZA JIAO ZHONG ZHI BIAN ZHONG *Musa x paradisiaca* cultivar. **Ref:** 5038.

**1436 Anticancer Rotenoid PMV70P691-036**

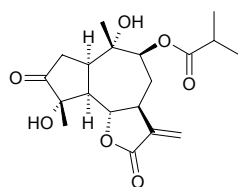
$C_{24}H_{26}O_{10}$  (474.47). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** DU HUI MAO DOU *Tephrosia toxicaria*. **Ref:** 5038.

**1437 Anticancer Sesquiterpene PMV70P691-132**

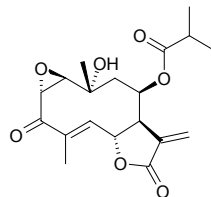
$C_{15}H_{26}O_2$  (238.37). **Pharm:** Cytotoxic (cyclooxygenase-2 inhibitor). **Source:** SAN LIE XUE TONG *Macaranga triloba*. **Ref:** 5038.

**1438 Anticancer Sesquiterpene PMV70P691-134**

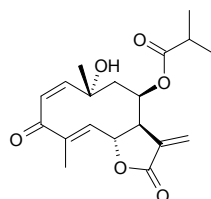
$C_{19}H_{26}O_7$  (366.41). **Pharm:** Cytotoxic (differentiation of HL-60 cells). **Source:** ZHONG BIN JU *Tithonia diversifolia*. **Ref:** 5038.

**1439 Anticancer Sesquiterpene PMV70P691-135**

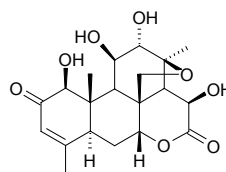
$C_{19}H_{24}O_7$  (364.40). **Pharm:** Cytotoxic (antiproliferative hmn colon cancer assay). **Source:** ZHONG BIN JU *Tithonia diversifolia*. **Ref:** 5038.

**1440 Anticancer Sesquiterpene PMV70P691-136**

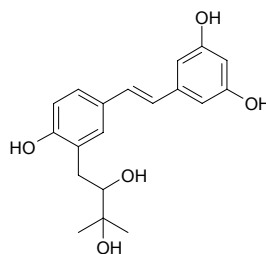
$C_{19}H_{24}O_6$  (348.46). **Pharm:** Cytotoxic (antiproliferative hmn colon cancer assay). **Source:** ZHONG BIN JU *Tithonia diversifolia*. **Ref:** 5038.

**1441 Anticancer Simaroubolide PMV70P691-137**

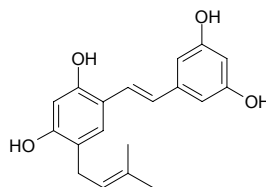
$C_{20}H_{26}O_8$  (394.43). **Pharm:** Cytotoxic (differentiation of HL-60 cells). **Source:** YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*]. **Ref:** 5038.

**1442 Anticancer Stilbenoid PMV70P691-038**

$C_{19}H_{22}O_5$  (330.38). **Pharm:** Cytotoxic (cyclooxygenase-2 inhibitor). **Source:** DA DA HE MIAN BAO GUO *Artocarpus dadah*. **Ref:** 5038.

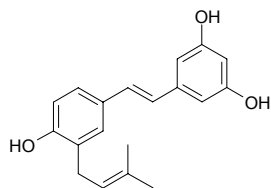
**1443 Anticancer Stilbenoid PMV70P691-039**

$C_{19}H_{20}O_4$  (312.37). **Pharm:** Cytotoxic (cyclooxygenase-1 inhibitor). **Source:** DA DA HE MIAN BAO GUO *Artocarpus dadah*. **Ref:** 5038.

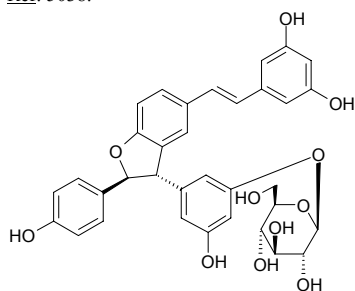


**1444 Anticancer Stilbenoid PMV70P691-040**

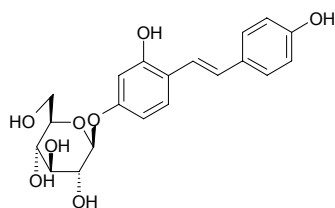
$C_{19}H_{20}O_3$  (296.37). **Pharm:** Cytotoxic (cyclooxygenase-2 inhibitor). **Source:** DA DA HE MIAN BAO GUO *Artocarpus dadah*. **Ref:** 5038.

**1445 Anticancer Stilbenoid PMV70P691-041**

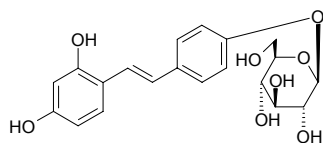
$C_{34}H_{32}O_{11}$  (616.63). **Pharm:** Cytotoxic (cyclooxygenase-1 inhibitor); cytotoxic (cyclooxygenase-2 inhibitor). **Source:** PU<sup>(2)</sup> TAO *Vitis vinifera* (cell culture). **Ref:** 5038.

**1446 Anticancer Stilbenoid PMV70P691-142**

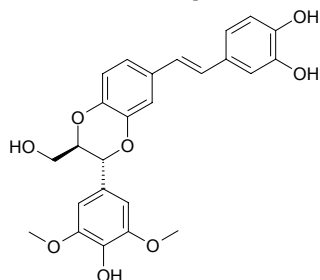
$C_{20}H_{22}O_8$  (390.39). **Pharm:** Cytotoxic (cyclooxygenase-1 inhibitor). **Source:** PU<sup>(2)</sup> TAO *Vitis vinifera* (cell culture). **Ref:** 5038.

**1447 Anticancer Stilbenoid PMV70P691-146**

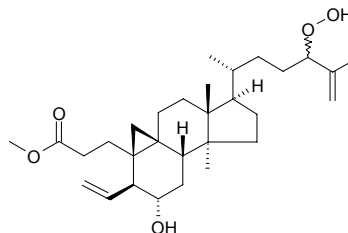
$C_{20}H_{22}O_8$  (390.39). **Pharm:** Cytotoxic (cyclooxygenase-1 inhibitor). **Source:** PU<sup>(2)</sup> TAO *Vitis vinifera* (cell culture). **Ref:** 5038.

**1448 Anticancer Stilbenolignan PMV70P691-042**

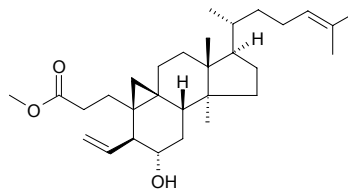
$C_{25}H_{24}O_8$  (452.47). **Pharm:** Cytotoxic (cyclooxygenase-1 inhibitor). **Source:** CI JI NU ZONG LV *Aiphanes aculeata*. **Ref:** 5038.

**1449 Anticancer Triterpene PMV70P691-043**

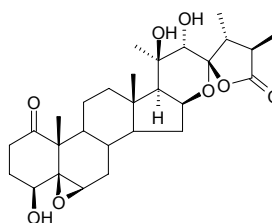
$C_{30}H_{48}O_5$  (488.71). **Pharm:** Cytotoxic (cyclooxygenase-1 inhibitor); cytotoxic (cyclooxygenase-2 inhibitor). **Source:** JIAN RUI MAO CHA *Antirhea acutata*. **Ref:** 5038.

**1450 Anticancer Triterpene PMV70P691-044**

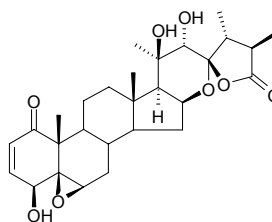
$C_{30}H_{48}O_3$  (456.72). **Pharm:** Cytotoxic (cyclooxygenase-1 inhibitor); cytotoxic (cyclooxygenase-2 inhibitor). **Source:** JIAN RUI MAO CHA *Antirhea acutata*. **Ref:** 5038.

**1451 Anticancer Withanolide PMV70P691-045**

$C_{28}H_{40}O_8$  (504.63). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepal c1c7 mouse hepatoma cells). **Source:** FEI CHENG SUAN JIANG *Physalis philadelphica*. **Ref:** 5038.

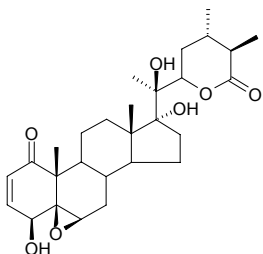
**1452 Anticancer Withanolide PMV70P691-046**

$C_{28}H_{38}O_8$  (502.61). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepal c1c7 mouse hepatoma cells). **Source:** FEI CHENG SUAN JIANG *Physalis philadelphica*. **Ref:** 5038.

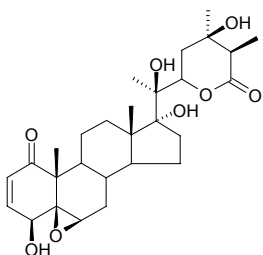


**1453 Anticancer Withanolide PMV70P691-047**

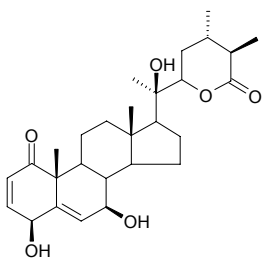
$C_{28}H_{40}O_7$  (488.63). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells); cytotoxic (mouse mammary organ culture assay). **Source:** FEI CHENG SUAN JIANG *Physalis philadelphica*. **Ref:** 5038.

**1454 Anticancer Withanolide PMV70P691-048**

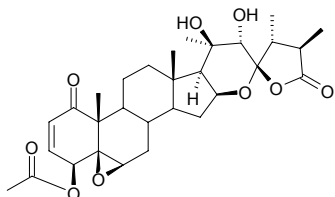
$C_{28}H_{40}O_8$  (504.63). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells); cytotoxic (mouse mammary organ culture assay). **Source:** FEI CHENG SUAN JIANG *Physalis philadelphica*. **Ref:** 5038.

**1455 Anticancer Withanolide PMV70P691-049**

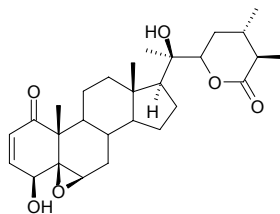
$C_{28}H_{40}O_6$  (472.63). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** FEI CHENG SUAN JIANG *Physalis philadelphica*. **Ref:** 5038.

**1456 Anticancer Withanolide PMV70P691-148**

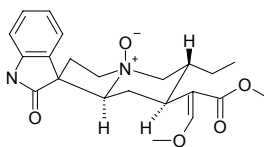
$C_{30}H_{40}O_9$  (544.65). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** FEI CHENG SUAN JIANG *Physalis philadelphica*. **Ref:** 5038.

**1457 Anticancer Withanolide PMV70P691-149**

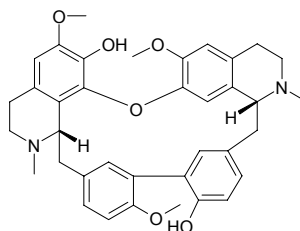
$C_{28}H_{40}O_6$  (472.63). **Pharm:** Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells). **Source:** *Deprea subtriflora*. **Ref:** 5038.

**1458 Anti-isorhynchophylline N-oxide**

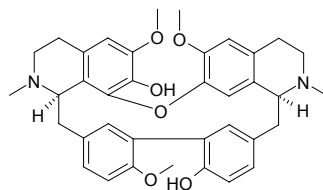
$C_{22}H_{28}N_2O_5$  (400.48). **Source:** FENG XIANG SHU YE *Cephalanthus occidentalis*. **Ref:** 6.

**1459 (+)-Antioquine**

$C_{37}H_{40}N_2O_6$  (608.74). **Pharm:** Mitochondrial respiratory chain complex I inhibitor ( $IC_{50} > 10 \mu\text{mol/L}$ , Rolliniastatin-1,  $IC_{50} = (0.6 \pm 0.04) \text{nmol/L}$ , Rotenone,  $IC_{50} = (5.10 \pm 0.90) \text{nmol/L}$ )<sup>[4954]</sup>. **Source:** GE LUN BI YA MU BAN SHU *Xylopiya columbiana* (fruit). **Ref:** 4954.

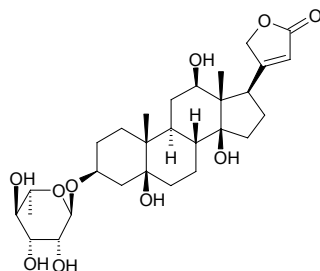
**1460 (-)-Antioquine**

$C_{37}H_{40}N_2O_6$  (608.74). Amorphous,  $[\alpha]_D^{20} = -170^\circ$  ( $c = 0.2$ ,  $\text{CHCl}_3$ ). **Pharm:** Antitrypanosomal (inhibits trypomastigote form of *Trypanosoma cruzi*, strain Y,  $IC_{50} = 47.4 \mu\text{g/mL}$ ,  $IC_{90} = 87.9 \mu\text{g/mL}$ )<sup>[3976]</sup>; antimalarial (*Plasmodium falciparum* D6,  $LC_{50} = 118.7 \text{ng/mL}$ ,  $SI = 56$ ; *Plasmodium falciparum* W2,  $LC_{50} = 132.7 \text{ng/mL}$ ,  $SI = 50$ )<sup>[3976]</sup>; cytotoxic (KB,  $LC_{50} = 6700 \text{ng/mL}$ )<sup>[3976]</sup>. **Source:** *Guatteria boliviana* (stem bark). **Ref:** 3976.

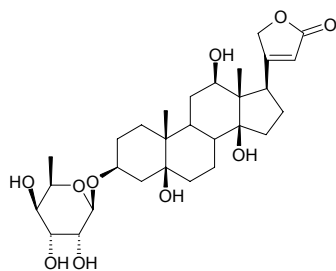


**1461 Antioside**

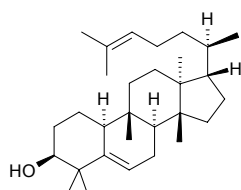
$C_{29}H_{44}O_{10}$  (552.67). Colorless tetrahedral crystals (methanol-ether), mp 183~210°C; 222~230°C,  $[\alpha]_D^{24} = -7.6^\circ$  ( $c = 0.9$ , methanol). **Pharm:** Toxin (vertebrate). **Source:** JIAN XUE FENG HOU *Antiaris toxicaria* [Syn. *Ambora toxicaria*]. **Ref:** 661.

**1462  $\alpha$ -Antioside**

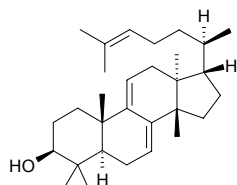
$C_{29}H_{44}O_{10}$  (552.67). **Source:** JIAN XUE FENG HOU *Antiaris toxicaria* [Syn. *Ambora toxicaria*]. **Ref:** 660.

**1463 Antiquol B**

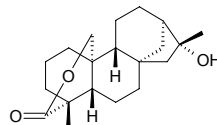
19(10 $\rightarrow$ 9)Abeo-8 $\alpha$ ,9 $\beta$ ,10 $\alpha$ -eupha-5,24-dien-3 $\beta$ -ol  $C_{30}H_{50}O$  (426.73). Needles, mp 75~76°C,  $[\alpha]_D^{25} = +24.8^\circ$  ( $c = 0.21$ ). **Pharm:** Antineoplastic (EBV-EA induced by TPA, mol ratio/TPA = 1000, relative percentage of EBV-EA = 0% (positive control value 32pmol, 20ng TPA = 100%), viability of Raji cells = 70%; reference compound  $\beta$ -Carotene, relative percentage = 8.6%). **Source:** HUO YANG LE *Euphorbia antiquorum* (latex). **Ref:** 4606.

**1464 Antiquol C**

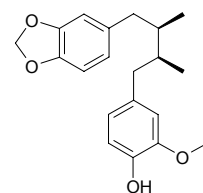
Eupha-7,9(11),24-trien-3 $\beta$ -ol  $C_{30}H_{48}O$  (424.72). Amorphous gum,  $[\alpha]_D^{25} = -35.0^\circ$  ( $c = 0.24$ ). **Pharm:** Antineoplastic (EBV-EA induced by TPA, mol ratio/TPA = 1000, relative percentage of EBV-EA = 0% (positive control value 32pmol, 20ng TPA = 100%), viability of Raji cells = 70%; reference compound  $\beta$ -Carotene, relative percentage = 8.6%). **Source:** HUO YANG LE *Euphorbia antiquorum* (latex). **Ref:** 4606.

**1465 Antriptolactone**

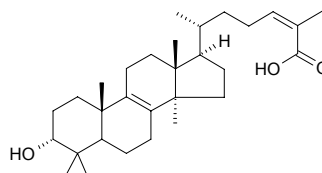
$C_{20}H_{30}O_3$  (318.46). **Source:** LEI GONG TENG *Tripterygium wilfordii*, MA DAN GUO *Gynocardia odorata*. **Ref:** 660, 1521.

**1466 Anwulignan**

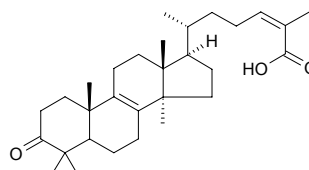
(8*S*,8'*R*)-Macelignan; Calophyn [107534-93-0]  $C_{20}H_{24}O_4$  (328.41). Colorless needles,  $[\alpha]_D^{24} = +5^\circ$  ( $c = 0.96$ ,  $CHCl_3$ ). **Pharm:** Antioxidant (DPPH scavenger,  $IC_{50} = 69\mu mol/L$ )<sup>[4344]</sup>. **Source:** CHANG GENG NAN WU WEI ZI *Kadsura peltigera* [Syn. *Kadsura longipedunculata*], FENG CHAO CAO *Leucas aspera* (whole herb), HUA ZHONG WU WEI ZI *Schisandra sphenanthera*, YI GENG WU WEI ZI *Schisandra henryi*. **Ref:** 660, 2436, 4344.

**1467 Anwuweizic acid**

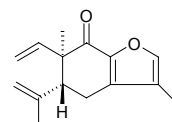
3-Oxolanosta-8,24-dien-26-oic acid  $C_{30}H_{48}O_3$  (456.72). **Pharm:** Antineoplastic<sup>[2523]</sup>, anti-HIV<sup>[2523]</sup>. **Source:** HAN RUI WU WEI ZI *Schisandra propinqua*, HUA ZHONG WU WEI ZI *Schisandra sphenanthera*. **Ref:** 660, 2436, 2523.

**1468 Anwuweizonic acid**

$C_{30}H_{46}O_3$  (454.70). **Source:** ZHONG JIAN WU WEI ZI *Schisandra propinqua* var. *intermedia*. **Ref:** 660.

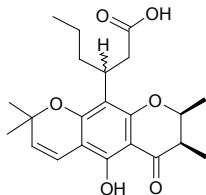
**1469 Aoifuranone**

$C_{15}H_{18}O_2$  (230.31). **Source:** SHUANG YE XI XIN *Asarum caulescens*. **Ref:** 660.

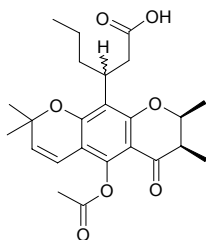


**1470 Apetalic acid**

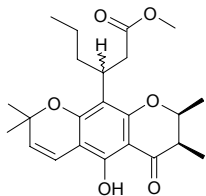
$C_{22}H_{28}O_6$  (388.46). Yellow oil,  $[\alpha]_D^{25} = +23.8^\circ$  ( $c = 1.0$ ,  $CH_2Cl_2$ ). **Pharm:** Cytotoxic (KB,  $ED_{50} = 13.64\mu g/mL$ , HeLa,  $ED_{50} = 17.73\mu g/mL$ , hmn medulloblastoma,  $ED_{50} > 20\mu g/mL$ , control Doxorubicin,  $ED_{50} = 0.15\mu g/mL$ ,  $0.14\mu g/mL$ ,  $0.19\mu g/mL$  respectively)<sup>[4274]</sup>; antifungal inactive (*Aspergillus fumigatus*,  $MIC_{80} > 250\mu g/mL$ ; Amphotericin B,  $MIC_{80} = 8\mu g/mL$ )<sup>[5489]</sup>. **Source:** SU GE LAN HU TONG *Calophyllum caledonicum* (seed), *Calophyllum blancoi* (seed). **Ref:** 4274, 5489.

**1471 Apetalic acid 5-O-acetate**

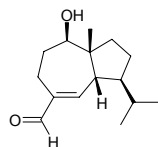
$C_{24}H_{30}O_7$  (430.50). Yellow oil,  $[\alpha]_D^{25} = +77.1^\circ$  ( $c = 1.0$ ,  $CH_2Cl_2$ ). **Pharm:** Cytotoxic,  $ED_{50} = 6.18\mu g/mL$ , HeLa,  $ED_{50} = 6.95\mu g/mL$ , hmn medulloblastoma,  $ED_{50} = 10.18\mu g/mL$ , control Doxorubicin,  $ED_{50} = 0.15\mu g/mL$ ,  $0.14\mu g/mL$ ,  $0.19\mu g/mL$  respectively). **Source:** *Calophyllum blancoi* (seed). **Ref:** 4274.

**1472 Apetalic acid methyl ester**

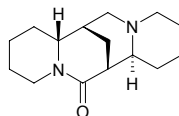
$C_{23}H_{30}O_6$  (402.49). Yellow oil,  $[\alpha]_D^{25} = +220.0^\circ$  ( $c = 1.0$ ,  $CH_2Cl_2$ ). **Pharm:** Cytotoxic,  $ED_{50} = 7.61\mu g/mL$ , HeLa,  $ED_{50} = 8.94\mu g/mL$ , hmn medulloblastoma,  $ED_{50} = 9.91\mu g/mL$ , control Doxorubicin,  $ED_{50} = 0.15\mu g/mL$ ,  $0.14\mu g/mL$ ,  $0.19\mu g/mL$  respectively). **Source:** *Calophyllum blancoi* (seed). **Ref:** 4274.

**1473 Aphanamol II**

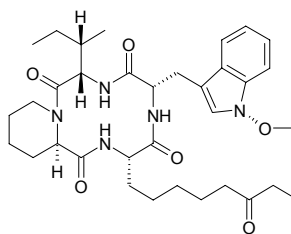
*Aphanamixis grandifolia*  $C_{15}H_{24}O_2$  (236.36). White powder,  $[\alpha]_D^{20} = +37.5^\circ$  ( $c = 0.26$ ,  $CHCl_3$ ). **Pharm:** Anti-HIV-1 inactive (*in vitro*, HOG.R5). **Source:** DIE DA LAO *Litsea verticillata* (leaf and twig: yield = 0.00009%dw). **Ref:** 4688.

**1474 Aphylline**

[577-37-7]  $C_{15}H_{24}N_2O$  (248.37). **Pharm:** Pesticide. **Source:** WU YE JIA MU ZEII *Anabasis aphylla*. **Ref:** 658.

**1475 Apicidin**

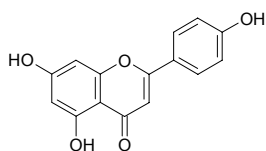
[183506-66-3]  $C_{34}H_{49}N_5O_6$  (623.80). Colorless acicular crystals (methanol), mp  $195\sim 197^\circ C$ ,  $[\alpha]_D^{22} = -80.4^\circ$  ( $c = 1.2$ , chloroform). **Pharm:** Antimalarial (mus, ip,  $< 10mg/kg$ ); Anthelmintic. **Source:** ZHE BEI MU *Fritillaria verticillata* var. *thunbergii* [Syn. *Fritillaria thunbergii*]. **Ref:** 1177.

**1476 Apigenin**

[520-36-5]  $C_{15}H_{10}O_5$  (270.24). Light yellow crystals (methanol), mp  $344\sim 347^\circ C$ ;  $346\sim 347^\circ C$ . **Pharm:** Antibacterial; antiulcerative (rat, gastric ulcer); antispasmodic (smooth muscle); diuretic; aldose reductase inhibitor ( $IC_{50} = 2.2\mu mol/L$ , control Epalrestat,  $IC_{50} = 0.072\mu mol/L$ )<sup>[4530]</sup>; antihypertensive; nodulation signal for metabiosis of pea and *Rhizobium leguminosarum*; binding activity to benzodiazepine receptor ( $IC_{50} = (30\pm 4)\mu mol/L$ , control Diazepam,  $IC_{50} = (0.05\pm 0.01)\mu mol/L$ )<sup>[5366]</sup>; anti-inflammatory (IL-5 inhibitor, concentration-dependent manner, mean  $IC_{50} = 16.4\mu mol/L$ )<sup>[4416]</sup>; anti-inflammatory (macrophages, COX-2 inhibitor, prevents COX-2 expression)<sup>[4415]</sup>; anti-inflammatory (NO production inhibitor)<sup>[4415]</sup>; platelet aggregation inhibitor<sup>[4415]</sup>; antioxidant (Takamatsu DCFH method, myelomonocytic HL-60 cells,  $IC_{50} = (27.8\pm 1.6)\mu g/mL$ ; control NDGA,  $IC_{50} = (0.7\pm 0.3)\mu g/mL$ , Vitamin C,  $IC_{50} = (1.9\pm 0.7)\mu g/mL$ , Trolox,  $IC_{50} = (1.4\pm 0.5)\mu g/mL$ )<sup>[3850]</sup>; cytotoxic (XTT assay, HL-60 cells,  $IC_{50} > 25.0\mu g/mL$ ; control NDGA,  $IC_{50} = (2.6\pm 0.2)\mu g/mL$ , Vitamin C,  $IC_{50} > 10.0\mu g/mL$ , Trolox,  $IC_{50} > 10.0\mu g/mL$ )<sup>[3850]</sup>; antioxidant (DPPH scavenger,  $10\mu mol/L$ , ScRt = 18%, control BHT,  $10\mu mol/L$ , ScRt = 43%)<sup>[5319]</sup>. **Source:** BAI GUO YE *Ginkgo biloba*, BAI LI XIANG *Thymus serpyllum*, BEI YE JU *Chrysanthemum boreale*, CU YING MAO DIAN ZI CAO *Onosma hispida* (whole herb), FEN ZHI PO JU *Amberboa ramosa*, FENG JIAO *Apis mellifera ligustica*, GUANG HUO XIANG *Pogostemon cablin* [Syn. *Mentha cablin*], HAN QIN BIAN ZHONG *Apium graveolens* var. *dulce*, HU ZHANG *Polygonum cuspidatum*, JI YAN CAO *Kummerowia striata*, JIA MA CHI XIAN *Bacopa monniera* (whole herb: yield = 0.00004%fw)<sup>[4664]</sup>, JUAN BAI *Selaginella tamariscina*, LAN YU BAI JI *Bletilla formosana* (whole herb), LANG PA CAO *Bidens tripartita* (whole herb: mean content = 0.043%)<sup>[5508]</sup>, LAO SHU LE *Acanthus ilicifolius*, LU CAO *Rhaponticum carthamoides*, MA HUANG *Ephedra sinica*, MI MENG HUA *Buddleja officinalis*, NAN CHUAN GUAN CHUN HUA *Microtoena prainiana* (stem: yield = 0.00017%dw)<sup>[4752]</sup>, NIU SHE TOU *Sonchus arvensis*, RI BEN HUA BAI *Chamaecyparis pisifera* (leaf), SAN CHI LA RUI A *Larrea tridentata* (leaf)<sup>[3850]</sup>, SAN JIAN SHAN

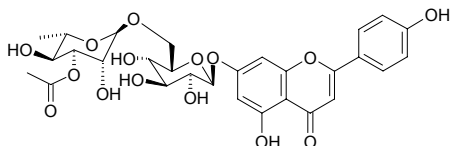


*Cephalotaxus fortunei*, SHAN WO JU *Lactuca indica* (Fresh whole herb: yield = 0.00043%fw)<sup>[4689]</sup>, SHUI MU XUE LIAN HUA *Saussurea medusa* (whole herb), SI CHI SI LENG CAO *Schnabelia tetradonta* (aerial parts: yield = 0.00002%dw)<sup>[4665]</sup>, TAI WAN CU FEI *Cephalotaxus wilsoniana* (leaf: yield = 0.00029%dw)<sup>[4759]</sup>, TIAN SHAN ZHU ZI *Garcinia dulcis* (fruit), WU HUAN ZI YE *Sapindus mukorossi*, WU JU LOU DOU CAI *Aquilegia ecalcarata* (whole herb: yield = 0.00022%dw)<sup>[3029]</sup>, XIONG RUI ZHUANG SHU WEI CAO *Salvia staminea*, YANG SHI CAO *Achillea millefolium*, YAO YONG DAN SHEN YE *Salvia officinalis*, YAO YONG PU GONG YING *Taraxacum officinale*, YUAN BAI *Sabina chinensis*, YUAN HUA *Daphne genkwa* (dried bud: mean content of 19 origins = 0.444%<sup>[5535]</sup>), ZI WEI *Campsis grandiflora* (flower), occurs in many plants (found free or as glycosides in the stem, root, leaf, seed or fruit of a very wide range of plants). Ref: 2, 369, 388, 440, 463, 521, 597, 660, 698, 2080, 2531, 3029, 3850, 4144, 4415, 4416, 4490, 4500, 4530, 4664, 4665, 4689, 4752, 4759, 5319, 5366, 5400, 5501, 5508, 5535.



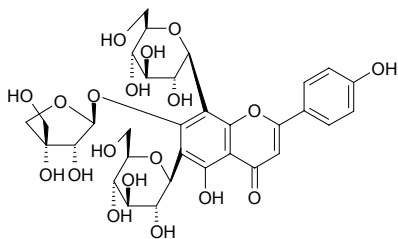
**1477 Apigenin-7-O- $\alpha$ -L-3-O-acetylramnopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranoside**

$C_{29}H_{32}O_{15}$  (620.57). Yellow powder (MeOH),  $[\alpha]_D^{27} = -45.4^\circ$  ( $c = 0.1$ , MeOH). Pharm: Neurite outgrowth enhancer (PC12D cells, nerve growth factor-mediated, 100 $\mu$ mol/L). Source: YE GAN CAO *Scoparia dulcis* (aerial parts: yield = 0.00019%). Ref: 4745.



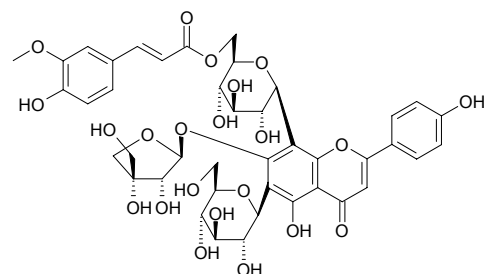
**1478 Apigenin-7-O- $\beta$ -apiofuranosyl-6,8-di-C- $\beta$ -glucopyranoside**

$C_{32}H_{38}O_{19}$  (726.65). Source: *Lupinus hartwegii*. Ref: 3388.



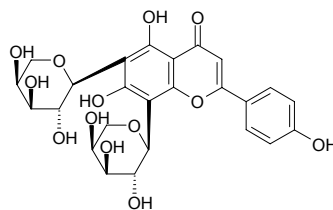
**1479 Apigenin-7-O- $\beta$ -apiofuranosyl-6-C- $\beta$ -glucopyranosyl-8-C-(6'''-O-E-feruloyl)- $\beta$ -glucopyranoside**

$C_{42}H_{46}O_{22}$  (902.82). Source: *Lupinus hartwegii*. Ref: 3388.



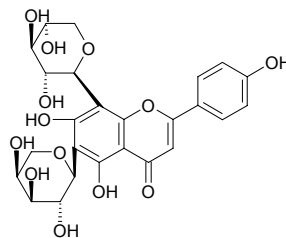
**1480 Apigenin-6-C- $\alpha$ -L-arabinopyranosyl-8-C- $\beta$ -L-arabinopyranoside**

$C_{25}H_{26}O_{13}$  (534.48). Source: SI CHI SI LENG CAO *Schnabelia tetradonta* (aerial parts: yield = 0.0024%dw)<sup>[4665]</sup>, ZI HUA DI DING *Viola yedoensis* (whole herb)<sup>[4393]</sup>. Ref: 4393, 4665.



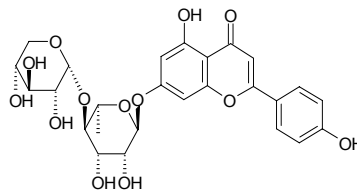
**1481 Apigenin-6-C- $\alpha$ -L-arabinopyranosyl-8-C- $\beta$ -D-xylopyranoside**

$C_{25}H_{26}O_{13}$  (534.48). Source: ZI HUA DI DING *Viola yedoensis* (whole herb). Ref: 4393.



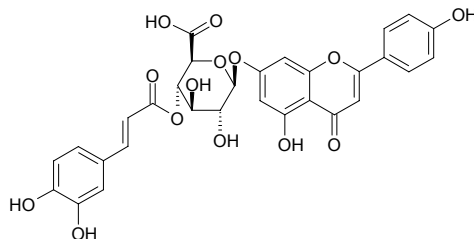
**1482 Apigenin-bioside**

$C_{26}H_{28}O_{13}$  (548.51). mp 257~258°C. Source: CI HUAI HUA *Robinia pseudoacacia*. Ref: 6.



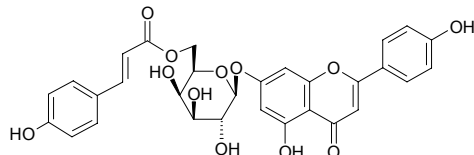
**1483 Apigenin-7-O- $\beta$ -D-(4''-caffeoyl)glucuronide**

$C_{30}H_{24}O_{14}$  (608.52). Pale amorphous powder. Pharm: Anti-HIV-1 (HIV-1 integrase inhibitor,  $IC_{50} = (7.2\pm 3.4)\mu$ g/mL, L-Chicoric acid,  $IC_{50} = (7.4\pm 3.3)\mu$ g/mL); anti-HIV (HIV-1IIIIB-induced MT-4 cells,  $EC_{50} = (41.86\pm 1.43)\mu$ g/mL,  $CC_{50} > 150\mu$ g/mL,  $SI > (3.58\pm 1.15)$ , L-Chicoric acid,  $EC_{50} = (54.33\pm 7.60)\mu$ g/mL,  $CC_{50} > 150\mu$ g/mL,  $SI > (2.81\pm 0.39)$ ). Source: JU HUA *Chrysanthemum morifolium* [Syn. *Dendranthema morifolium*]. Ref: 5444.



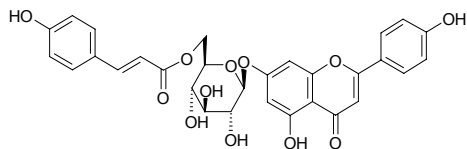
**1484 Apigenin-7-O-(6'''-E)-p-coumaroyl)- $\beta$ -D-galactopyranoside**

$C_{30}H_{26}O_{12}$  (578.53). Yellow granular crystals, mp 194~196°C. Source: XIA ZHI CAO *Lagopsis supina*. Ref: 2222.

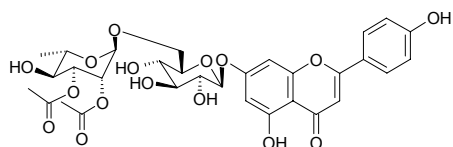


**1485 Apigenin-7-O-β-D-(6''-p-coumaroyl)-glucoside**

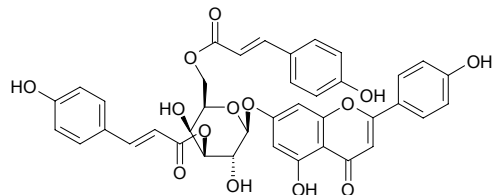
C<sub>30</sub>H<sub>26</sub>O<sub>12</sub> (578.53). Colorless thin acicular crystals, mp 264–265°C, [α]<sub>D</sub><sup>17</sup> = –143.93° (c = 0.06, EtOH). Source: GUANG HUO XIANG *Pogostemon cablin* [Syn. *Mentha cablin*], MAO BAI YANG *Populus tomentosa*, NAN CHUAN GUAN CHUN HUA *Microtoena prainiana* (stem: yield = 0.00002%dw)<sup>[4752]</sup>. Ref: 2, 269, 660, 4752.

**1486 Apigenin-7-O-α-L-2,3-di-O-acetylramnopyranosyl-(1→6)-β-D-glucopyranoside**

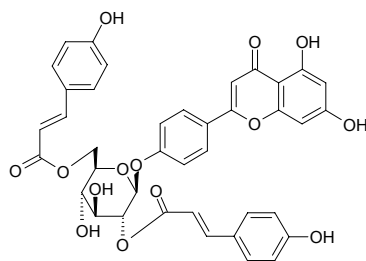
C<sub>31</sub>H<sub>34</sub>O<sub>16</sub> (662.61). Yellow powder (MeOH), [α]<sub>D</sub><sup>27</sup> = –50.2° (c = 0.2, MeOH). Pharm: Neurite outgrowth enhancer (PC12D cells, nerve growth factor-mediated, 100μmol/L). Source: YE GAN CAO *Scoparia dulcis* (aerial parts: yield = 0.00021%). Ref: 4745.

**1487 Apigenin-7-O-(3'',6''-di-(E)-p-coumaroyl)-β-D-galactopyranoside**

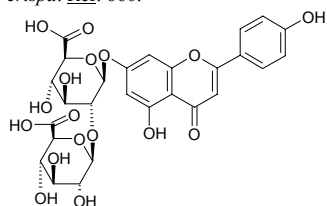
C<sub>39</sub>H<sub>32</sub>O<sub>14</sub> (724.68). Yellowish powdery crystals, mp 206–207°C. Source: XIA ZHI CAO *Lagopsis supina*. Ref: 2222.

**1488 Apigenin-4'-O-(2'',6''-di-O-p-coumaroyl)-β-D-glucoside**

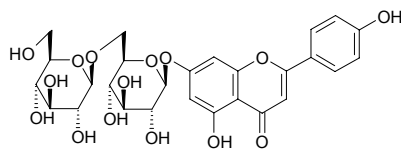
C<sub>39</sub>H<sub>32</sub>O<sub>14</sub> (724.68). Yellow powder, mp 252–253°C (MeOH), [α]<sub>D</sub><sup>22</sup> = –65.0° (c = 0.30, MeOH). Source: PU DI WU GONG *Lycopodium cernuum* (root, stem, leaf: yield = 0.0037%dw). Ref: 4633.

**1489 Apigenin-7-O-diglucuronide**

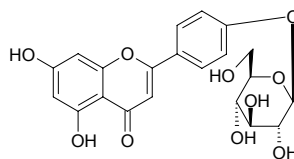
C<sub>27</sub>H<sub>26</sub>O<sub>17</sub> (622.50). Source: HUI HUI SU GENG *Perilla frutescens* var. *crispa*. Ref: 660.

**1490 Apigenin-7-O-gentiobioside**

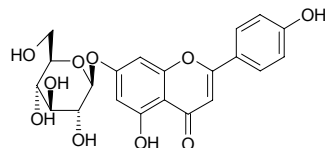
C<sub>27</sub>H<sub>30</sub>O<sub>15</sub> (594.53). Source: LUO SHI TENG *Trachelospermum jasminoides*. Ref: 660.

**1491 Apigenin-4'-O-β-D-glucopyranoside**

C<sub>21</sub>H<sub>20</sub>O<sub>10</sub> (432.39). Pharm: Aldose reductase inhibitor (IC<sub>50</sub> = 3.2μmol/L, control Epalrestat, IC<sub>50</sub> = 0.072μmol/L)<sup>[4530]</sup>. Source: SHUI MU XUE LIAN HUA *Saussurea medusa* (whole herb). Ref: 4530.

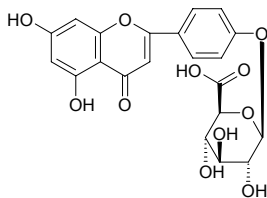
**1492 Apigenin-7-O-glucoside**

Thalictiin; Cosmosiin; Apigenside [578-74-5] C<sub>21</sub>H<sub>20</sub>O<sub>10</sub> (432.39). Yellow powder, mp 178–180°C, [α]<sub>D</sub><sup>25</sup> = –62° (c = 0.45, MeOH); mp 238.0–239.5°C. Pharm: Cytotoxic (KB oral epidermoid carcinoma, ED<sub>50</sub> = 3.5μg/mL, Hep3B hepatoma cells, ED<sub>50</sub> = 8.7μg/mL)<sup>[4253]</sup>; aldose reductase inhibitor (IC<sub>50</sub> = 4.4μmol/L, control Epalrestat, IC<sub>50</sub> = 0.072μmol/L)<sup>[4530]</sup>; aldose reductase inhibitor (rat lens, IC<sub>50</sub> = 23μmol/L, control Epalrestat, IC<sub>50</sub> = 0.072μmol/L)<sup>[4214]</sup>; nodulation signal for metabiosis of pea and *Rhizobium leguminosarum*; anti-inflammatory (IL-5 inhibitor, concentration-dependent manner, mean IC<sub>50</sub> = 14.2μmol/L)<sup>[4416]</sup>; antioxidant (antihemolysis, *in vitro*, AAPH-induced hemolysis of RBC, IC<sub>50</sub> = 88.4μmol/L; control Trolox, IC<sub>50</sub> = 101μmol/L)<sup>[4698]</sup>. Source: BAI RI CAO *Zinnia elegans*, CU YING MAO DIAN ZI CAO *Onosma hispidum* (whole herb), CU ZHUANG NV ZHEN *Ligustrum robustum* (leaf: yield = 0.0021%dw)<sup>[4698]</sup>, DA BO SI JU *Cosmos bipinnata*, GUANG HUO XIANG *Pogostemon cablin* [Syn. *Mentha cablin*], JI YAN CAO *Kummerowia striata*, JU HUA *Chrysanthemum morifolium* [Syn. *Dendranthema morifolium*] (dried capitulum: mean content of 9 origins = 0.54%<sup>[5530]</sup>), SHUI MU XUE LIAN HUA *Saussurea medusa* (whole herb), TAI WAN CU FEI *Cephalotaxus wilsoniana* (twig), XIAN HE CAO *Agrimonia pilosa* var. *japonica*, XIONG RUI ZHUANG SHU WEI CAO *Salvia staminea*, YAN GUO CAO *Thalictrum thunbergii*, YAO YONG PU GONG YING *Taraxacum officinale*, YE JU HUA *Chrysanthemum indicum*. Ref: 2, 6, 440, 658, 660, 4214, 4253, 4416, 4490, 4530, 4698, 5400, 5530.

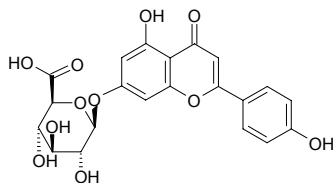


**1493 Apigenin-4'-O-glucuronide**

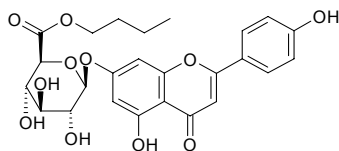
$C_{21}H_{18}O_{11}$  (446.37). Source: DA HUA SHAN QIAN NIU *Thunbergia grandiflora*, DA LI HUA *Dahlia pinnata* [Syn. *Dahlia variabilis*], DENG ZHAN XI XIN *Erigeron breviscapus*, SHE TAI *Conocephalum conicum*, YI NIAN PENG *Erigeron annuus*. Ref: 660.

**1494 Apigenin-7-O-β-D-glucuronide**

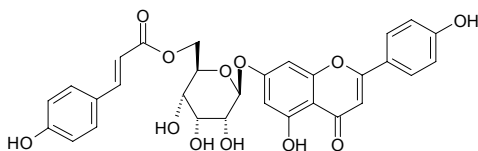
$C_{21}H_{18}O_{11}$  (446.37). mp 335~342°C. Pharm: Anti-HIV-1 (HIV-1 integrase inhibitor,  $IC_{50} = (51 \pm 14) \mu\text{g/mL}$ , *L*-Chicoric acid,  $IC_{50} = (7.4 \pm 3.3) \mu\text{g/mL}$ )<sup>[5444]</sup>; anti-HIV (HIV-1IIIIB-induced MT-4 cells,  $EC_{50} > (0.32 \pm 0.05) \mu\text{g/mL}$ ,  $CC_{50} = (0.32 \pm 0.05) \mu\text{g/mL}$ ,  $SI < 1$ , *L*-Chicoric acid,  $EC_{50} = (54.33 \pm 7.60) \mu\text{g/mL}$ ,  $CC_{50} > 150 \mu\text{g/mL}$ ,  $SI > (2.81 \pm 0.39)$ )<sup>[5444]</sup>. Source: DA YE ZI ZHU *Callicarpa macrophylla*, JIN YU CAO *Antirrhinum majus*, KUAI JING CAO SU *Phlomis tuberosa*, LAO SHU LE *Acanthus ilicifolius*, SHUI FEI JI *Silybum marianum*, YI NIAN PENG *Erigeron annuus*. Ref: 6, 660, 1521, 2080, 5444.

**1495 Apigenin-7-O-β-D-glucuronide butyl ester**

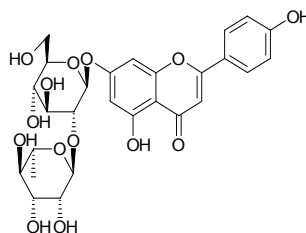
$C_{25}H_{26}O_{11}$  (502.48). mp 237~240°C. Source: DUO SHE FEI PENG *Erigeron multiradiatus*. Ref: 830.

**1496 Apigenin-7-O-β-D-(6'-p-hydroxy-cinnamoyloxy)-mannoside**

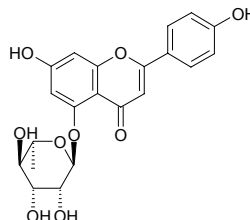
$C_{30}H_{26}O_{12}$  (578.53). Yellow powder, mp 269~270°C. Source: XIAO YE ZHI MA *Galeobdolon chinense* [Syn. *Lamium chinense*]. Ref: 2253.

**1497 Apigenin-7-O-neohesperidoside**

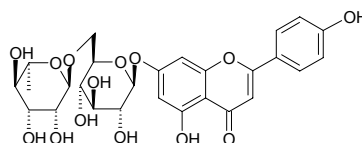
Rhoifolin; Rhoifolioside [17306-46-6]  $C_{27}H_{30}O_{14}$  (578.53). mp 205~208°C, 245°C. Pharm: Xanthinoxidase inhibitor (50μg/mL, InRt = 12.9%); antioxidant (microsome of rat hepatic cells,  $CCl_4$ -induced lipid peroxidization, 100μmol/L InRt = 37.9%,  $FeSO_4$ +cysteine-induced lipid peroxidization, 100μmol/L InRt = 70.1%;  $IC_{50} = 66.1 \mu\text{mol/L}$ ); antineoplastic (TPA-induced EBV-EA, weak activity); antihypertensive (conscious spontaneous hypertensive rat); antioxidant (antihemolysis, *in vitro*, AAPH-induced hemolysis of RBC,  $IC_{50} = 95.9 \mu\text{mol/L}$ ; control Trolox,  $IC_{50} = 101 \mu\text{mol/L}$ )<sup>[4698]</sup>. Source: CU ZHUANG NV ZHEN *Ligustrum robustum* (leaf: yield = 0.0022%<sub>dw</sub>)<sup>[4698]</sup>, DU YI WEI *Lamiophlomis rotata* [Syn. *Phlomis rotata*], GOU JU *Poncirus trifoliata*, GOU JU YE *Poncirus trifoliata*, HUA ZHOU YOU *Citrus grandis* var. *Tomentosa* (exocarp of almost ripe fruit: mean content = 0.655%<sup>[5508]</sup>), LIN BEI ZI *Toxicodendron succedaneum* [Syn. *Rhus succedanea*], LUO SHI TENG *Trachelospermum jasminoides*, YE QI SHU YE *Rhus sylvestris*, YOU<sup>(4)</sup> *Citrus grandis* (exocarp of almost ripe fruit: mean content = 0.090%<sup>[5508]</sup>), ZHI SHI *Citrus aurantium*. Ref: 6, 660, 1632, 1672, 1673, 1674, 4698, 5508.

**1498 Apigenin-5-rhamnoside**

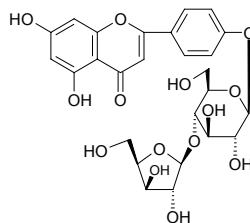
$C_{21}H_{20}O_9$  (416.39). Source: MA HUANG *Ephedra sinica*. Ref: 2.

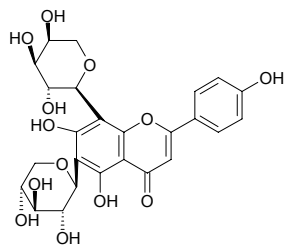
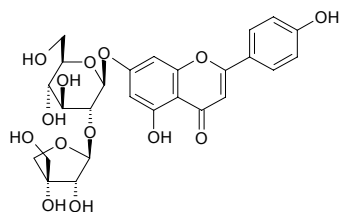
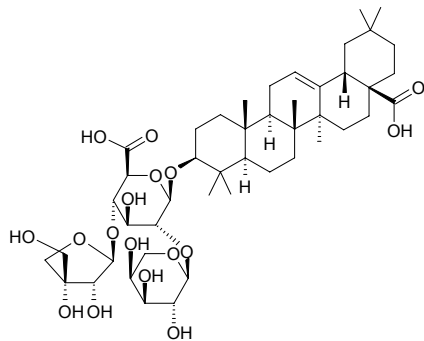
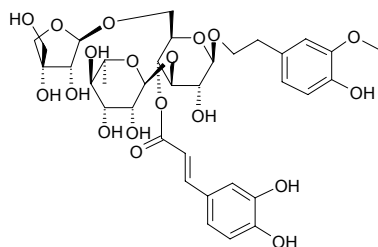
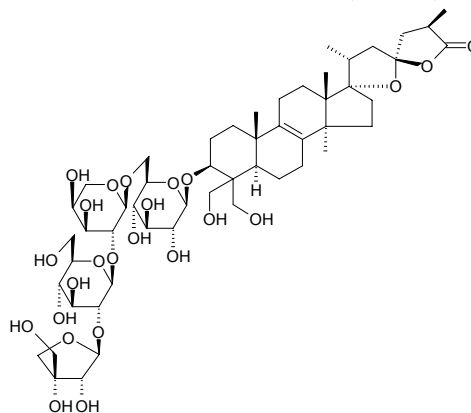
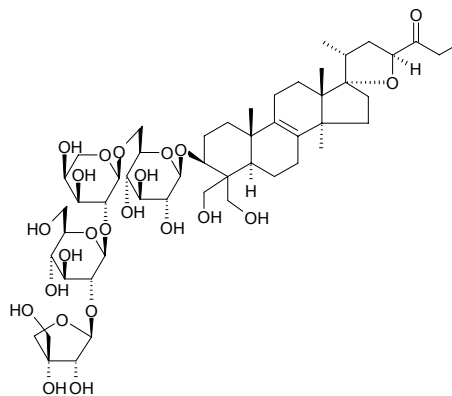
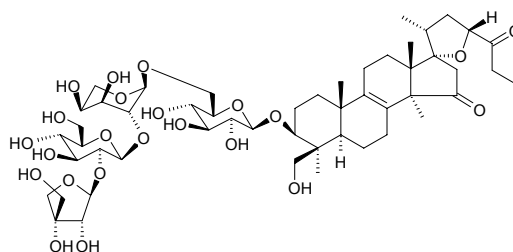
**1499 Apigenin-7-O-rutinoside**

$C_{27}H_{30}O_{14}$  (578.53). Pharm: Aldose reductase inhibitor ( $IC_{50} = 4.7 \mu\text{mol/L}$ , control Epalrestat,  $IC_{50} = 0.072 \mu\text{mol/L}$ )<sup>[4530]</sup>. Source: SHUI MU XUE LIAN HUA *Saussurea medusa* (whole herb). Ref: 4530.

**1500 Apigenin-4'-O-β-D-xylofuranosyl(1→4)-O-β-D-glucopyranoside**

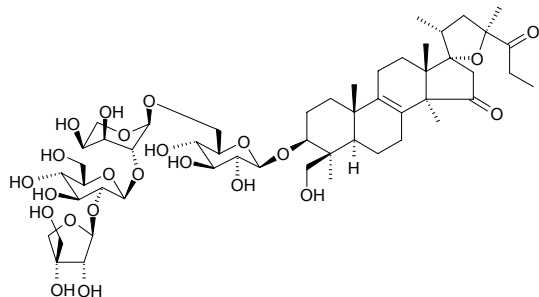
$C_{26}H_{28}O_{14}$  (564.50). Source: FENG XIAN *Impatiens balsamina*, JI XING ZI *Impatiens balsamina*. Ref: 660.



**1501 Apigenin-6-C- $\beta$ -D-xylopyranosyl-8-C- $\alpha$ -L-arabinopyranoside**C<sub>25</sub>H<sub>26</sub>O<sub>13</sub> (534.48). Source: ZI HUA DI DING *Viola yedoensis* (whole herb).Ref: 4393.**1502 Apiin**[26544-34-3] C<sub>26</sub>H<sub>28</sub>O<sub>14</sub> (564.50). mp 228°C. Pharm: Antispasmodic (smooth muscle); aldose reductase inhibitor (eye lens); sedative. Source: GAO GUI CHUN HUANG JU *Anthemis nobilis*, HAN QIN *Apium graveolens*, MU<sup>(3)</sup> JU *Matricaria chamomilla* [Syn. *Matricaria recutita*], XIAO CHAO CAI *Vicia hirsuta*, ZHOU YE OU QIN *Petroselinum crispum*. Ref: 6, 658.**1503 3-O- $\beta$ -D-Apiofuranosyl-(1 $\rightarrow$ 4)-[ $\alpha$ -L-arabinopyranosyl-(1 $\rightarrow$ 2)] $\beta$ -D-glucuronopyranosyl oleanolic acid**C<sub>46</sub>H<sub>72</sub>O<sub>17</sub> (897.08). Amorphous powder,  $[\alpha]_D^{23} = -3.7^\circ$  ( $c = 1.06$ , MeOH).Source: E ZHANG TENG *Schefflera arboricola*. Ref: 3381.**1504 6'- $\beta$ -D-Apiofuranosylcistanoside C**[239436-90-9] C<sub>35</sub>H<sub>46</sub>O<sub>19</sub> (770.75). Off-white amorphous powder. Source: DUYI WEI *Lamiophlomis rotata* [Syn. *Phlomis rotata*]. Ref: 2318.**1505 (23S,25R)-3 $\beta$ -[(O- $\beta$ -D-Apiofuranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -L-arabinopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl)oxy]-17 $\alpha$ ,23-epoxy-28,29-dihydroxylanost-8-en-23,26-olide**C<sub>52</sub>H<sub>82</sub>O<sub>24</sub> (1091.22). Pharm: Cytotoxic (Hmn oral squamous cell carcinoma cells HSC-2, IC<sub>50</sub> > 50 $\mu$ g/mL, control Etoposide, IC<sub>50</sub> = 24 $\mu$ g/mL). Source: XUE GUANG HUA *Chionodoxa luciliae* (fresh bulb). Ref: 4308.**1506 (23S)-3 $\beta$ -[(O- $\beta$ -D-Apiofuranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -L-arabinopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl)oxy]-17 $\alpha$ ,23-epoxy-28,29-dihydroxy-27-norlanost-8-en-24-one**C<sub>51</sub>H<sub>82</sub>O<sub>23</sub> (1063.21). Pharm: Cytotoxic (Hmn oral squamous cell carcinoma cells HSC-2, IC<sub>50</sub> > 50 $\mu$ g/mL, control Etoposide, IC<sub>50</sub> = 24 $\mu$ g/mL). Source: XUE GUANG HUA *Chionodoxa luciliae* (fresh bulb). Ref: 4308.**1507 (23R)-3 $\beta$ -[(O- $\beta$ -D-Apiofuranosyl-(1 $\rightarrow$ 2)-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-O- $\alpha$ -L-arabinopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl)oxy]-17 $\alpha$ ,23-epoxy-29-hydroxy-27-norlanost-8-ene-15,24-dione**C<sub>51</sub>H<sub>80</sub>O<sub>23</sub> (1061.19). Amorphous solid,  $[\alpha]_D^{28} = -2.0^\circ$  ( $c = 0.10$ , MeOH).Pharm: Cytotoxic inactive (*in vitro*, HSC-2, 100 $\mu$ mol/L; control Etoposide, IC<sub>50</sub> = 41 $\mu$ mol/L). Source: QI YI PU TAO FENG XIN ZI *Muscari paradoxum* (bulb: yield = 0.00019%fw). Ref: 4793.

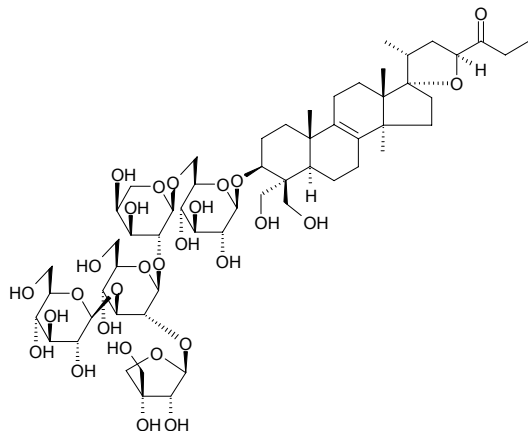
**1508 (23S)-3β-[(O-β-D-Apiofuranosyl-(1→2)-O-β-D-glucopyranosyl-(1→2)-O-α-L-arabinopyranosyl-(1→6)-β-D-glucopyranosyl)oxy]-17α,23-epoxy-29-hydroxy-27-norlanost-8-ene-15,24-dione**

C<sub>51</sub>H<sub>80</sub>O<sub>23</sub> (1061.19). **Pharm:** Cytotoxic (*in vitro*, HSC-2, IC<sub>50</sub> = 6.2 μmol/L; control Etoposide, IC<sub>50</sub> = 41 μmol/L). **Source:** QI YI PU TAO FENG XIN ZI *Muscari paradoxum* (bulb; yield = 0.0007%fw). **Ref:** 4793.



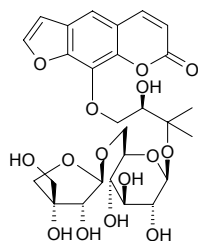
**1509 (23S)-3β-[(O-β-D-Apiofuranosyl-(1→2)-O-β-D-glucopyranosyl-(1→3)-O-β-D-glucopyranosyl-(1→2)-α-L-arabinopyranosyl-(1→6)-β-D-glucopyranosyl)oxy]-17α,23-epoxy-28,29-dihydroxy-27-norlanost-8-en-24-one**

C<sub>57</sub>H<sub>92</sub>O<sub>28</sub> (1225.35). Amorphous solid, [α]<sub>D</sub><sup>26</sup> = -24.0° (c = 0.1, MeOH). **Pharm:** Cytotoxic (Hmn oral squamous cell carcinoma cells HSC-2, IC<sub>50</sub> > 50 μg/mL, control Etoposide, IC<sub>50</sub> = 24 μg/mL). **Source:** XUE GUANG HUA *Chionodoxa luciliae* (fresh bulb). **Ref:** 4308.



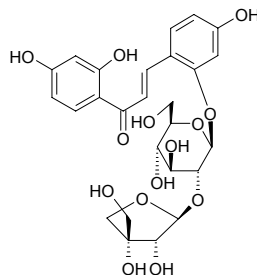
**1510 13-O-[β-D-Apiofuranosyl(1→6)-β-D-glucopyranosyl]-(12R)-heraclenol**

C<sub>27</sub>H<sub>34</sub>O<sub>15</sub> (598.56). Pale-yellow amorphous solid, [α]<sub>D</sub><sup>24.3</sup> = -34.52° (c = 0.44, C<sub>5</sub>H<sub>5</sub>N). **Pharm:** Platelet aggregation inhibitor inactive (rabbit platelets, 4.5 nmol/L PAF-induced, 350 μmol/L AA-induced, 5 μmol/L ADP-induced, 240 μmol/L). **Source:** BAI YUN HUA *Heracleum rapula* (fresh root). **Ref:** 4997.



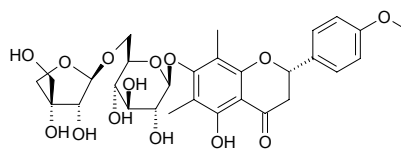
**1511 2'-O-[β-D-Apiofuranosyl(1→2)-β-D-glucopyranosyl]isoliquiritigenin**

C<sub>26</sub>H<sub>30</sub>O<sub>14</sub> (566.52). Yellow crystalline powder, mp 150~151°C. **Source:** JIN YIN HUA *Lonicera japonica*, LIAN QIAO *Forsythia suspensa*. **Ref:** 2453.



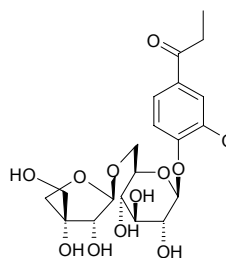
**1512 7-O-β-D-Apiofuranosyl-(1→6)-β-D-glucopyranosylmatteucinol**

C<sub>29</sub>H<sub>36</sub>O<sub>14</sub> (608.6). [α]<sub>D</sub><sup>22.6</sup> = -16.8° (c = 0.37, acetone). **Source:** DU JUAN HUA YE *Rhododendron simsii*. **Ref:** 749.



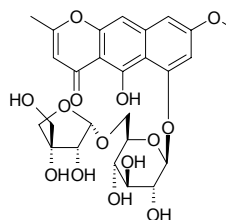
**1513 4-[β-D-Apiofuranosyl-(1→6)-β-D-glucopyranosyloxy]-3-methoxy-propiofenone**

C<sub>21</sub>H<sub>30</sub>O<sub>12</sub> (474.47). Colorless amorphous solid, [α]<sub>D</sub> = -61.3° (c = 0.180, MeOH). **Pharm:** Antioxidant (DPPH scavenger, EC<sub>50</sub> > 50 μg/mL, 50 μg/mL InRt = 14%, control Ascorbic acid, EC<sub>50</sub> = 1.6 μg/mL = 9.1 μmol/L). **Source:** BEI SHA SHEN *Glehnia littoralis* (underground part). **Ref:** 4154.



**1514 6-[(α-Apiofuranosyl-(1→6)-O-β-D-glucopyranosyl)oxy]rubrofuscarin**

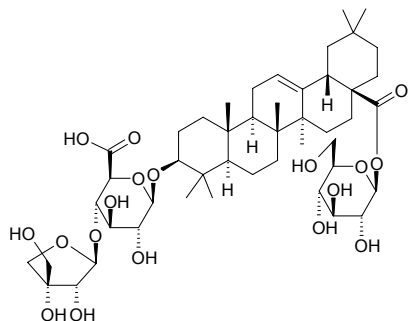
C<sub>26</sub>H<sub>30</sub>O<sub>14</sub> (566.52). **Source:** JUE MING ZI *Cassia tora*. **Ref:** 2.



**1515 3-O- $\beta$ -D-Apiofuranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-glucuronopyranosyl]oleanolic acid 28-O- $\beta$ -D-glucopyranosyl ester**

C<sub>47</sub>H<sub>74</sub>O<sub>18</sub> (927.10). Amorphous powder,  $[\alpha]_D^{23} = -13.1^\circ$  ( $c = 1.38$ , MeOH).

Source: E ZHANG TENG *Schefflera arboricola*. Ref: 3381.

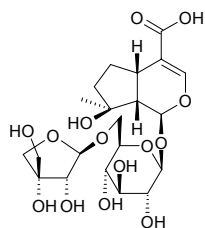


**1516 6-O- $\beta$ -D-Apiofuranosyl-mussaenosidic acid**

C<sub>21</sub>H<sub>32</sub>O<sub>14</sub> (508.48). Amorphous powder,  $[\alpha]_D = -97.1^\circ$  ( $c = 1.02$ , MeOH).

Source: SI XIAO BO SHUANG YE YU GU MU *Canthium berberidifolium*.

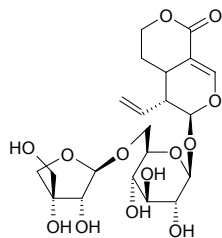
Ref: 1925.



**1517 6'-O- $\beta$ -D-Apiofuranosylsweroside**

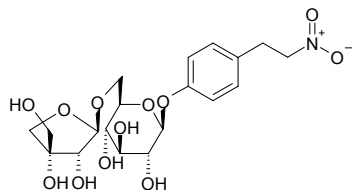
C<sub>21</sub>H<sub>30</sub>O<sub>13</sub> (490.47). Colorless crystalline solid, mp 115~119°C,  $[\alpha]_D^{19} =$

+206° ( $c = 1.21$ , MeOH). Source: WU SHI REN DONG *Lonicera quinquelocularis* (root). Ref: 3926.



**1518 6'-O- $\beta$ -D-Apiofuranosylthalictoside**

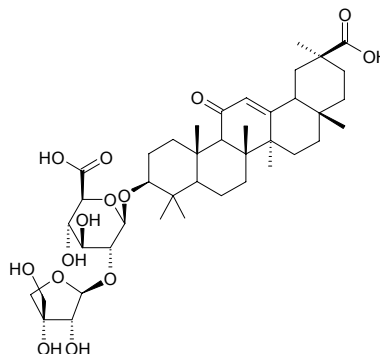
C<sub>19</sub>H<sub>27</sub>NO<sub>12</sub> (461.43). Yellowish oil, easily soluble in H<sub>2</sub>O and MeOH. Source: ZHONG JIAN WU WEI ZI *Schisandra propinqua* var. *intermedia* (stem). Ref: 4845.



**1519 Apioglycyrrhizin**

C<sub>41</sub>H<sub>62</sub>O<sub>14</sub> (778.94). Source: ZHANG GUO GAN CAO *Glycyrrhiza inflata*.

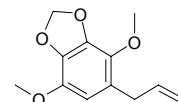
Ref: 660.



**1520 Apiole**

[523-80-8] C<sub>12</sub>H<sub>14</sub>O<sub>4</sub> (222.24). Pharm: Antipyretic; antispasmodic; frees

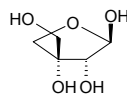
menstruation; pesticide; LD<sub>50</sub> (dog, iv) = 500mg/kg. Source: HUANG HAO *Artemisia scoparia* [Syn. *Artemisia capillaris* var. *scoparia*], QIANG HUO *Notopterygium incisum*, XIA YE HU JIAO *Piper angustifolium*, ZHANG MU *Cinnamomum camphora*, ZHOU YE OU QIN *Petroselinum crispum*. Ref: 2, 658, 660.



**1521 Apiose**

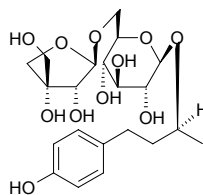
[639-97-4] C<sub>5</sub>H<sub>10</sub>O<sub>5</sub> (150.13). Source: FU PING *Lemma minor*, HAI DAI

*Zostera marina*. Ref: 6.



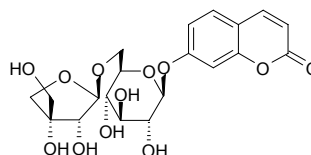
**1522 Apiosylepirhododendrin**

C<sub>21</sub>H<sub>32</sub>O<sub>11</sub> (460.48). Source: MAO GUO QI *Acer nikoense* (stem bark: yield = 0.027%). Ref: 4304.



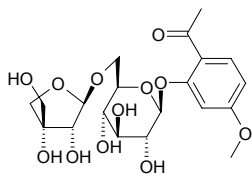
**1523 Apiosylskimmin**

C<sub>20</sub>H<sub>24</sub>O<sub>12</sub> (456.41). Source: FEN CHA DANG GUI *Angelica furcijuga* (flower). Ref: 4454.

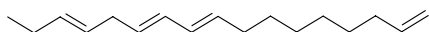


**1524 Aplopaconoside**

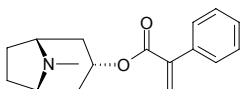
$C_{20}H_{28}O_{12}$  (460.44). Source: MU DAN PI *Paeonia moutan* [Syn. *Paeonia suffruticosa*]. Ref: 2, 50.

**1525 Aplotaxene**

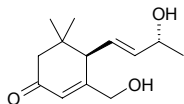
$C_{17}H_{28}$  (232.41). bp 110~115°C/8mmHg. Source: MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*]. Ref: 6.

**1526 Apoatropine**

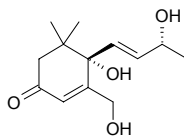
[500-55-0]  $C_{17}H_{21}NO_2$  (271.36). mp 60~62°C. Pharm: Antispasmodic; LD<sub>50</sub> (mus, ip) = 14.1mg/kg. (mus, orl) = 160mg/kg. Source: DIAN QIE *Atropa belladonna*, DONG FANG TIAN XIAN ZI *Hyoscyamus orientalis*, LANG DANG GEN *Hyoscyamus niger*, LANG DANG ZI *Hyoscyamus niger*, MAO MAN TUO LUO YE *Datura innoxia*, YI YE JIA FAN LV *Pseudostellaria heterophylla*. Ref: 6, 658, 660.

**1527 Apocynol A**

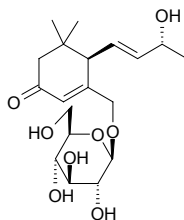
$C_{13}H_{20}O_3$  (224.30). Source: LUO BU MA *Apocynum venetum* (leaf). Ref: 3548.

**1528 Apocynol B**

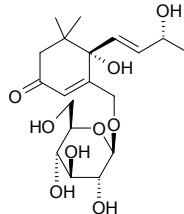
$C_{13}H_{20}O_4$  (240.30). Source: LUO BU MA *Apocynum venetum* (leaf). Ref: 3548.

**1529 Apocynoside I**

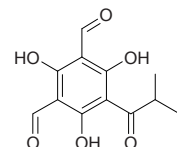
$C_{19}H_{30}O_8$  (386.45). Amorphous powder,  $[\alpha]_D^{27} = +79.2^\circ$  ( $c = 1.2$ , MeOH). Source: LUO BU MA *Apocynum venetum* (leaf). Ref: 3548.

**1530 Apocynoside II**

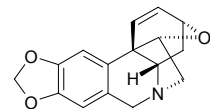
$C_{19}H_{30}O_9$  (402.45). Amorphous powder,  $[\alpha]_D^{26} = +25.1^\circ$  ( $c = 0.4$ , MeOH). Source: LUO BU MA *Apocynum venetum* (leaf). Ref: 3548.

**1531 Apodophyllone**

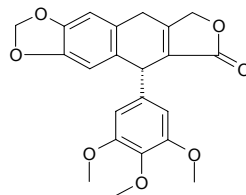
$C_{12}H_{12}O_6$  (252.23). Source: WU BING YE AN *Eucalyptus apodophylla*. Ref: 2331.

**1532 Apohaemanthamine**

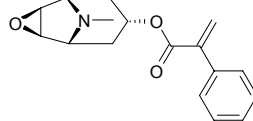
$C_{16}H_{15}NO_3$  (269.30). Colorless amorphous solid, mp 145~147°C,  $[\alpha]_D^{22} = +198^\circ$  ( $c = 0.63$ , CHCl<sub>3</sub>); colorless crystals (cyclohexane), mp 145~147°C,  $[\alpha]_D^{22} = +198^\circ$  ( $c = 0.64$ , CHCl<sub>3</sub>). Pharm: Antiplasmodial inactive (strain D10, IC<sub>50</sub> > 50µg/mL, control Hamayne, IC<sub>50</sub> = 15.6µg/mL, Chloroquine, IC<sub>50</sub> = 0.002µg/mL; strain FAC8, IC<sub>50</sub> > 50µg/mL, Hamayne, IC<sub>50</sub> = 18.2µg/mL, Chloroquine, IC<sub>50</sub> = 0.01µg/mL)<sup>[3931]</sup>; cytotoxic (BL6, IC<sub>50</sub> > 100µg/mL, Hamayne, IC<sub>50</sub> = 9.4µg/mL, Chloroquine, IC<sub>50</sub> = 20.9µg/mL, Daunomycin, IC<sub>50</sub> = 0.43µg/mL)<sup>[3931]</sup>. Source: BU LANG WEI JI *Brunsvigia radulosa* (bulb)<sup>[3931]</sup>, YA MA XUN BAI HE *Eucharis amazonica* (dried bulb and leaf)<sup>[3931]</sup>. Ref: 3931, 4325.

**1533 β-Apopicropodophyllin**

[477-52-1]  $C_{22}H_{20}O_7$  (396.40). mp 220~221°C. Source: WO ER QI *Diphylleia sinensis*. Ref: 6.

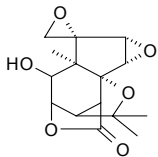
**1534 Aposcopolamine**

[535-26-2]  $C_{17}H_{19}NO_3$  (285.35). Source: REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. Ref: 3.

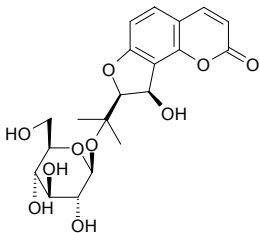


**1535 Apotutin**

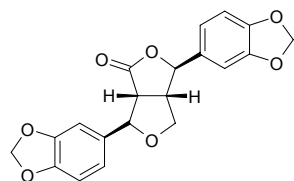
$C_{15}H_{18}O_6$  (294.31). White rhomboid crystals, mp 227–229°C. Source: MA SANG *Coriaria sinica* [Syn. *Coriaria nepalensis*]. Ref: 413.

**1536 Apterin**

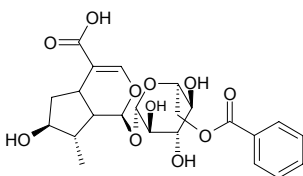
$C_{20}H_{24}O_{10}$  (424.41). Source: BAI HUA QIAN HU *Peucedanum praeruptorum*, FEN CHA DANG GUI *Angelica furcijuga* (flower), JI JI QIN *Zizia aptera*, TANG MU XUN DU HUO *Heracleum thomsoni*. Ref: 660, 1521, 4454.

**1537 (-)-Aptosimon**

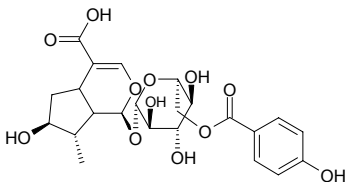
$C_{20}H_{16}O_7$  (368.35). Colorless oil,  $[\alpha]_D^{26} = -101.5^\circ$  ( $c = 2.0$ ,  $CHCl_3$ ). Source: PI ZHEN XING YAO HUA *Wikstroemia lanceolata* (stem and root). Ref: 4947.

**1538 Aquaticoside A**

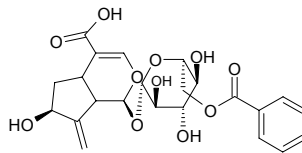
6'-*O*-Benzoyl-8-epiloganic acid  $C_{23}H_{28}O_{11}$  (480.47). Amorphous powder,  $[\alpha]_D^{24} = -77.4^\circ$  ( $c = 0.30$ , MeOH). Source: BEI SHUI KU MAI *Veronica anagallis-aquatica* (aerial parts). Ref: 3833.

**1539 Aquaticoside B**

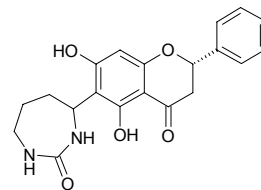
6'-*O*-*p*-Hydroxybenzoyl-8-epiloganic acid  $C_{23}H_{28}O_{12}$  (496.47). Amorphous powder,  $[\alpha]_D^{24} = -58.1^\circ$  ( $c = 0.17$ , MeOH). Source: BEI SHUI KU MAI *Veronica anagallis-aquatica* (aerial parts). Ref: 3833.

**1540 Aquaticoside C**

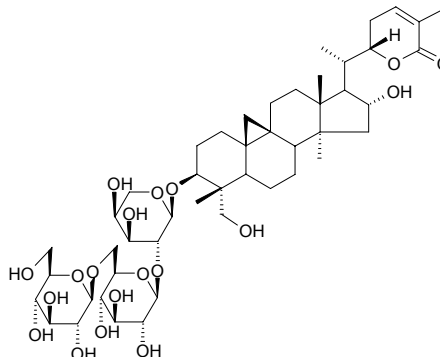
6'-*O*-Benzoyl-gardoside  $C_{23}H_{26}O_{11}$  (478.46). Amorphous powder,  $[\alpha]_D^{24} = +11.5^\circ$  ( $c = 0.16$ , MeOH). Source: BEI SHUI KU MAI *Veronica anagallis-aquatica* (aerial parts). Ref: 3833.

**1541 Aquiledine**

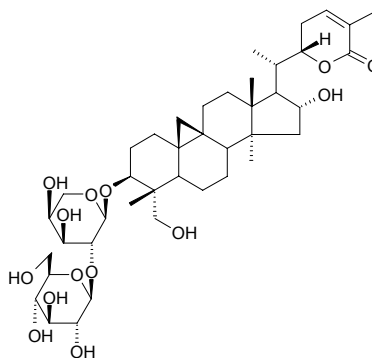
(2*S*)-6-(1,4-Ureylenebutyl)-5,7-dihydroxyflavanone  $C_{20}H_{20}N_2O_5$  (368.39). White amorphous powder (CH<sub>3</sub>OH), mp 214–215°C,  $[\alpha]_D = +21^\circ$  ( $c = 0.54$ , CH<sub>3</sub>OH). Source: WU JU LOU DOU CAI *Aquilegia ecalcarata* (whole herb; yield = 0.00010%dw). Ref: 3029.

**1542 Aquilegioside A**

$C_{47}H_{74}O_{19}$  (943.10). Pharm: Immunosuppressant inactive (mouse, suppressing proliferation of lymphocytes in allogeneic mixed lymphocyte reaction,  $IC_{50} > 1000\mu g/mL$ , control Cyclosporin A,  $IC_{50} = 0.05\mu g/mL$ ). Source: OU ZHOU LOU DOU CAI *Aquilegia vulgaris* (aerial parts). Ref: 4349.

**1543 Aquilegioside B**

$C_{41}H_{64}O_{14}$  (780.96). Pharm: Immunosuppressant inactive (mouse, suppressing proliferation of lymphocytes in allogeneic mixed lymphocyte reaction,  $IC_{50} > 1000\mu g/mL$ , control Cyclosporin A,  $IC_{50} = 0.05\mu g/mL$ ). Source: OU ZHOU LOU DOU CAI *Aquilegia vulgaris* (aerial parts). Ref: 4349.

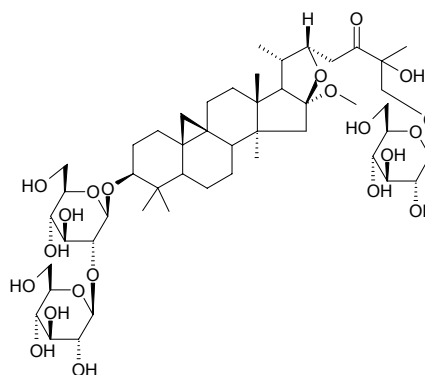
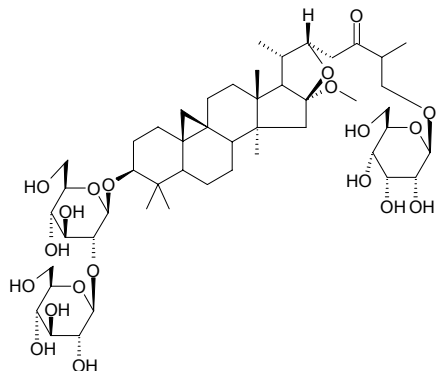




**1544 Aquilegioside C**

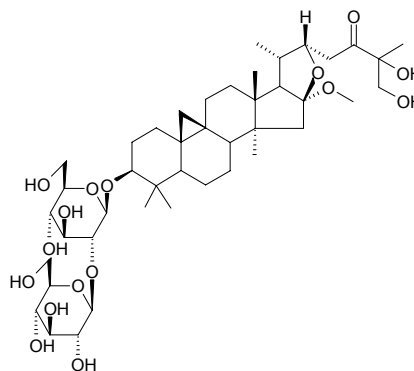
26-*O*- $\beta$ -*D*-Allopyranosyl-(16*S*,20*S*,22*S*)-16 $\beta$ ,22-epoxy-16 $\alpha$ -methoxy-3 $\beta$ ,26-dihydroxy-cycloartan-24-one-3-*O*- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -*D*-glucopyranoside C<sub>49</sub>H<sub>80</sub>O<sub>20</sub> (989.17). White powder,  $[\alpha]_D^{25} = -28.3^\circ$  ( $c = 1.08$ , pyridine).

**Pharm:** Immunosuppressant (mouse, suppressing proliferation of lymphocytes in allogeneic mixed lymphocyte reaction, IC<sub>50</sub> = 225 $\mu$ g/mL = 227 $\mu$ mol/L, control Cyclosporin A, IC<sub>50</sub> = 0.05 $\mu$ g/mL = 0.04 $\mu$ mol/L). **Source:** OU ZHOU LOU DOU CAI *Aquilegia vulgaris* (aerial parts). **Ref:** 4349.

**1547 Aquilegioside F**

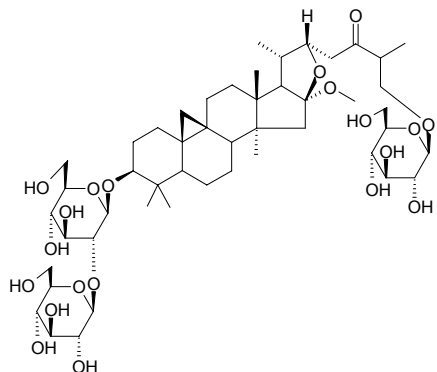
(16*S*,20*S*,22*S*)-16 $\beta$ ,22-Epoxy-16 $\alpha$ -methoxy-3 $\beta$ ,25,26-trihydroxy-cycloartan-24-one 3-*O*- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -*D*-glucopyranoside C<sub>43</sub>H<sub>70</sub>O<sub>16</sub> (843.03). White powder,  $[\alpha]_D^{25} = -2.5^\circ$  ( $c = 0.35$ , pyridine). **Pharm:**

Immunosuppressant (mouse, suppressing proliferation of lymphocytes in allogeneic mixed lymphocyte reaction, IC<sub>50</sub> = 31 $\mu$ g/mL = 37 $\mu$ mol/L, control Cyclosporin A, IC<sub>50</sub> = 0.05 $\mu$ g/mL = 0.04 $\mu$ mol/L). **Source:** OU ZHOU LOU DOU CAI *Aquilegia vulgaris* (aerial parts). **Ref:** 4349.

**1545 Aquilegioside D**

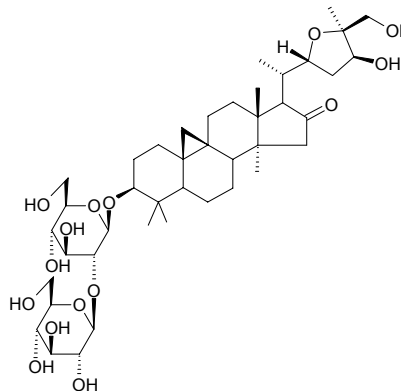
26-*O*- $\beta$ -*D*-Glucopyranosyl-(16*S*,20*S*,22*S*)-16 $\beta$ ,22-epoxy-16 $\alpha$ -methoxy-3 $\beta$ ,26-dihydroxy-cycloartan-24-one-3-*O*- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -*D*-glucopyranoside C<sub>49</sub>H<sub>80</sub>O<sub>20</sub> (989.17). White powder,  $[\alpha]_D^{25} = -31.7^\circ$  ( $c = 1.07$ , pyridine).

**Pharm:** Immunosuppressant (mouse, suppressing proliferation of lymphocytes in allogeneic mixed lymphocyte reaction, IC<sub>50</sub> = 154 $\mu$ g/mL = 155 $\mu$ mol/L, control Cyclosporin A, IC<sub>50</sub> = 0.05 $\mu$ g/mL = 0.04 $\mu$ mol/L). **Source:** OU ZHOU LOU DOU CAI *Aquilegia vulgaris* (aerial parts). **Ref:** 4349.

**1548 Aquilegioside G**

(20*S*,22*R*,24*S*,25*S*)-22,25-Epoxy-3 $\beta$ ,24,27-trihydroxy-cycloartan-16-one 3-*O*- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -*D*-glucopyranoside C<sub>42</sub>H<sub>68</sub>O<sub>15</sub> (813.00).

White powder,  $[\alpha]_D^{25} = -30.8^\circ$  ( $c = 0.30$ , MeOH). **Source:** OU ZHOU LOU DOU CAI *Aquilegia vulgaris* (aerial parts). **Ref:** 4370.

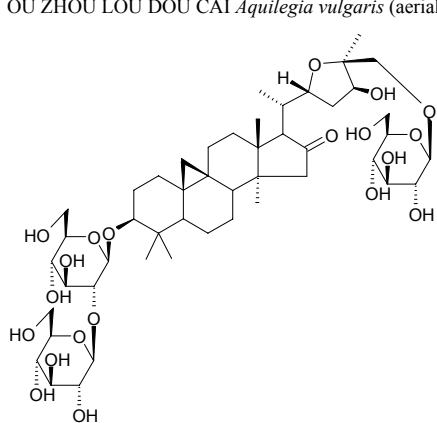
**1546 Aquilegioside E**

26-*O*- $\beta$ -*D*-Glucopyranosyl (16*S*,20*S*,22*S*)-16 $\beta$ ,22-epoxy-16 $\alpha$ -methoxy-3 $\beta$ ,25,26-trihydroxy-cycloartan-24-one 3-*O*- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -*D*-glucopyranoside C<sub>49</sub>H<sub>80</sub>O<sub>21</sub> (1005.17). White powder,  $[\alpha]_D^{25} = -8.6^\circ$  ( $c = 0.43$ , pyridine). **Pharm:**

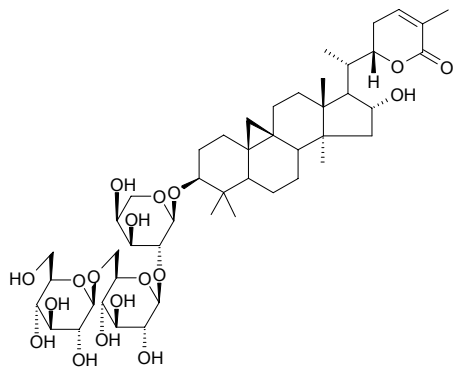
Immunosuppressant (mouse, suppressing proliferation of lymphocytes in allogeneic mixed lymphocyte reaction, IC<sub>50</sub> = 73 $\mu$ g/mL = 72 $\mu$ mol/L, control Cyclosporin A, IC<sub>50</sub> = 0.05 $\mu$ g/mL = 0.04 $\mu$ mol/L). **Source:** OU ZHOU LOU DOU CAI *Aquilegia vulgaris* (aerial parts). **Ref:** 4349.

**1549 Aquilegioside H**

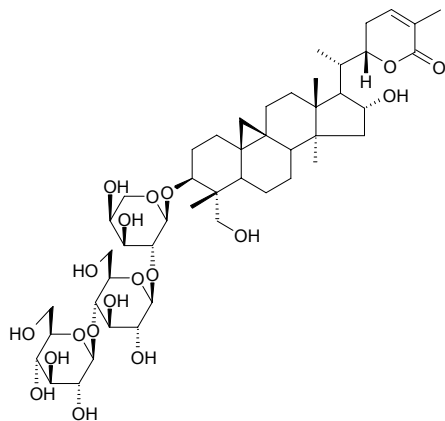
27-*O*- $\beta$ -D-Glucopyranosyl-(20*S*,22*R*,24*S*,25*S*)-22,25-epoxy-3 $\beta$ ,24,27-trihydroxy-cycloartan-16-one-3-*O*- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranoside C<sub>48</sub>H<sub>78</sub>O<sub>20</sub> (975.14). White powder,  $[\alpha]_D^{25} = -32.4^\circ$  ( $c = 0.50$ , MeOH). Source: OU ZHOU LOU DOU CAI *Aquilegia vulgaris* (aerial parts). Ref: 4370.

**1550 Aquilegioside I**

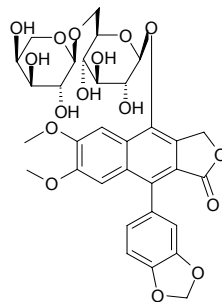
22*S*-3 $\beta$ ,16 $\alpha$ -Dihydroxy-cycloart-24-en-26,22-olide 3-*O*- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -L-arabinopyranoside C<sub>47</sub>H<sub>74</sub>O<sub>18</sub> (927.10). White powder,  $[\alpha]_D^{25} = -1.9^\circ$  ( $c = 0.30$ , MeOH). Source: OU ZHOU LOU DOU CAI *Aquilegia vulgaris* (aerial parts). Ref: 4370.

**1551 Aquilegioside J**

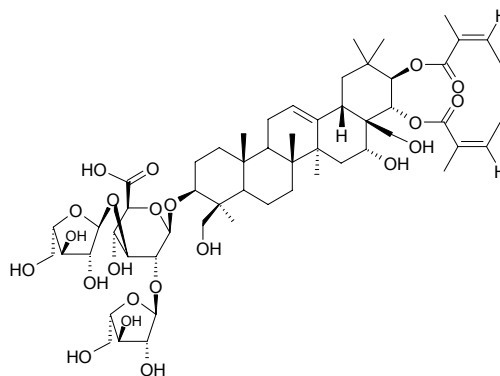
22*S*-3 $\beta$ ,16 $\alpha$ -Dihydroxy-cycloart-24-en-26,22-olide-3-*O*- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -L-arabinopyranoside C<sub>47</sub>H<sub>74</sub>O<sub>19</sub> (943.10). White powder,  $[\alpha]_D^{25} = +15.2^\circ$  ( $c = 0.30$ , MeOH). Source: OU ZHOU LOU DOU CAI *Aquilegia vulgaris* (aerial parts). Ref: 4370.

**1552 Arabelline**

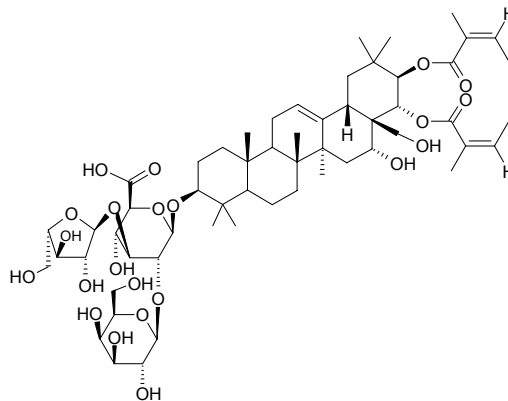
C<sub>32</sub>H<sub>34</sub>O<sub>16</sub> (674.62). Pharm: Cytotoxic (hmn LoVo Cell Line *in vitro*, IC<sub>50</sub> = (63.21 $\pm$ 6.21) $\mu$ L/mL). Source: *Haplophyllum patavinum* (shoot). Ref: 4206.

**1553 3-*O*- $\alpha$ -L-Arabinofuranosyl-(1 $\rightarrow$ 3)-[ $\alpha$ -L-arabinofuranosyl-(1 $\rightarrow$ 2)]- $\beta$ -D-glucuronopyranosyl-21 $\beta$ ,22 $\alpha$ -di-*O*-angeloylprotoaescigenin**

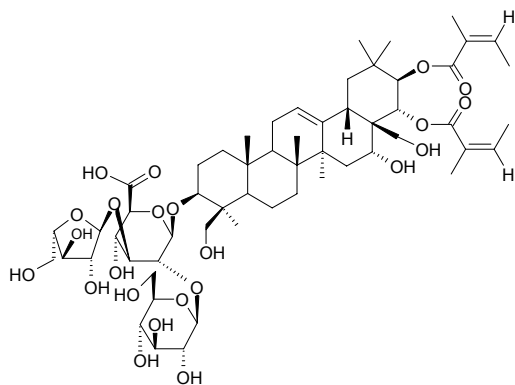
C<sub>56</sub>H<sub>86</sub>O<sub>22</sub> (1111.30).  $[\alpha]_D^{21} = -32.3^\circ$  ( $c = 0.13$ , MeOH). Source: NAN SU GE LAN JIA SHAN LUO *Harpullia austro-caledonica* (stem bark). Ref: 5269.

**1554 3-*O*- $\alpha$ -L-Arabinofuranosyl-(1 $\rightarrow$ 3)-[ $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 2)]- $\beta$ -D-glucuronopyranosyl-21 $\beta$ ,22 $\alpha$ -di-*O*-angeloylbarringtonol C**

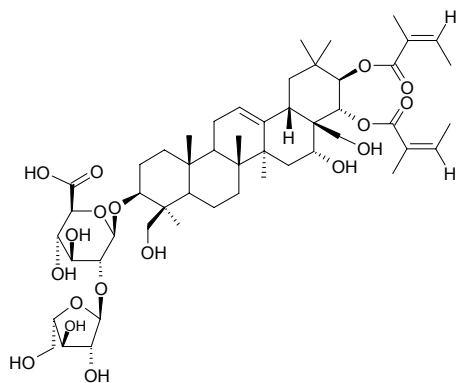
C<sub>57</sub>H<sub>88</sub>O<sub>22</sub> (1125.32).  $[\alpha]_D^{21} = -10.9^\circ$  ( $c = 0.53$ , MeOH). Pharm: Hemolytic. Source: NAN SU GE LAN JIA SHAN LUO *Harpullia austro-caledonica* (stem bark). Ref: 5269.



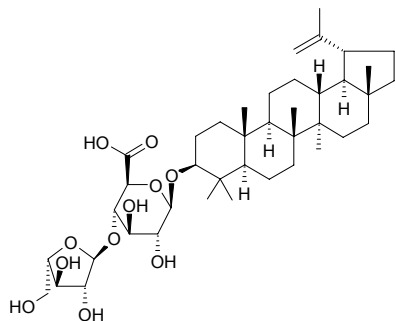
**1555 3-*O*- $\alpha$ -L-Arabinofuranosyl-(1 $\rightarrow$ 3)-[ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)]- $\beta$ -D-glucuronopyranosyl-21 $\beta$ ,22 $\alpha$ -di-*O*-angeloylprotoaescigenin**  
 C<sub>57</sub>H<sub>88</sub>O<sub>23</sub> (1141.32). Source: NAN SU GE LAN JIA SHAN LUO *Harpullia austro-caledonica* (stem bark). Ref: 5269.



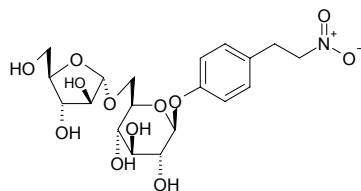
**1556 3-*O*- $\alpha$ -L-Arabinofuranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucuronopyranosyl-21 $\beta$ ,22 $\alpha$ -di-*O*-angeloylprotoaescigenin**  
 C<sub>51</sub>H<sub>78</sub>O<sub>18</sub> (979.18). [ $\alpha$ ]<sub>D</sub><sup>21</sup> = -25.5° (c = 0.11, MeOH). Source: NAN SU GE LAN JIA SHAN LUO *Harpullia austro-caledonica* (stem bark). Ref: 5269.



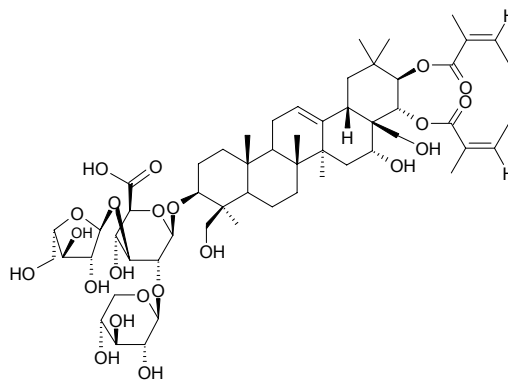
**1557  $\alpha$ -L-Arabinofuranosyl-(1 $\rightarrow$ 4)-*O*- $\beta$ -D-glucuronopyranosyl-(1 $\rightarrow$ 3)-3 $\beta$ -hydroxy-lup-20(29)-ene**  
 C<sub>41</sub>H<sub>66</sub>O<sub>11</sub> (734.98). Source: LAO SHU LE *Acanthus ilicifolius*. Ref: 2083.



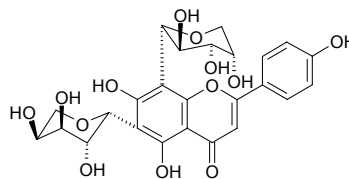
**1558 6'-*O*- $\alpha$ -L-Arabinofuranosylthaliactoside**  
 C<sub>19</sub>H<sub>27</sub>NO<sub>12</sub> (461.43). Yellowish oil, easily soluble in H<sub>2</sub>O and MeOH. Source: ZHONG JIAN WU WEI ZI *Schisandra propinqua* var. *intermedia* (stem). Ref: 4845.



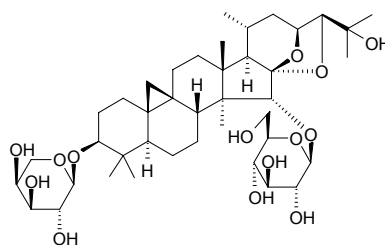
**1559 3-*O*- $\alpha$ -L-Arabinofuranosyl-(1 $\rightarrow$ 3)-[ $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 2)]- $\beta$ -D-glucuronopyranosyl-21 $\beta$ ,22 $\alpha$ -di-*O*-angeloylprotoaescigenin**  
 C<sub>56</sub>H<sub>86</sub>O<sub>22</sub> (1111.30). [ $\alpha$ ]<sub>D</sub><sup>21</sup> = -13.2° (c = 0.25, MeOH). Source: NAN SU GE LAN JIA SHAN LUO *Harpullia austro-caledonica* (stem bark). Ref: 5269.



**1560 6-*C*- $\beta$ -L-Arabinopyranosyl-8-*C*- $\alpha$ -L-arabinopyranosylapigenin**  
 C<sub>25</sub>H<sub>26</sub>O<sub>13</sub> (534.45). Amorphous yellow powder (MeOH), mp 206~208°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -42.0° (c = 0.55, DMSO). Source: SI CHI SI LENG CAO *Schnabelia tetradonta* (aerial parts: yield = 0.00015%dw). Ref: 4665.

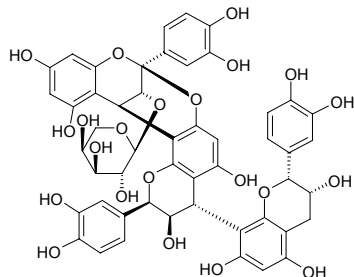


**1561 3-*O*- $\alpha$ -L-Arabinopyranosylcimigenol 15-*O*- $\beta$ -D-glucopyranoside**  
 C<sub>41</sub>H<sub>66</sub>O<sub>14</sub> (782.97). White powder (MeOH), mp 224~225°C, [ $\alpha$ ]<sub>D</sub> = +15.9° (c = 0.32, MeOH). Source: XING AN SHENG MA *Cimicifuga dahurica* (rhizome). Ref: 4140.

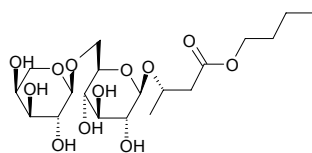


**1562 3*O*- $\alpha$ -L-Arabinopyranosylcinnamtannin B<sub>1</sub>**

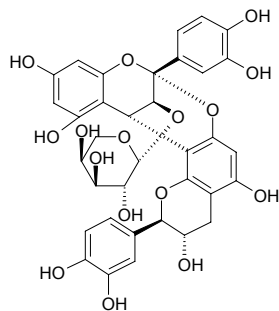
C<sub>50</sub>H<sub>44</sub>O<sub>22</sub> (996.89). Light-brown amorphous powder,  $[\alpha]_D^{20} = +17.1^\circ$  ( $c = 1$ , MeOH). **Pharm:** Antioxidant (inhibits NADPH-dependent lipid peroxidation in microsomes and autoxidation of linoleic acid); DPPH scavenger (effectively scavenges DPPH radical). **Source:** KE KE *Theobroma cacao*. **Ref:** 2023.

**1563 3-*O*- $\alpha$ -L-Arabinopyranosyl-(1→6)- $\beta$ -*D*-glucopyranoside of butyl (3*S*)-hydroxybutanoate**

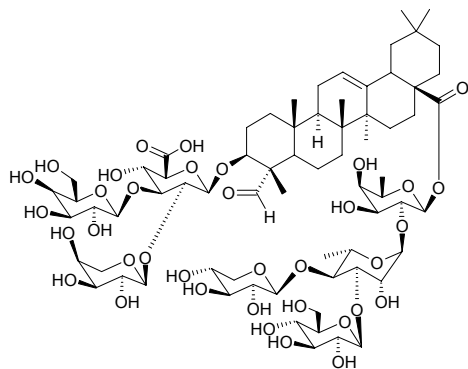
C<sub>19</sub>H<sub>34</sub>O<sub>12</sub> (454.48). **Source:** DENG LONG CAO *Physalis peruviana*. **Ref:** 1997.

**1564 3*T*-*O*-Arabinopyranosyl-*ent*-epicatechin-(2 $\alpha$ →7,4 $\alpha$ →8)-catechin**

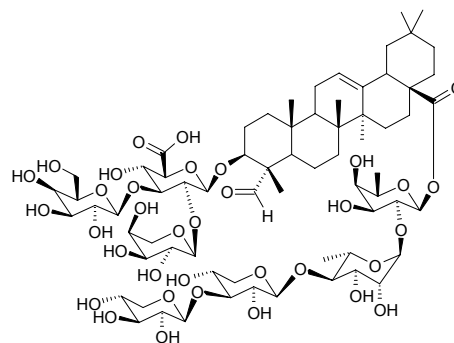
C<sub>35</sub>H<sub>32</sub>O<sub>16</sub> (708.64). Light-brown amorphous powder,  $[\alpha]_D^{20} = -16.4^\circ$  ( $c = 1$ , MeOH). **Pharm:** Antioxidant (inhibits NADPH-dependent lipid peroxidation in microsomes and autoxidation of linoleic acid); free radical scavenger (effectively scavenges DPPH radical). **Source:** KE KE *Theobroma cacao*. **Ref:** 2023.

**1565 3-*O*- $\alpha$ -L-Arabinopyranosyl-(1→2)-[ $\beta$ -*D*-galactopyranosyl-(1→3)]- $\beta$ -*D*-glucuronopyranosylgypsogenin-28-*O*- $\beta$ -*D*-glucopyranosyl(1→3)-[ $\beta$ -*D*-xylopyranosyl-(1→4)]- $\alpha$ -*L*-rhamnopyranosyl-(1→2)- $\beta$ -*D*-fucopyranoside**

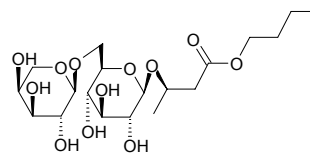
C<sub>70</sub>H<sub>110</sub>O<sub>36</sub> (1527.64). White amorphous powder,  $[\alpha]_D^{20} = -6^\circ$  ( $c = 0.10$ , MeOH). **Source:** LAO NIU JIN *Arenaria juncea* (root). **Ref:** 3095.

**1566 3-*O*- $\alpha$ -L-Arabinopyranosyl-(1→2)-[ $\beta$ -*D*-galactopyranosyl-(1→3)]- $\beta$ -*D*-glucuronopyranosylgypsogenin-28-*O*- $\beta$ -*D*-xylopyranosyl-(1→3)- $\beta$ -*D*-xylopyranosyl-(1→4)- $\alpha$ -*L*-rhamnopyranosyl-(1→2)- $\beta$ -*D*-fucopyranoside**

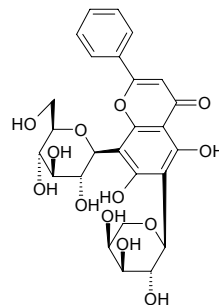
C<sub>69</sub>H<sub>108</sub>O<sub>35</sub> (1497.61). White amorphous powder,  $[\alpha]_D^{20} = +5^\circ$  ( $c = 0.10$ , MeOH). **Source:** LAO NIU JIN *Arenaria juncea* (root). **Ref:** 3095.

**1567 3-*O*- $\alpha$ -L-Arabinopyranosyl-(1→6)- $\beta$ -*D*-glucopyranoside of butyl (3*R*)-hydroxybutanoate**

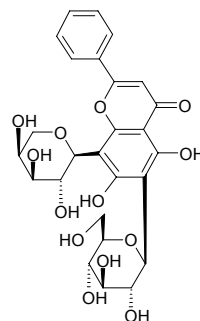
C<sub>19</sub>H<sub>34</sub>O<sub>12</sub> (454.48). **Source:** DENG LONG CAO *Physalis peruviana*. **Ref:** 1997.

**1568 6-*C*-Arabinopyranosyl-8-*C*-glucopyranosyl-5,7-dihydroxyflavone**

C<sub>26</sub>H<sub>28</sub>O<sub>13</sub> (548.51). **Source:** HUANG QIN *Scutellaria baicalensis*. **Ref:** 1557.

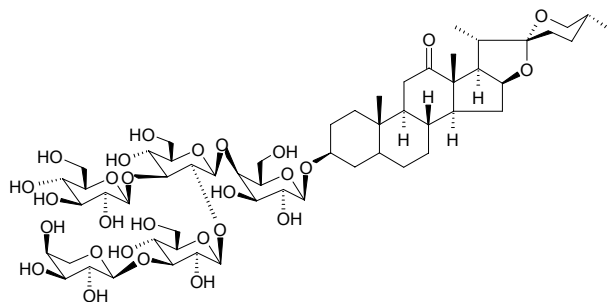
**1569 8-*C*-Arabinopyranosyl-6-*C*-glucopyranosyl-5,7-dihydroxyflavone**

C<sub>26</sub>H<sub>28</sub>O<sub>13</sub> (548.51). **Source:** HUANG QIN *Scutellaria baicalensis*. **Ref:** 1557.



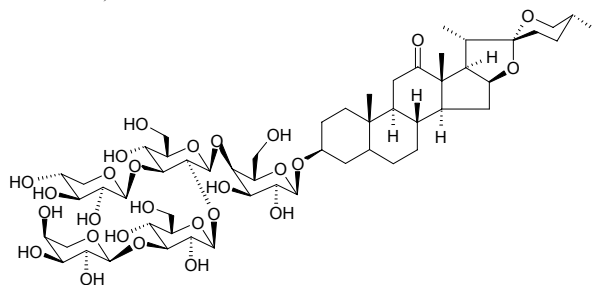
**1570 (25R)-3β-[(O-α-L-Arabinopyranosyl-(1→3)-β-D-glucopyranosyl-(1→2)-O-β-D-glucopyranosyl-(1→3)]-O-β-D-glucopyranosyl-(1→4)-β-D-galactopyranosyl]oxy]-5α-spirostan-12-one**

$C_{56}H_{90}O_{28}$  (1211.32). Amorphous solid,  $[\alpha]_D^{26} = -24.0^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, HL-60,  $IC_{50} = 9\mu\text{g/mL}$ ; HSC-2,  $IC_{50} = 13\mu\text{g/mL}$ ; control Etoposide: HL-60,  $IC_{50} = 0.3\mu\text{g/mL}$ ; HSC-2,  $IC_{50} = 24.4\mu\text{g/mL}$ ). **Source:** WAN XIANG YU *Polianthes tuberosa* (underground part: yield = 0.0041%dw). **Ref:** 4651.



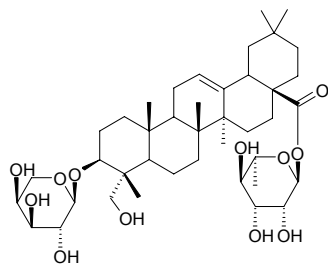
**1571 (25R)-3β-[(O-α-L-Arabinopyranosyl-(1→3)-β-D-glucopyranosyl-(1→2)-O-β-D-xylopyranosyl-(1→3)]-O-β-D-glucopyranosyl-(1→4)-β-D-galactopyranosyl]oxy]-5α-spirostan-12-one**

$C_{55}H_{88}O_{27}$  (1181.3). Amorphous solid,  $[\alpha]_D^{26} = -30.0^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, HL-60,  $IC_{50} = 4.4\mu\text{g/mL}$ ; HSC-2,  $IC_{50} = 2.2\mu\text{g/mL}$ ; control Etoposide: HL-60,  $IC_{50} = 0.3\mu\text{g/mL}$ ; HSC-2,  $IC_{50} = 24.4\mu\text{g/mL}$ ). **Source:** WAN XIANG YU *Polianthes tuberosa* (underground part: yield = 0.0085%dw). **Ref:** 4651.



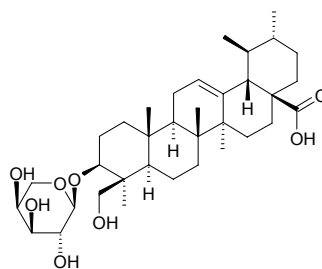
**1572 3-O-α-L-Arabinopyranosyl hederagenin 28-O-α-L-rhamnopyranosyl ester**

$C_{41}H_{66}O_{12}$  (750.98). Colorless needles (MeOH), mp 272~274°C,  $[\alpha]_D^{25} = +46.7^\circ$  ( $c = 0.1$ , MeOH). **Pharm:** Antifungal (*Penicillium avellaneum*, MIA = 10μg/dish, control Amphotericin B, MIA = 0.04μg/dish; *Candida glabrata*, MIA = 8μg/dish, Amphotericin B, MIA = 0.8μg/dish; *Saccharomyces cerevisiae*, MIA = 2μg/dish, Amphotericin B, MIA = 3.2μg/dish; *T. beigelii*, MIA = 10μg/dish, Amphotericin B, MIA = 0.8μg/dish; *P. oryzae*, MIA = 20μg/dish, Amphotericin B, MIA = 0.08μg/dish). **Source:** GAN QING TIE XIAN LIAN *Clematis tangutica*. **Ref:** 5413.



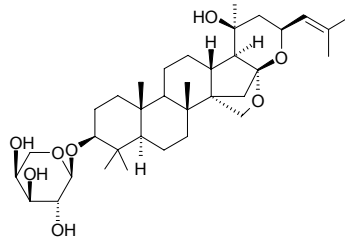
**1573 3-O-α-L-Arabinopyranosyl-23-hydroxyursolic acid**

$C_{35}H_{56}O_8$  (604.83). White amorphous powder (MeOH-CH<sub>2</sub>Cl<sub>2</sub>), 280~281°C,  $[\alpha]_D^{31} = +65.2^\circ$  ( $c = 0.046$ , MeOH). **Pharm:** Anti-inflammatory (*in vitro*, RAW264.7, inhibits LPS-induced NO and PGE<sub>2</sub> release). **Source:** *Cussonia bancoensis*. **Ref:** 5016.



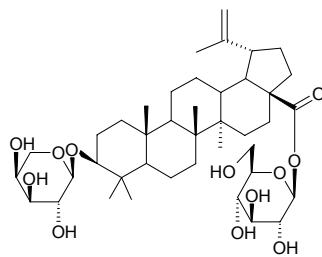
**1574 3-β-O-α-L-Arabinopyranosyl jujubogenin**

$C_{35}H_{56}O_8$  (604.83). **Source:** JIA MA CHI XIAN *Bacopa monniera* (whole herb: yield = 0.0026%fw). **Ref:** 4664.



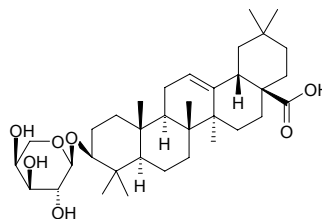
**1575 3β-D-O-(α-L-Arabinopyranosyl)-lup-20(29)-ene-28-O-β-D-glucopyranosyl ester**

$C_{41}H_{66}O_{12}$  (750.98). White powder,  $[\alpha]_D^{25} = +93^\circ$ , ( $c = 0.1$ , MeOH). **Pharm:** Cytotoxic (antiproliferative *in vitro*: J774.A1 cell line,  $IC_{50} = 0.19\mu\text{mol/L}$ , HEK-293,  $IC_{50} = 0.26\mu\text{mol/L}$ , WEHI-164,  $IC_{50} = 0.55\mu\text{mol/L}$ ; control 6-Mercaptopurine, J774.A1,  $IC_{50} = 0.003\mu\text{mol/L}$ , HEK-293,  $IC_{50} = 0.007\mu\text{mol/L}$ , WEHI-164,  $IC_{50} = 0.015\mu\text{mol/L}$ ). **Source:** YUAN YE E ZHANG CHAI *Schefflera rotundifolia* (aerial parts). **Ref:** 5036.



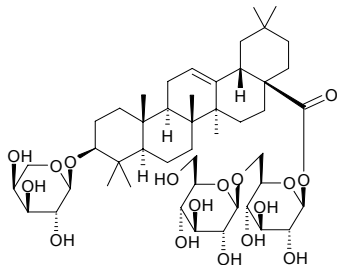
**1576 3-O-α-L-Arabinopyranosyloleanolic acid**

$C_{35}H_{56}O_7$  (588.83). **Pharm:** Cytotoxic (A2780,  $IC_{50} = (8.6\pm 0.3)\mu\text{g/mL}$ ; control Actinomycin D,  $IC_{50} = 2\sim 5\text{ng/mL}$ ). **Source:** HUANG HUA BAI JIANG *Patrinia scabiosaefolia*, CI WU JIA *Acanthopanax senticosus* [Syn. *Eleutherococcus senticosus*]. **Ref:** 5397.



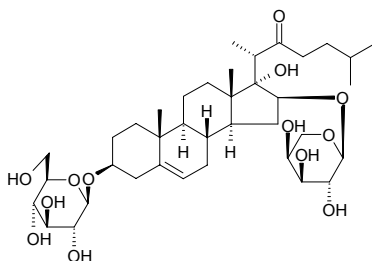
**1577 3-O- $\alpha$ -L-Arabinopyranosyl oleanolic acid 28-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranoside**

Oleanolic acid-3-O- $\alpha$ -L-arabinopyranosyl-28-O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranoside C<sub>47</sub>H<sub>76</sub>O<sub>17</sub> (913.12). White powder, mp 227~230°C, [ $\alpha$ ]<sub>D</sub><sup>19</sup> = +6.2° (*c* = 0.25, methanol). **Source:** CHUAN XU DUAN *Dipsacus asperoides*, REN DONG TENG *Lonicera japonica*. **Ref:** 201, 2791.



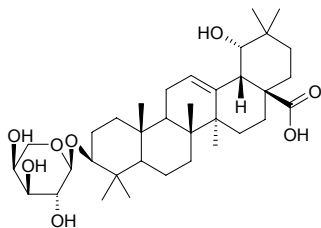
**1578 16β-[( $\alpha$ -L-Arabinopyranosyl)oxy]-3β-[( $\beta$ -D-glucopyranosyl)oxy]-17 $\alpha$ -hydroxycholest-5-en-22-one**

C<sub>38</sub>H<sub>62</sub>O<sub>13</sub> (726.91). Amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -40.0° (*c* = 0.10, MeOH). **Pharm:** Cytotoxic (HL-60 cells, IC<sub>50</sub> = 0.053 μmol/L, control Etoposide, IC<sub>50</sub> = 0.025 μmol/L). **Source:** XIA FENG XIN ZI *Galtonia candicans* (bulb). **Ref:** 4116.



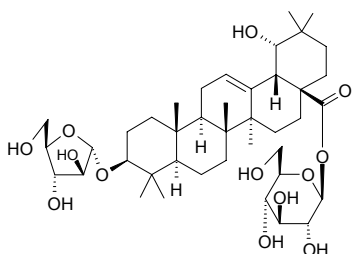
**1579 3β-[( $\alpha$ -L-Arabinopyranosyl)oxy]-19 $\alpha$ -hydroxyolean-12-en-28-oic acid**

C<sub>35</sub>H<sub>56</sub>O<sub>8</sub> (604.83). White amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>28.4</sup> = +24.7° (*c* = 0.64, MeOH). **Source:** DI YU *Sanguisorba officinalis*. **Ref:** 5304.



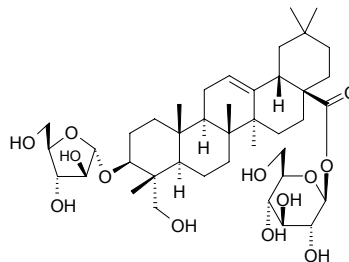
**1580 3β-[( $\alpha$ -L-Arabinopyranosyl)oxy]-19 $\alpha$ -hydroxyolean-12-en-28-oic acid 28-β-D-glucopyranosyl ester**

C<sub>41</sub>H<sub>66</sub>O<sub>13</sub> (766.98). Amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +14.0° (*c* = 0.10, MeOH). **Pharm:** Cytotoxic inactive (HSC-2, IC<sub>50</sub> > 200 μg/mL; HGF, IC<sub>50</sub> > 200 μg/mL). **Source:** DI YU *Sanguisorba officinalis*. **Ref:** 5160.



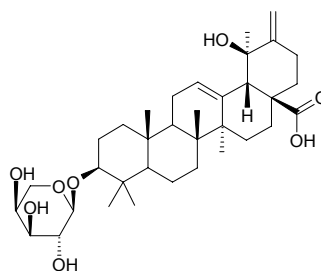
**1581 3β-[( $\alpha$ -L-Arabinopyranosyl)oxy]-23-hydroxyolean-12-en-28-oic acid 28-β-D-glucopyranosyl ester**

C<sub>41</sub>H<sub>66</sub>O<sub>13</sub> (766.98). **Pharm:** Cytotoxic (HSC-2, IC<sub>50</sub> = 18 μg/mL; HGF, IC<sub>50</sub> > 200 μg/mL). **Source:** DI YU *Sanguisorba officinalis*. **Ref:** 5160.



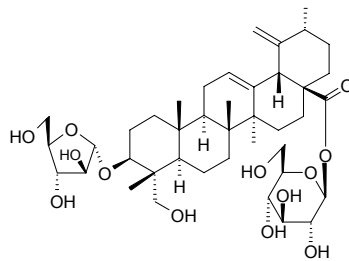
**1582 3β-[( $\alpha$ -L-Arabinopyranosyl)oxy]-19β-hydroxyurs-12,20(30)-dien-28-oic acid**

C<sub>35</sub>H<sub>54</sub>O<sub>8</sub> (602.82). White amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>28.2</sup> = +30.8° (*c* = 0.52, MeOH). **Source:** DI YU *Sanguisorba officinalis*. **Ref:** 5304.



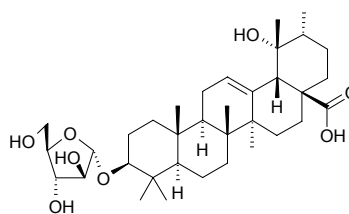
**1583 3β-[( $\alpha$ -L-Arabinopyranosyl)oxy]-23-hydroxyurs-12,19(29)-dien-28-oic acid 28-β-D-glucopyranosyl ester**

C<sub>41</sub>H<sub>64</sub>O<sub>13</sub> (764.96). Amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +24.0° (*c* = 0.10, MeOH). **Pharm:** Cytotoxic (HSC-2, IC<sub>50</sub> = 15 μg/mL; HGF, IC<sub>50</sub> > 200 μg/mL). **Source:** DI YU *Sanguisorba officinalis*. **Ref:** 5160.



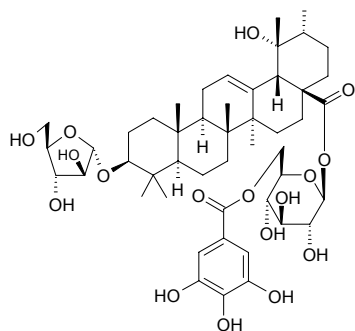
**1584 3β-[( $\alpha$ -L-Arabinopyranosyl)oxy]-19 $\alpha$ -hydroxyurs-12-en-28-oic acid**

C<sub>35</sub>H<sub>56</sub>O<sub>8</sub> (604.83). **Pharm:** Cytotoxic inactive (HSC-2, IC<sub>50</sub> > 200 μg/mL; HGF, IC<sub>50</sub> > 200 μg/mL). **Source:** DI YU *Sanguisorba officinalis*. **Ref:** 5160.



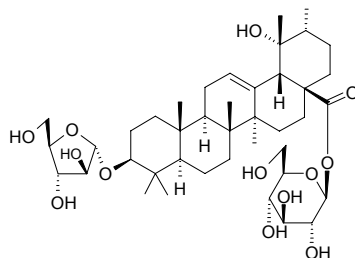
**1585 3 $\beta$ -[( $\alpha$ -L-Arabinopyranosyl)oxy]-19 $\alpha$ -hydroxyurs-12-en-28-oic acid 28-(6-O-galloyl- $\beta$ -D-glucopyranosyl)ester**

C<sub>48</sub>H<sub>70</sub>O<sub>17</sub> (919.08). Pale-yellow amorphous solid,  $[\alpha]_D^{25} = +10.0^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (HSC-2, IC<sub>50</sub> = 79 $\mu$ g/mL; HGF, IC<sub>50</sub> > 200 $\mu$ g/mL). **Source:** DI YU *Sanguisorba officinalis*. **Ref:** 5160.



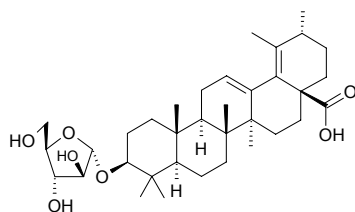
**1586 3 $\beta$ -[( $\alpha$ -L-Arabinopyranosyl)oxy]-19 $\alpha$ -hydroxyurs-12-en-28-oic acid 28- $\beta$ -D-glucopyranosyl ester**

C<sub>41</sub>H<sub>66</sub>O<sub>13</sub> (766.98). **Pharm:** Cytotoxic (HSC-2, IC<sub>50</sub> = 153 $\mu$ g/mL; HGF, IC<sub>50</sub> > 200 $\mu$ g/mL). **Source:** DI YU *Sanguisorba officinalis*. **Ref:** 5160.



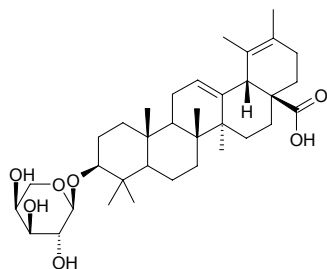
**1587 3 $\beta$ -[( $\alpha$ -L-Arabinopyranosyl)oxy]urs-12,18-dien-28-oic acid**

C<sub>35</sub>H<sub>54</sub>O<sub>7</sub> (586.82). Amorphous solid,  $[\alpha]_D^{25} = +112.0^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic inactive (HSC-2, IC<sub>50</sub> > 200 $\mu$ g/mL; HGF, IC<sub>50</sub> > 200 $\mu$ g/mL). **Source:** DI YU *Sanguisorba officinalis*. **Ref:** 5160.



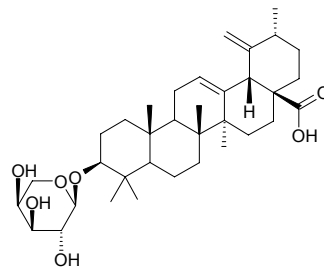
**1588 3 $\beta$ -[( $\alpha$ -L-Arabinopyranosyl)oxy]-urs-12,19-dien-28-oic acid**

C<sub>35</sub>H<sub>54</sub>O<sub>7</sub> (586.82). White amorphous powder,  $[\alpha]_D^{30.4} = -0.32^\circ$  ( $c = 0.30$ , MeOH). **Source:** DI YU *Sanguisorba officinalis*. **Ref:** 5304.



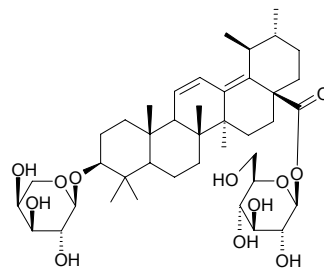
**1589 3 $\beta$ -[( $\alpha$ -L-Arabinopyranosyl)oxy]-urs-12,19(29)-dien-28-oic acid**

C<sub>35</sub>H<sub>54</sub>O<sub>7</sub> (586.82). White amorphous powder,  $[\alpha]_D^{28.2} = +18.4^\circ$  ( $c = 0.38$ , MeOH). **Source:** DI YU *Sanguisorba officinalis*. **Ref:** 5304.



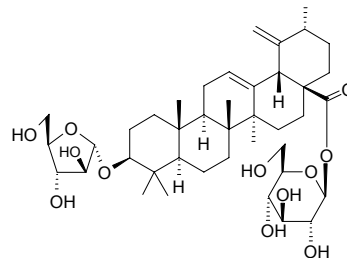
**1590 3 $\beta$ -[( $\alpha$ -L-Arabinopyranosyl)oxy]-urs-11,13(18)-dien-28-oic acid  $\beta$ -D-glucopyranosyl ester**

C<sub>41</sub>H<sub>64</sub>O<sub>12</sub> (748.96). White amorphous powder,  $[\alpha]_D^{29.7} = -25.4^\circ$  ( $c = 0.26$ , MeOH). **Source:** DI YU *Sanguisorba officinalis*. **Ref:** 5304.



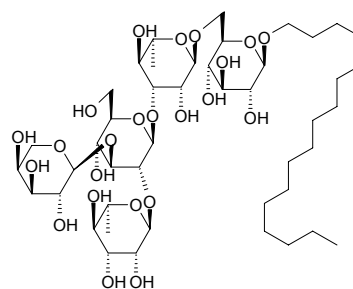
**1591 3 $\beta$ -[( $\alpha$ -L-Arabinopyranosyl)oxy]urs-12,19(29)-dien-28-oic acid 28- $\beta$ -D-glucopyranosyl ester**

C<sub>41</sub>H<sub>64</sub>O<sub>12</sub> (748.96). Amorphous solid,  $[\alpha]_D^{25} = +12.0^\circ$  ( $c = 0.10$ , MeOH). **Pharm:** Cytotoxic (HSC-2, IC<sub>50</sub> = 50 $\mu$ g/mL; HGF, IC<sub>50</sub> > 200 $\mu$ g/mL). **Source:** DI YU *Sanguisorba officinalis*. **Ref:** 5160.



**1592 1-O-[( $\alpha$ -L-Arabinopyranosyl-(1 $\rightarrow$ 3)]- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 3)- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl] hexadecanol**

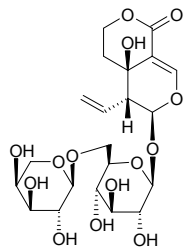
C<sub>45</sub>H<sub>82</sub>O<sub>23</sub> (991.14).  $[\alpha]_D = -26.7^\circ$  ( $c = 0.225$ , CH<sub>3</sub>OH). **Source:** YAN SE LONG YAN *Dimocarpus fumatus*. **Ref:** 1853.



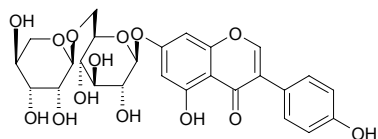
**1593 6'-O- $\alpha$ -L-Arabinopyranosylswertiamarin**

$C_{21}H_{30}O_{14}$  (506.46). Amorphous powder,  $[\alpha]_D^{27} = -92.7^\circ$  ( $c = 0.2$ , MeOH).

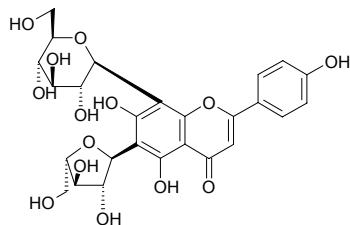
Source: RI BEN ZHANG YA CAI *Swertia japonica*. Ref: 2573.

**1594 6''- $\beta$ -D-Arabinose-genistin**

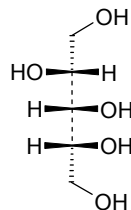
$C_{26}H_{28}O_{14}$  (564.50). Amaranth powder, easily soluble in methanol and alcohol, soluble in water. Source: HEI DA DOU *Glycine max*. Ref: 2457.

**1595 6-C-Arabinosyl-8-C-glucosyl apigenin**

$C_{26}H_{28}O_{14}$  (564.50). Source: QI GU CAO *Sagina japonica* [Syn. *Spergula japonica*] Ref: 660.

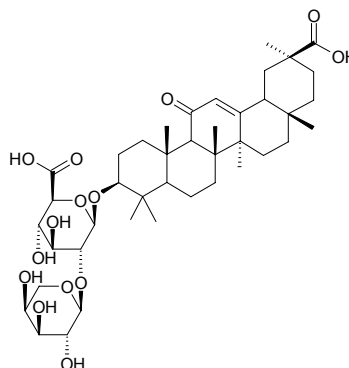
**1596 D-Arabitol**

*D*-Arabinitol [488-82-4]  $C_5H_{12}O_5$  (152.15). Amorphous powder,  $[\alpha]_D^{21} = -7^\circ$ , mp  $103^\circ\text{C}$ . Pharm: Sweetener. Source: E LI *Persea americana* [Syn. *Persea gratissima*], HU SUI ZI *Coriandrum sativum*, JIN SI DAI *Alectoria vivens*, PI QI QIE *Fabiana imbricata*, XUE CHA *Thamnia vermicularis*. Ref: 6, 658, 4302.

**1597 Araboglycyrrhizin**

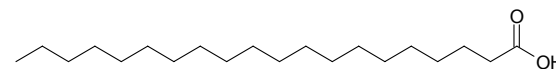
$C_{41}H_{62}O_{14}$  (778.94). Source: ZHANG GUO GAN CAO *Glycyrrhiza inflata*.

Ref: 660.

**1598 Arachidic acid**

[506-30-9]  $C_{20}H_{40}O_2$  (312.54). mp  $77^\circ\text{C}$ , bp  $203\sim 205^\circ\text{C}$ . Pharm: Lubricant.

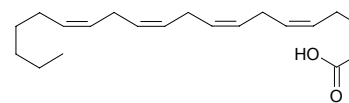
Source: BA DOU *Croton tiglium*, CU LIU GUO *Hippophae rhamnoides*, GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *huechingensis*], GE GEN *Pueraria lobata* [Syn. *Pueraria thunbergiana*; *Pueraria pseudohirsuta*], GUANG JIN QIAN CAO *Desmodium styracifolium*, HONG HUA *Carthamus tinctorius*, LUO HUA SHENG *Arachis hypogaea*, QIANG HUO *Notopterygium incisum*, XING REN *Prunus armeniaca*. Ref: 2, 260.

**1599 Arachidonic acid**

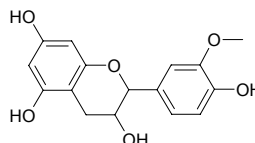
[506-32-1]  $C_{20}H_{32}O_2$  (304.48). Pharm: Extends the period of fertility (rat);

gastric secretion inhibitor; uterine stimulant; dermatitis suppressant (pig and dog, treatment of eczema). Source: BEI MEI TING LI ZI *Lepidium virginicum*,

HUANG YE DU XING CAI *Lepidium campestre*, PU HUANG *Typha angustata*, XIAO YE GUAN ZHONG *Matteuccia struthiopteris*. Ref: 2, 658, 660.

**1600 Arachidoside**

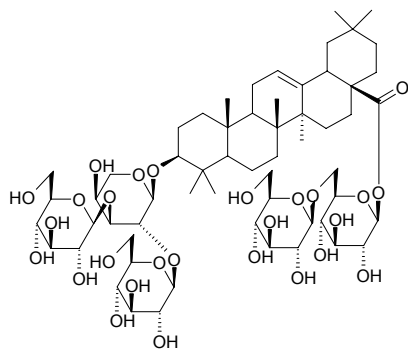
$C_{16}H_{16}O_6$  (304.30). Source: WU ZHU YU *Evodia rutaecarpa*. Ref: 2.



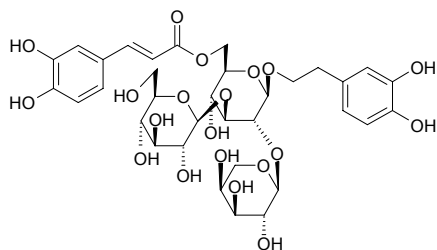


**1601 Aradecoside D**

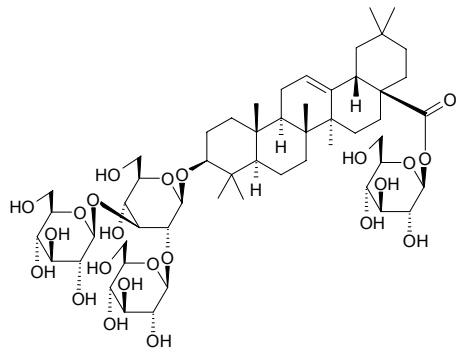
Oleanolic acid 3-*O*-[ $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 2)][ $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 3)]- $\alpha$ -*L*-arabinopyranosyl-28- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranoside C<sub>59</sub>H<sub>96</sub>O<sub>27</sub> (1237.41). White amorphous powder, mp 275~279°C. [Source](#): HUANG MAO CONG MU *Aralia decaisneae* (root cortex). [Ref](#): 4880.

**1602 Aragoside**

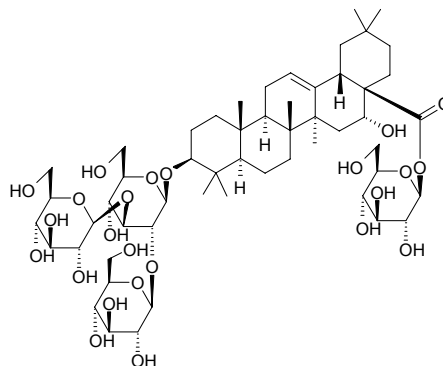
C<sub>34</sub>H<sub>44</sub>O<sub>20</sub> (772.72). [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -51°. [Source](#): *Aragoa cundinamarcensis*. [Ref](#): 3436.

**1603 Aralia-saponin V**

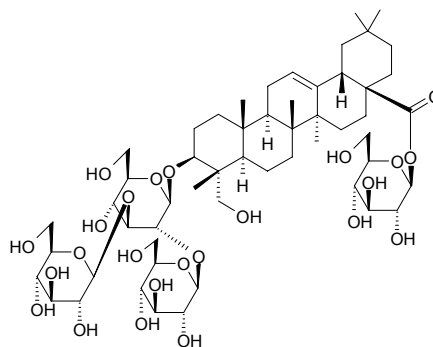
3-*O*-[ $\beta$ -*D*-Glucopyranosyl-(1 $\rightarrow$ 2)-[ $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 3)]- $\beta$ -*D*-glucopyranosyl]oleanolic acid 28-*O*- $\beta$ -*D*-glucopyranosyl ester C<sub>54</sub>H<sub>88</sub>O<sub>23</sub> (1105.29). Colorless amorphous powder, [ $\alpha$ ]<sub>D</sub> = -11.3° (*c* = 0.2, pyridine). [Source](#): LIAO DONG CONG MU *Aralia elata*. [Ref](#): 760.

**1604 Aralia-saponin VI**

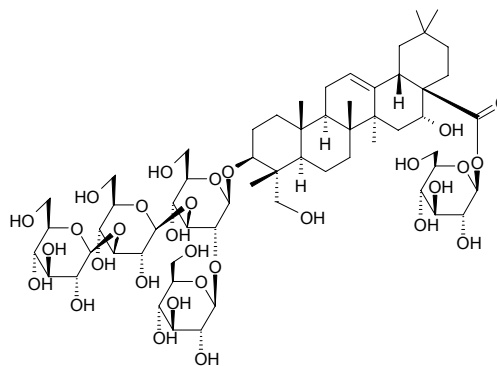
3-*O*-[ $\beta$ -*D*-Glucopyranosyl-(1 $\rightarrow$ 2)-[ $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 3)]- $\beta$ -*D*-glucopyranosyl]echinocystic acid 28-*O*- $\beta$ -*D*-glucopyranosyl ester C<sub>54</sub>H<sub>88</sub>O<sub>24</sub> (1121.29). Colorless amorphous powder, [ $\alpha$ ]<sub>D</sub> = -18.8° (*c* = 0.2, pyridine). [Source](#): LIAO DONG CONG MU *Aralia elata*. [Ref](#): 760.

**1605 Aralia-saponin VII**

3-*O*- $\beta$ -*D*-Glucopyranosyl-(1 $\rightarrow$ 2)-[ $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 3)]- $\beta$ -*D*-glucopyranosyl]hederagenin 28-*O*- $\beta$ -*D*-glucopyranosyl ester C<sub>54</sub>H<sub>88</sub>O<sub>24</sub> (1121.29). Colorless amorphous powder, [ $\alpha$ ]<sub>D</sub> = +23.1° (*c* = 0.3, pyridine). [Source](#): LIAO DONG CONG MU *Aralia elata*. [Ref](#): 760.

**1606 Aralia-saponin VIII**

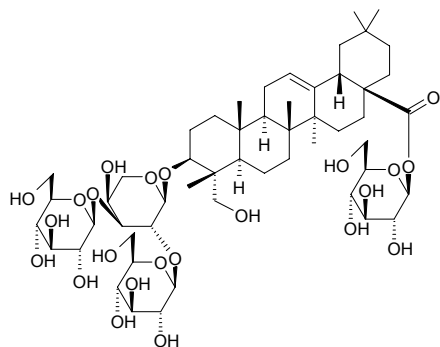
3-*O*-[ $\beta$ -*D*-Glucopyranosyl-(1 $\rightarrow$ 3)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 3)]- $\beta$ -*D*-glucopyranosyl]oleanolic acid 28-*O*- $\beta$ -*D*-glucopyranosyl ester C<sub>60</sub>H<sub>98</sub>O<sub>30</sub> (1299.43). Colorless amorphous powder, [ $\alpha$ ]<sub>D</sub> = +23.1° (*c* = 0.3, pyridine). [Source](#): LIAO DONG CONG MU *Aralia elata*. [Ref](#): 760.



**1607 Aralia-saponin IX**

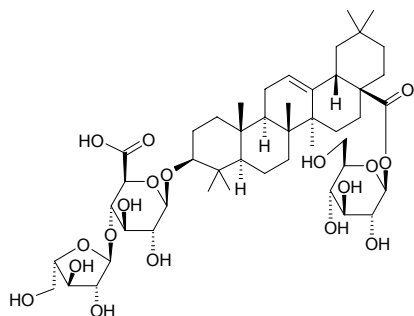
3-*O*-[ $\beta$ -*D*-Glucopyranosyl-(1 $\rightarrow$ 2)-[ $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 3)]- $\alpha$ -*L*-arabinopyranosyl]hederagenin 28-*O*- $\beta$ -*D*-glucopyranosyl ester C<sub>53</sub>H<sub>86</sub>O<sub>23</sub> (1091.26).

Colorless amorphous powder,  $[\alpha]_D^{20} = +13.3^\circ$  ( $c = 0.61$ , pyridine). Source: LIAO DONG CONG MU *Aralia elata*. Ref: 760.

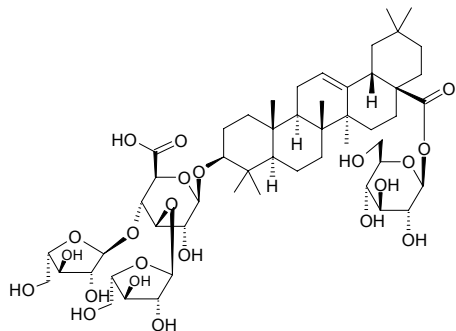
**1608 Araloside A**

Oleanoside E [7518-22-1] C<sub>47</sub>H<sub>74</sub>O<sub>18</sub> (927.10). Pharm: Used in treatment of neurosis (using the source plant LIAO DONG CONG MU, *Aralia elata*).

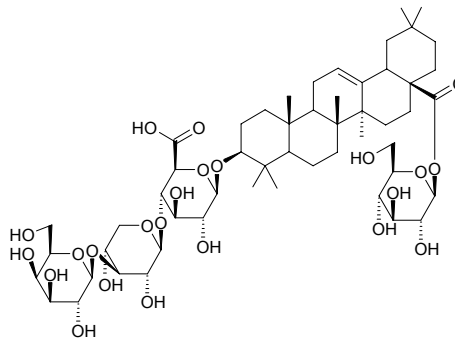
Source: LIAO DONG CONG MU *Aralia elata*, REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], CONG MU *Aralia chinensis*, TONG TUO MU *Tetrapanax papyriferus*, ZHU JIE SAN QI *Panax pseudo-ginseng* var. *japonicus*. Ref: 2, 6, 183, 235, 658.

**1609 Araloside B**

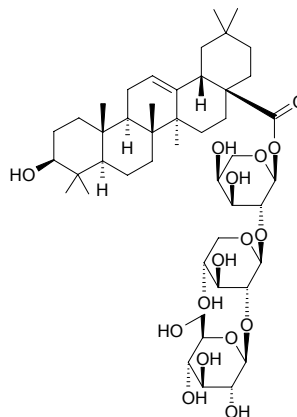
Oleanoside C [7518-23-2] C<sub>52</sub>H<sub>82</sub>O<sub>22</sub> (1059.22).  $[\alpha]_D^{20} = -16.5^\circ$  ( $c = 3.4$ , methanol). Pharm: Treatment of neurasthenic syndrome. Source: LIAO DONG CONG MU *Aralia elata*. Ref: 6, 235, 658, 661.

**1610 Araloside C**

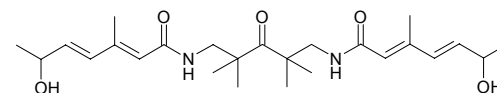
Oleanoside A C<sub>53</sub>H<sub>84</sub>O<sub>23</sub> (1089.25). Source: LIAO DONG CONG MU *Aralia elata*. Ref: 660.

**1611 Araloside D**

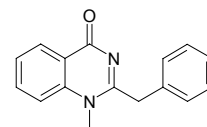
C<sub>46</sub>H<sub>74</sub>O<sub>16</sub> (883.09). White thin acicular powder, mp 157–158°C. Source: CONG MU *Aralia chinensis*. Ref: 183.

**1612 Arboreumine**

C<sub>25</sub>H<sub>40</sub>N<sub>2</sub>O<sub>5</sub> (448.61). Amorphous solid. Pharm: antifungal (*Cladosporium sphaerospermum*, determined by direct bioautography). Source: QIAO MU HU JIAO *Piper arboreum*, LIU TU HU JIAO *Piper tuberculatum*. Ref: 2016.

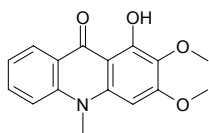
**1613 Arborine**

[6873-15-0] C<sub>16</sub>H<sub>14</sub>N<sub>2</sub>O (250.30). Pharm: Antihypophyseal (mus uterus assay); antihypertensive (reduces blood pressure due to CNS, inhibits peripheral action of acetylcholine). Source: CHOU CAO *Ruta graveolens*. Ref: 658.

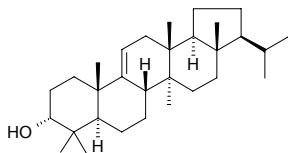


**1614 Arborinine**

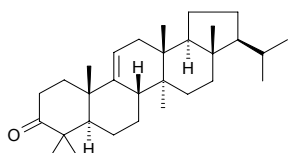
[5489-57-6] C<sub>16</sub>H<sub>15</sub>NO<sub>4</sub> (285.30). mp 175–176°C. **Pharm:** Antihistamine; anti-inflammatory; antispasmodic. **Source:** CHOU CAO *Ruta graveolens*. **Ref:** 6, 658.

**1615 Arborinol**

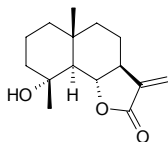
C<sub>30</sub>H<sub>50</sub>O (426.73). mp 274.0–274.5°C. **Source:** MAO CAO YE *Imperata cylindrica* var. *major*. **Ref:** 6.

**1616 Arborinone**

C<sub>30</sub>H<sub>48</sub>O (424.72). mp 214.0–214.5°C. **Source:** MAO CAO YE *Imperata cylindrica* var. *major*, JIN CAO *Hedyotis acutangula*. **Ref:** 6, 660.

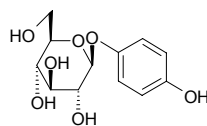
**1617 Arbusculin A**

[27652-22-8] C<sub>15</sub>H<sub>22</sub>O<sub>3</sub> (250.34). **Pharm:** Cytotoxic (*in vitro*, HepG<sub>2</sub>, CD<sub>50</sub> = 10 μg/mL; HeLa, CD<sub>50</sub> = 7.5 μg/mL; OVCAR-3, CD<sub>50</sub> = 7.5 μg/mL; control Cisplatin, HepG<sub>2</sub>, CD<sub>50</sub> = 2.8 μg/mL; HeLa, CD<sub>50</sub> = 5.2 μg/mL; OVCAR-3, CD<sub>50</sub> = 3 μg/mL; without significant antibacterial effect)<sup>[4720]</sup>; plant growth regulator. **Source:** BEI MEI AI HAO *Artemisia arbuscula*, MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*] (root: yield = 0.0015% dw)<sup>[4720]</sup>, SAN CHI HAO *Artemisia tridentata*. **Ref:** 658, 4720.

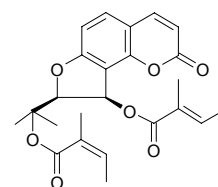
**1618 Arbutin**

[497-76-7] C<sub>12</sub>H<sub>16</sub>O<sub>7</sub> (272.26). Colorless acicular crystals, mp 200°C, [α]<sub>D</sub><sup>25</sup> = –64° (H<sub>2</sub>O), soluble in water, ethanol.<sup>[5507]</sup> **Pharm:** Antitussive; diuretic; antidiabetic, inhibits degradation of insulin (*in vitro*); tyrosinase inhibitor (mushroom tyrosinase, spectrophotometry method of Mason and Peterson, IC<sub>50</sub> = 24 mmol/L)<sup>[4653]</sup>; low toxin. **Source:** FEI CAI *Sedum aizoon*, HOU YE YAN BAI CAI *Bergenia crassifolia*, HU ER CAO *Saxifraga stolonifera*, JI SHI TENG *Paederia scandens*, LI YE *Pyrus bretschneideri*<sup>[5507]</sup>, LU XIAN CAO *Pyrola calliantha* [Syn. *Pyrola rotundifolia* ssp. *chinensis*] (stem: mean content in Sep. to Nov. = 2.21%; leaf: mean content in Sep. to Nov. = 7.00%)<sup>[5508]</sup>, QING MU XIANG *Aristolochia debilis* [Syn. *Aristolochia longa*], RI BEN LU TI CAO *Pyrola japonica*, SHA LI YE *Pyrus pyrifolia*, TIAN NIU ZHI *Origanum majorana*, XI YANG LI *Pyrus communis*, XIONG GUO *Arctostaphylos uva-ursi* (leaf: content scope = 4%–6%)<sup>[5507]</sup>, YAO YONG HEI MIAN SHEN YE *Breynia officinalis* (leaf), YE LI ZHI YE *Pyrus*

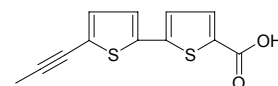
*calleryana*, YUAN YE LU TI CAO *Pyrola rotundifolia*, YUE JU YE *Vaccinium vitis-idaea* (leaf: content scope = 4%–6%)<sup>[5507]</sup>, content = 4.44%<sup>[5508]</sup>, ZHEN ZHU MEI *Sorbaria sorbifolia*. **Ref:** 4, 6, 658, 660, 2583, 5507, 5508.

**1619 Archangelicin**

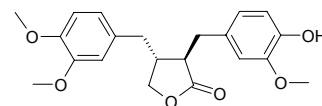
[2607-56-9] C<sub>24</sub>H<sub>26</sub>O<sub>7</sub> (426.47). mp 103–105°C. **Pharm:** Antispasmodic. **Source:** BING SHE CHUANG *Cnidium japonicum*, CHANG BIAN HUA DANG GUI *Angelica longeradiata*, KAI SHI DANG GUI *Angelica keiskei*, SHE CHUANG ZI *Cnidium monnieri*, YUAN DANG GUI *Angelica archangelica*. **Ref:** 6, 658.

**1620 Arctic acid**

[32155-99-0] C<sub>12</sub>H<sub>8</sub>O<sub>2</sub>S<sub>2</sub> (248.32). **Source:** NIU BANG GEN *Arctium lappa*. **Ref:** 6.

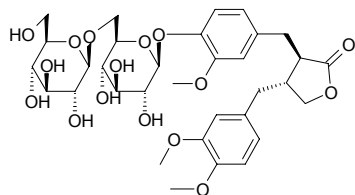
**1621 L-Arctigenin**

[7770-78-7] C<sub>21</sub>H<sub>24</sub>O<sub>6</sub> (372.42). mp [*cis*(–)] 102°C. **Pharm:** Antineoplastic (lymphoma); cyclo-adenyl mononucleotide phosphodiesterase inhibitor; aldose reductase inhibitor inactive (IC<sub>50</sub> > 100 μmol/L, 100 μmol/L InRt = 16%, control Epalrestat, IC<sub>50</sub> = 0.072 μmol/L)<sup>[4530]</sup>; cytotoxic (A549, ED<sub>50</sub> = 5.6 [μmol/L], ED<sub>50</sub> = 15.1 [μg/mL], control Adriamycin, ED<sub>50</sub> = 0.01 [μmol/L], ED<sub>50</sub> = 0.02 [μg/mL]; MCF7, ED<sub>50</sub> = 10.4 [μmol/L], ED<sub>50</sub> = 27.9 [μg/mL], Adriamycin, ED<sub>50</sub> = 0.1 [μmol/L], ED<sub>50</sub> = 0.1 [μg/mL]; HT29, ED<sub>50</sub> = 9.6 [μmol/L], ED<sub>50</sub> = 26.0 [μg/mL], Adriamycin, ED<sub>50</sub> = 0.1 [μmol/L], ED<sub>50</sub> = 0.1 [μg/mL])<sup>[5088]</sup>. **Source:** E SHEN *Anthriscus sylvestris*, JIN ZHONG HUA *Forsythia viridissima*, LIAO GE WANG GEN *Wikstroemia indica*, NIU BANG ZI *Arctium lappa* (dried ripe fruit: content scope of 11 origins = 0.049%–0.354%, mean content = 0.170%)<sup>[5508]</sup>, SHUI MU XUE LIAN HUA *Saussurea medusa* (dried whole herb: content = 0.708%)<sup>[5528]</sup>, TAI WAN SHAN *Taiwania cryptomerioides* (heartwood), WU ZHAO LONG *Ipomoea cairica* [Syn. *Ipomoea palmata*], XUE LIAN *Saussurea involucreta*. **Ref:** 6, 658, 660, 4530, 5088, 5499, 5508, 5528.

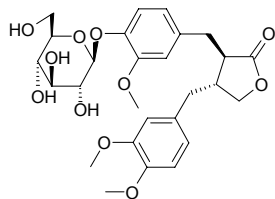


**1622 Arctigenin 4'-gentiobioside**

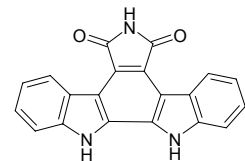
$C_{33}H_{44}O_{16}$  (696.71). Source: DA JIN NIU CAO *Polygala chinensis* [Syn. *Polygala glomerata*]. Ref: 6.

**1623 Arctiin**

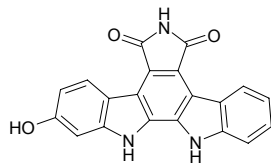
[20362-31-6]  $C_{27}H_{34}O_{11}$  (534.57). mp 111~112°C. Pharm: Aldose reductase. Inhibitor ( $IC_{50}$  = 20  $\mu$ mol/L, control Epalrestat,  $IC_{50}$  = 0.072  $\mu$ mol/L). Source: DA JIN NIU CAO *Polygala chinensis* [Syn. *Polygala glomerata*], JIN ZHONG HUA *Forsythia viridissima*, LUO SHI TENG *Trachelospermum jasminoides*, NIU BANG ZI *Arctium lappa* (dried ripe fruit: content scope = 1.49%~9.96%, mean content = 6.57%<sup>[5508]</sup>), SHUI MU XUE LIAN HUA *Saussurea medusa* (whole herb). Ref: 6, 7, 288, 660, 4530, 5501, 5508.

**1624 Arcyriaflavin A**

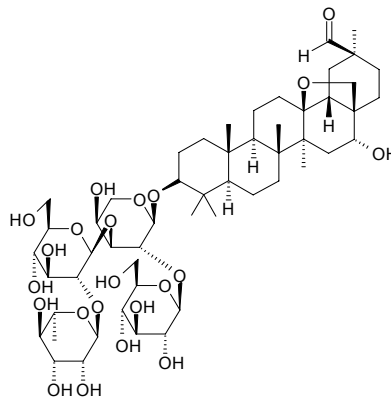
$C_{20}H_{11}N_3O_2$  (325.33). Pharm: Cytotoxic (HeLa cells,  $IC_{50}$  = 47.6  $\mu$ g/mL). Source: FEN LIU JUN *Lycogala epidendrum* (wild sporocarp). Ref: 4465.

**1625 Arcyriaflavin B**

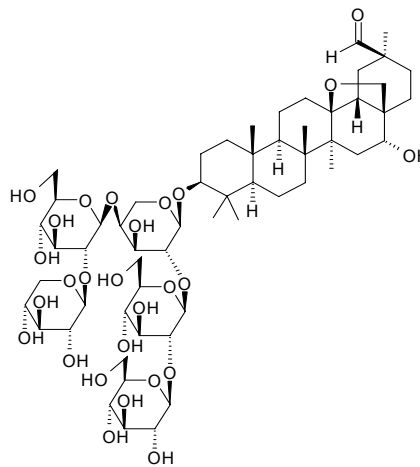
$C_{20}H_{11}N_3O_3$  (341.33). Pharm: Cytotoxic (HeLa cells,  $IC_{50}$  = 4.4  $\mu$ g/mL; KB-VIN,  $IC_{50}$  = 2.28  $\mu$ g/mL, no reversal effect of VCR resistance; a panel assay of 39 hmn cancer cell lines: NCI-H522 lung cancer cells,  $LC_{50}$  = 6.2  $\mu$ mol/L, DMS273 lung cancer cells,  $LC_{50}$  = 6.7  $\mu$ mol/L, BSY1 breast cancer cells,  $LC_{50}$  = 6.8  $\mu$ mol/L, SF539 CNS cancer cells,  $LC_{50}$  = 6.9  $\mu$ mol/L, SNB78 CNS cancer cells,  $LC_{50}$  = 51  $\mu$ mol/L, HT29 colon cancer cells,  $LC_{50}$  = 55  $\mu$ mol/L, NCI-H226 lung cancer cells,  $LC_{50}$  = 58  $\mu$ mol/L, MKN28 stomach cancer cells,  $LC_{50}$  = 55  $\mu$ mol/L). Source: HUI JIN SE TUAN WANG JUN *Arcyria cinerea* (wild sporocarp), FEN LIU JUN *Lycogala epidendrum* (wild sporocarp). Ref: 4465.

**1626 Ardipusilloside I**

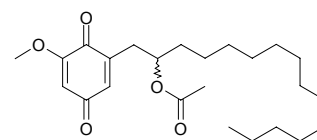
3-*O*-[ $\alpha$ -L-Rhamnopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 3)][ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)]- $\alpha$ -L-arabinopyranosyl cyclamiretin A [153127-34-5]  $C_{53}H_{86}O_{22}$  (1075.26). White acicular crystals, mp 239~241°C,  $[\alpha]_D^{22.8}$  = -26.6° ( $c$  = 0.93, MeOH). Pharm: Antineoplastic (S<sub>180</sub>, ESC and B16); immunoenhancer. Source: CHUAN CHAN JIU JIE LONG *Ardisia pusilla*. Ref: 276.

**1627 Ardipusilloside II**

3-*O*-[ $\alpha$ -L-Xylopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)][ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)]- $\alpha$ -L-rhamnopyranosyl cyclamiretin A [153127-35-6]  $C_{58}H_{94}O_{27}$  (1223.38). White powder, mp 279~281°C,  $[\alpha]_D^{22.5}$  = -21.91° ( $c$  = 0.79, C<sub>5</sub>H<sub>5</sub>N). Pharm: Antineoplastic (S<sub>180</sub>, ESC and B16); immunoenhancer. Source: CHUAN CHAN JIU JIE LONG *Ardisia pusilla*. Ref: 276.

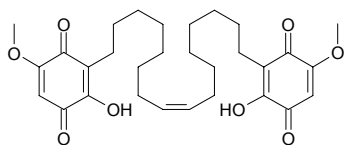
**1628 Ardisianone**

[66398-68-3]  $C_{24}H_{38}O_5$  (406.57). Pharm: Leukotriene inhibitor; antiasthmatic. Source: LUO SAN SHU *Ardisia quinquegona*, XIAN CHI ZI JIN NIU *Ardisia cornudentata*. Ref: 658.

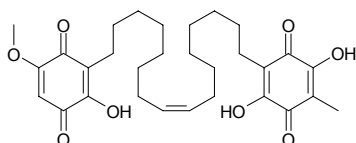


**1629 Ardisiaquinone A**

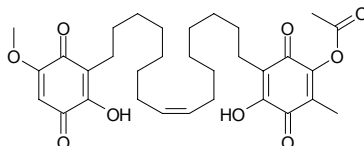
$C_{30}H_{40}O_8$  (528.65). Light yellow, mp 154°C. Source: DONG YA ZI JIN NIU *Ardisia sieboldii* (root cortex; in 1968 the compound was isolated from the plant by Hideco Ogawa et al.)<sup>[5505]</sup>. Ref: 5236, 5505.

**1630 Ardisiaquinone B**

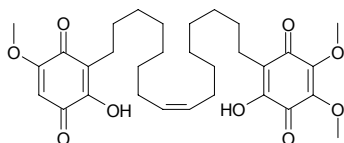
$C_{30}H_{40}O_8$  (528.65). Red, mp 119°C. Source: DONG YA ZI JIN NIU *Ardisia sieboldii* (root cortex; the compound was isolated from the plant by Hideco Ogawa et al. in 1968)<sup>[5505]</sup>. Ref: 5236, 5505.

**1631 Ardisiaquinone C**

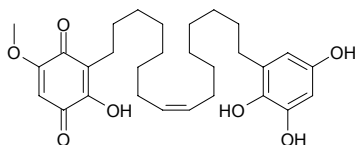
$C_{32}H_{42}O_9$  (570.69). Source: DONG YA ZI JIN NIU *Ardisia sieboldii* (root cortex). Ref: 5236.

**1632 Ardisiaquinone D**

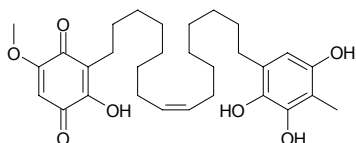
$C_{31}H_{42}O_9$  (558.67). Yellow amorphous powder. Source: DONG YA ZI JIN NIU *Ardisia sieboldii* (root cortex). Ref: 5236.

**1633 Ardisiaquinone E**

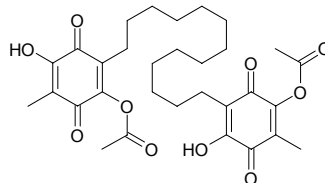
$C_{29}H_{40}O_7$  (500.64). Yellow amorphous powder. Source: DONG YA ZI JIN NIU *Ardisia sieboldii* (root cortex). Ref: 5236.

**1634 Ardisiaquinone F**

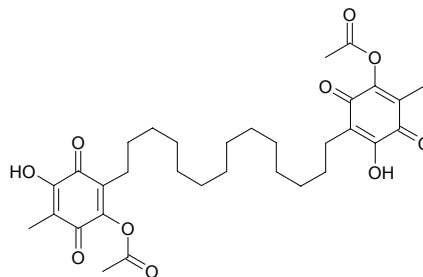
$C_{30}H_{42}O_7$  (514.67). Yellow amorphous powder. Source: DONG YA ZI JIN NIU *Ardisia sieboldii* (root cortex). Ref: 5236.

**1635 Ardisiaquinone G**

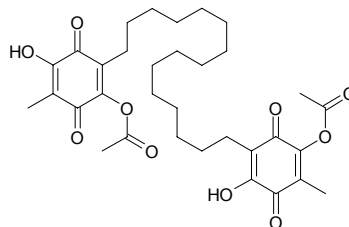
$C_{31}H_{40}O_{10}$  (572.66). Amorphous powder. Pharm: UDP-MurNac synthesis inhibitor (*in vitro*,  $IC_{50} = 35 \mu\text{mol/L}$ ); antibacterial inactive (disk diffusion assay, *Staphylococcus aureus*, *Staphylococcus sanguis*, *Escherichia coli*, *Pseudomonas aeruginosa*). Source: *Ardisia teysmanniana* (leaf). Ref: 5236.

**1636 Ardisiaquinone H**

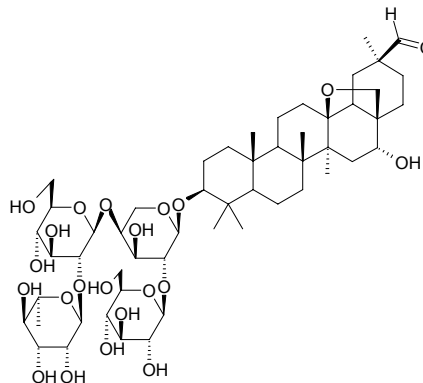
$C_{32}H_{42}O_{10}$  (586.69). Pharm: UDP-MurNac synthesis inhibitor (*in vitro*,  $IC_{50} = 26 \mu\text{mol/L}$ ); antibacterial inactive (disk diffusion assay, *Staphylococcus aureus*, *Staphylococcus sanguis*, *Escherichia coli*, *Pseudomonas aeruginosa*). Source: *Ardisia teysmanniana* (leaf). Ref: 5236.

**1637 Ardisiaquinone I**

$C_{33}H_{44}O_{10}$  (600.71). Pharm: UDP-MurNac synthesis inhibitor (*in vitro*,  $IC_{50} = 26 \mu\text{mol/L}$ ); antibacterial inactive (disk diffusion assay, *Staphylococcus aureus*, *Staphylococcus sanguis*, *Escherichia coli*, *Pseudomonas aeruginosa*). Source: *Ardisia teysmanniana* (leaf). Ref: 5236.

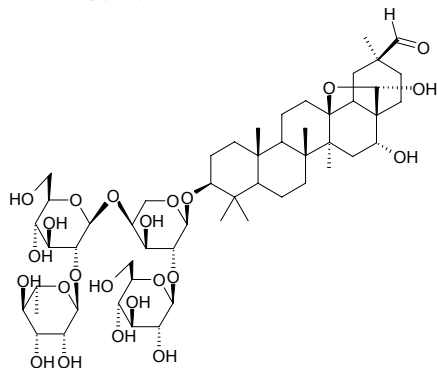
**1638 Ardisicrispin B**

$C_{53}H_{86}O_{22}$  (1075.26). Source: HU SHE HONG *Ardisia mamillata* [Syn. *Timus mamillata*] (root). Ref: 3990.

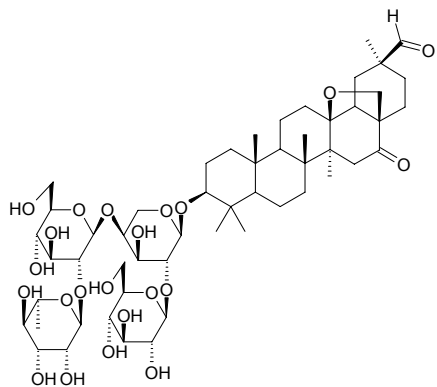


**1639 Ardisimamilloside A**

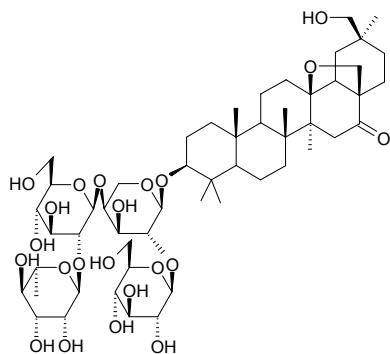
3-*O*-{ $\alpha$ -*L*-Rhamnopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 4)-[ $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 2)]- $\alpha$ -*L*-arabinopyranosyl}-3 $\beta$ ,16 $\alpha$ ,28 $\alpha$ -trihydroxy-13 $\beta$ ,28-epoxy-oleanan-30-al C<sub>53</sub>H<sub>86</sub>O<sub>23</sub> (1091.26). mp 235–236°C (dec), [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -20.9° (*c* = 0.23, MeOH). **Source:** HU SHE HONG *Ardisia mamillata* [Syn. *Tinus mamillata*] (root). **Ref:** 3990.

**1640 Ardisimamilloside B**

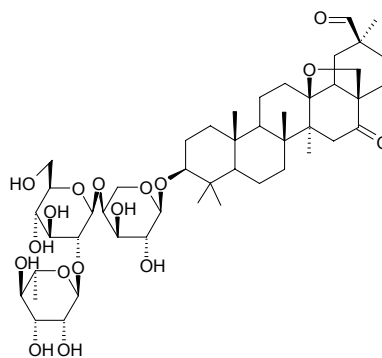
3-*O*-{ $\alpha$ -*L*-Rhamnopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 4)-[ $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 2)]- $\alpha$ -*L*-arabinopyranosyl}-3 $\beta$ -hydroxy-13 $\beta$ ,28-epoxy-oleanan-16-oxo-30-al C<sub>53</sub>H<sub>84</sub>O<sub>22</sub> (1073.25). mp 261–262°C (dec), [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -23.5° (*c* = 0.24, MeOH). **Source:** HU SHE HONG *Ardisia mamillata* [Syn. *Tinus mamillata*] (root). **Ref:** 3990.

**1641 Ardisimamilloside G**

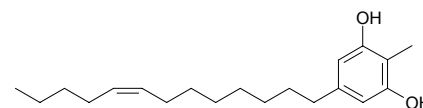
3-*O*-{ $\alpha$ -*L*-Rhamnopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 4)-[ $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 2)]- $\alpha$ -*L*-arabinopyranosyl}-13 $\beta$ ,28-epoxy-16-oxo-oleanan-3 $\beta$ ,30-diol C<sub>53</sub>H<sub>86</sub>O<sub>22</sub> (1075.26). [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -22.6° (*c* = 0.83, MeOH). **Source:** HU SHE HONG *Ardisia mamillata* [Syn. *Tinus mamillata*] (root). **Ref:** 4362.

**1642 Ardisimamilloside H**

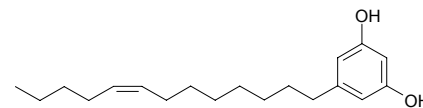
3-*O*-{ $\alpha$ -*L*-Rhamnopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 4)- $\alpha$ -*L*-arabinopyranosyl}-3 $\beta$ -hydroxy-13 $\beta$ ,28-epoxy-16-oxo-oleanan-30-al C<sub>47</sub>H<sub>74</sub>O<sub>17</sub> (911.10). [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -12.7° (*c* = 0.23, MeOH). **Source:** HU SHE HONG *Ardisia mamillata* [Syn. *Tinus mamillata*] (root). **Ref:** 4362.

**1643 Ardisinol I**

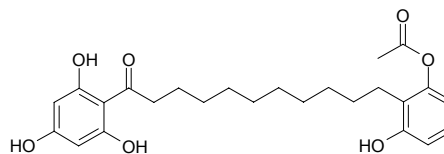
Ardisin [72629-62-0] C<sub>20</sub>H<sub>32</sub>O<sub>2</sub> (304.48). Lamellar crystals (petroleum ether), mp 46–47°C. **Pharm:** Antibacterial (*Mycobacterium tuberculosis*, 12.5 $\mu$ g/mL). **Source:** ZI JIN NIU *Ardisia japonica*. **Ref:** 658, 661.

**1644 Ardisinol II**

RouPELLIOL [62897-10-3] C<sub>19</sub>H<sub>30</sub>O<sub>2</sub> (290.45). Yellowish solid powder, mp 28–29°C. **Pharm:** Antibacterial (*Mycobacterium tuberculosis*, 25 $\mu$ g/mL). **Source:** ZI JIN NIU *Ardisia japonica*. **Ref:** 658, 661.

**1645 Ardisinone A**

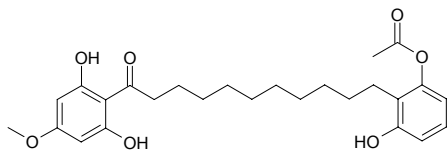
11-(2-Acetoxy-6-hydroxyphenyl)-1-(2,4,6-trihydroxyphenyl)-undecan-1-one C<sub>25</sub>H<sub>32</sub>O<sub>7</sub> (444.53). Pale yellow needles (CHCl<sub>3</sub>), mp 103–104°C. **Pharm:** Antibacterial (*in vitro* disk diffusion assay: *Mycobacterium smegmatis*, active; *Staphylococcus aureus*, slight active; *Bacillus subtilis*, slight active). **Source:** XIAO QIAO MU ZI JIN NIU *Ardisia arborescens* (whole herb: yield = 0.0015%dw). **Ref:** 4769.



**1646 Ardisinone B**

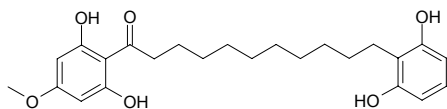
11-(2-Acetoxy-6-hydroxyphenyl)-1-(2,6-dihydroxy-4-methoxyphenyl)undecan-1-one C<sub>26</sub>H<sub>34</sub>O<sub>7</sub> (458.56). Pale yellow needles (CHCl<sub>3</sub>), mp 68~69°C.

**Pharm:** Antibacterial inactive (*in vitro* disk diffusion assay: *Mycobacterium smegmatis*, *Staphylococcus aureus*, *Bacillus subtilis*). **Source:** XIAO QIAO MU ZI JIN NIU *Ardisia arborescens* (whole herb: yield = 0.0045%dw). **Ref:** 4769.

**1647 Ardisinone C**

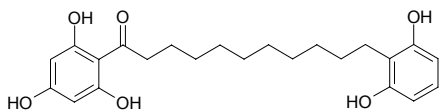
1-(2,6-Dihydroxy-4-methoxyphenyl)-11-(2,6-dihydroxyphenyl)undecan-1-one C<sub>24</sub>H<sub>32</sub>O<sub>6</sub> (416.52). White needles (CHCl<sub>3</sub>), mp 108~109°C. **Pharm:**

Antibacterial inactive (*in vitro* disk diffusion assay: *Mycobacterium smegmatis*, *Staphylococcus aureus*, *Bacillus subtilis*). **Source:** XIAO QIAO MU ZI JIN NIU *Ardisia arborescens* (whole herb: yield = 0.0030%dw). **Ref:** 4769.

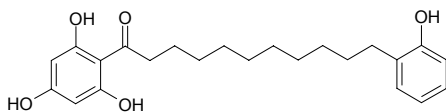
**1648 Ardisinone D**

1-(2,4,6-Trihydroxyphenyl)-11-(2,6-dihydroxyphenyl)undecan-1-one C<sub>22</sub>H<sub>30</sub>O<sub>6</sub> (402.49). Pale yellow needles (CHCl<sub>3</sub>), mp 67~68°C. **Pharm:**

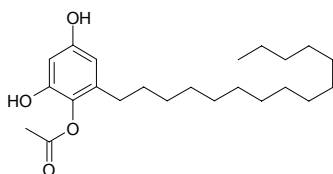
Antibacterial (*in vitro* disk diffusion assay: *Mycobacterium smegmatis*, active; *Staphylococcus aureus*, slight active; *Bacillus subtilis*, slight active). **Source:** XIAO QIAO MU ZI JIN NIU *Ardisia arborescens* (whole herb: yield = 0.0013%dw). **Ref:** 4769.

**1649 Ardisinone E**

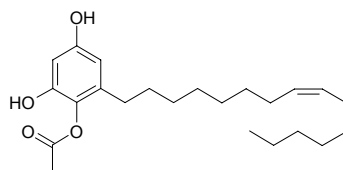
1-(2,4,6-Trihydroxyphenyl)-11-(2-hydroxyphenyl)undecan-1-one C<sub>23</sub>H<sub>30</sub>O<sub>5</sub> (386.49). White amorphous solid, mp 52~53°C. **Source:** XIAO QIAO MU ZI JIN NIU *Ardisia arborescens* (whole herb: yield = 0.00023%dw). **Ref:** 4769.

**1650 Ardisiphenol A**

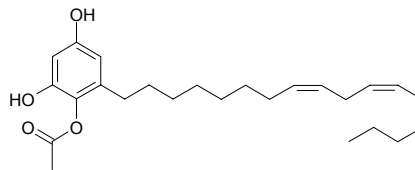
6-Pentadecyl-1,2,4-trihydroxybenzene-1-O-acetate C<sub>23</sub>H<sub>38</sub>O<sub>4</sub> (378.56). Colorless oil which darkens on exposure to air. **Pharm:** DPPH scavenger (60μmol/L, InRt = 47%, control Trolox, IC<sub>50</sub> = (25.4±0.8)μmol/L)<sup>[4244]</sup>; cytotoxic (murine breast cancer cell line FM3A, IC<sub>50</sub> = 1.8μmol/L)<sup>[4244]</sup>. **Source:** YOU SE ZI JIN NIU *Ardisia colorata* (fruit). **Ref:** 4244, 4152.

**1651 Ardisiphenol B**

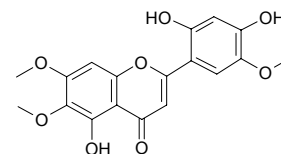
6-(8'Z-Pentadecenyl)-1,2,4-trihydroxybenzene-1-O-acetate C<sub>23</sub>H<sub>36</sub>O<sub>4</sub> (376.54). Colorless oil which darkens on exposure to air. **Pharm:** DPPH scavenger (60μmol/L, InRt = 51%, control Trolox, IC<sub>50</sub> = (25.4±0.8)μmol/L)<sup>[4244]</sup>; cytotoxic (murine breast cancer cell line FM3A, IC<sub>50</sub> = 1.2μmol/L)<sup>[4244]</sup>. **Source:** YOU SE ZI JIN NIU *Ardisia colorata* (fruit). **Ref:** 4244, 4152.

**1652 Ardisiphenol C**

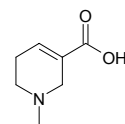
6-(8'Z,11'Z-Heptadecadienyl)-1,2,4-tetrahydroxybenzene-1-O-acetate C<sub>25</sub>H<sub>38</sub>O<sub>4</sub> (402.58). Colorless oil which darkens on exposure to air. **Pharm:** DPPH scavenger (60μmol/L, InRt = 51%, control Trolox, IC<sub>50</sub> = (25.4±0.8)μmol/L)<sup>[4244]</sup>; cytotoxic (murine breast cancer cell line FM3A, IC<sub>50</sub> = 0.5μmol/L)<sup>[4244]</sup>. **Source:** YOU SE ZI JIN NIU *Ardisia colorata* (fruit). **Ref:** 4244, 4152.

**1653 Areapillin**

5,2',4'-Trihydroxy-6,7,5'-trimethoxy flavone C<sub>18</sub>H<sub>16</sub>O<sub>8</sub> (360.32). **Source:** HUANG HUA HAO *Artemisia annua*, YIN CHEN HAO *Artemisia capillaris*. **Ref:** 2, 660.

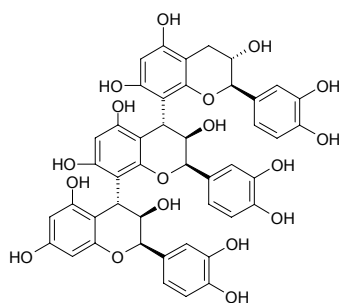
**1654 Arecaidine**

[499-04-7] C<sub>7</sub>H<sub>11</sub>NO<sub>2</sub> (141.17). mp 223~224°C (dec). **Pharm:** Astringent; CNS depressant (anesthetic cat, increases γ-propanaline and β-alanine to inhibit central nerve); inhibits englobement of γ-propanaline and β-alanine (cat, section of spinal cord); anthelmintic (tapeworms); causes miosis; induces sweatiness. **Source:** BING LANG *Areca catechu* (dried ripe seed: content scope 0.31%~0.66%, middle value = 0.49%<sup>[5508]</sup>). **Ref:** 2, 658, 5501, 5508.

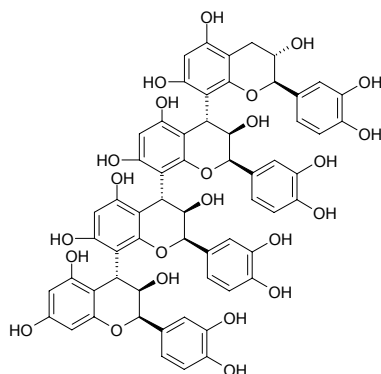


**1655 Arecatannin A<sub>1</sub>**

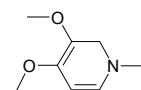
C<sub>45</sub>H<sub>38</sub>O<sub>18</sub> (866.79). Source: BING LANG *Areca catechu*, TAI DA SONG *Pinus taeda*. Ref: 660, 1521.

**1656 Arecatannin A<sub>2</sub>**

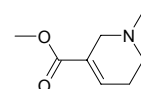
C<sub>60</sub>H<sub>50</sub>O<sub>24</sub> (1155.05). Source: BING LANG *Areca catechu*. Ref: 660, 1521.

**1657 Arecolidine**

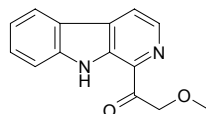
[57680-57-6] C<sub>8</sub>H<sub>13</sub>NO<sub>2</sub> (155.20). Source: BING LANG *Areca catechu*. Ref: 2.

**1658 Arecoline**

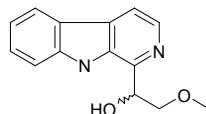
Arecoline; Methylarecaine; Methyl *N*-methyltetrahydronicotinate [63-75-2] C<sub>8</sub>H<sub>13</sub>NO<sub>2</sub> (155.20). Oleaginous liquid, bp 209°C, soluble in chloroform, complete miscibility with water, ethanol and ether.<sup>[5507]</sup> Pharm: Anthelmintic; cholinomimetic (CNS); bronchial smooth muscle stimulant; vasodilator; cholinergic (M-choline receptor agonist and N-choline receptor agonist); skeletal muscle and carotid stimulant; ganglionic stimulant; causes miosis; promotes intestinal motion; promotes platelet production in toxin dose; slows heart rate. Source: BING LANG *Areca catechu* (dried ripe seed: content scope = 0.30%~0.63%, middle value = 0.47%<sup>[5508]</sup>). Ref: 2, 4, 658, 5501, 5507, 5508.

**1659 Arenarine A**

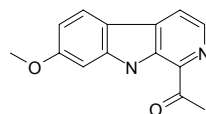
C<sub>14</sub>H<sub>12</sub>N<sub>2</sub>O<sub>2</sub> (240.26). Source: XUE LING ZHI *Arenaria kansuensis* [Syn. *Arenaria kumaonensis*]. Ref: 660.

**1660 Arenarine B**

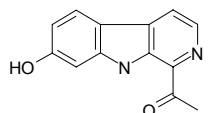
C<sub>14</sub>H<sub>14</sub>N<sub>2</sub>O<sub>2</sub> (242.28). Source: XUE LING ZHI *Arenaria kansuensis* [Syn. *Arenaria kumaonensis*]. Ref: 660.

**1661 Arenarine C**

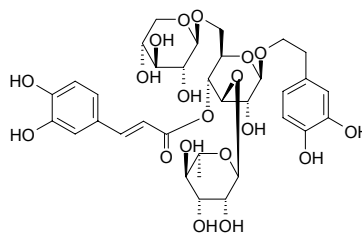
C<sub>14</sub>H<sub>12</sub>N<sub>2</sub>O<sub>2</sub> (240.26). Source: XUE LING ZHI *Arenaria kansuensis* [Syn. *Arenaria kumaonensis*]. Ref: 660.

**1662 Arenarine D**

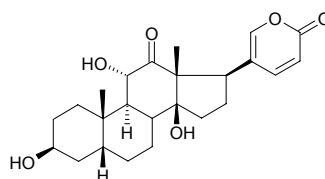
C<sub>13</sub>H<sub>10</sub>N<sub>2</sub>O<sub>2</sub> (226.24). Source: XUE LING ZHI *Arenaria kansuensis* [Syn. *Arenaria kumaonensis*]. Ref: 660.

**1663 Arenarioside**

C<sub>34</sub>H<sub>44</sub>O<sub>19</sub> (756.72). Pharm: Antioxidant (*in vitro* inhibits LDL peroxidation, Cu<sup>2+</sup>-induced and AAPH-induced); inhibits minimally oxidized LDL-induced cellular toxicity (cultured bovine aortic endothelial cells, BAEC). Source: OU XIA ZHI CAO *Marrubium vulgare* (aerial parts). Ref: 5370.

**1664 Arenobufagin**

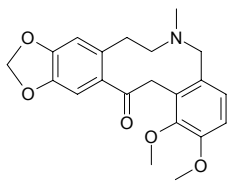
[464-74-4] C<sub>24</sub>H<sub>32</sub>O<sub>6</sub> (416.52). Source: CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus*. Ref: 2.



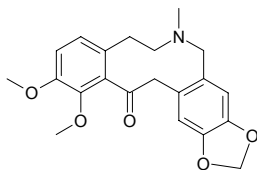


**1665 Argemexicaine A**

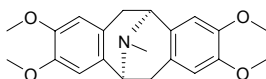
$C_{21}H_{23}NO_5$  (369.42). White powder, mp 158~160°C. Pharm: Anti-HIV inactive (H9 lymphocytes, control AZT,  $IC_{50}$  = 500 $\mu$ g/mL,  $EC_{50}$  = 0.0317 $\mu$ g/mL, TI = 15800). Source: JI YING SU *Argemone mexicana*. Ref: 5364.

**1666 Argemexicaine B**

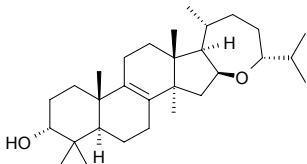
$C_{21}H_{23}NO_5$  (369.42). White powder, mp 131~133°C. Pharm: Anti-HIV inactive (H9 lymphocytes, control AZT,  $IC_{50}$  = 500 $\mu$ g/mL,  $EC_{50}$  = 0.0317 $\mu$ g/mL, TI = 15,800). Source: JI YING SU *Argemone mexicana*. Ref: 5364.

**1667 (-)-Argemonine**

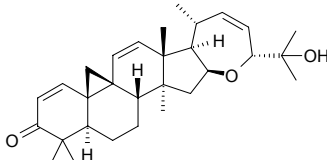
[6901-16-2]  $C_{21}H_{25}NO_4$  (355.44). Pharm: Analgesic; antiarrhythmic. Source: HOU KE GUI *Cryptocarya chinensis* (wood)<sup>[3092]</sup>, JI YING SU *Argemone mexicana*, XIAO TANG SONG CAO *Thalictrum minus*, YAN GUO CAO *Thalictrum thunbergii*, ZOU WEN TANG SONG CAO *Thalictrum rugosum*. Ref: 658, 3092.

**1668 Argentatin E**

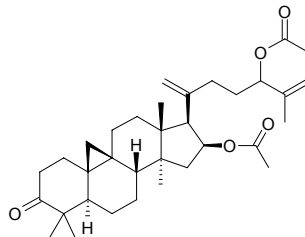
16,24-Epoxy-3 $\alpha$ -hydroxylanost-8-ene  $C_{30}H_{52}O_2$  (442.73). Needles, mp 168~170°C,  $[\alpha]_D^{25}$  = -45° ( $c$  = 2.0,  $CH_2Cl_2$ ). Source: ZA JIAO YIN JIAO JU *Parthenium argentatum* x *P. Tomentosa*. Ref: 1967.

**1669 Argentatin F**

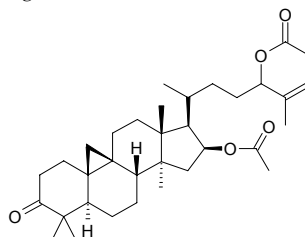
16,24-Epoxy-25-hydroxycycloart-1,11,22-trien-3-one  $C_{30}H_{42}O_3$  (450.67). Solid gum,  $[\alpha]_D^{25}$  = +3.5° ( $c$  = 2.0,  $CH_2Cl_2$ ). Source: ZA JIAO YIN JIAO JU *Parthenium argentatum* x *P. Tomentosa*. Ref: 1967.

**1670 Argentatin G**

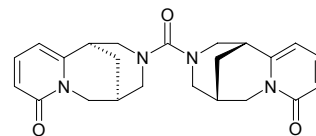
16,24-Dihydroxycycloart-20,25-dien-3-one diacetate  $C_{34}H_{50}O_5$  (538.77). A solid gum,  $[\alpha]_D^{25}$  = +25.6° ( $c$  = 2.5,  $CH_2Cl_2$ ). Source: ZA JIAO YIN JIAO JU *Parthenium argentatum* x *P. Tomentosa*. Ref: 1967.

**1671 Argentatin H**

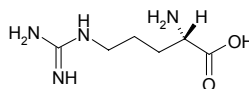
16,24-Dihydroxycycloart-25-en-3-one  $C_{34}H_{52}O_3$  (540.79). A solid gum,  $[\alpha]_D^{25}$  = +18.2° ( $c$  = 2.5,  $CH_2Cl_2$ ). Source: ZA JIAO YIN JIAO JU *Parthenium argentatum* x *P. Tomentosa*. Ref: 1967.

**1672 Argentine**

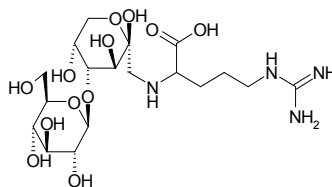
[37551-61-4]  $C_{23}H_{26}N_4O_3$  (406.49). Source: MU MA DOU *Thermopsis lanceolata*. Ref: 6.

**1673 L-Arginine**

[74-79-3]  $C_6H_{14}N_4O_2$  (174.20). Pharm: Reduces ammonia in blood; pituitary stimulant (stimulates hypophysis to release somatotropin); used in treatment of liver coma. Source: BAN XIA *Pinellia ternata* (dried tuber: content scope of 4 origins = 0.48%~1.25%, mean content = 1.01%)<sup>[5521]</sup>, HU LU BA *Trigonella foenum-graecum*, MU XU *Medicago sativa*, XIAO BAI BU *Asparagus officinalis*, YI YE JIA FAN LV *Pseudostellaria heterophylla* (tuberosid: mean content of 5 origins = 0.6421%)<sup>[5508]</sup>. Ref: 658, 5508, 5521.

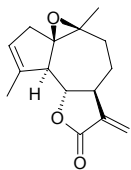
**1674 Argininyl-fructosyl-glucose**

$C_{18}H_{34}N_4O_{12}$  (498.49). White powder, mp 158~160°C. Source: REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. Ref: 348.

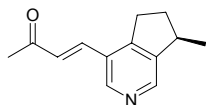


**1675 Arglabin**

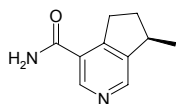
$C_{15}H_{18}O_3$  (246.31). Source: WU MAO HAO *Artemisia glabella*, YI KUA *Artemisia myriantha* (aerial parts). Ref: 1521, 4618.

**1676 Argutine A**

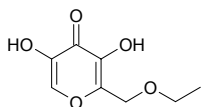
$C_{13}H_{15}NO$  (201.27). White powder, mp 167–169°C,  $[\alpha]_D^{20} = +17.10^\circ$  ( $c = 0.60$ ,  $CHCl_3$ ). Source: MA TONG HUA *Incarvillea arguta*. Ref: 2185.

**1677 Argutine B**

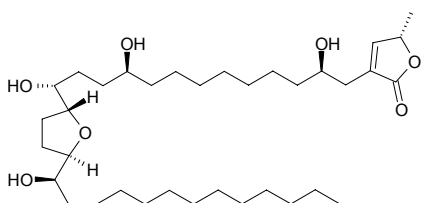
$C_{10}H_{12}N_2O$  (176.22). Colorless oil liquid,  $[\alpha]_D^{20} = +16.37^\circ$  ( $c = 0.58$ ,  $CHCl_3$ ). Source: MA TONG HUA *Incarvillea arguta*. Ref: 2185.

**1678 Argutone**

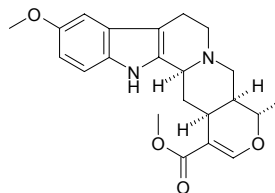
2-Ethoxymethylene-3,5-dihydroxy- $\gamma$ -pyrone  $C_8H_{10}O_5$  (186.17). Colorless acicular crystals, mp 94°C (sub), easily soluble in chloroform, methanol, soluble in benzene, ether, acetone, acetic ester and ethanol, insoluble in water. Source: MA TONG HUA *Incarvillea arguta*. Ref: 85.

**1679 Arianacin**

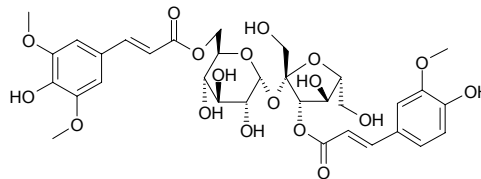
[172430-57-8]  $C_{35}H_{64}O_7$  (596.90). White amorphous powder, mp 64°C,  $[\alpha]_D^{25} = +12.5^\circ$  ( $c = 0.14$ ). Pharm: Cytotoxic (BST,  $LC_{50} = 7.1 \mu g/mL$ , PD, InRt = 26%, A549 *in vitro*,  $IC_{50} = 0.0047 \mu g/mL$ , MCF7 *in vitro*,  $IC_{50} = 0.4 \mu g/mL$ , HT29 *in vitro*,  $IC_{50} = 4.4 \mu g/mL$ ). Source: CI GUO FAN LI ZHI *Annona muricata*. Ref: 1062.

**1680 Aricine**

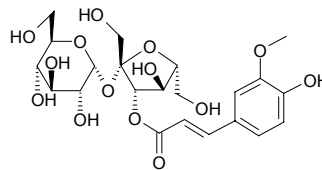
[482-91-7]  $C_{22}H_{26}N_2O_4$  (382.46). mp 188–189°C. Source: CUI TU LUO FU *MU Rauwolfia vomitoria*, JIN JI LE *Cinchona ledgeriana*, LUO FU MU JING YE *Rauwolfia verticillata*. Ref: 6, 660.

**1681 Arillanin A**

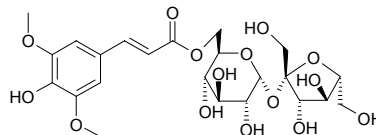
$C_{33}H_{40}O_{18}$  (742.68).  $[\alpha]_D = -88.4^\circ$ . Source: HUANG HUA YUAN ZHI *Polygala arillata*. Ref: 2184.

**1682 Arillanin B**

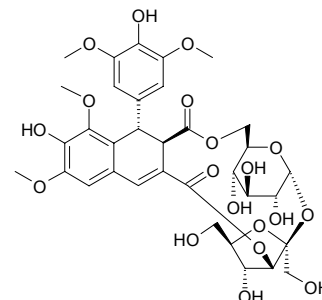
Sibiricose A<sub>5</sub>  $C_{22}H_{30}O_{14}$  (518.48). Amorphous powder;  $[\alpha]_D^{23} = -6^\circ$  ( $c = 2.27$ , MeOH);  $[\alpha]_D = +12.7^\circ$ . Source: HUANG HUA YUAN ZHI *Polygala arillata*, XI BO LI YA YUAN ZHI *Polygala sibirica*. Ref: 691, 2184.

**1683 Arillanin C**

Sibiricose A<sub>1</sub>  $C_{23}H_{32}O_{15}$  (548.50). Amorphous powder;  $[\alpha]_D^{23} = +18^\circ$  ( $c = 4.36$ , MeOH);  $[\alpha]_D = +37.2^\circ$ . Source: HUANG HUA YUAN ZHI *Polygala arillata*, XI BO LI YA YUAN ZHI *Polygala sibirica*. Ref: 691, 2184.

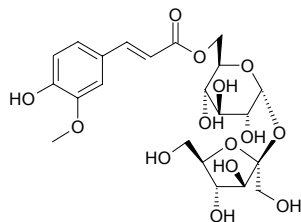
**1684 Arillatose A**

$C_{34}H_{40}O_{19}$  (752.69). Amorphous Powder,  $[\alpha]_D^{27} = +25.1^\circ$  ( $c = 0.12$ , MeOH). Source: HUANG HUA YUAN ZHI *Polygala arillata*. Ref: 1521.

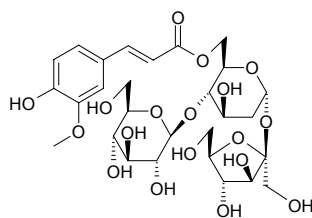


**1685 Arillatose B**

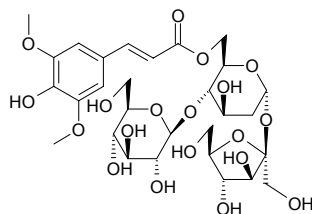
$C_{22}H_{30}O_{14}$  (518.48).  $[\alpha]_D = +15.8^\circ$ . Source: HUANG HUA YUAN ZHI *Polygala arillata*. Ref: 2184.

**1686 Arillatose C**

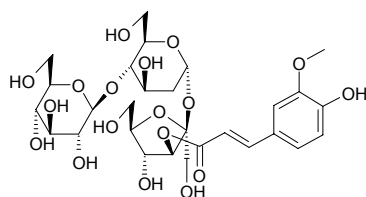
$C_{28}H_{40}O_{18}$  (664.62).  $[\alpha]_D = +15.8^\circ$ . Source: HUANG HUA YUAN ZHI *Polygala arillata*. Ref: 2184.

**1687 Arillatose D**

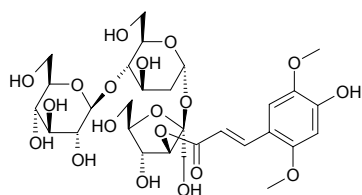
$C_{29}H_{42}O_{19}$  (694.65).  $[\alpha]_D = +2.0^\circ$ . Source: HUANG HUA YUAN ZHI *Polygala arillata*. Ref: 2184.

**1688 Arillatose E**

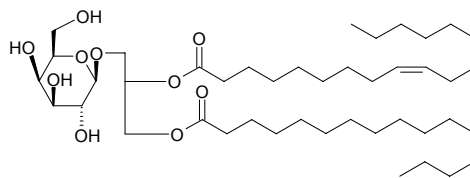
$C_{28}H_{40}O_{18}$  (664.62).  $[\alpha]_D = -20.6^\circ$ . Source: HUANG HUA YUAN ZHI *Polygala arillata*. Ref: 2184.

**1689 Arillatose F**

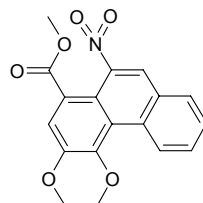
$C_{29}H_{42}O_{19}$  (694.65).  $[\alpha]_D = -4.5^\circ$ . Source: HUANG HUA YUAN ZHI *Polygala arillata*. Ref: 2184.

**1690 Arisaema glyceride 3**

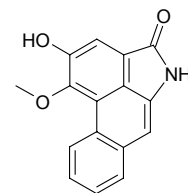
$C_{43}H_{80}O_{10}$  (757.11). Source: LIAO DONG CONG MU YE *Aralia elata*. Ref: 4471.

**1691 Ariskanin A**

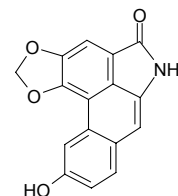
Aristolochic acid BII methyl ester [128397-31-9]  $C_{18}H_{15}NO_6$  (341.32). Yellow acicular crystals ( $CHCl_3$ ), mp 123~124°C, 283°C. Pharm: Cytotoxic ( $P_{388}$  *in vitro*,  $ED_{50} = 1.5\mu g/mL$ ; HT29,  $ED_{50} = 8.0\mu g/mL$ ; HL-60,  $ED_{50} = 9.3\mu g/mL$ ); platelet aggregation inhibitor (*in vitro*, caused by arachidonic acid, collagen and PAF, 100 $\mu g/mL$ , InRt = 100%, 76.2% and 61.2%, respectively). Source: GUAN MU TONG *Aristolochia manshuriensis*, MU TONG *Akebia quinata*, MA DOU LING *Aristolochia debilis* [Syn. *Aristolochia longa*]. Ref: 334, 1128.

**1692 Aristolactam AII**

$C_{16}H_{11}NO_3$  (265.27). Source: GUAN MU TONG *Aristolochia manshuriensis* (stem: yield = 0.00002%)<sup>[4706]</sup>, MIAN MAO MA DOU LING *Aristolochia mollissima* (dried root and stem: yield = 0.00062%dw)<sup>[3206]</sup>, SAN BAI CAO *Saururus chinensis* (aerial parts). Ref: 3026, 4706, 4968.

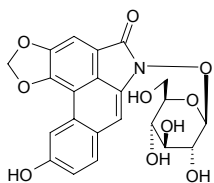
**1693 Aristolactam AIIIa**

3,4-Methylenedioxy-10-hydroxy aristolactam  $C_{16}H_9NO_4$  (279.25). Source: KUAI JING MA DOU LING *Aristolochia tuberosa*, MIAN MAO MA DOU LING *Aristolochia mollissima* (dried root and stem: yield = 0.00062%dw). Ref: 1317, 1318, 3026.

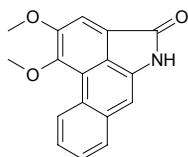


**1694 Aristolactam AIIIa N-β-D-glucoside**

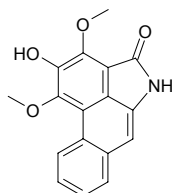
Aristolactam C N-glucoside C<sub>22</sub>H<sub>19</sub>NO<sub>10</sub> (457.40). Source: MIAN MAO MA DOU LING *Aristolochia mollissima* (dried root and stem: yield = 0.00062%dw). Ref: 3026.

**1695 Aristolactam BII**

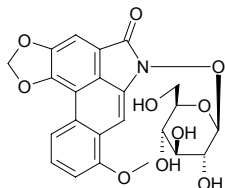
Cepharanone B C<sub>17</sub>H<sub>13</sub>NO<sub>3</sub> (279.30). Pharm: Neuroprotective (glutamate-injured primary cultures of rat cortical cells, nitric oxide production inhibitor)<sup>[4968]</sup>. Source: SAN BAI CAO *Saururus chinensis* (aerial parts), TAI WAN HU JIAO *Piper taiwanense* (stem), YU XING CAO *Houttuynia cordata*. Ref: 2428, 4938, 4968.

**1696 Aristolactam FII**

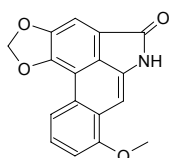
C<sub>17</sub>H<sub>13</sub>NO<sub>4</sub> (295.30). Source: TAI WAN GE NA XIANG *Goniothalamus amuyon* (fresh leaf: yield = 0.00012%fw; stem: yield = 0.00005%fw). Ref: 4686.

**1697 Aristolactam-N-β-D-glucoside**

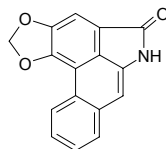
C<sub>23</sub>H<sub>21</sub>NO<sub>10</sub> (471.42). Source: MIAN MAO MA DOU LING *Aristolochia mollissima* (dried root and stem: yield = 0.015%dw). Ref: 3026.

**1698 Aristolactam I**

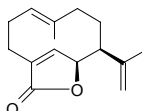
Aristolactam C<sub>17</sub>H<sub>11</sub>NO<sub>4</sub> (293.28). Source: GUAN MU TONG *Aristolochia manshuriensis* (stem: yield = 0.00064%), GUANG FANG JI *Aristolochia fangchi*, MIAN MAO MA DOU LING *Aristolochia mollissima*, RU LAN *Stephania hernandifolia*. Ref: 660, 4706.

**1699 Aristolactam II**

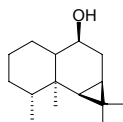
C<sub>16</sub>H<sub>9</sub>NO<sub>3</sub> (263.26). Pharm: Anti-HIV inactive (*in vitro*, acutely infected H-9 lymphocyte cells); cytotoxic inactive (*in vitro*, MCF7 and A549). Source: GUAN MU TONG *Aristolochia manshuriensis* (stem: yield = 0.00083%). Ref: 4706.

**1700 Aristolactone**

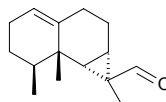
C<sub>15</sub>H<sub>20</sub>O<sub>2</sub> (232.33). Source: MIAN MAO MA DOU LING *Aristolochia mollissima* (dried root and stem: yield = 0.015%dw)<sup>[3026]</sup>. Ref: 660, 3026.

**1701 Aristolan-9β-ol**

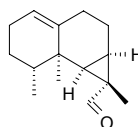
C<sub>15</sub>H<sub>26</sub>O (222.37). Source: GAN SONG *Nardostachys chinensis*. Ref: 660.

**1702 (-)-Aristol-1(10)-en-12-al**

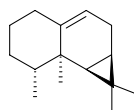
C<sub>15</sub>H<sub>22</sub>O (218.34). Colorless oil. Source: RI BEN BIAN TAI *Bazzania japonica*. Ref: 3399.

**1703 Aristol-1(10)-en-12-al**

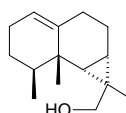
[94271-19-9] C<sub>15</sub>H<sub>22</sub>O (218.34). Crystals (C<sub>2</sub>H<sub>5</sub>OH), mp 65°C. Source: MA DOU LING *Aristolochia debilis* [Syn. *Aristolochia longa*]. Ref: 1521.

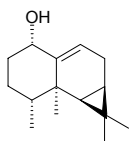
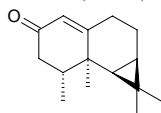
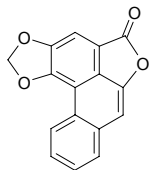
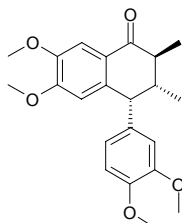
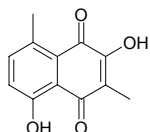
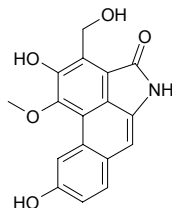
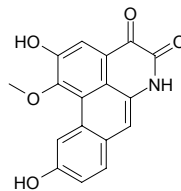
**1704 9-Aristolene**

Aristolene C<sub>15</sub>H<sub>24</sub> (204.36). Source: GAN SONG *Nardostachys chinensis*. Ref: 6.

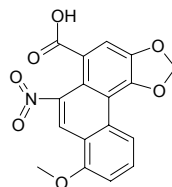
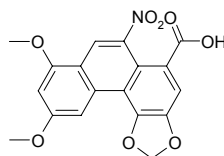
**1705 (-)-Aristol-1(10)-en-12-ol**

C<sub>15</sub>H<sub>24</sub>O (220.36). Colorless oil. Source: RI BEN BIAN TAI *Bazzania japonica*. Ref: 3399.



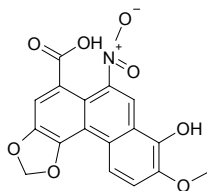
**1706 9-Aristolene-1- $\alpha$ -ol**[26128-14-3] C<sub>15</sub>H<sub>24</sub>O (220.36). Source: GAN SONG *Nardostachys chinensis*.Ref: 6.**1707 1(10)-Aristolene-2-one**C<sub>15</sub>H<sub>22</sub>O (218.34). Source: GAN SONG *Nardostachys chinensis*. Ref: 6.**1708 Aristolide B**C<sub>16</sub>H<sub>8</sub>O<sub>4</sub> (264.24). Source: GUAN MU TONG *Aristolochia manshuriensis* (stem: yield = 0.00015%). Ref: 4706.**1709 (-)-Aristoligone**(7'R,8S,8'R)-8,8'-Dimethyl-3',4',4,5-tetramethoxy-2,7'-cyclo lignan-7-one C<sub>22</sub>H<sub>26</sub>O<sub>5</sub> (370.45). Amorphous yellow solid, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -206.4° (c = 0.72, CHCl<sub>3</sub>). Source: *Aristolochia* sp. *Holostylis reniformis* (root). Ref: 3784.**1710 Aristolindiquinone**[86533-36-0] C<sub>12</sub>H<sub>10</sub>O<sub>4</sub> (218.21). Pharm: Contraceptive. Source: YIN DU MA DOU LING *Aristolochia indica*. Ref: 658.**1711 Aristoliukine A**C<sub>17</sub>H<sub>13</sub>NO<sub>5</sub> (311.30). Source: MIAN MAO MA DOU LING *Aristolochia mollissima* (dried root and stem: yield = 0.00031%dw)<sup>[3026]</sup>. Ref: 3026.**1712 Aristoliukine B**C<sub>17</sub>H<sub>11</sub>NO<sub>5</sub> (309.28). Source: MIAN MAO MA DOU LING *Aristolochia mollissima* (dried root and stem: yield = 0.00031%dw). Ref: 3026.**1713 Aristolochic acid**

Aristolochic acid A; Aristolochic acid I [313-67-7] C<sub>17</sub>H<sub>11</sub>NO<sub>7</sub> (341.28). Lustrous brown leaflike crystals (dimethylformamide–water), mp 281–286°C (dec), 287–292°C (dec); bright yellow, mp 274°C. Pharm: Causes acute glomerulus necrosis; carcinogen; mutagen; immunoenhancer; anti-HIV inactive (*in vitro*, acutely infected H-9 lymphocyte cells)<sup>[4706]</sup>; cytotoxic inactive (*in vitro*, MCF7 and A549)<sup>[4706]</sup>; LD<sub>50</sub> (mus, iv) = 60mg/kg. Source: BEI MA DOU LING *Aristolochia contorta* (dried ripe fruit: mean content = 0.171%<sup>[5508]</sup>), BEI MA DOU LING GEN *Aristolochia contorta*, GUAN MU TONG *Aristolochia manshuriensis* (lianoid stem: mean content of 7 origins = 0.052%<sup>[5508]</sup>; yield = 0.039%<sup>[4706]</sup>), GUANG FANG JI *Aristolochia fangchi* (dried root: content scope of 5 origins = 0.93%–3.66%, mean content = 1.50%<sup>[5508]</sup>), HAN CHENG XI XIN *Asarum sieboldii* var. *seoulensis* (dried whole herb: content = 0.00063%<sup>[5508]</sup>), HAN FANG JI *Aristolochia heterophylla* (dried ripe fruit: mean content = 0.1637%<sup>[5508]</sup>), HUAI TONG *Aristolochia moupinensis*, JIA NA DA XI XIN *Asarum canadense*, KUAI JING MA DOU LING *Aristolochia tuberosa*, LIAO XI XIN *Asarum heterotropoides* var. *mandshuricum* (dried whole herb: content = 0.00098%<sup>[5508]</sup>), MA DOU LING *Aristolochia debilis* [Syn. *Aristolochia longa*] (dried ripe fruit: mean content = 0.139%<sup>[5508]</sup>; in 1963 the compound was isolated from the plant by H. Mitsuhashi et al.<sup>[5505]</sup>), MIAN MAO MA DOU LING *Aristolochia mollissima* (dried ripe fruit: mean content = 0.0465%<sup>[5508]</sup>; dried root and stem: yield = 0.071%dw<sup>[3026]</sup>), QING MU XIANG *Aristolochia debilis* [Syn. *Aristolochia longa*] (root: content scope = 0.049%–0.668%<sup>[5501]</sup>), XI XIN *Asarum sieboldii* (dried whole herb: content = 0.00114%<sup>[5508]</sup>), YIN DU MA DOU LING *Aristolochia indica*, ZHU SHA LIAN *Aristolochia kaempferi*. Ref: 6, 334, 517, 660, 658, 661, 3026, 4706, 5501, 5505, 5508.

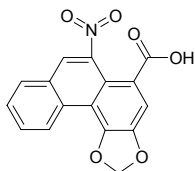
**1714 Aristolochic acid D methyl ether**C<sub>18</sub>H<sub>13</sub>NO<sub>8</sub> (371.31). Source: QING MU XIANG *Aristolochia debilis* [Syn. *Aristolochia longa*]. Ref: 660.

**1715 Aristolochic acid E**

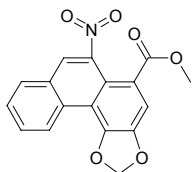
$C_{17}H_{11}NO_8$  (357.28). Red trapezoid crystals, mp 263°C. Source: BEI MA DOU LING *Aristolochia contorta*. Ref: 64.

**1716 Aristolochic acid II**

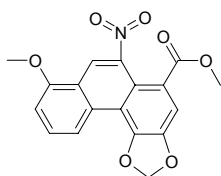
Aristolochic acid B  $C_{16}H_9NO_6$  (311.25). Source: GUAN MU TONG *Aristolochia manshuriensis* (stem: yield = 0.00004%)<sup>[4706]</sup>, MIAN MAO MA DOU LING *Aristolochia mollissima* (dried root and stem: yield = 0.00099%dw)<sup>[3026]</sup>. Ref: 3026, 4706.

**1717 Aristolochic acid II methyl ester**

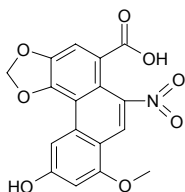
$C_{17}H_{11}NO_6$  (325.28). Source: GUAN MU TONG *Aristolochia manshuriensis* (stem: yield = 0.00002%). Ref: 4706.

**1718 Aristolochic acid I methyl ester**

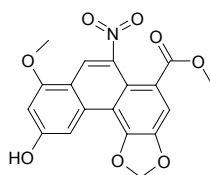
$C_{18}H_{13}NO_7$  (355.31). Pharm: Anti-HIV inactive (*in vitro*, acutely infected H-9 lymphocyte cells); cytotoxic inactive (*in vitro*, MCF7 and A549). Source: GUAN MU TONG *Aristolochia manshuriensis* (stem: yield = 0.0034%). Ref: 4706.

**1719 Aristolochic acid IVa**

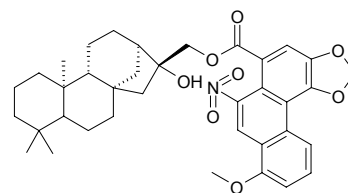
$C_{17}H_{11}NO_8$  (357.28). Source: MIAN MAO MA DOU LING *Aristolochia mollissima* (dried root and stem: yield = 0.0037%dw). Ref: 3026.

**1720 Aristolochic acid IVa methyl ester**

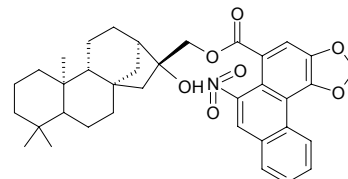
$C_{18}H_{13}NO_8$  (371.31). Source: GUAN MU TONG *Aristolochia manshuriensis* (stem: yield = 0.00080%). Ref: 4706.

**1721 Aristoloin I**

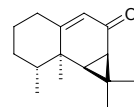
16 $\alpha$ -Hydroxy-*ent*-17-kauranyl aristolochate I  $C_{37}H_{43}NO_8$  (629.76). Amorphous yellow solid,  $[\alpha]_D^{25} = -42.1^\circ$  ( $c = 0.20$ ,  $CHCl_3$ ). Source: DUAN ROU MAO MA DOU LING *Aristolochia pubescens*. Ref: 3428.

**1722 Aristoloin II**

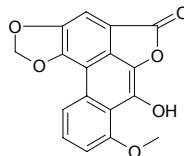
16 $\alpha$ -Hydroxy-*ent*-17-kauranyl aristolochate II  $C_{36}H_{41}NO_7$  (599.73). Amorphous yellow solid,  $[\alpha]_D^{25} = -53.4^\circ$  ( $c = 0.16$ ,  $CHCl_3$ ). Source: DUAN ROU MAO MA DOU LING *Aristolochia pubescens*. Ref: 3428.

**1723 Aristolone**

$C_{15}H_{22}O$  (218.34). Source: SHAN ZHU YU *Cornus officinalis* [Syn. *Macrocarpum officinale*]. Ref: 660.

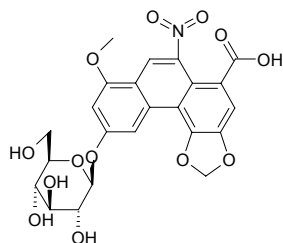
**1724 Aristolophenanlactone I**

9,10-Dihydroxy-8-methoxy-3,4-methylenedioxy-phenanthrene-1-carboxylic acid lactone  $C_{17}H_{10}O_6$  (310.27). Bright yellow solid, mp 278°C. Source: GUAN HUA MA DOU LING *Aristolochia tubiflora*. Ref: 332.

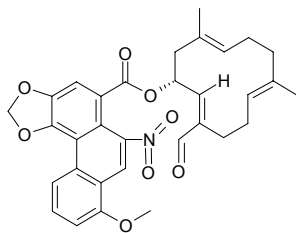


**1725 Aristoloides**

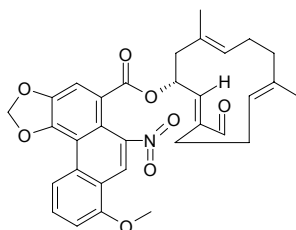
10-*O*-Glucopyranoside aristolochic acid D C<sub>23</sub>H<sub>21</sub>NO<sub>13</sub> (519.42). **Pharm:** Anti-HIV inactive (*in vitro*, acutely infected H-9 lymphocyte cells); cytotoxic inactive (*in vitro*, MCF7 and A549). **Source:** GUAN MU TONG *Aristolochia manshuriensis* (stem: yield = 0.00094%). **Ref:** 660, 4706.

**1726 Aristoloterpenate**

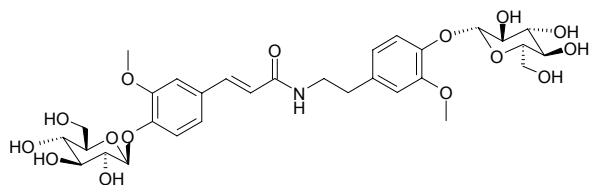
C<sub>32</sub>H<sub>31</sub>NO<sub>8</sub> (557.61). Thin yellow acicular crystals, mp 259°C (CHCl<sub>3</sub>-MeOH). **Source:** MIAN MAO MA DOU LING *Aristolochia mollissima* (dried root and stem: yield = 0.0019%dw)<sup>[3026]</sup>. **Ref:** 358, 3026.

**1727 Aristoloterpenate III**

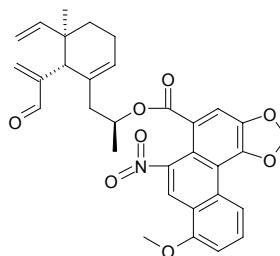
C<sub>32</sub>H<sub>31</sub>NO<sub>8</sub> (557.61). **Source:** MIAN MAO MA DOU LING *Aristolochia mollissima* (dried root and stem: yield = 0.00049%dw). **Ref:** 3026.

**1728 Aristomanoside**

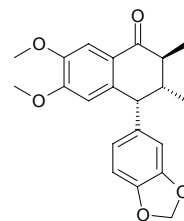
C<sub>31</sub>H<sub>41</sub>NO<sub>15</sub> (667.67). Yellow amorphous powder (CHCl<sub>3</sub>-CH<sub>3</sub>OH), mp 195-197°C. **Pharm:** Anti-HIV inactive (*in vitro*, acutely infected H-9 lymphocyte cells); cytotoxic inactive (*in vitro*, MCF7 and A549). **Source:** GUAN MU TONG *Aristolochia manshuriensis* (stem: yield = 0.00061%). **Ref:** 4706.

**1729 Aristophyllide A**

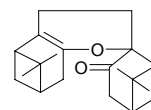
C<sub>32</sub>H<sub>31</sub>NO<sub>8</sub> (557.61). **Source:** HAN FANG JI *Aristolochia heterophylla*, MIAN MAO MA DOU LING *Aristolochia mollissima* (dried root and stem: yield = 0.00062%dw)<sup>[3026]</sup>. **Ref:** 1521, 3026.

**1730 (-)-Aristotetralone**

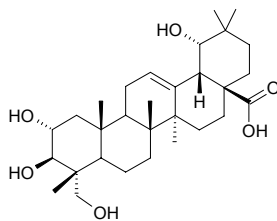
(7*R*,8*S*,8'*R*)-8,8'-Dimethyl-4,5-dimethoxy-3',4'-methylenedioxy-2,7'-cycloign an-7-one C<sub>21</sub>H<sub>22</sub>O<sub>5</sub> (354.41). Amorphous yellow solid, [α]<sub>D</sub><sup>25</sup> = -135.3° (*c* = 0.60, CHCl<sub>3</sub>). **Source:** *Aristolochia* sp, *Holostylis reniformis* (root). **Ref:** 3784.

**1731 Aritasone**

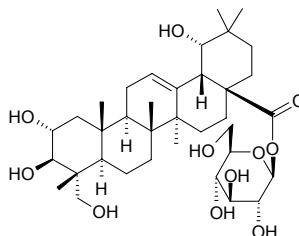
C<sub>20</sub>H<sub>28</sub>O<sub>2</sub> (300.44). mp 105-106°C. **Source:** TU JING JIE *Chenopodium ambrosioides*. **Ref:** 6.

**1732 Arjungenin**

C<sub>30</sub>H<sub>48</sub>O<sub>6</sub> (504.71). **Source:** HE ZI *Terminalia chebula*. **Ref:** 660.

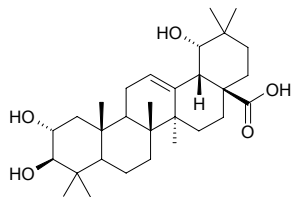
**1733 Arjunglucoside I**

Dotorioside I [62319-70-4] C<sub>36</sub>H<sub>58</sub>O<sub>11</sub> (666.86). **Source:** A JIANG LAN REN *Terminalia arjuna*, XIA KU CAO *Prunella vulgaris*. **Ref:** 1521, 2508.

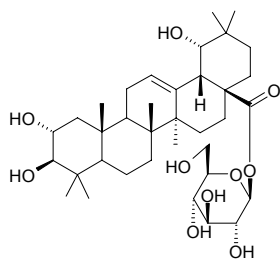


**1734 Arjunic acid**

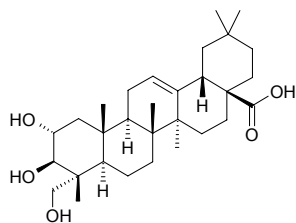
2 $\alpha$ ,3 $\beta$ ,19 $\alpha$ -Trihydroxy-12-oleanen-28-oic acid C<sub>30</sub>H<sub>48</sub>O<sub>5</sub> (488.71). Source: A JIANG LAN REN *Terminalia arjuna*, TAI WAN PI PA *Eriobotrya deflexa* (leaf). Ref: 1521, 3064.

**1735 Arjunic acid-28-O-glucoside**

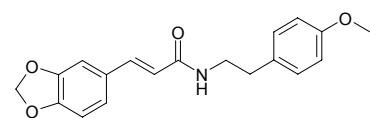
C<sub>36</sub>H<sub>58</sub>O<sub>10</sub> (650.86). Source: MEI GUI HUA *Rosa rugosa*. Ref: 660.

**1736 Arjunolic acid**

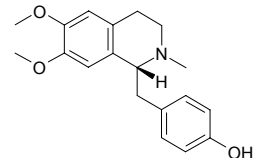
[465-00-9] C<sub>30</sub>H<sub>48</sub>O<sub>5</sub> (488.71). mp 337~340°C. Pharm: Antifungal (*Cryptococcus neoformans*, IC<sub>50</sub> = 20 $\mu$ g/mL, control Amphotericin B, IC<sub>50</sub> = 0.45 $\mu$ g/mL)<sup>[5411]</sup>. Source: FAN SHI LIU PI *Psidium guajava*, SHAN GAN CAO *Mussaenda pubescens*, *Leandra chaetodon* (whole herb). Ref: 6, 5411.

**1737 Armatamide**

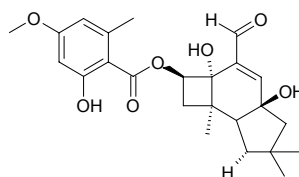
C<sub>19</sub>H<sub>19</sub>NO<sub>4</sub> (325.37). Pharm: Anti-PAF. Source: MAO ZHU YE HUA JIAO *Zanthoxylum armatum*, *Zanthoxylum* sp. Ref: 1521, 2176.

**1738 Arnepavine**

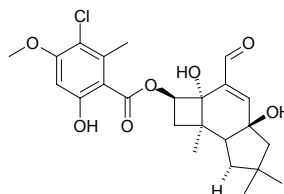
[524-20-9] C<sub>19</sub>H<sub>23</sub>NO<sub>3</sub> (313.40). mp 148~149°C. Pharm: Causes arrhythmia; eclampptogenic; irritant. Source: GAO JIA SUO YING SU *Papaver caucasicum*, HE YE *Nelumbo nucifera*, LIAN ZI *Nelumbo nucifera*, OU SHU LI *Rhamnus frangula* [Syn. *Frangula alnus*], OU ZHOU WEI MAO *Euonymus europaeus*, BO SI YING SU *Papaver persicum*. Ref: 6, 658.

**1739 Armillarilin**

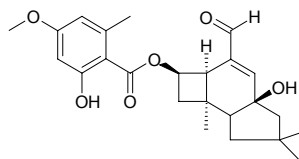
C<sub>24</sub>H<sub>30</sub>O<sub>7</sub> (430.50). White massive crystals, mp 179~180°C, [ $\alpha$ ]<sub>D</sub><sup>14</sup> = +162° (CHCl<sub>3</sub>). Source: MI HUAN JUN *Armillaria mellea*. Ref: 147.

**1740 Armillarinin**

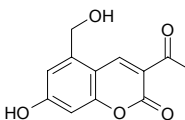
C<sub>24</sub>H<sub>29</sub>ClO<sub>7</sub> (464.95). White massive crystals, mp 152~155°C, [ $\alpha$ ]<sub>D</sub><sup>17</sup> = +153.6° (CHCl<sub>3</sub>). Source: MI HUAN JUN *Armillaria mellea*. Ref: 147.

**1741 Armillaripin**

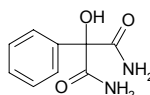
C<sub>24</sub>H<sub>30</sub>O<sub>6</sub> (414.50). Colorless acicular crystals, mp 202~204°C. Source: MI HUAN JUN *Armillaria mellea*. Ref: 154.

**1742 Armillarisin A**

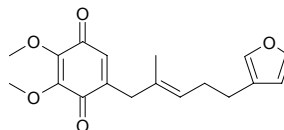
C<sub>12</sub>H<sub>10</sub>O<sub>5</sub> (234.21). mp 245~246°C. Pharm: Antispasmodic (Oddi's sphincter); choleric (bile secretion promotor); reduces duodenum tension. Source: LIANG JUN *Armillariella tabescens*. Ref: 6, 658.

**1743 Armillarisin B**

C<sub>9</sub>H<sub>10</sub>N<sub>2</sub>O<sub>3</sub> (194.19). Source: LIANG JUN *Armillariella tabescens*. Ref: 660.

**1744 Arnebifuranone**

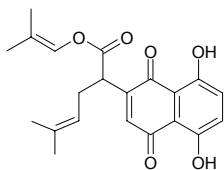
[94805-71-7] C<sub>18</sub>H<sub>20</sub>O<sub>5</sub> (316.36). Source: ZI CAO *Lithospermum erythrorhizon*, XIN ZANG JIA ZI CAO *Arnebia euchroma*. Ref: 660, 2193.



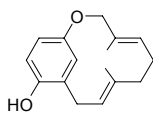


**1745 Arnebin**

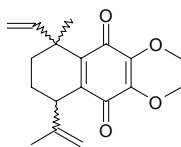
$C_{21}H_{22}O_6$  (370.41). Purplish red lamellar crystals, mp 113.5–114.0°C. **Pharm:** Antibacterial; antineoplastic (WM,  $ED_{50}$  = 6mg/kg; P<sub>388</sub>,  $ED_{50}$  = 3mg/kg); cytotoxic (KB,  $ED_{50}$  = 25µg/mL). **Source:** GAO GUI JIA ZI CAO *Arnebia nobilis*, BAI GUO ZI CAO *Lithospermum officinale*. **Ref:** 658, 661.

**1746 Arnebinol**

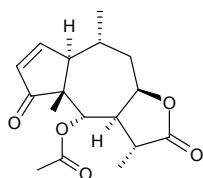
[87064-17-3]  $C_{16}H_{20}O_2$  (244.34). **Pharm:** Prostaglandin biosynthesis inhibitor (20µg/mL, InRt = 75.0%). **Source:** XIN ZANG JIA ZI CAO *Arnebia euchroma*. **Ref:** 658, 2193.

**1747 Arnebinone**

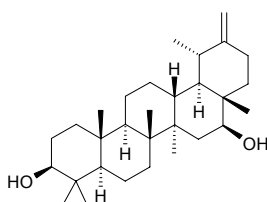
$C_{18}H_{22}O_4$  (302.34). **Pharm:** Prostaglandin biosynthesis inhibitor (20µg/mL, InRt = 24.2%). **Source:** XIN ZANG JIA ZI CAO *Arnebia euchroma*. **Ref:** 658, 2193.

**1748 Arnicolide A**

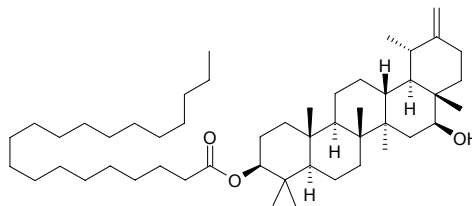
[36505-53-0]  $C_{17}H_{22}O_5$  (306.36). **Pharm:** Cytotoxic (hmn, animal, many kinds of cancer cell cultures). **Source:** SHAN JIN CHE *Arnica montana*. **Ref:** 658.

**1749 Arnidiol**

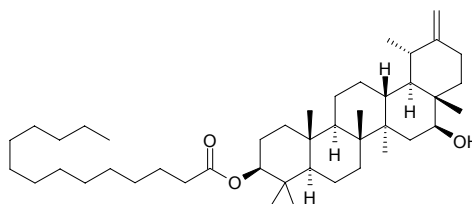
Arnidenediol [6750-30-7]  $C_{30}H_{50}O_2$  (442.73). mp 257°C. **Source:** E BU SHI CAO *Centipeda minima*, JIN ZHAN JU *Calendula officinalis*, YAO YONG PU GONG YING *Taraxacum officinale*. **Ref:** 6, 660.

**1750 Arnidiol 3-O-eicosanoate**

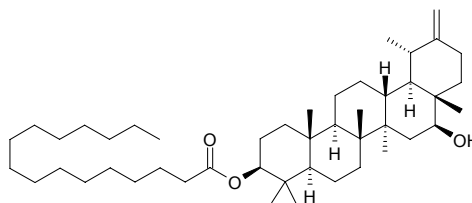
$C_{50}H_{88}O_3$  (737.26). mp 83–84°C,  $[\alpha]_D = +44.3^\circ$  ( $c = 0.1$ ,  $CHCl_3$ ). **Source:** SAI ER WEI YA SHI CAO *Achillea alexandri-regis* (dried aerial parts). **Ref:** 2545.

**1751 Arnidiol 3-O-myristate**

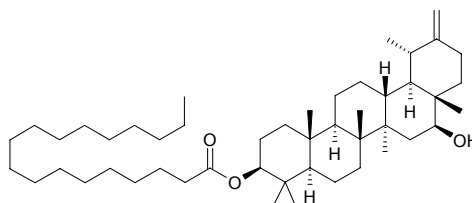
$C_{44}H_{76}O_3$  (653.09). **Source:** SAI ER WEI YA SHI CAO *Achillea alexandri-regis* (dried aerial parts). **Ref:** 2545.

**1752 Arnidiol 3-O-palmitate**

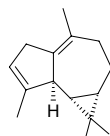
$C_{46}H_{80}O_3$  (681.15). Colorless powder. **Source:** SAI ER WEI YA SHI CAO *Achillea alexandri-regis* (dried aerial parts). **Ref:** 2545.

**1753 Arnidiol 3-O-stearate**

$C_{48}H_{84}O_3$  (709.20). mp 83–84°C,  $[\alpha]_D = +45.2^\circ$  ( $c = 0.1$ ,  $CHCl_3$ ). **Source:** SAI ER WEI YA SHI CAO *Achillea alexandri-regis* (dried aerial parts). **Ref:** 2545.

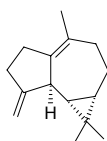
**1754 (-)-Aromadendra-1(10),3-diene**

$C_{15}H_{22}$  (202.34). Colorless oil. **Source:** TIE JIAO JUE YU TAI *Plagiochila asplenioides* (essential oil). **Ref:** 5257.

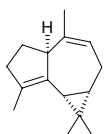


**1755 (+)-(5*S*\*,6*S*\*,7*S*\*)-Aromadendra-1(10),4(15)-diene**

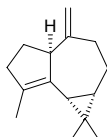
1,1,4-Trimethyl-7-methylene-1a,2,3,5,6,7,7a,7b-octahydro-1*H*-cyclopropa[*e*]azulene C<sub>15</sub>H<sub>22</sub> (202.34). Colorless oil. Source: XIAO E TAI *Mylia taylorii* (essential oil), LUO XIAO E TAI *Mylia nuda* (essential oil). Ref: 3840.

**1756 (1*S*,6*R*,7*S*)-Aromadendra-4,9-diene**

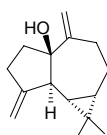
1,1,4,7-Tetramethyl-1a,2,4a,5,6,7b-hexahydro-1*H*-cyclopropa[*e*]azulene C<sub>15</sub>H<sub>22</sub> (202.34). Colorless oil. Source: XIAO E TAI *Mylia taylorii* (essential oil), LUO XIAO E TAI *Mylia nuda* (essential oil). Ref: 3840.

**1757 (+)-(1*S*,6*R*,7*S*)-Aromadendra-4,10(14)-diene**

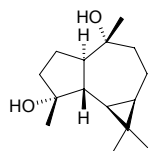
1,1,7-Trimethyl-4-methylene-1a,2,3,4,4a,5,6,7b-octahydro-1*H*-cyclopropa[*e*]azulene C<sub>15</sub>H<sub>22</sub> (202.34). Colorless oil. Source: XIAO E TAI *Mylia taylorii* (essential oil), LUO XIAO E TAI *Mylia nuda* (essential oil). Ref: 3840.

**1758 (+)-Aromadendra-4(15),10(14)-dien-1-ol**

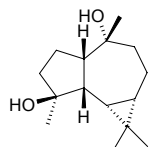
(+)-1,1-Dimethyl-4,7-dimethylene-decahydro-cyclopropa[*e*]azulen-4a-ol C<sub>15</sub>H<sub>22</sub>O (218.34). Colorless oil. Source: *Saccogyna viticulosa* (essential oil). Ref: 3839.

**1759 4α,10α-Aromadendranediol**

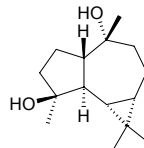
C<sub>15</sub>H<sub>26</sub>O<sub>2</sub> (238.37). White solid. Source: *Lobophytum* sp. Ref: 4565.

**1760 Aromadendrane-4β,10α-diol**

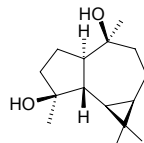
C<sub>15</sub>H<sub>26</sub>O<sub>2</sub> (238.37). White solid. Source: *Lobophytum* sp. Ref: 4565.

**1761 (+)-4β,10α-Aromadendranediol**

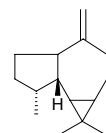
C<sub>15</sub>H<sub>26</sub>O<sub>2</sub> (238.37). White solid, [α]<sub>D</sub><sup>20</sup> = +13.05° (c = 0.05, CHCl<sub>3</sub>). Source: *Lobophytum* sp. Ref: 4565.

**1762 Aromadendrane-4β,10β-diol**

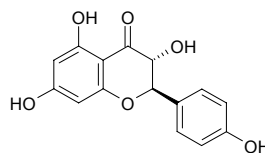
C<sub>15</sub>H<sub>26</sub>O<sub>2</sub> (238.37). Source: YI NIAN PENG *Erigeron annuus* (aerial parts), SU MEN BAI JIU CAO *Erigeron sumatrensis* (aerial parts). Ref: 4338.

**1763 Aromadendrene**

C<sub>15</sub>H<sub>24</sub> (204.36). Source: HONG CHAI HU *Bupleurum scorzonrifolium*, HOU PO *Magnolia officinalis*, JIU LI XIANG *Murraya paniculata* [Syn. *Chalcas paniculata*]. Ref: 2, 11, 660.

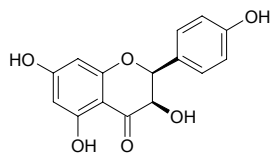
**1764 (2*R*,3*R*)-Aromadendrin**

Aromadendrol; Dihydrokaempferol [480-20-6] C<sub>15</sub>H<sub>12</sub>O<sub>6</sub> (288.26). mp 247–249°C. Pharm: Cytotoxic (Bel7402, ED<sub>50</sub> = 1.47 μg/mL, control Camptothecin, ED<sub>50</sub> = 0.06 μg/mL; BGC823, ED<sub>50</sub> = 2.62 μg/mL, Camptothecin, ED<sub>50</sub> = 0.09 μg/mL; HCT8, ED<sub>50</sub> = 1.34 μg/mL, Camptothecin, ED<sub>50</sub> = 0.14 μg/mL; A549, ED<sub>50</sub> > 10 μg/mL, Camptothecin, ED<sub>50</sub> = 0.09 μg/mL; MCF7, ED<sub>50</sub> > 10 μg/mL, Camptothecin, ED<sub>50</sub> = 0.01 μg/mL)<sup>[5338]</sup>; cytotoxic inactive (*in vitro*, HeLa, Vero, K562, Raji, Wish, and Calu1 tumor cell lines, IC<sub>50</sub> > 100 μmol/L)<sup>[3057]</sup>; aromatase inhibitor inactive (*in vitro*, IC<sub>50</sub> > 40 μmol/L; control Aminoglutethimide, IC<sub>50</sub> = 6.4 μmol/L)<sup>[3090]</sup>; antifungal; antibacterial inactive (*Staphylococcus aureus*, MIC > 100 μg/mL; *Bacillus subtilis*, MIC > 100 μg/mL)<sup>[4144]</sup>. Source: BA DAN XING REN *Prunus amygdalus*, CE BAI YE *Thuja orientalis* [Syn. *Platyclusus orientalis*; *Biota orientalis*], GOU JI *Cudrania cochinchinensis* (root: yield = 0.00087%dw)<sup>[4713]</sup>, GOU SHU *Broussonetia papyrifera*<sup>[3090]</sup>, RI BEN HUA BAI *Chamaecyparis pisifera* (leaf), SANG ZHI *Morus alba*, SHAN TAO JING BAI PI *Prunus davidiana*, SHE PU TAO *Ampelopsis brevipedunculata*, TAI WAN HUANG BO *Phellodendron amurense* var. *wilsonii* (leaf: yield = 0.00033%dw)<sup>[4722]</sup>, TAO JING BAI PI *Prunus persica*, TAO ZHI *Prunus persica*, YI HE GUO *Ventilago leiocarpa* (stem)<sup>[3057]</sup>, YOU GAN YE *Phyllanthus emblica* (branch and leaf), ZHI JU ZI *Hovenia dulcis*. Ref: 6, 391, 552, 658, 660, 3057, 3090, 4144, 4205, 4713, 4722, 5338.

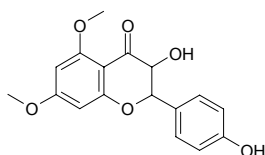


**1765 (2R,3S)-Aromadendrin**

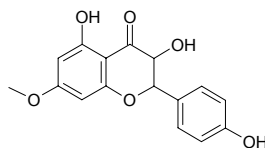
$C_{15}H_{12}O_6$  (288.26). **Pharm:** Cytotoxic (cyclooxygenase-1 inhibitor). **Source:** DA DA HE MIAN BAO GUO *Artocarpus dadah*. **Ref:** 5038.

**1766 Aromadendrin-5,7-dimethyl ether**

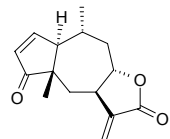
$C_{17}H_{16}O_6$  (316.31). mp 226–230°C. **Source:** NING MENG AN YE *Eucalyptus citriodora*. **Ref:** 6.

**1767 Aromadendrin-7-monomethyl ether**

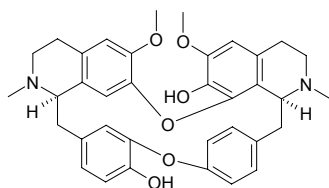
$C_{16}H_{14}O_6$  (302.29). mp 193°C. **Source:** NING MENG AN YE *Eucalyptus citriodora*. **Ref:** 6.

**1768 Aromaticin**

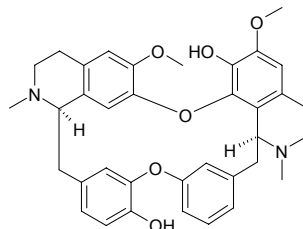
[5945-42-6]  $C_{15}H_{18}O_3$  (246.31). Colorless trapezoid crystals (chloroform–benzene), mp 223–225°C,  $[\alpha]_D^{25} = 21.2^\circ$  ( $c = 0.25$ , chloroform). **Pharm:** Anti-inflammatory (rat and mus, swollen foot model caused by carrageenan); cytotoxic (KB,  $ED_{50} = 2.0\mu\text{g/mL}$ ). **Source:** KU WEI DUI XIN JU *Helenium amarum*, FANG XIANG DUI XIN JU *Helenium aromaticum*. **Ref:** 658, 661.

**1769 Aromoline**

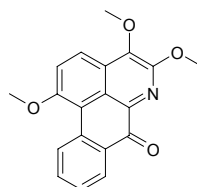
[519-53-9]  $C_{36}H_{38}N_2O_6$  (594.71). White crystals (ether), mp 178–180°C,  $[\alpha]_D^{25} = +318^\circ$  ( $c = 0.06$ , methanol); Colorless prismatic crystals (chloroform), mp 182–183°C,  $[\alpha]_D = +320^\circ$  ( $c = 0.05$ ). **Pharm:** Antibacterial (*Mycobacterium* sp., 1000 $\mu\text{g/mL}$ ); antihypertensive (dog); membrane stabilizer. **Source:** TOU MING TANG SONG CAO *Thalictrum lucidum*. **Ref:** 658, 661.

**1770 (+)-Aromoline**

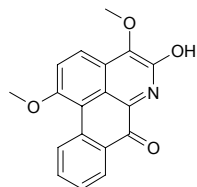
$C_{36}H_{38}N_2O_6$  (594.71). **Pharm:** Mitochondrial respiratory chain complex I inhibitor ( $IC_{50} = (1.41 \pm 0.08)\mu\text{mol/L}$ , Rolliniastatin-1,  $IC_{50} = (0.6 \pm 0.04)\text{nmol/L}$ , Rotenone,  $IC_{50} = (5.10 \pm 0.90)\text{nmol/L}$ ). **Source:** GE LUN BI YA MU BAN SHU *Xylopi colombiana* (fruit). **Ref:** 4954.

**1771 Artabonatine C**

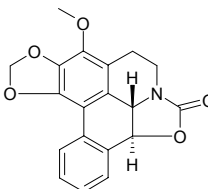
$C_{19}H_{15}NO_4$  (321.34). Green amorphous powder. **Source:** YOU GOU YING ZHAO *Artabotrys uncinatus* (stem). **Ref:** 3083.

**1772 Artabonatine D**

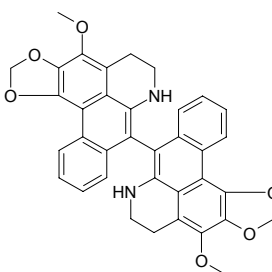
$C_{18}H_{13}NO_4$  (307.31). Red amorphous powder. **Source:** YOU GOU YING ZHAO *Artabotrys uncinatus* (stem). **Ref:** 3083.

**1773 Artabonatine E**

$C_{19}H_{15}NO_5$  (337.34). White amorphous powder,  $[\alpha]_D^{24} = -116.7^\circ$  ( $c = 0.8$ ,  $\text{CHCl}_3$ ). **Source:** YOU GOU YING ZHAO *Artabotrys uncinatus* (root). **Ref:** 3083.

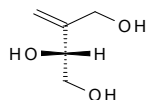
**1774 Artabonatine F**

$C_{36}H_{28}N_2O_6$  (584.63). White amorphous powder. **Source:** YOU GOU YING ZHAO *Artabotrys uncinatus* (root). **Ref:** 3083.

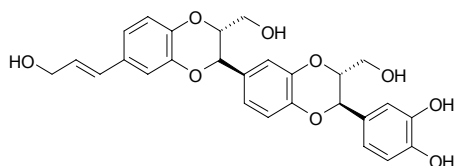


**1775 (R)-Artabotriol**

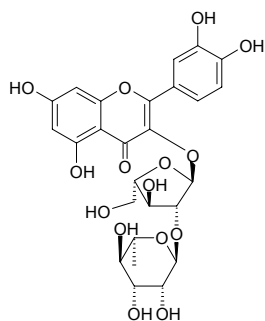
$C_5H_{10}O_3$  (118.13). Colorless oil liquid. Source: YING ZHAO *Artabotrys hexapetalus* [Syn. *Annona hexapetalus*]. Ref: 872.

**1776 Artabotrycinol**

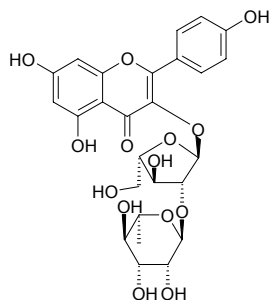
$C_{27}H_{26}O_9$  (494.50). White crystals, mp 194~196°C. Source: YING ZHAO *Artabotrys hexapetalus* [Syn. *Annona hexapetalus*]. Ref: 872.

**1777 Artabotryside A**

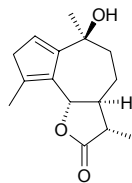
Quercetin-3-*O*- $\alpha$ -*L*-rhamnopyranosyl(1 $\rightarrow$ 2)- $\alpha$ -*L*-rabinofuranoside  $C_{26}H_{28}O_{15}$  (580.50). Yellowish powder, mp 175~177°C,  $[\alpha]_D^{30} = -113^\circ$  ( $c = 0.1$ , MeOH). Source: YING ZHAO *Artabotrys hexapetalus* [Syn. *Annona hexapetalus*]. Ref: 411.

**1778 Artabotryside B**

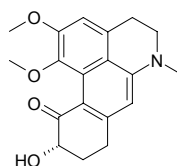
Kaempferol-3-*O*- $\alpha$ -*L*-rhamnopyranosyl(1 $\rightarrow$ 2)- $\alpha$ -*L*-rabinofuranoside  $C_{26}H_{28}O_{14}$  (564.50). mp 262~265°C,  $[\alpha]_D^{30} = -146^\circ$  ( $c = 0.12$ , MeOH). Source: YING ZHAO *Artabotrys hexapetalus* [Syn. *Annona hexapetalus*]. Ref: 411.

**1779 Artabsin**

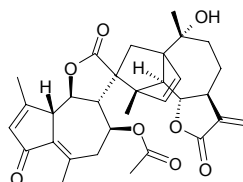
[24399-20-0]  $C_{15}H_{20}O_3$  (248.32). mp 133~135°C. Pharm: Anthelmintic; bitter principle. Source: BAI HAO *Artemisia sieversiana*, ZHONG YA KU HAO *Artemisia absinthium*. Ref: 6, 658.

**1780 Artacinatine**

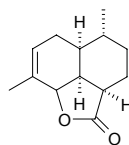
$C_{19}H_{21}NO_4$  (327.38). Source: YOU GOU YING ZHAO *Artabotrys uncinatus* (stem). Ref: 3083.

**1781 Artanomaloide**

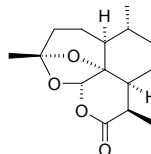
$C_{32}H_{36}O_8$  (548.64). Source: LIU JI NU *Artemisia anomala*. Ref: 660.

**1782 Arteamisinine I**

Qinghaosu I  $C_{13}H_{18}O_2$  (206.29). Source: HUANG HUA HAO *Artemisia annua*. Ref: 2, 660.

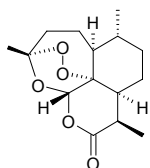
**1783 Arteamisinine III**

Qinghaosu III  $C_{15}H_{22}O_4$  (266.34). Source: HUANG HUA HAO *Artemisia annua*. Ref: 2, 660.

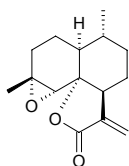


**1784 (+)-Arteannuin**

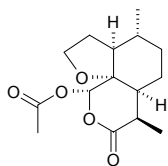
Qinghaosu; Artemisinin [63968-64-9]  $C_{15}H_{22}O_5$  (282.34). Colorless acicular crystals, mp 156~157°C,  $[\alpha]_D^{17} = +66.3^\circ$  (chloroform),  $[\alpha]_D^{23} = +68^\circ$  (ethanol), easily soluble in benzene, acetic ester, chloroform, acetone, soluble in ethanol, ether, hot petroleum ether, almost insoluble in water.<sup>[5507]</sup> **Pharm:** Antimalarial (*Plasmodium falciparum*, K1, multidrug resistant strain,  $EC_{50} = 1\text{--}3\text{ng/mL}$ )<sup>[2532]</sup>; antimalarial (*Plasmodium falciparum*,  $IC_{50} = (0.0011 \pm 0.0006)\mu\text{g/mL}$ )<sup>[5008]</sup>; antimalarial (*Plasmodium falciparum*,  $IC_{50} = 0.0022\mu\text{g/mL}$ )<sup>[5009]</sup>; cytotoxic (L6,  $IC_{50} > 90\mu\text{g/mL}$ )<sup>[5008]</sup>; antimalarial (*Plasmodium falciparum*,  $IC_{50} = 0.002\mu\text{g/mL}$ )<sup>[5251]</sup>; antimalarial (*Plasmodium falciparum* D6,  $IC_{50} = 0.006\mu\text{g/mL}$ ; *Plasmodium falciparum* W2,  $IC_{50} = 0.007\mu\text{g/mL}$ )<sup>[5465]</sup>; antiplasmodial ( $IC_{50} = 0.001\text{--}0.002\mu\text{g/mL}$ )<sup>[5062]</sup>; schistosomacide. **Source:** HUANG HUA HAO *Artemisia annua* (flower: content scope = 0.0725%~0.232%<sup>[5501]</sup>, leaf: content scope = 0.523%~1.54%<sup>[5501]</sup>); isolated from the plant by Chinese scientists in 1972<sup>[5507]</sup>. **Ref:** 2, 658, 660, 2532, 5008, 5009, 5062, 5251, 5465, 5501, 5507.

**1785 Arteannuin B**

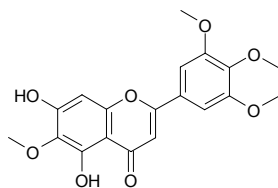
[50906-56-4]  $C_{15}H_{20}O_3$  (248.32). **Source:** HUANG HUA HAO *Artemisia annua*. **Ref:** 2, 660.

**1786 Arteannuin G**

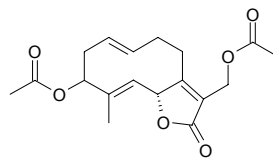
Artemisinin G  $C_{15}H_{22}O_5$  (282.34). **Source:** HUANG HUA HAO *Artemisia annua*, HUANG HUA HAO *Artemisia annua* (seed). **Ref:** 660, 3435.

**1787 Arteanoflavone**

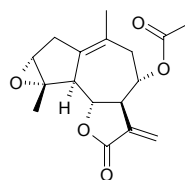
$C_{19}H_{18}O_8$  (374.35). **Source:** LIU JI NU *Artemisia anomala*. **Ref:** 660.

**1788 Arteanomalactone**

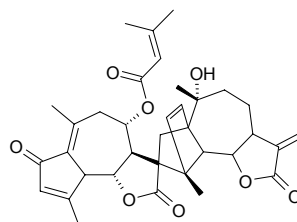
$C_{18}H_{22}O_6$  (334.37). **Source:** LIU JI NU *Artemisia anomala*. **Ref:** 660.

**1789 Arteglasin A**

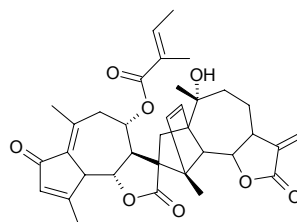
[33204-39-6]  $C_{17}H_{20}O_5$  (304.35). **Pharm:** Antineoplastic; cytotoxic; dermatitic (causes contact dermatitis). **Source:** DAO SHI HAO *Artemisia douglasiana*, YE JU *Chrysanthemum indicum*. **Ref:** 658.

**1790 Arteminide B**

$C_{35}H_{40}O_8$  (588.70). **Pharm:** Anti-inflammatory (RAW264.7 cells, LPS-induced: NF- $\kappa$ B inhibitor,  $IC_{50} = (0.49 \pm 0.03)\mu\text{mol/L}$ , control PTN,  $IC_{50} = (3.42 \pm 0.08)\mu\text{mol/L}$ ; NO production inhibitor,  $IC_{50} = (1.46 \pm 0.05)\mu\text{mol/L}$ , PTN,  $IC_{50} = (2.41 \pm 0.06)\mu\text{mol/L}$ , AG,  $IC_{50} = (34.18 \pm 0.98)\mu\text{mol/L}$ ; TNF- $\alpha$  production inhibitor,  $IC_{50} = (3.19 \pm 0.01)\mu\text{mol/L}$ , PTN,  $IC_{50} = (2.68 \pm 0.11)\mu\text{mol/L}$ ; suppresses expression of NF- $\kappa$ B target genes such as iNOS and COX-2. **Source:** LIN DI HAO *Artemisia sylvatica* (aerial parts). **Ref:** 3837.

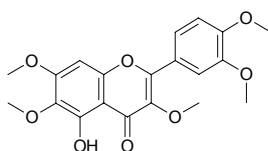
**1791 Arteminide D**

$C_{35}H_{40}O_8$  (588.70). **Pharm:** Anti-inflammatory (RAW264.7 cells, LPS-induced: NF- $\kappa$ B inhibitor,  $IC_{50} = (0.54 \pm 0.02)\mu\text{mol/L}$ , control PTN,  $IC_{50} = (3.42 \pm 0.08)\mu\text{mol/L}$ ; NO production inhibitor,  $IC_{50} = (1.64 \pm 0.02)\mu\text{mol/L}$ , PTN,  $IC_{50} = (2.41 \pm 0.06)\mu\text{mol/L}$ , AG,  $IC_{50} = (34.18 \pm 0.98)\mu\text{mol/L}$ ; TNF- $\alpha$  production inhibitor,  $IC_{50} = (3.47 \pm 0.53)\mu\text{mol/L}$ , PTN,  $IC_{50} = (2.68 \pm 0.11)\mu\text{mol/L}$ ). **Source:** LIN DI HAO *Artemisia sylvatica* (aerial parts). **Ref:** 3837.

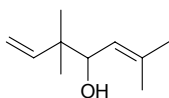


**1792 Artemisetin**

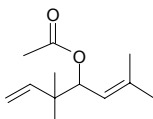
5-Hydroxy-3,6,7,3',4'-pentamethoxy-flavone [479-90-3]  $C_{20}H_{20}O_8$  (388.38). **Pharm:** Cytotoxic (Meth-A sarcoma cell line,  $ED_{50} = 4.3\mu\text{g/mL}$ , LLC cell line,  $ED_{50} > 10\mu\text{g/mL}$ )<sup>[3510]</sup>; cytotoxic (*in vitro*, PC12,  $GI_{50} = 2.27\mu\text{g/mL}$ , control Cisplatin,  $GI_{50} = 0.111\mu\text{g/mL}$ ; HCT116,  $GI_{50} = 2.20\mu\text{g/mL}$ , Cisplatin,  $GI_{50} = 0.794\mu\text{g/mL}$ )<sup>[4623]</sup>. **Source:** DAN YE MAN JING ZI *Vitex rotundifolia* [Syn. *Vitex trifolia* var. *simplicifolia*] (seed: yield = 0.0020%dw)<sup>[4623]</sup>, HUANG HUA HAO *Artemisia annua*, QING HAO *Artemisia apiacea* [Syn. *Artemisia carvifolia*; *Artemisia caruifolia*] (aerial parts), ZHI ZI *Gardenia jasminoides* [Syn. *Gardenia florida*], HUANG HAO *Artemisia scoparia* [Syn. *Artemisia capillaris* var. *scoparia*], MA BIAN CAO *Verbena officinalis*, YANG SHI CAO *Achillea millefolium*. **Ref:** 2, 626, 660, 3510, 4623.

**1793 Artemisia alcohol**

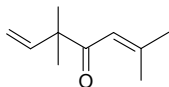
$C_{10}H_{18}O$  (154.25). bp  $71^{\circ}\text{C}/6\text{mmHg}$ . **Source:** MU HAO *Artemisia japonica*. **Ref:** 6.

**1794 L-β-Artemisia alcohol acetate**

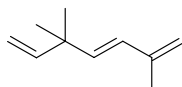
$C_{12}H_{20}O_2$  (196.29). bp  $74\sim 76^{\circ}\text{C}/6\text{mmHg}$ . **Source:** HUANG HUA HAO *Artemisia annua*. **Ref:** 6.

**1795 Artemisia ketone**

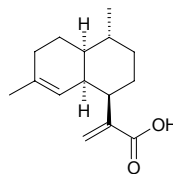
Isoartemisia ketone [546-49-6]  $C_{10}H_{16}O$  (152.24). bp  $182^{\circ}\text{C}$ . **Source:** HUANG HUA HAO *Artemisia annua*, MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*]. **Ref:** 2, 6, 660.

**1796 Artemisia triene**

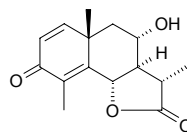
$C_{10}H_{16}$  (136.24). Colorless oil. **Source:** NIAN HAO *Artemisia cana* ssp. *viscidula*. **Ref:** 1980.

**1797 Artemisic acid**

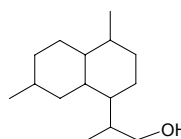
[80286-58-4]  $C_{15}H_{22}O_2$  (234.34). **Source:** HUANG HUA HAO *Artemisia annua*. **Ref:** 2, 660.

**1798 Artemisin**

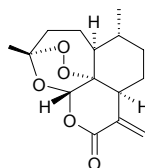
[481-05-0]  $C_{15}H_{18}O_4$  (262.31). mp  $(-)$   $203^{\circ}\text{C}$ ,  $(\pm)$   $190\sim 192^{\circ}\text{C}$ . **Pharm:** Anthelmintic. **Source:** HUI HAO *Seriphidium cinum* [Syn. *Artemisia cina*], BIN HAO *Artemisia maritima*. **Ref:** 6, 658.

**1799 Artemisinol**

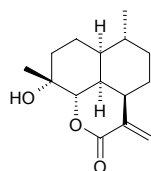
[82890-78-6]  $C_{15}H_{28}O$  (224.39). **Source:** HUANG HUA HAO *Artemisia annua*. **Ref:** 2, 660.

**1800 Artemisitene**

[101020-89-7]  $C_{15}H_{20}O_5$  (280.32). **Source:** HUANG HUA HAO *Artemisia annua*. **Ref:** 2, 660.

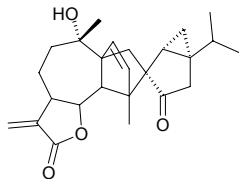
**1801 Artemislactone**

Qinghaosu V [92691-97-9]  $C_{15}H_{22}O_3$  (250.34). **Source:** HUANG HUA HAO *Artemisia annua*. **Ref:** 2, 660.

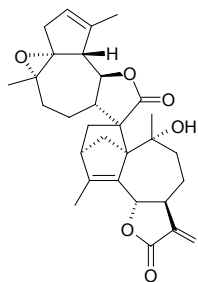


**1802 Artemisolide**

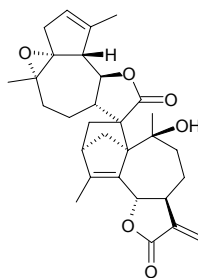
$C_{25}H_{32}O_4$  (396.53). **Pharm:** Anti-inflammatory (RAW264.7 cells, LPS-induced: NF- $\kappa$ B inhibitor,  $IC_{50} = (0.70 \pm 0.02) \mu\text{mol/L}$ , control PTN,  $IC_{50} = (3.42 \pm 0.08) \mu\text{mol/L}$ ; NO production inhibitor,  $IC_{50} = (1.96 \pm 0.06) \mu\text{mol/L}$ , PTN,  $IC_{50} = (2.41 \pm 0.06) \mu\text{mol/L}$ , AG,  $IC_{50} = (34.18 \pm 0.98) \mu\text{mol/L}$ ; TNF- $\alpha$  production inhibitor,  $IC_{50} = (7.42 \pm 0.11) \mu\text{mol/L}$ , PTN,  $IC_{50} = (2.68 \pm 0.11) \mu\text{mol/L}$ ). **Source:** LIN DI HAO *Artemisia sylvatica* (aerial parts). **Ref:** 3837.

**1803 Artemyriantholide A**

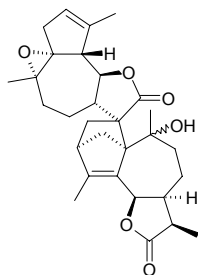
$C_{30}H_{36}O_6$  (492.62). Gum,  $[\alpha]_D = +37.2^\circ$  ( $c = 1.0$ ,  $\text{CHCl}_3$ ). **Source:** YI KUA *Artemisia myriantha* (aerial parts). **Ref:** 4618.

**1804 Artemyriantholide B**

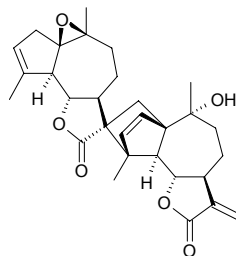
$C_{30}H_{36}O_6$  (492.62). Gum,  $[\alpha]_D = +51.0^\circ$  ( $c = 0.4$ ,  $\text{CHCl}_3$ ). **Source:** YI KUA *Artemisia myriantha* (aerial parts). **Ref:** 4618.

**1805 Artemyriantholide C**

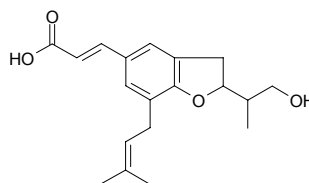
$C_{30}H_{38}O_6$  (494.63). Gum,  $[\alpha]_D = +34.5^\circ$  ( $c = 0.3$ ,  $\text{CHCl}_3$ ). **Source:** YI KUA *Artemisia myriantha* (aerial parts). **Ref:** 4618.

**1806 Artemyriantholide D**

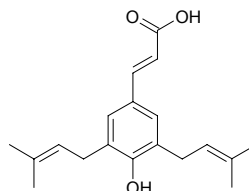
$C_{30}H_{36}O_6$  (492.62). Gum,  $[\alpha]_D = +17.2^\circ$  ( $c = 0.6$ ,  $\text{CHCl}_3$ ). **Source:** YI KUA *Artemisia myriantha* (aerial parts). **Ref:** 4618.

**1807 Artepillin A**

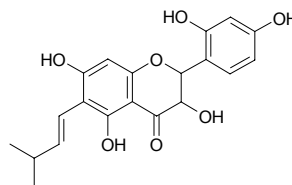
$C_{19}H_{24}O_4$  (316.40). **Source:** YIN CHEN HAO *Artemisia capillaris*. **Ref:** 660.

**1808 Artepillin C**

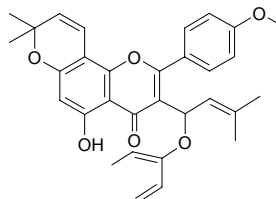
Deoxycapillartemisin  $C_{19}H_{24}O_3$  (300.40). **Source:** YIN CHEN HAO *Artemisia capillaris*. **Ref:** 2, 660.

**1809 Artocarpesin**

$C_{20}H_{20}O_7$  (372.38). **Source:** ZHE SHU *Cudrania tricuspidata* (stem and leaf). **Ref:** 660.

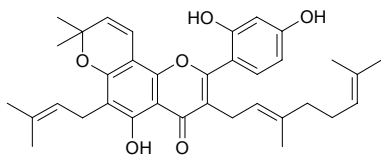
**1810 Artocommunol CA**

$C_{31}H_{32}O_6$  (500.60). Yellowish needles ( $\text{CHCl}_3$ ), mp 190~192°C,  $[\alpha]_D^{25} = +61.8^\circ$  ( $c = 0.1$ ,  $\text{CHCl}_3$ ). **Source:** MIAN BAO GUO *Artocarpus incisa* [Syn. *Artocarpus communis*] (root cortex: yield = 0.0017%). **Ref:** 4682.

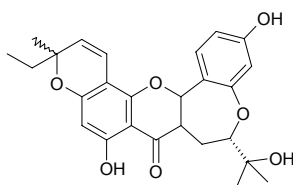


**1811 Artoccommunol CB**

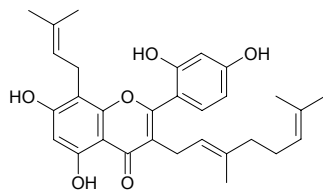
$C_{35}H_{40}O_6$  (556.71). Yellowish needles ( $CHCl_3$ ), mp 217–219°C. Source: MIAN BAO GUO *Artocarpus incisa* [Syn. *Artocarpus communis*] (root cortex: yield = 0.0022%). Ref: 4682.

**1812 Artoccommunol CC**

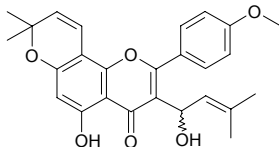
$C_{26}H_{28}O_7$  (452.51). Yellow amorphous powder,  $[\alpha]_D^{25} = +43.1^\circ$  ( $c = 0.1$ , MeOH). Source: MIAN BAO GUO *Artocarpus incisa* [Syn. *Artocarpus communis*] (root cortex: yield = 0.067%). Ref: 4682.

**1813 Artoccommunol CD**

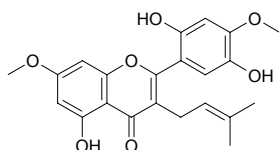
$C_{30}H_{34}O_6$  (490.60). Pale yellow needles (acetone), mp 183–185°C. Source: MIAN BAO GUO *Artocarpus incisa* [Syn. *Artocarpus communis*] (root cortex: yield = 0.0042%). Ref: 4682.

**1814 Artoccommunol CE**

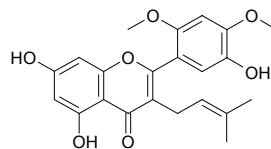
$C_{26}H_{26}O_6$  (434.49). Yellow amorphous powder,  $[\alpha]_D^{25} = +45.5^\circ$  ( $c = 0.1$ , MeOH). Source: MIAN BAO GUO *Artocarpus incisa* [Syn. *Artocarpus communis*] (root cortex: yield = 0.0033%). Ref: 4682.

**1815 Artoindonesianin Q**

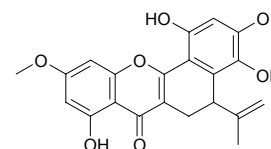
$C_{22}H_{22}O_7$  (398.42). Yellow powder. Source: YIN NI MIAN BAO GUO *Artocarpus champeden*. Ref: 1938.

**1816 Artoindonesianin R**

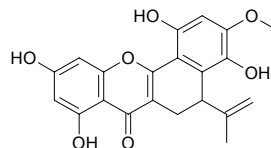
$C_{22}H_{22}O_7$  (398.42). Yellow powder. Source: YIN NI MIAN BAO GUO *Artocarpus champeden*. Ref: 1938.

**1817 Artoindonesianin S**

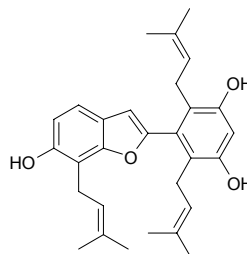
$C_{22}H_{20}O_7$  (396.40). Yellow powder. Source: YIN NI MIAN BAO GUO *Artocarpus champeden*. Ref: 1938.

**1818 Artoindonesianin T**

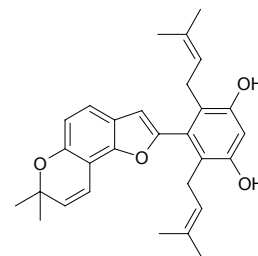
$C_{21}H_{18}O_7$  (382.37). Yellow powder. Source: YIN NI MIAN BAO GUO *Artocarpus champeden*. Ref: 1938.

**1819 Artoindonesianin X**

$C_{29}H_{34}O_4$  (446.59). Yellow powder. Pharm: Cytotoxic (brine shrimp *Artemia salina* assay,  $LC_{50} = 78.7 \mu g/mL$ ). Source: *Artocarpus fretessi* (bark). Ref: 3460.

**1820 Artoindonesianin Y**

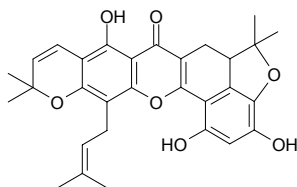
$C_{29}H_{32}O_4$  (444.58). Yellow powder. Pharm: Cytotoxic (brine shrimp *Artemia salina* assay,  $LC_{50} = 294.1 \mu g/mL$ ). Source: *Artocarpus fretessi* (bark). Ref: 3460.



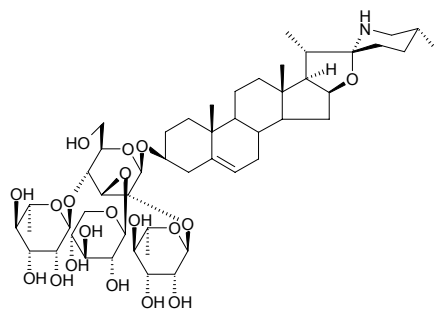


**1821 Artonin A**

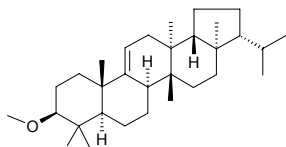
$C_{30}H_{30}O_7$  (502.57). Yellow prisms (MeOH), mp 239–240°C. **Pharm:** Cytotoxic (brine shrimp *Artemia salina* assay,  $LC_{50} = 100.6 \mu\text{g/mL}$ )<sup>[3460]</sup>. **Source:** BO LUO MI *Artocarpus heterophyllus*, *Artocarpus fretessi* (bark). **Ref:** 1521, 3460.

**1822 Arudonine**

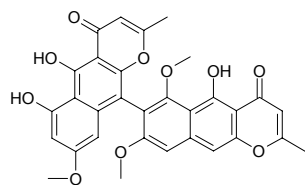
Solasodine *O*- $\alpha$ -*L*-rhamnopyranosyl-(1→2)-{[ $\beta$ -*D*-xylopyranosyl-(1→3)], [ $\alpha$ -*L*-rhamnopyranosyl-(1→4)]}- $\beta$ -*D*-glucopyranoside  $C_{50}H_{81}NO_{19}$  (1000.20). **Pharm:** Plant growth inhibitor (inhibits growth of lettuce seedlings). **Source:** A LUN DUO QIE *Solanum arundo* (root cortex). **Ref:** 3812.

**1823 Arundoin**

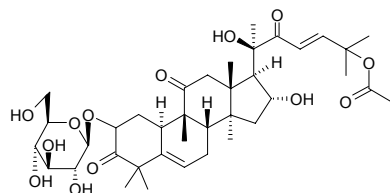
[4555-56-0]  $C_{31}H_{52}O$  (440.76). mp 235–237°C; 271–273°C. **Source:** BAI MAO GEN<sup>(1)</sup> *Imperata cylindrica* var. *major*, DAN ZHU YE *Lophatherum gracile*, DAN ZHU YE GEN *Lophatherum gracile*, LONG XU CAO *Poa sphondylodes*. **Ref:** 6.

**1824 Arurasperone D**

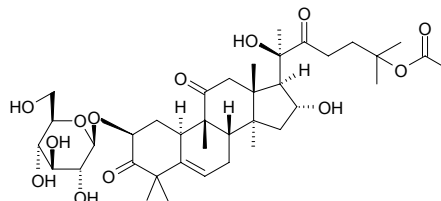
$C_{31}H_{24}O_{10}$  (556.53). **Pharm:** CNS depressant (animal model). **Source:** MANG GUO *Mangifera indica*. **Ref:** 658.

**1825 Arvenin I**

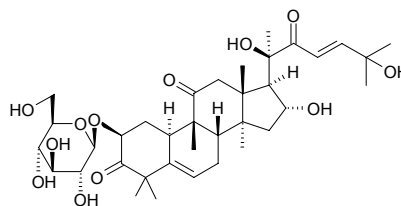
[65247-27-0]  $C_{38}H_{56}O_{13}$  (720.86). **Source:** LIU LI FAN LV *Anagallis arvensis*, NANG GAI SI GUA *Luffa operculata*. **Ref:** 1521, 2593.

**1826 Arvenin II**

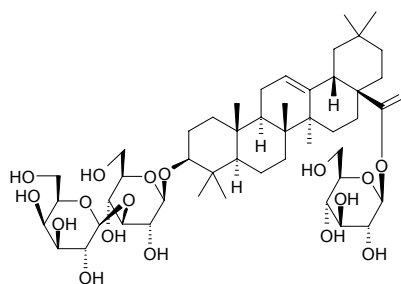
$C_{38}H_{58}O_{13}$  (722.88). **Source:** HU HUANG LIAN *Picrorhiza kurroa*, LIU LI FAN LV *Anagallis arvensis*. **Ref:** 660.

**1827 Arvenin III**

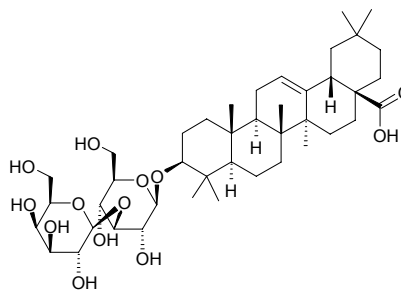
[65597-45-7]  $C_{36}H_{54}O_{12}$  (678.82). **Source:** HU HUANG LIAN *Picrorhiza kurroa*, LIU LI FAN LV *Anagallis arvensis*, NANG GAI SI GUA *Luffa operculata*. **Ref:** 660, 1521, 2593.

**1828 ArvensideA**

3-*O*-[ $\beta$ -*D*-Galactopyranosyl-(1→3)- $\beta$ -*D*-glucuronopyranosyl]-28-*O*- $\beta$ -*D*-glucopyranosylolean-12-en-28-oic acid  $C_{48}H_{78}O_{18}$  (943.15). **Pharm:** Anti-inflammatory. **Source:** XIAO JIN ZHAN HUA *Calendula arvensis*. **Ref:** 658.

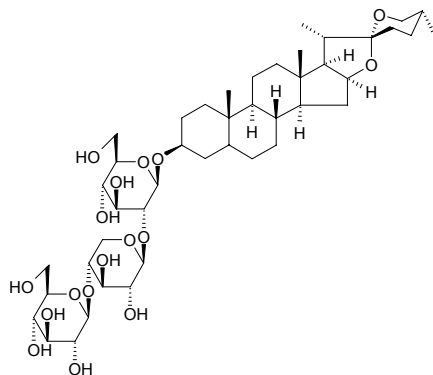
**1829 Arvenside A**

$C_{42}H_{68}O_{13}$  (781.00). **Source:** JIN ZHAN JU *Calendula officinalis* (flower). **Ref:** 3551.

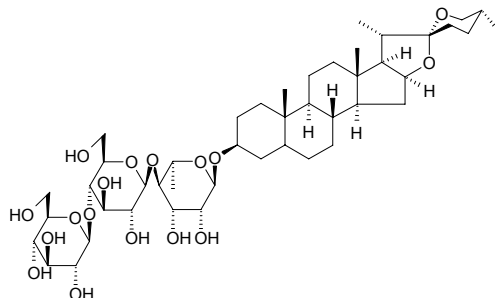


**1830 AS-1 A**

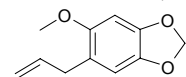
$C_{44}H_{72}O_{17}$  (873.05). **Source:** SHI DIAO BAI *Asparagus officinalis*. **Ref:** 697.

**1831 AS-1 B**

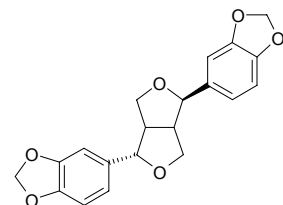
$C_{45}H_{74}O_{17}$  (887.08). **Source:** SHI DIAO BAI *Asparagus officinalis*. **Ref:** 697.

**1832 Asaricin**

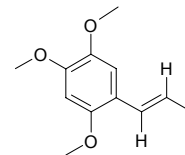
Sarisan  $C_{11}H_{12}O_3$  (192.22). **Pharm:** Antifungal. **Source:** DA HUA XI XIN *Asarum maximum*, DU HENG *Asarum forbesii*, JIA JU *Piper sarmentosum*, LIAO XI XIN *Asarum heterotropoides* var. *mandshuricum*, SHAN ZHU YU *Cornus officinalis* [Syn. *Macrocarpum officinale*], SHUANG YE XI XIN *Asarum caulescens*, XI XIN *Asarum sieboldii*. **Ref:** 658, 660.

**1833 Asarinin**

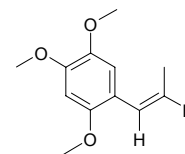
[133-03-9]  $C_{20}H_{18}O_6$  (354.36). mp (+) 121~122°C, (-) 22~24°C. **Pharm:** Synergist of pyrethrin; phytogrowth inhibitor (100µg/mL, *Amaranthus hypochondriacus*, InRt = (93.2±1.9)%; *E. crusgalli*, InRt = (89.5±0.6)%<sup>[5253]</sup>). **Source:** A NUO TI HUA JIAO *Zanthoxylum arnotianum*, DE KA RUI HUA JIAO *Zanthoxylum decaryi*, HU JIAO HUA JIAO *Zanthoxylum piperitum*, LIAO XI XIN *Asarum heterotropoides* var. *mandshuricum* (dried whole herb: mean content = 0.193%<sup>[5508]</sup>), MAO PAO TONG *Paulownia tomentosa*, RU DI JIN NIU *Zanthoxylum nitidum* (dried root: content = 0.093%<sup>[5508]</sup>), XI XIN *Asarum sieboldii* (dried whole herb: mean content = 0.136%<sup>[5508]</sup>), *Stauranthus perforatus* (root). **Ref:** 6, 658, 660, 5253, 5508.

**1834 α-Asarone**

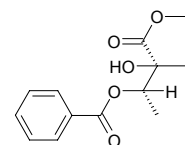
[2883-98-9]  $C_{12}H_{16}O_3$  (208.26). mp 67°C; 62°C, bp 296°C. **Pharm:** CYP3A4 inhibitor and CYP2D6 inhibitor (*in vitro*, CYP3A4, IC<sub>50</sub> = 92.3µmol/L; CYP2D6, IC<sub>50</sub> > 100µmol/L; control Ketoconazole, CYP3A4, IC<sub>50</sub> = 0.72µmol/L; control Quinidine, CYP2D6, IC<sub>50</sub> = 0.082µmol/L)<sup>[4797]</sup>. **Source:** BI CHENG QIE *Piper cubeba* (fruit: yield = 0.00028%dw<sup>[4797]</sup>), SHI CHANG PU *Acorus tatarinowii*, XI XIN *Asarum sieboldii* (whole herb: content = 0.24%<sup>[5501]</sup>), *Asarum* spp. **Ref:** 1521, 4797, 5501, 5508.

**1835 β-Asarone**

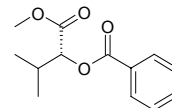
2,4,5-Trimethoxypropenyl benzene [5273-86-9]  $C_{12}H_{16}O_3$  (208.26). bp 162~163°C/12mmHg. **Pharm:** Carcinogen. **Source:** BAI CHANG *Acorus calamus*, JIN QIAN PU *Acorus gramineus*, JIN QIAN PU YE *Acorus gramineus*, OU XI XIN *Asarum europaeum*, RI BEN CHANG PU *Acorus calamus* var. *angustatus*, SHI CHANG PU *Acorus tatarinowii* (dried rhizome: content scope of 12 origins = 0.25%~3.68%, mean content = 1.13%<sup>[5508]</sup>), SHI JI NING *Mosla scabra* [Syn. *Mosla punctata*], XIA YE HU JIAO *Piper angustifolium*. **Ref:** 6, 658, 660, 5501, 5508.

**1836 Asarumin A**

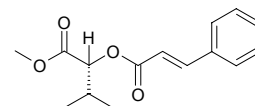
[126518-75-0]  $C_{15}H_{20}O_5$  (280.32). Colorless chunk (ethyl acetate), mp 89~91°C, [α]<sub>D</sub><sup>23</sup> = +4.10° (c = 0.9, methanol). **Pharm:** Antiallergic (rat, inhibits skin allergy, 300mg/kg orl, InRt = 44.4%). **Source:** DU HENG *Asarum forbesii*. **Ref:** 926, 1191.

**1837 Asarumin B**

[126518-76-1]  $C_{13}H_{16}O_4$  (236.27). Colorless oil-like substance, [α]<sub>D</sub><sup>23</sup> = +0.48° (c = 2.0, chloroform). **Pharm:** Antiallergic (rat, inhibits skin allergy, 300mg/kg orl, InRt = 25.1%). **Source:** DU HENG *Asarum forbesii*. **Ref:** 926, 1191.

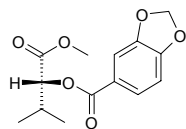
**1838 Asarumin C**

[126518-77-2]  $C_{15}H_{18}O_4$  (262.31). Colorless oil-like substance, [α]<sub>D</sub><sup>23</sup> = +30.5° (c = 0.2, chloroform). **Pharm:** Antiallergic (rat, inhibits skin allergy, 300mg/kg orl, InRt = 36.2%). **Source:** DU HENG *Asarum forbesii*. **Ref:** 926, 1191.

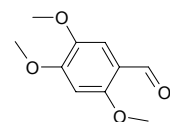


**1839 Asarumin D**

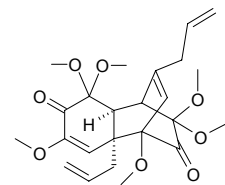
$C_{14}H_{16}O_6$  (280.28). **Source:** DU HENG *Asarum forbesii*. **Ref:** 660.

**1840 Asarylaldehyde**

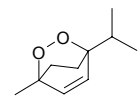
1,2,4-Trimethoxyphenyl-5-aldehyde [4460-86-0]  $C_{10}H_{12}O_4$  (196.20). White rhombic crystals (alcohol), mp 112~114°C; Needles ( $CHCl_3$  or  $H_2O$ ), mp 114°C; soluble in hot water, ether, benzene and petroleum ether. **Pharm:** Antiasthmatic; antihistamine (inhibits histamine release, rat megalocyte *in vitro*, caused by ConA, 1000  $\mu\text{mol/L}$ , InRt = 46%). **Source:** BAI CHANG *Acorus calamus*, BI CHENG QIE *Piper cubeba*, HAI FENG TENG *Piper kadsura* [Syn. *Piper futokadsura*], HE SHI FENG *Daucus carota*, NAN HE SHI *Daucus carota*, OU XI XIN *Asarum europaeum*. **Ref:** 6, 900, 1521, 2537.

**1841 Asatone**

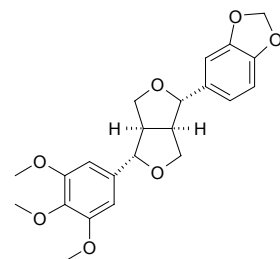
[38451-63-7]  $C_{24}H_{32}O_8$  (448.52). White crystals, mp 101~102°C (hexane),  $[\alpha]_D^{20} = 0^\circ$  (methanol). **Pharm:** Antineoplastic (mus *in vivo*, sarcoma) **Source:** TAI DONG XI XIN *Asarum taitoense*. **Ref:** 658, 661.

**1842 Ascaridole**

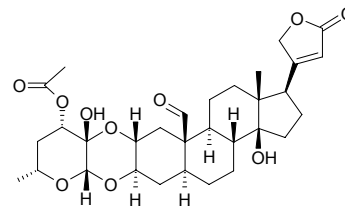
[512-85-6]  $C_{10}H_{16}O_2$  (168.24). Pale yellow oil, mp 2.5°C, bp 115°C/15mmHg,  $[\alpha]_D^{25} = 0^\circ$  ( $c = 3.0$ ,  $CHCl_3$ ). **Pharm:** Antibacterial; antimalarial; anthelmintic; toxin; antitrypanosomal (*in vitro*, epimastigotes of *Trypanosoma cruzi*, MLC = 23  $\mu\text{mol/L}$ )<sup>[4619]</sup>. **Source:** TU JING JIE *Chenopodium ambrosioides* (fresh aerial part including immature seed: yield = 0.0113%fw)<sup>[4619]</sup>, XIANG LI *Chenopodium botrys*. **Ref:** 6, 658, 4619.

**1843 Aschantin**

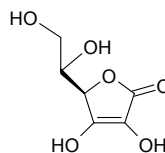
[13060-15-6]  $C_{22}H_{24}O_7$  (400.43). **Source:** WANG CHUN YU LAN *Magnolia biondii* [Syn. *Magnolia fargesii*]. **Ref:** 543.

**1844 Asclepin**

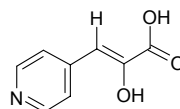
[36573-63-4]  $C_{31}H_{42}O_{10}$  (574.67). mp 308~309°C,  $[\alpha]_D = +10^\circ$  (chloroform). **Pharm:** Cardiotonic (increases normal or prostrate myocardial contractility);  $LD_{50}$  (cat, iv) = 0.236mg/kg. **Source:** LIAN SHENG GUI ZI HUA *Asclepias curassavica*. **Ref:** 658, 661.

**1845 Ascorbic acid**

Vitamin C  $C_6H_8O_6$  (176.13). Colorless crystals, mp 190~192°C (dec),  $[\alpha]_D^{25} = +20.5^\circ \sim +21.5^\circ$  (water), soluble in water, EtOH.<sup>[5507]</sup> **Pharm:** Antioxidant (DPPH scavenger,  $EC_{50} = (3.35 \pm 0.01) \mu\text{g/mL}$ )<sup>[2565]</sup>; antioxidant (SOD-like activity,  $EC_{50} = 34.6 \mu\text{mol/L}$ )<sup>[3408]</sup>; antioxidant (DPPH scavenger,  $EC_{50} = 6.25 \mu\text{mol/L}$ )<sup>[3408]</sup>; antioxidant (DPPH scavenger,  $IC_{50} = 16.5 \mu\text{mol/L}$ )<sup>[3771]</sup>; antioxidant (DPPH scavenger, TLC, MIA < 0.10  $\mu\text{g}$ ,  $IC_{50} = 18 \mu\text{g/mL}$ )<sup>[3785, 5247]</sup>; antioxidant (Takamatsu DCFH method, myelomonocytic HL-60 cells,  $IC_{50} = (1.9 \pm 0.7) \mu\text{g/mL}$ )<sup>[3850]</sup>; antioxidant (DPPH scavenger,  $EC_{50} = 1.6 \mu\text{g/mL} = 9.1 \mu\text{mol/L}$ )<sup>[4154]</sup>; antioxidant (DPPH scavenger,  $IC_{50} = 10.3 \mu\text{mol/L}$ )<sup>[4376]</sup>; antioxidant (DPPH scavenger,  $IC_{50} = 16.5 \mu\text{mol/L}$ )<sup>[4379]</sup>; antioxidant (DPPH scavenger,  $IC_{50} = (2.49 \pm 0.32) \mu\text{g/mL}$ )<sup>[5307]</sup>; antioxidant (DPPH scavenger,  $IC_{50} = 16.5 \mu\text{mol/L}$ )<sup>[5483]</sup>; antioxidant (hydroxyl radical scavenger,  $IC_{50} = 51.8 \mu\text{mol/L}$ , superoxide anion radical scavenger,  $IC_{50} = 86.2 \mu\text{mol/L}$ )<sup>[4289]</sup>; cytotoxic (XTT assay, HL-60 cells,  $IC_{50} > 10.0 \mu\text{g/mL}$ )<sup>[3850]</sup>; antibacterial; anti-infective; antidote; antihypercholesterolemic; inhibits production of carcinogen; induces tissue to produce collagen; hematopoietic. **Source:** BAI GUO *Ginkgo biloba*, CU LIU GUO *Hippophae rhamnoides* (dried ripe fruit: content = 0.95%<sup>[5508]</sup>) GOU QI ZI *Lycium chinense*, SHAN ZHA *Crataegus pinnatifida* (dried ripe fruit: mean content of 2 origins = 0.07%<sup>[5508]</sup>), YUN NAN SHAN ZHA *Crataegus scabrifolia* (dried ripe fruit: mean content of 2 origins = 0.18%<sup>[5508]</sup>). **Ref:** 2, 658, 660, 2565, 3408, 3771, 3785, 3850, 4154, 4289, 4376, 4379, 5247, 5307, 5483, 5507, 5508.

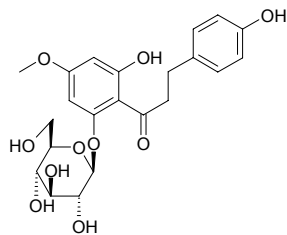
**1846 Ascasonchine**

(Z)-2-Hydroxy-3-(4-pyridyl)-2-propenoic acid  $C_8H_7NO_3$  (165.15). **Pharm:** Herbicidal (selective herbicide)<sup>[3772]</sup>. **Source:** *Ascochyta sonchi*. **Ref:** 3772.

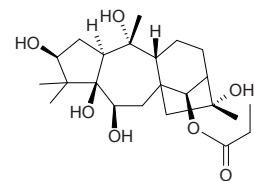


**1847 Asebotin**

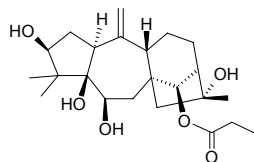
Asebotoside; Lyonotin C<sub>22</sub>H<sub>26</sub>O<sub>10</sub> (450.45). Source: MENG GU FENG MAO JU *Saussurea mongolica*. Ref: 4958.

**1848 Asebotoxin I**

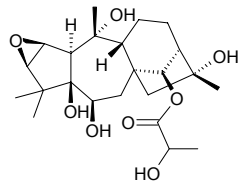
C<sub>23</sub>H<sub>38</sub>O<sub>7</sub> (426.56). Source: RI BEN MA ZUI MU *Pieris japonica* (the compound was separated from the plant in 1970). Ref: 5505.

**1849 Asebotoxin II**

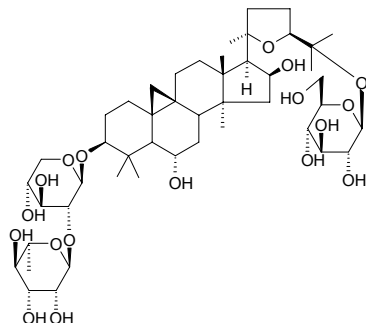
[23984-18-1] C<sub>23</sub>H<sub>36</sub>O<sub>6</sub> (408.54). Pharm: Supertoxic agent. Source: RI BEN MA ZUI MU *Pieris japonica* (the compound was isolated from the plant in 1970)<sup>[5505]</sup>. Ref: 658, 5505.

**1850 Asebotoxin III**

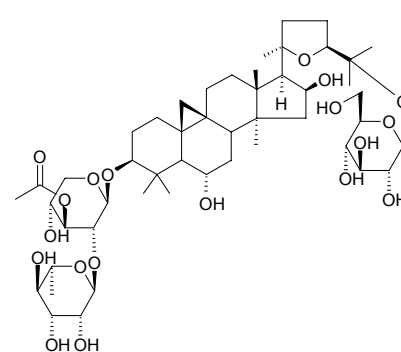
C<sub>23</sub>H<sub>36</sub>O<sub>8</sub> (440.54). White solid. Source: JIN YE ZI *Craibiodendron yunnanese* (leaf), RI BEN MA ZUI MU *Pieris japonica* (the compound was isolated from the plant in 1970)<sup>[5505]</sup>. Ref: 4575, 5505.

**1851 Asernestioside A**

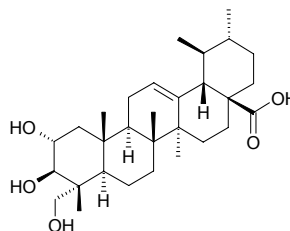
C<sub>47</sub>H<sub>78</sub>O<sub>18</sub> (931.13). Source: SUO GUO HUANG QI *Astragalus ernestii* (root). Ref: 660.

**1852 Asernestioside B**

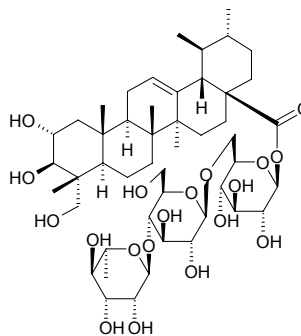
C<sub>49</sub>H<sub>80</sub>O<sub>19</sub> (973.17). Source: SUO GUO HUANG QI *Astragalus ernestii* (root). Ref: 660.

**1853 Asiatic acid**

[464-92-6] C<sub>30</sub>H<sub>48</sub>O<sub>5</sub> (488.71). Pharm: Aids in generation of neuroglia; promotes wound healing (external use); promotes cuticle cornification; stimulates granulation; induces gene expression changes (hmn fibroblast, IC<sub>50</sub> = (60±5)μg/mL)<sup>[5430]</sup>. Source: BING PIAN *Dryobalanops aromatica*, JI XUE CAO *Centella asiatica* (dried whole herb: content scope of 3 origins = 0.09%~0.14%, mean content = 0.114%<sup>[5508]</sup>). Ref: 2, 5430, 5508.

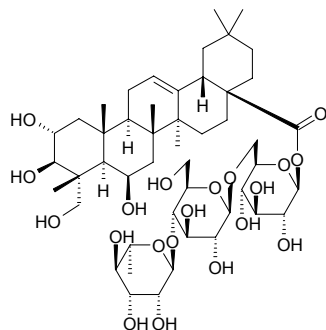
**1854 Asiaticoside**

2α,3β,23-Trihydroxyurs-12-en-28-oic acid *O*-α-*L*-rhamnopyranosyl-(1→4)-*O*-β-*D*-glucopyranosyl-(1→6)-β-*D*-glucopyranosyl ester; Centellasaponin A [16830-15-2] C<sub>48</sub>H<sub>78</sub>O<sub>19</sub> (959.15). mp 230~233°C, [α]<sub>D</sub><sup>20</sup> = -14° (EtOH). Pharm: Anti-inflammatory (iNOS inhibitor, rats, during gastric ulcer healing, Asiaticoside (5mg/kg and 10mg/kg) were orally administered to rats with acetic acid-induced gastric ulcers to reduce the size of the ulcers at 1d, 3d and 7d)<sup>[4089]</sup>; induces gene expression changes (hmn fibroblast, IC<sub>50</sub> > 400μg/mL)<sup>[5430]</sup>. Source: JI XUE CAO *Centella asiatica* (dried whole herb: content scope of 9 origins = trace~1.14%, mean content = 0.539%<sup>[5508]</sup>), SAN YE MU TONG *Akebia trifoliata* (stem). Ref: 6, 4089, 4135, 4545, 5430, 5508.

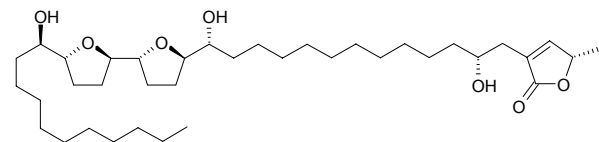


**1855 Asiaticoside B**

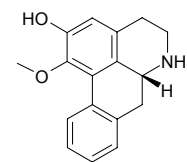
$C_{48}H_{78}O_{20}$  (975.14). Source: JI XUE CAO *Centella asiatica* (aerial parts). Ref: 4135.

**1856 Asimicin**

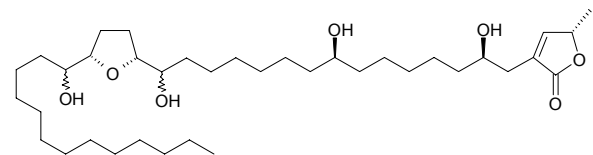
$C_{37}H_{66}O_7$  (622.93). Colorless oil,  $[\alpha]_D^{25} = +32.6^\circ$  ( $c = 0.09$ ,  $CHCl_3$ ). Pharm: Cytotoxic (hmn hepatoma cell lines HepG2,  $IC_{50} = 0.0628\text{ng/mL}$ , control Adriamycin,  $IC_{50} = 0.241\mu\text{g/mL}$ ; hmn hepatoma cells transfected with hepatitis B virus Hep2,2,15,  $IC_{50} = 0.066\text{ng/mL}$ , Adriamycin,  $IC_{50} = 0.450\mu\text{g/mL}$ ). Source: CI GUO FAN LI ZHI *Annona muricata*. Ref: 5377.

**1857 Asimilobine**

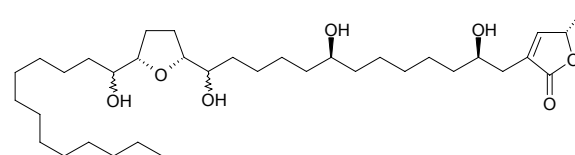
(-)-Asimilobine [6871-21-2]  $C_{17}H_{17}NO_2$  (267.33). mp 177~179°C. Pharm: Antimalarial (*Plasmodium falciparum*, chloroquine-sensitive strain D6,  $ED_{50} = 950\text{ng/mL}$ , chloroquine-endured strain W2,  $ED_{50} = 470\text{ng/mL}$ ); 5-HT receptor antagonist (rbt, *in vitro* aortal contraction induced by 5-HT). Source: DA ZAO *Ziziphus jujuba*, HOU PO *Magnolia officinalis*, YOU GOU YING ZHAO *Artabotrys uncinatus* (root,stem,leaf)<sup>[3083]</sup>. Ref: 2, 625, 1480, 3083.

**1858 Asitribolin A**

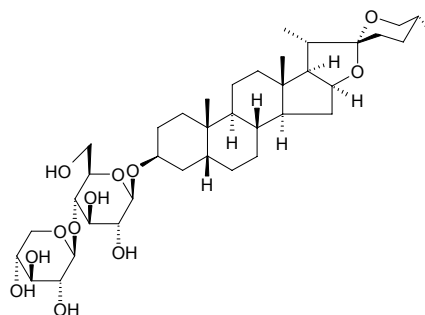
$C_{37}H_{68}O_7$  (624.95). White amorphous powder, mp 79.3~82.5°C,  $[\alpha]_D^{22} = -2.6^\circ$  ( $c = 0.03$ ,  $CH_2Cl_2$ ). Source: PAO PAO SHU *Asimina triloba*. Ref: 1857.

**1859 Asitribolin B**

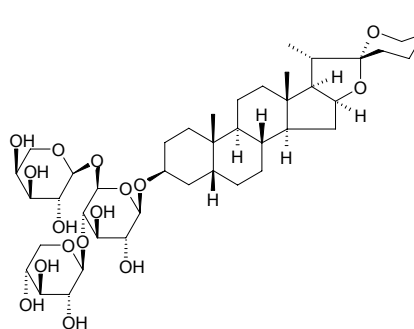
$C_{35}H_{64}O_7$  (596.90). White amorphous powder, mp 65.3~68.4°C,  $[\alpha]_D^{22} = +23.3^\circ$  ( $c = 0.03$ ,  $CH_2Cl_2$ ). Source: PAO PAO SHU *Asimina triloba*. Ref: 1857.

**1860 Aspafilioside A**

3-O-[β-D-Xylopyranosyl(1→4)-[β-D-glucopyranosyl]-(25S)-5β-spirostan-3β-ol [72947-73-0]  $C_{38}H_{62}O_{12}$  (710.91). White acicular crystals (methanol), mp 210~212°C,  $[\alpha]_D^{14} = -36.5^\circ$  ( $c = 0.09$ , chloroform-methanol);  $[\alpha]_D^{21} = -70.2^\circ$  ( $c = 0.20$ ,  $C_5H_5N$ ). Pharm: Spermaticidal (inhibits activity of hmn sperm *in vitro*, 1mg/mL, activity down to 56%, 2mg/mL, activity down to 0%); cytotoxic (*in vitro*, HO-8910,  $IC_{50} = (24.6\pm 0.7)\mu\text{mol/L}$ , Vincristine,  $IC_{50} = (25.1\pm 1.9)\mu\text{mol/L}$ ; Bel-7405,  $IC_{50} = (30.8\pm 2.6)\mu\text{mol/L}$ , Vincristine,  $IC_{50} = (31.4\pm 3.4)\mu\text{mol/L}$ )<sup>[4975]</sup>. Source: SHI DIAO BAI *Asparagus officinalis*, TU BAI BU *Asparagus filicinus*, GE BI TIAN MEN *Asparagus gobicus* (root). Ref: 159, 1159, 4975.

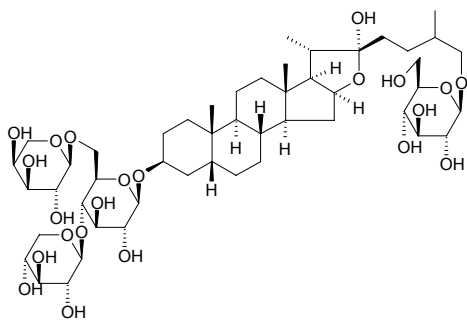
**1861 Aspafilioside B**

[131123-73-4]  $C_{43}H_{70}O_{16}$  (843.03). White acicular crystals, mp 180~182°C (methanol),  $[\alpha]_D^{14} = -47.3^\circ$  ( $c = 0.07$ ,  $CHCl_3$ -MeOH). Pharm: Spermaticidal (hmn, 1mg/mL, spermatic activity = 18%, 2mg/mL, spermatic activity = 0%). Source: SHI DIAO BAI *Asparagus officinalis*, TU BAI BU *Asparagus filicinus*. Ref: 159, 1159.

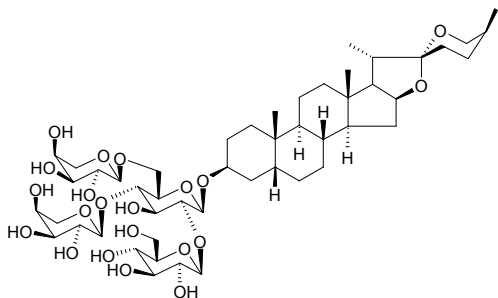


**1862 Aspafiloside C**

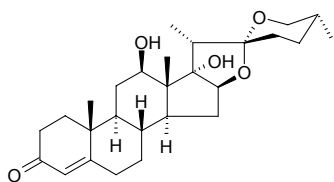
[131123-74-5] C<sub>49</sub>H<sub>82</sub>O<sub>22</sub> (1023.19). White amorphous powder (MeOH), mp 178~180°C, [α]<sub>D</sub><sup>20</sup> = -36.5° (c = 0.09, CHCl<sub>3</sub>-MeOH). **Pharm:** Spermaticidal (inhibits activity of hmn sperm *in vitro*, 1mg/mL, activity down to 14%, 2mg/mL, activity down to 0%). **Source:** XIAO BAI BU *Asparagus officinalis*, TU BAI BU *Asparagus filicinus*. **Ref:** 159, 1159.

**1863 Asparacoside**

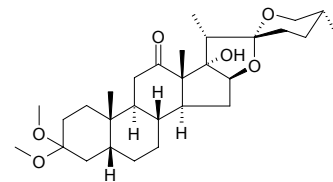
(25*S*)-5β-Spirostan-3β-ol-3-*O*-α-*L*-arabinopyranosyl-(1→6)-[α-*L*-arabinopyranosyl-(1→4)]-[β-*D*-glucopyranosyl-(1→2)]-β-*D*-glucopyranoside C<sub>49</sub>H<sub>80</sub>O<sub>21</sub> (1005.17). White powder, [α]<sub>D</sub><sup>20</sup> = -35.2° (c = 0.57, MeOH:CHCl<sub>3</sub> = 1:1). **Pharm:** Cytotoxic (*in vitro*, Lu1, IC<sub>50</sub> = 4.2μg/mL (4.2μmol/L), LNCaP, IC<sub>50</sub> = 10.1μg/mL (10.1μmol/L), Col2, IC<sub>50</sub> = 5.4μg/mL (5.4μmol/L), HUVEC, IC<sub>50</sub> = 4.1μg/mL (4.1μmol/L), KB, IC<sub>50</sub> = 4.8μg/mL (4.8μmol/L), HOG.R5, IC<sub>50</sub> < 10μg/mL (< 10μmol/L), control Ellipticine: Lu1, IC<sub>50</sub> = 0.02μg/mL (0.08μmol/L), LNCaP, IC<sub>50</sub> = 0.8μg/mL (3.25μmol/L), Col2, IC<sub>50</sub> = 0.3μg/mL (1.22μmol/L), HUVEC, IC<sub>50</sub> = 0.09μg/mL (0.37μmol/L), KB, IC<sub>50</sub> = 0.04μg/mL (0.16μmol/L), HOG.R5, IC<sub>50</sub> = 0.02μg/mL (0.08μmol/L)). **Source:** TIAN MEN DONG *Asparagus cochinchinensis* [Syn. *Asparagus lucidus*] (dried root: yield = 0.015%dw). **Ref:** 3009.

**1864 Asparacosin A**

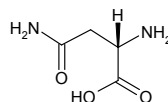
(25*R*)-12β,17α-Dihydroxyspirost-4-en-3-one C<sub>27</sub>H<sub>40</sub>O<sub>5</sub> (444.62). Colorless flake, [α]<sub>D</sub><sup>20</sup> = -13.0° (c = 0.53, MeOH). **Pharm:** Cytotoxic (*in vitro*, KB, IC<sub>50</sub> = 10.7μg/mL (24.1μmol/L), control Ellipticine, IC<sub>50</sub> = 0.04μg/mL (0.16μmol/L)), cytotoxic inactive (Lu1, LNCaP, Col2, HUVEC, IC<sub>50</sub> > 20μg/mL). **Source:** TIAN MEN DONG *Asparagus cochinchinensis* [Syn. *Asparagus lucidus*] (dried root: yield = 0.0074%dw). **Ref:** 3009.

**1865 Asparacosin B**

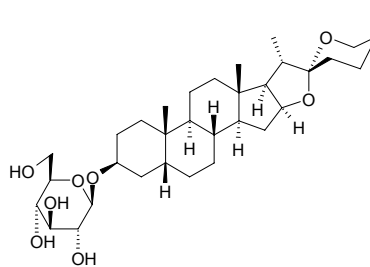
(25*R*)-3,3-Dimethoxy-17α-hydroxyspirostan-3-ol-12-one C<sub>29</sub>H<sub>46</sub>O<sub>6</sub> (490.69). Colorless flake, [α]<sub>D</sub><sup>20</sup> = -21.7° (c = 0.73, MeOH). **Pharm:** Cytotoxic inactive (KB, Col2, LNCaP, Lu1, HUVEC, IC<sub>50</sub> > 20μg/mL). **Source:** TIAN MEN DONG *Asparagus cochinchinensis* [Syn. *Asparagus lucidus*] (dried root: yield = 0.00036%dw). **Ref:** 3009.

**1866 L-Asparagine**

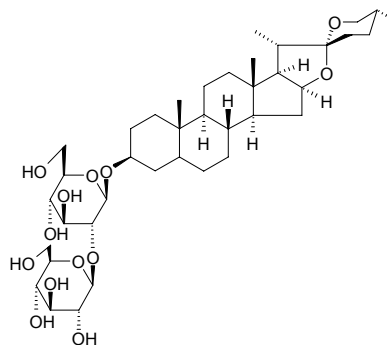
[7006-34-0] C<sub>4</sub>H<sub>8</sub>N<sub>2</sub>O<sub>3</sub> (132.32). Hydrate, trapezoidal half-plane crystals, mp 234~235°C, [α]<sub>D</sub><sup>20</sup> = -5.42° (c = 1.3); [α]<sub>D</sub><sup>20</sup> = -9.3° (c = 1mol/L, 1mol/L hydrochloric acid). **Pharm:** Antineoplastic; antitussive (animal model); enhances myocardial contractility with peripheral anapetia (iv); slows heart rate and enhances amount of urine (iv); antihypertensive; diuretic; nutrient. **Source:** CHANG GUAN XUAN CAO *Hemerocallis longituba*, LU DI MIAN *Gossypium hirsutum* [Syn. *Gossypium mexicanum*], TIAN MEN DONG *Asparagus cochinchinensis* [Syn. *Asparagus lucidus*], XIAO BAI BU *Asparagus officinalis*, XIAO GUO KA FEI *Coffea arabica*, XUAN SHEN *Scrophularia ningpoensis*, *Glycine* sp., *Vicia* sp. **Ref:** 658, 661.

**1867 Asparoside A**

[14835-43-9] C<sub>33</sub>H<sub>54</sub>O<sub>8</sub> (578.79). **Source:** XIAO BAI BU *Asparagus officinalis*. **Ref:** 658.

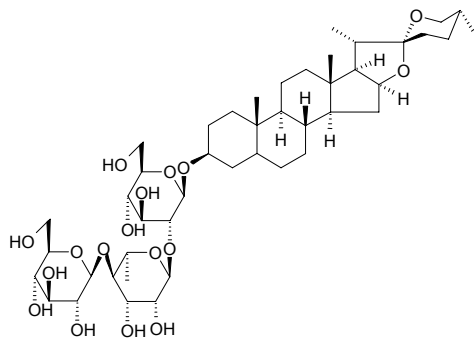
**1868 Asparanin A**

C<sub>39</sub>H<sub>64</sub>O<sub>13</sub> (740.94). **Source:** SHANG JU TIAN MEN DONG *Asparagus adscendens*. **Ref:** 697.

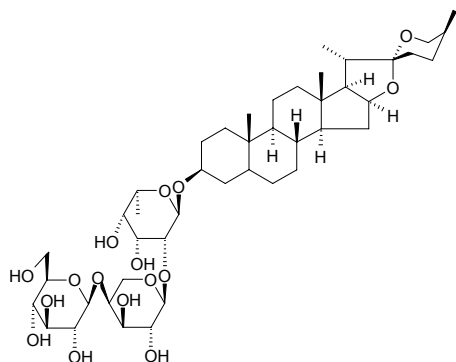


**1869 Asparanin B<sub>1</sub>**

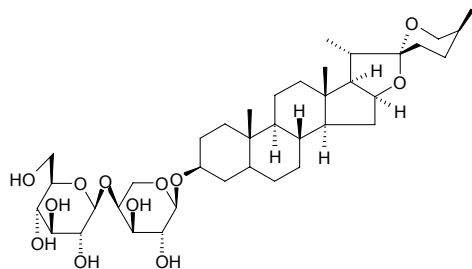
$C_{45}H_{74}O_{17}$  (887.08). Source: SHANG JU TIAN MEN DONG *Asparagus adscendens*. Ref: 697.

**1870 Asparanin B<sub>2</sub>**

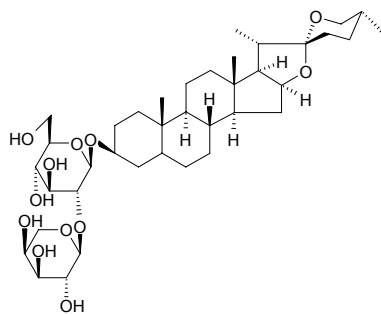
$C_{44}H_{72}O_{16}$  (857.05). Source: WAN QU TIAN MEN DONG *Asparagus curillus*. Ref: 697.

**1871 Asparanin B<sub>3</sub>**

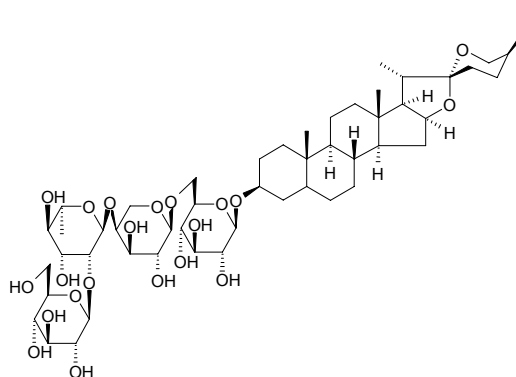
$C_{38}H_{62}O_{12}$  (710.91). Source: WAN QU TIAN MEN DONG *Asparagus curillus*. Ref: 697.

**1872 Asparanin B<sub>4</sub>**

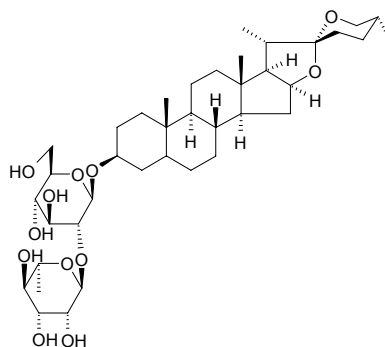
$C_{38}H_{62}O_{12}$  (710.91). Source: WAN QU TIAN MEN DONG *Asparagus curillus*. Ref: 697.

**1873 Asparanin B<sub>5</sub>**

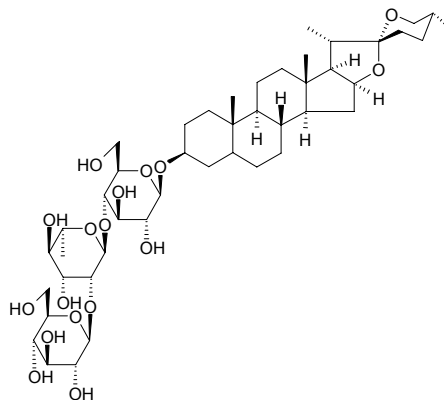
$C_{50}H_{82}O_{21}$  (1019.20). Source: WAN QU TIAN MEN DONG *Asparagus curillus*. Ref: 697.

**1874 Asparanin B<sub>6</sub>**

$C_{39}H_{64}O_{12}$  (724.94). Source: WAN QU TIAN MEN DONG *Asparagus curillus*. Ref: 697.

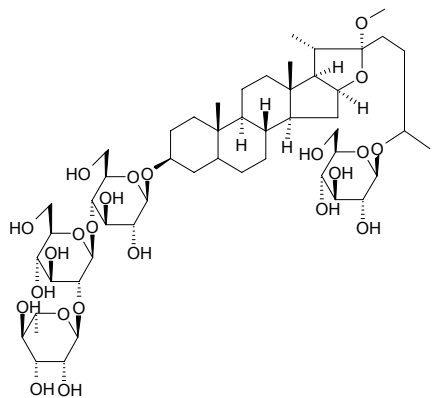
**1875 Asparanin B<sub>7</sub>**

$C_{45}H_{74}O_{17}$  (887.71). Source: WAN QU TIAN MEN DONG *Asparagus curillus*. Ref: 697.

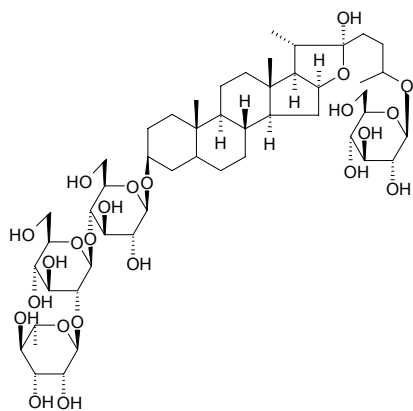


**1876 Asparanin B<sub>8</sub>**

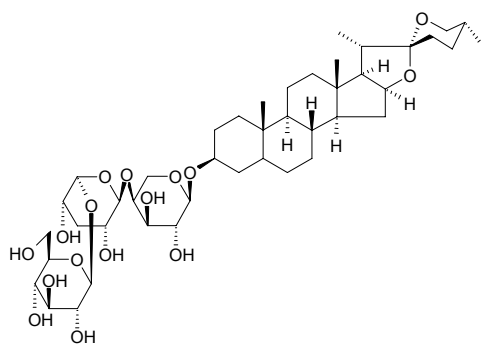
$C_{51}H_{86}O_{23}$  (1067.24). Source: WAN QU TIAN MEN DONG *Asparagus curillus*. Ref: 697.

**1877 Asparanin B<sub>9</sub>**

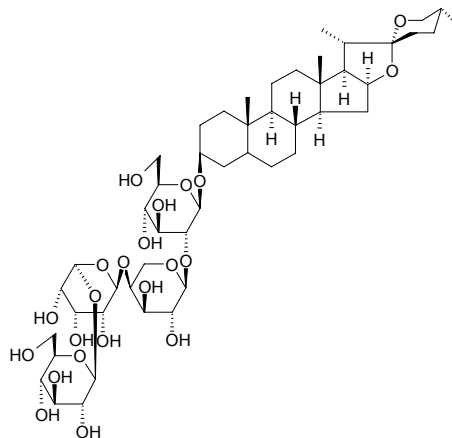
$C_{50}H_{84}O_{23}$  (1053.21). Source: WAN QU TIAN MEN DONG *Asparagus curillus*. Ref: 697.

**1878 Asparanin C**

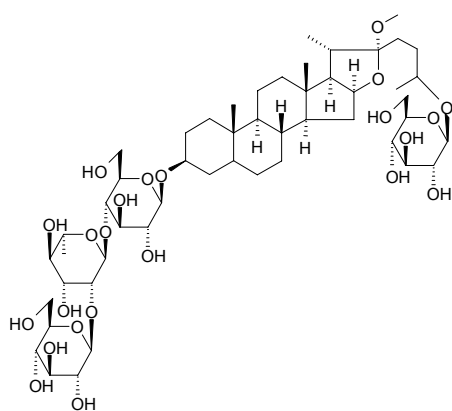
$C_{43}H_{70}O_{16}$  (843.03). Source: SHANG JU TIAN MEN DONG *Asparagus adscendens*. Ref: 697.

**1879 Asparanin D**

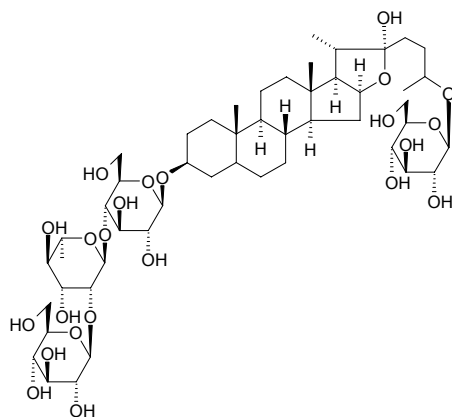
$C_{49}H_{80}O_{22}$  (1021.17). Source: SHANG JU TIAN MEN DONG *Asparagus adscendens*. Ref: 697.

**1880 Asparaside A**

$C_{51}H_{86}O_{23}$  (1067.24). Source: SHANG JU TIAN MEN DONG *Asparagus adscendens*. Ref: 697.

**1881 Asparaside B<sub>1</sub>**

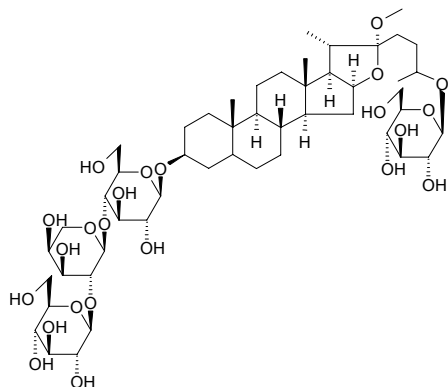
$C_{50}H_{84}O_{23}$  (1053.21). Source: SHANG JU TIAN MEN DONG *Asparagus adscendens*. Ref: 697.



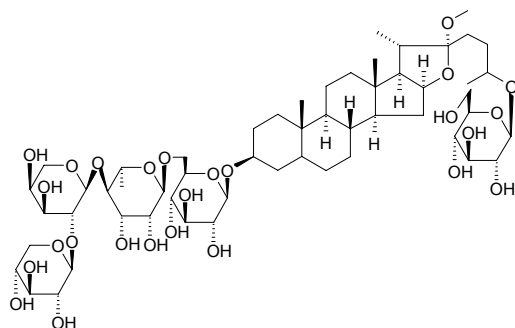


**1882 Asparaside B<sub>2</sub>**

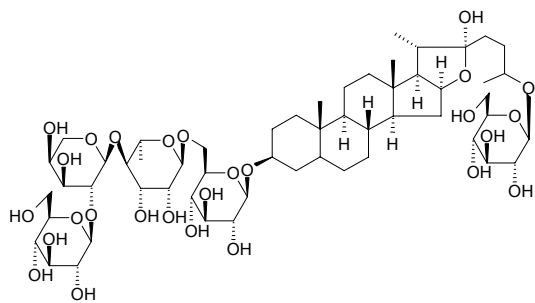
$C_{50}H_{84}O_{23}$  (1053.21). Source: WAN QU TIAN MEN DONG *Asparagus curillus*. Ref: 697.

**1883 Asparaside C**

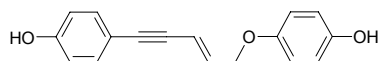
$C_{55}H_{92}O_{26}$  (1169.33). Source: SHANG JU TIAN MEN DONG *Asparagus adscendens*. Ref: 697.

**1884 Asparaside D**

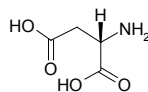
$C_{55}H_{92}O_{27}$  (1185.33). Source: SHANG JU TIAN MEN DONG *Asparagus adscendens*. Ref: 697.

**1885 Asparenidiol**

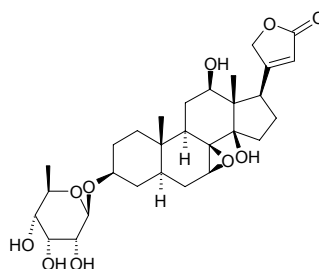
$C_{17}H_{16}O_3$  (268.32). Pharm: Cytotoxic (*in vitro*, KB,  $IC_{50}$  = 2.4  $\mu$ g/mL (8.5  $\mu$ mol/L), Lu1,  $IC_{50}$  = 19.8  $\mu$ g/mL), HOG.R5,  $IC_{50}$  < 5  $\mu$ g/mL (< 18  $\mu$ mol/L), control Ellipticine: KB,  $IC_{50}$  = 0.04  $\mu$ g/mL (0.16  $\mu$ mol/L), Lu1,  $IC_{50}$  = 0.02  $\mu$ g/mL (0.08  $\mu$ mol/L), HOG.R5,  $IC_{50}$  = 0.02  $\mu$ g/mL (0.08  $\mu$ mol/L)); cytotoxic inactive (Col2, LNCaP, HUVEC,  $IC_{50}$  > 20  $\mu$ g/mL). Source: TIAN MEN DONG *Asparagus cochinchinensis* [Syn. *Asparagus lucidus*] (dried root: yield = 0.00004%dw). Ref: 3009.

**1886 L-Aspartic acid**

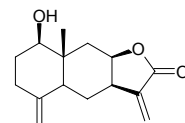
[56-84-8]  $C_4H_7NO_4$  (133.10). Pharm: CNS stimulant (high dose); nutrient. Source: GUANG GUO GAN CAO *Glycyrrhiza glabra*, BAN XIA *Pinellia ternata* (dried tuber: content scope of 4 origins = 1.65%~2.40%, mean content = 1.98%)<sup>[5521]</sup>, *Coffea* sp. Ref: 658, 5521.

**1887 Aspecioside**

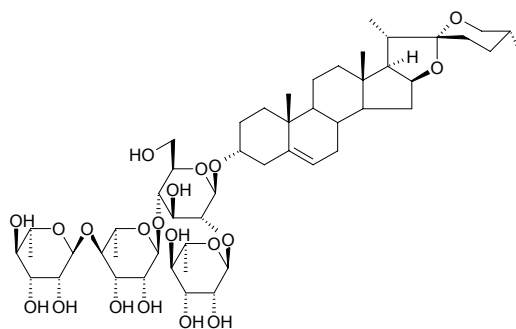
$C_{29}H_{42}O_{10}$  (550.65). Pharm: Toxin (vertebrate). Source: MEI LI MA LI JIN *Asclepias speciosa*, XU LI YA MA LI JIN *Asclepias syriaca*. Ref: 658.

**1888 Asperilin**

$C_{15}H_{20}O_3$  (248.32). Source: CAO YE YI WA JU *Iva asperifolia*, JIN FEI CAO *Inula japonica*, MEI LI TE LE JU *Telekia speciosa*. Ref: 1521, 5422.

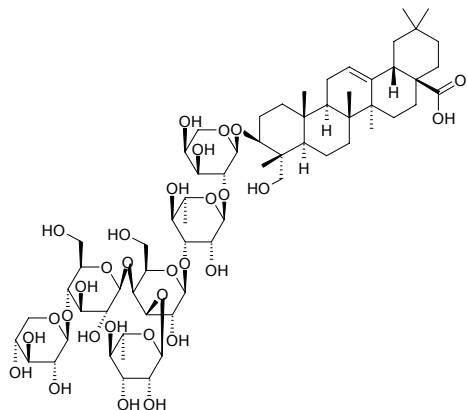
**1889 Asperin**

$C_{51}H_{82}O_{20}$  (1015.21). Source: CHUAN LONG SHU YU *Dioscorea nipponica*. Ref: 660.

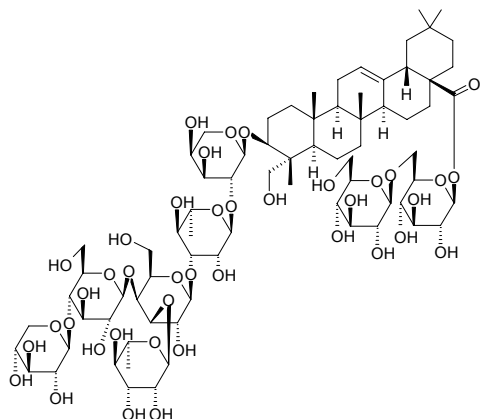


**1890 Asperosaponin F**

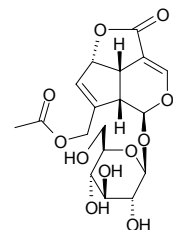
3-*O*-[ $\beta$ -*D*-Xylopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-(1 $\rightarrow$ 4)][ $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 3)- $\beta$ -*D*-galactopyranosyl-(1 $\rightarrow$ 3)- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -*L*-arabinopyranosyl]-hederagenin C<sub>64</sub>H<sub>104</sub>O<sub>30</sub> (1353.52). White powder, mp 244~247°C, soluble in methanol, pyridine and water. Source: CHUAN XU DUAN *Dipsacus asperoides*. Ref: 307.

**1891 Asperosaponin H<sub>1</sub>**

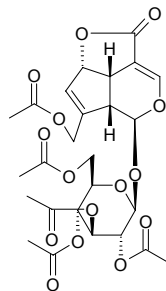
3-*O*-[ $\beta$ -*D*-Xylopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 4)][ $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 3)- $\beta$ -*D*-galactopyranosyl-(1 $\rightarrow$ 3)- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -*L*-rabinopyranosyl]-hederagenin-28-*O*- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranoside C<sub>76</sub>H<sub>124</sub>O<sub>40</sub> (1677.81). White powder, mp 233~236°C, soluble in methanol, pyridine and water. Source: CHUAN XU DUAN *Dipsacus asperoides*. Ref: 307.

**1892 Asperuloside**

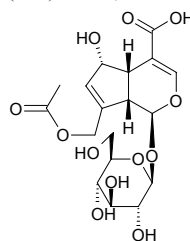
[14259-45-1] C<sub>18</sub>H<sub>22</sub>O<sub>11</sub> (414.37). mp 125~127°C. Pharm: Plant growth and germination inhibitor; laxative (mus, ED<sub>50</sub> = 0.24g/kg). Source: BA XIAN CAO *Galium aparine*, DA CHE QIAN *Plantago major*, JI SHI TENG *Paederia scandens*, JIAO RANG MU *Daphniphyllum macropodum*, PENG ZI CAI *Galium verum*, XIANG CHE YE CAO *Asperula odorata*, XIE JI CU YE MU *Lasianthus wallichii* (leaf), ZHI ZI *Gardenia jasminoides* [Syn. *Gardenia florida*], *Escallonia* sp. Ref: 6, 400, 626, 658, 660, 4238.

**1893 Asperuloside tetraacetate**

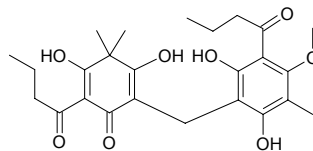
C<sub>26</sub>H<sub>30</sub>O<sub>15</sub> (582.52). Source: BA JI TIAN *Morinda officinalis*. Ref: 660.

**1894 Asperulosidic acid**

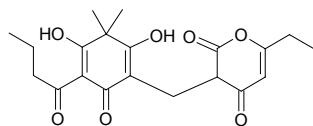
[25368-11-0] C<sub>18</sub>H<sub>24</sub>O<sub>12</sub> (432.38). Source: BAI HUA SHE SHE CAO *Oldenlandia diffusa* [Syn. *Hedyotis diffusa*], HAI BA JI *Morinda citrifolia* (fruit). Ref: 7, 4542.

**1895 Aspidin**

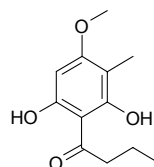
[584-28-1] C<sub>25</sub>H<sub>32</sub>O<sub>8</sub> (460.53). mp 125°C. Pharm: Anthelmintic (tapeworm and hookworm); toxin (smooth muscle of invertebrate). Source: AO DI LI LIN MAO JUE *Dryopteris austriaca*, GUAN ZHONG *Dryopteris crassirhizoma*, MAO GUAN ZHONG *Dryopteris championii*. Ref: 6, 658.

**1896 Aspidinin**

[19489-48-6] C<sub>21</sub>H<sub>26</sub>O<sub>7</sub> (390.44). mp 111~112°C. Source: GUAN ZHONG *Dryopteris crassirhizoma*. Ref: 6.

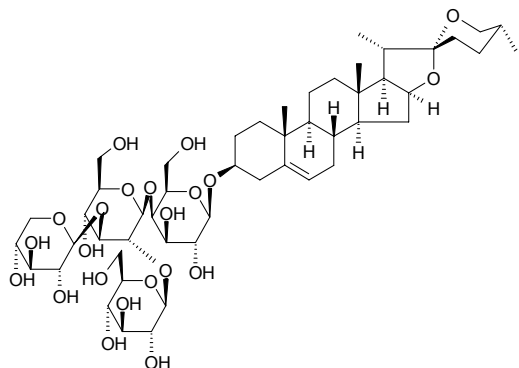
**1897 Aspidinol**

[519-40-4] C<sub>12</sub>H<sub>16</sub>O<sub>4</sub> (224.26). mp 156~161°C. Pharm: Anthelmintic; antibacterial. Source: AO DI LI LIN MAO JUE *Dryopteris austriaca*, GUAN ZHONG *Dryopteris crassirhizoma*, MIAN MA *Dryopteris filix-mas*, TI GAI JUE *Athyrium filix-femina*. Ref: 6, 658.

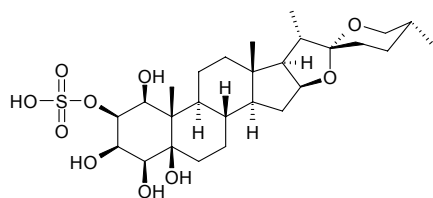


**1898 Aspidistrin**

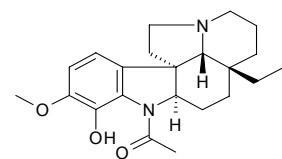
$C_{50}H_{80}O_{22}$  (1033.18). mp 265~267°C (dec). Source: BAI MAO TENG *Solanum lyratum*, ZHI ZHU BAO DAN *Aspidistra elatior*. Ref: 6, 660.

**1899 Aspidistrogenin A**

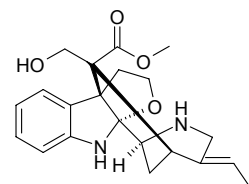
(25S)-Spirost-1 $\beta$ ,2 $\beta$ ,3 $\beta$ ,4 $\beta$ ,5 $\beta$ -pentol 2-sulfate  $C_{27}H_{44}O_{10}S$  (560.71). White crystals. Source: ZHI ZHU BAO DAN *Aspidistra elatior*. Ref: 891.

**1900 Aspidocarpine**

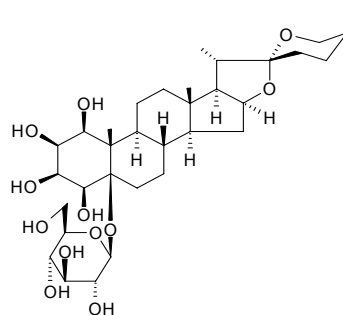
[466-45-5]  $C_{22}H_{30}N_2O_3$  (370.50). Prismatic crystals, mp 168.5~169.5°C,  $[\alpha]_D^{25} = +140^\circ$  ( $c = 2.2$ ,  $CHCl_3$ ),  $pK_a = 6.55$ . Source: *Aspidosperma album*, *Aspidosperma meglacarbon*, *Aspidosperma formasanum*, *Aspidosperma marcgravianum*, *Aspidosperma neblinae*. Ref: 2099.

**1901 Aspidodasycarpine**

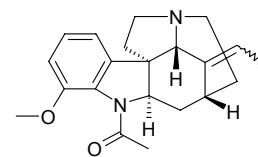
[2744-47-0]  $C_{21}H_{26}N_2O_4$  (370.45). Pharm: Antipyretic. Source: CU MAO GUO BAI JIAN MU *Aspidosperma dasycarbon*, JIAN BAI JIAN MU *Aspidosperma cuspa*. Ref: 658.

**1902 Aspidoside A**

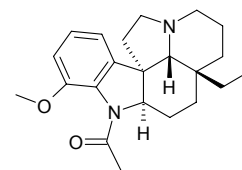
1 $\beta$ ,1 $\beta$ ,3 $\beta$ ,4 $\beta$ ,5 $\beta$ -Pentahydroxy-spirost-25(27)-ene5-O- $\beta$ -D-glucopyranoside  $C_{33}H_{52}O_{12}$  (640.78). White crystals. Source: ZHI ZHU BAO DAN *Aspidistra elatior*. Ref: 891, 2099.

**1903 Aspidospermatine**

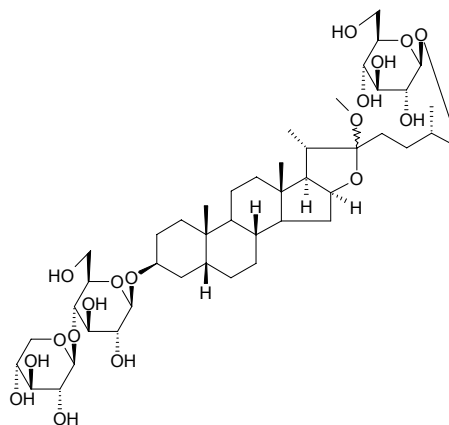
$C_{21}H_{26}N_2O_2$  (338.45). Pharm: Antiasthmatic. Source: PU TONG BAI JIAN MU *Aspidosperma quebracho-blanco*. Ref: 658.

**1904 Aspidospermine**

[466-49-9]  $C_{22}H_{30}N_2O_2$  (354.50). Pharm: Antibacterial; diuretic; respiratory stimulant; LD<sub>50</sub> (mus, ip) = 40mg/kg. Source: PU TONG BAI JIAN MU *Aspidosperma quebracho-blanco*, LENG ZHUANG BAI JIAN MU *Aspidosperma rhombeosignatum*. Ref: 658.

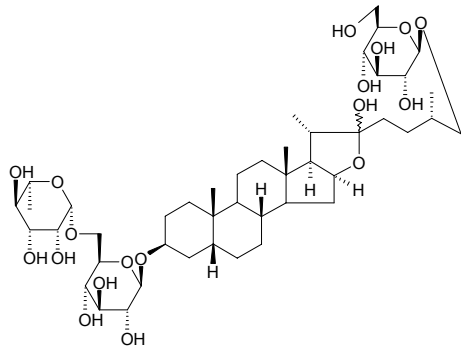
**1905 Asp-IV**

$C_{45}H_{76}O_{18}$  (905.10). Source: TIAN MEN DONG *Asparagus cochinchinensis* [Syn. *Asparagus lucidus*]. Ref: 660.

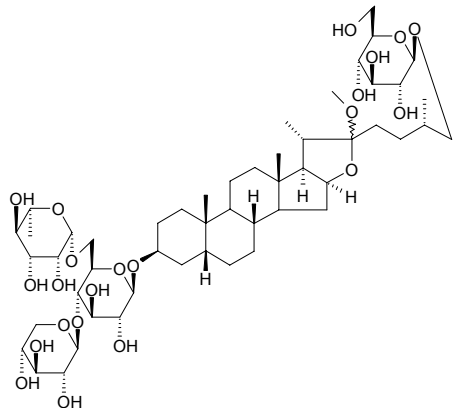


**1906 Asp-V**

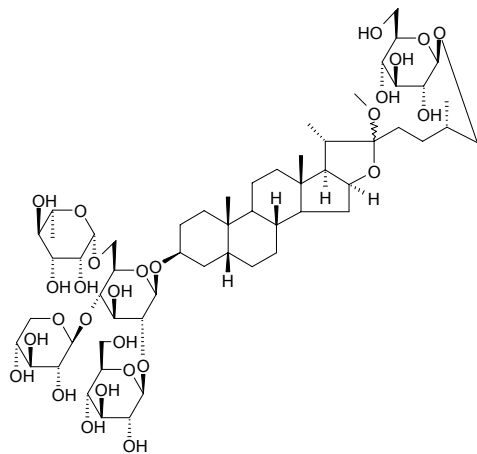
$C_{45}H_{76}O_{18}$  (905.10). Source: TIAN MEN DONG *Asparagus cochinchinensis* [Syn. *Asparagus lucidus*]. Ref: 660.

**1907 Asp-VI**

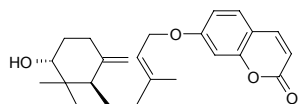
$C_{51}H_{86}O_{22}$  (1051.24). Source: TIAN MEN DONG *Asparagus cochinchinensis* [Syn. *Asparagus lucidus*]. Ref: 660.

**1908 Asp-VII**

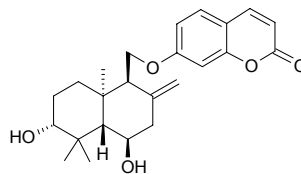
$C_{57}H_{96}O_{27}$  (1213.38). Source: TIAN MEN DONG *Asparagus cochinchinensis* [Syn. *Asparagus lucidus*]. Ref: 660.

**1909 Assafoetidin**

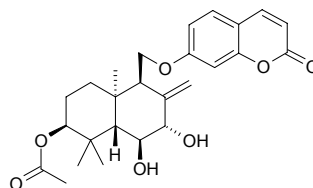
[115361-83-6]  $C_{24}H_{30}O_4$  (382.50). Source: A WEI *Ferula assafoetida*. Ref: 7.

**1910 Assafoetidol A**

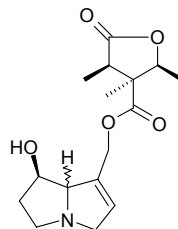
$C_{24}H_{30}O_5$  (398.50). Amorphous solid,  $[\alpha]_D = -80.0^\circ$  ( $c = 0.2$ , MeOH). Source: A WEI *Ferula assafoetida* (root). Ref: 5243.

**1911 Assafoetidol B**

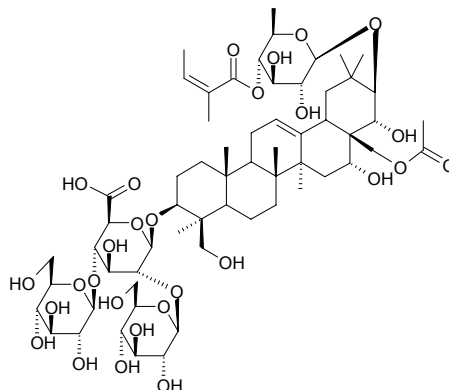
$C_{26}H_{32}O_7$  (456.54). Amorphous solid,  $[\alpha]_D = +29.4^\circ$  ( $c = 0.2$ , MeOH). Source: A WEI *Ferula assafoetida* (root). Ref: 5243.

**1912 Assamicadine**

$C_{16}H_{23}NO_5$  (309.37). Source: ZI XIAO RONG ZI *Crotalaria assamica*. Ref: 660.

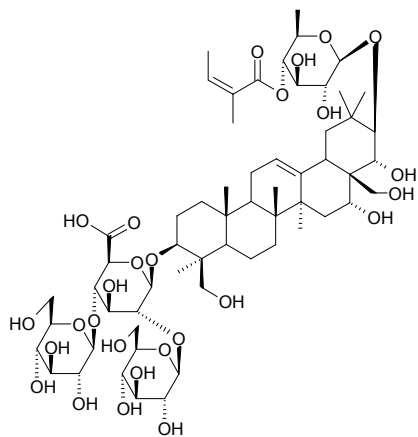
**1913 Assamicin III**

28-*O*-Acetyl-21-*O*-(4-*O*-angeloyl)-6-deoxy- $\beta$ -glucopyranosyl-3-*O*-[ $\beta$ -glucopyranosyl(1 $\rightarrow$ 2)-*O*-[ $\beta$ -glucopyranosyl(1 $\rightarrow$ 4)]- $\beta$ -glucuronopyranosyl]protoascigenin  $C_{61}H_{96}O_{28}$  (1277.43). Amorphous powder,  $[\alpha]_D^{24} = -47.8^\circ$  ( $c = 0.2$ , pyridine). Pharm: Antifungal (plant pathogenic fungus *Pyricularia oryzae*)<sup>[4517]</sup>; cytotoxic (*in vitro*, K562, HCT15)<sup>[4517]</sup>. Source: CHANG BING QI YE SHU *Aesculus assamica* (seed). Ref: 4517.

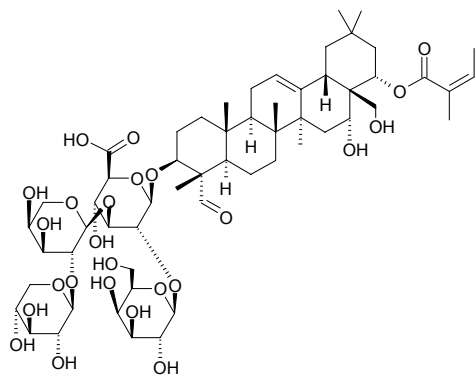


**1914 Assamicin IV**

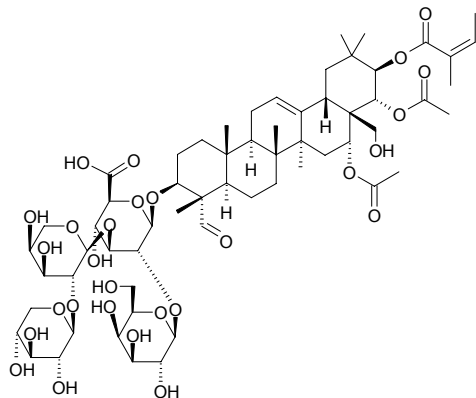
21-*O*-(4-*O*-Angeloyl)-6-deoxy- $\beta$ -glucopyranosyl-3-*O*-[ $\beta$ -glucopyranosyl(1 $\rightarrow$ 2)-*O*-[ $\beta$ -glucopyranosyl(1 $\rightarrow$ 4)]- $\beta$ -glucuronopyranosyl]protoaescigenin  
 $C_{59}H_{94}O_{27}$  (1235.39). Amorphous powder,  $[\alpha]_D^{24} = -40.5^\circ$  ( $c = 0.2$ , pyridine).  
**Pharm:** Antifungal (plant pathogenic fungus *Pyricularia oryzae*); cytotoxic (*in vitro*, K562, HCT15). **Source:** CHANG BING QI YE SHU *Aesculus assamica* (seed). **Ref:** 4517.

**1915 Assamsaponin A**

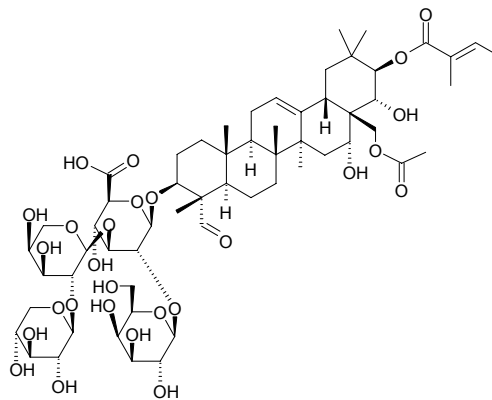
$C_{57}H_{88}O_{25}$  (1173.32). **Source:** PU ER CHA *Camellia sinensis* var. *assamica* (seed and leaf). **Ref:** 4537.

**1916 Assamsaponin B**

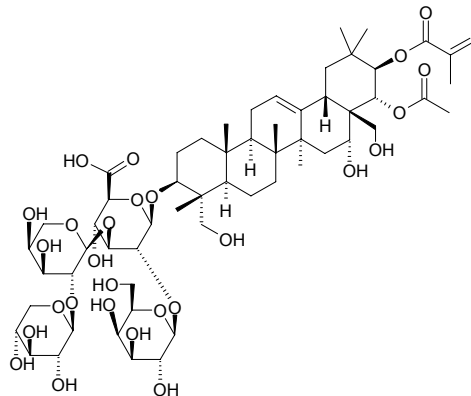
$C_{61}H_{92}O_{28}$  (1273.40). **Pharm:** Inhibits ethanol-induced gastric mucosal lesions (rat, 5.0mg/kg, orl). **Source:** PU ER CHA *Camellia sinensis* var. *assamica* (seed and leaf). **Ref:** 4537.

**1917 Assamsaponin C**

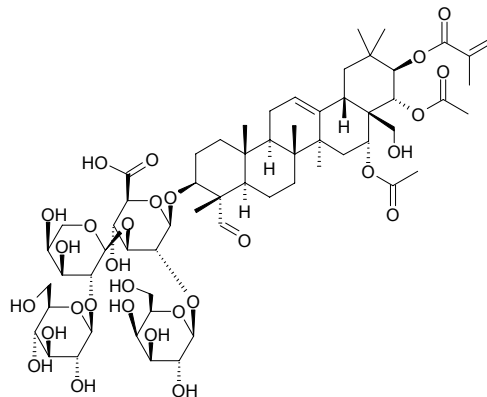
$C_{59}H_{90}O_{27}$  (1231.36). **Pharm:** Inhibits ethanol-induced gastric mucosal lesions (rat, 5.0mg/kg, orl). **Source:** PU ER CHA *Camellia sinensis* var. *assamica* (seed and leaf). **Ref:** 4537.

**1918 Assamsaponin D**

$C_{59}H_{92}O_{27}$  (1233.37). **Source:** PU ER CHA *Camellia sinensis* var. *assamica* (seed and leaf). **Ref:** 4537.

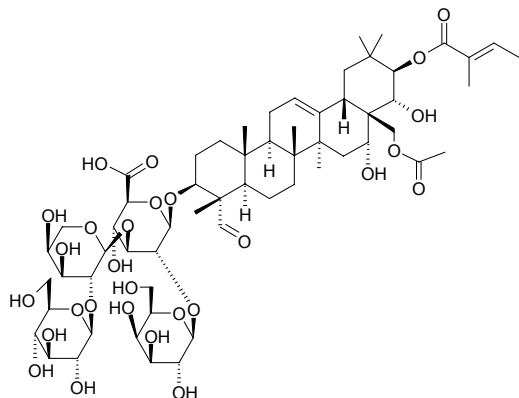
**1919 Assamsaponin F**

$C_{62}H_{94}O_{29}$  (1303.42). **Source:** PU ER CHA *Camellia sinensis* var. *assamica* (seed and leaf). **Ref:** 4537.

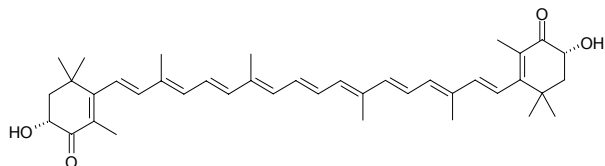


**1920 Assamsaponin I**

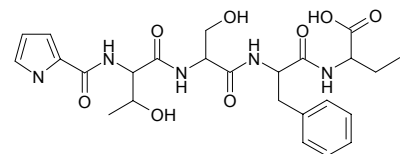
$C_{60}H_{92}O_{28}$  (1261.39). Source: PU ER CHA *Camellia sinensis* var. *assamica* (seed and leaf). Ref: 4537.

**1921 Astaxanthin**

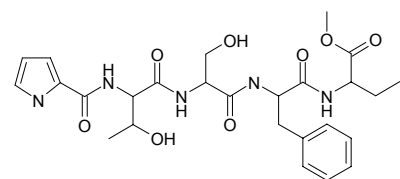
3,3'-Dihydroxy- $\beta$ -carotene-4,4'-dione [472-61-7]  $C_{40}H_{52}O_4$  (596.86). mp 215~216°C (dec). Source: JIN YU *Carassius auratus*, HAI XIA *Penaeus orientalis*, LI YU PI *Cyprinus carpio*. Ref: 6.

**1922 Asterin A**

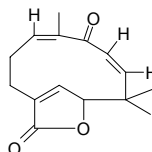
$C_{25}H_{33}N_5O_8$  (531.57). Source: ZI WAN *Aster tataricus*. Ref: 660.

**1923 Asterin B**

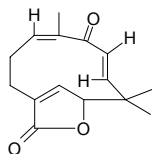
$C_{26}H_{35}N_5O_8$  (545.60). Source: ZI WAN *Aster tataricus*. Ref: 660.

**1924 Asteriscunolide A**

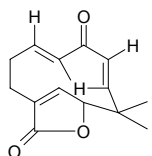
$C_{15}H_{18}O_3$  (246.31). Crystals, mp 155°C, mp 158°C. Pharm: Phytotoxin (6mg/mL: *S. acutus*, mortality = 75%, *L. paucicostata*, mortality = 90%); cytotoxic (P<sub>388</sub>, IC<sub>50</sub> = 4μmol/L, control *cis*-Platin, IC<sub>50</sub> = 8μmol/L; A549, IC<sub>50</sub> = 4μmol/L, *cis*-Platin, IC<sub>50</sub> = 8μmol/L; HT29, IC<sub>50</sub> = 10μmol/L, *cis*-Platin, IC<sub>50</sub> = 16μmol/L; MEL-28, IC<sub>50</sub> = 4μmol/L, *cis*-Platin, IC<sub>50</sub> = 8μmol/L). Source: *Asteriscus vogelii* (aerial parts). Ref: 5123.

**1925 Asteriscunolide C**

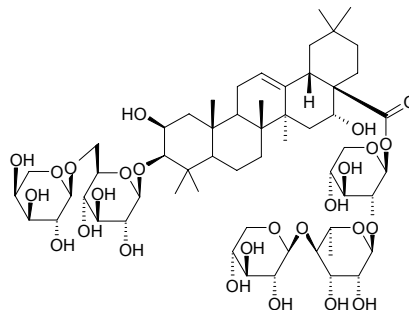
$C_{15}H_{18}O_3$  (246.31). Crystals, mp 165°C, mp 164°C. Pharm: Phytotoxin (6mg/mL: *S. acutus*, mortality = 62%, *L. paucicostata*, mortality = 94%); cytotoxic (P<sub>388</sub>, IC<sub>50</sub> = 4μmol/L, control *cis*-Platin, IC<sub>50</sub> = 8μmol/L; A549, IC<sub>50</sub> = 4μmol/L, *cis*-Platin, IC<sub>50</sub> = 8μmol/L; HT29, IC<sub>50</sub> = 10μmol/L, *cis*-Platin, IC<sub>50</sub> = 16μmol/L; MEL-28, IC<sub>50</sub> = 4μmol/L, *cis*-Platin, IC<sub>50</sub> = 8μmol/L). Source: *Asteriscus vogelii* (aerial parts). Ref: 5123.

**1926 Asteriscunolide D**

$C_{15}H_{18}O_3$  (246.31). Crystals, mp 148°C, mp 145°C. Pharm: Phytotoxin (6mg/mL: *S. acutus*, mortality = 49%, *L. paucicostata*, mortality = 100%); cytotoxic (P<sub>388</sub>, IC<sub>50</sub> = 1μmol/L, control *cis*-Platin, IC<sub>50</sub> = 8μmol/L; A549, IC<sub>50</sub> = 1μmol/L, *cis*-Platin, IC<sub>50</sub> = 8μmol/L; HT29, IC<sub>50</sub> = 2μmol/L, *cis*-Platin, IC<sub>50</sub> = 16μmol/L; MEL-28, IC<sub>50</sub> = 1μmol/L, *cis*-Platin, IC<sub>50</sub> = 8μmol/L). Source: *Asteriscus vogelii* (aerial parts). Ref: 5123.

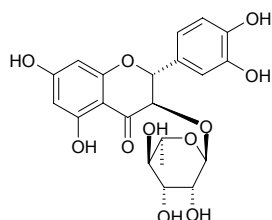
**1927 Astersaponin G**

$C_{57}H_{92}O_{26}$  (1193.35). Source: ZI WAN *Aster tataricus*. Ref: 660.

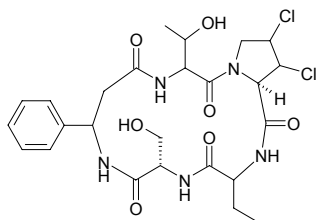


**1928 Astilbin**

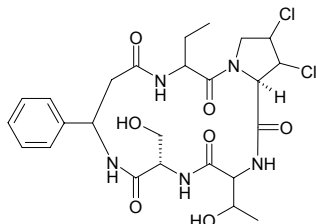
Taxifolin-3-*O*- $\alpha$ -L-rhamnoside [29838-67-3] C<sub>21</sub>H<sub>22</sub>O<sub>11</sub> (450.40). mp 180°C (dec). **Pharm:** Antioxidant (inhibits formation of active oxygen, IC<sub>50</sub> = 9.5nmol/L, used in treatment of rheumatic arthritis and atherosclerosis); antihemolytic (protects red blood cells against oxidation resulting in hemolysis); antineoplastic (B16 melanoma F-1, inhibits formation of melanin completely, inhibits TPA-induced activation of EBV-EA); anti-inflammatory (rat, swollen foot model caused by carrageenan); aldose reductase inhibitor (pig eye lens, 67 $\mu$ mol/L, InRt = 65%); antihepatotoxin; antimalarial (*Plasmodium falciparum* PoW, IC<sub>50</sub> = 50 $\mu$ g/mL, control Chloroquine diphosphate, IC<sub>50</sub> = (0.006 $\pm$ 0.002) $\mu$ g/mL; Dd2, IC<sub>50</sub> < 50 $\mu$ g/mL, Chloroquine diphosphate, IC<sub>50</sub> = (0.06 $\pm$ 0.01) $\mu$ g/mL)<sup>[5208]</sup>. **Source:** DAO NIAN ZI *Garcinia mangostana* (fruit hull)<sup>[3066]</sup>, LI MU *Lyonia ovalifolia*, TU FU LING *Smilax glabra* (rhizome: content = 0.756%<sup>[5508]</sup>), WU CI KE YA SHU *Andira inermis* (leaf). **Ref:** 6, 416, 568, 1798, 1799, 1800, 1801, 1802, 1803, 3066, 5208, 5508.

**1929 Astin A**

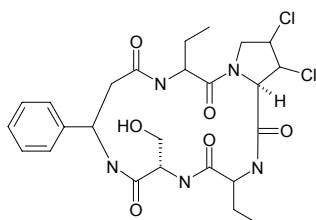
C<sub>25</sub>H<sub>33</sub>Cl<sub>2</sub>N<sub>5</sub>O<sub>7</sub> (586.48). **Source:** ZI WAN *Aster tataricus*. **Ref:** 660.

**1930 Astin B**

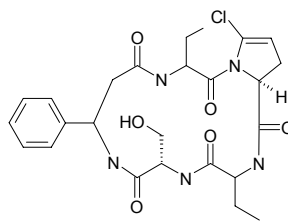
C<sub>25</sub>H<sub>33</sub>Cl<sub>2</sub>N<sub>5</sub>O<sub>7</sub> (586.48). **Source:** ZI WAN *Aster tataricus*. **Ref:** 660.

**1931 Astin C**

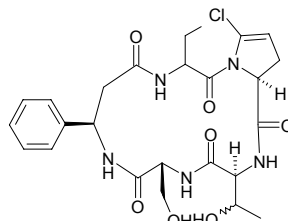
C<sub>25</sub>H<sub>33</sub>Cl<sub>2</sub>N<sub>5</sub>O<sub>6</sub> (570.48). **Source:** ZI WAN *Aster tataricus*. **Ref:** 660.

**1932 Astin D**

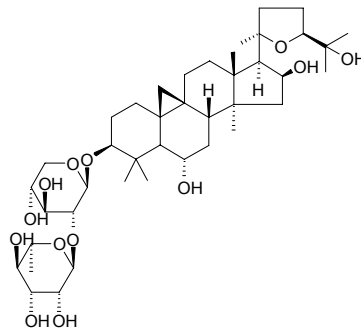
C<sub>25</sub>H<sub>32</sub>ClN<sub>5</sub>O<sub>6</sub> (534.02). **Source:** ZI WAN *Aster tataricus*. **Ref:** 660.

**1933 Astin E**

C<sub>25</sub>H<sub>32</sub>ClN<sub>5</sub>O<sub>7</sub> (550.02). **Source:** ZI WAN *Aster tataricus*. **Ref:** 660.

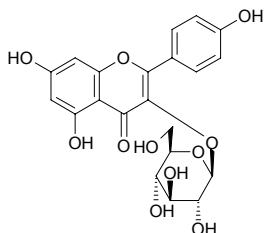
**1934 Astrachryoside**

C<sub>41</sub>H<sub>68</sub>O<sub>13</sub> (768.99). **Source:** JIN YI HUANG QI *Astragalus chrysopterus* (root). **Ref:** 660.

**1935 Astragalin**

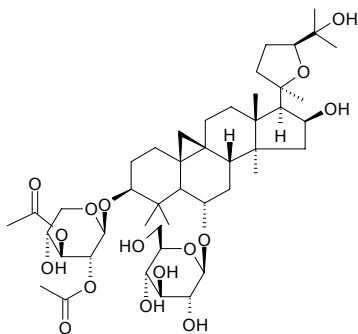
Kaempferol-3-*O*- $\beta$ -D-glucopyranoside [480-10-4] C<sub>21</sub>H<sub>20</sub>O<sub>11</sub> (448.39). Yellow acicular crystals (methanol), mp 163~165°C; mp 178°C. **Pharm:** Antispasmodic (rat small intestine and bladder *in vitro*); choleric (rat); antitussive (dispels phlegm); diuretic (dog, iv); antihypertensive (rat); antioxidant (DPPH scavenger, 250 $\mu$ mol/L, InRt = 5.7%; control Vitamin E, IC<sub>50</sub> = 8.3 $\mu$ mol/L)<sup>[4722]</sup>; antioxidant (DPPH scavenger, IC<sub>50</sub> > 100 $\mu$ g/mL, control Gallic acid, IC<sub>50</sub> = 3.6 $\mu$ g/mL; Cytochrome-C reduction, IC<sub>50</sub> > 50 $\mu$ g/mL, Gallic acid, IC<sub>50</sub> = 3.0 $\mu$ g/mL)<sup>[5239]</sup>. **Source:** BAI GUO YE *Ginkgo biloba*, CHOU LENG SHAN *Abies nephrolepis*, CU LIU GUO *Hippophae rhamnoides*, HUAI *Sophora japonica* (pericarp)<sup>[30801]</sup>, HUANG HUA HAO *Artemisia annua*, JIN ZHONG HUA *Forsythia viridissima*, LAO YA SHI *Diospyros rhombifolia* (leaf), LIU JIAO LIAN *Dysosma pleiantha* [Syn. *Podophyllum pleianthum*], LUO BU MA *Apocynum venetum* (dried leaf: content scope of 6 origins = 0.0132%~0.0334%, mean content = 0.0208%)<sup>[5529]</sup>, LUO DI SHENG GEN *Bryophyllum pinnatum*, LV BEI GUI HUA *Excoecaria cochinchinensis* var. *viridis*, MAO HUA SHI NAN *Photinia lactiflora*, MEI LI YE HUI MAO DOU *Tephrosia calophylla* (whole herb), NAN FANG TU SI ZI *Cuscuta australis*, PU TONG LU TI CAO *Pyrola decorata*, SANG YE *Morus alba* (leaf: content = 0.011%<sup>[5501]</sup>), SHAN TENG

*Anodendron affine*, SHI DI *Diospyros kaki*, TAI WAN HUANG BO  
*Phellodendron amurense* var. *wilsonii* (leaf: yield = 0.059%<sub>dw</sub>)<sup>[4722]</sup>, TU SI ZI  
*Cuscuta chinensis*, XI BO LI YA LENG SHAN *Abies sibirica*, XI SHU  
*Camptotheca acuminata*, YE YA CHUN *Euscaphis japonica*, YI ZHU QIAN  
 MA *Urtica dioica*, YUN SHI *Caesalpinia decapetala* (leaf), ZHANG GUO  
 GAN CAO *Glycyrrhiza inflata*, ZHAO SHAN BAI *Rhododendron*  
*micranthum* (leaf: content scope from Feb. to Nov. 0.09%–0.47%, mean  
 content = 0.22%)<sup>[5508]</sup>, ZHU ZONG CAO *Adiantum capillus-veneris*, ZI YUN  
 YING *Astragalus sinicus*, occurs in many plants. Ref: 2, 231, 468, 658, 660,  
 661, 3080, 3507, 4097, 4312, 4456, 4464, 4544, 5239, 5501, 5508, 5529.



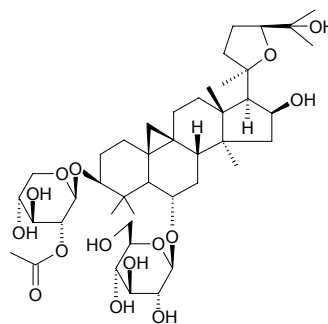
### 1936 Astragaloside I

[84680-75-1] C<sub>45</sub>H<sub>72</sub>O<sub>16</sub> (869.07). **Pharm:** Immunoenhancer (*in vitro*, stimulates proliferation of mouse T lymphocytes, 10 μmol/L, *p* < 0.05; stimulates proliferation of mouse B lymphocytes, 1.0 μmol/L, *p* < 0.05)<sup>[3084]</sup>. **Source:** HUANG QI *Astragalus membranaceus*, MENG GU HUANG QI *Astragalus mongholicus*. Ref: 2, 660, 3084.



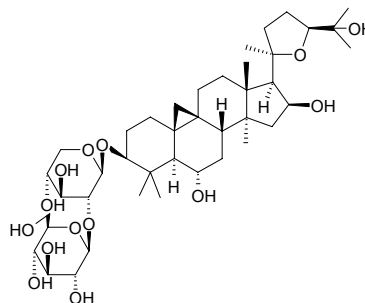
### 1937 Astragaloside II

Astrasieversianin VIII [84676-89-1] C<sub>43</sub>H<sub>70</sub>O<sub>15</sub> (827.03). Colorless crystals (methanol), mp 249–250°C, [α]<sub>D</sub><sup>31</sup> = +30.4° (*c* = 0.46, methanol). **Pharm:** Improves erythrocyte's ability to change shape; antioxidant (inhibits lipid peroxidation strongly, rat, ip, induced by adriamycin); antitrypanosomal (*Trypanosoma brucei rhodesiense*, IC<sub>50</sub> > 66.6 μg/mL, control Melarsoprol, IC<sub>50</sub> = 0.0032 μg/mL; *Trypanosoma cruzi*, IC<sub>50</sub> > 30 μg/mL, Benznidazole, IC<sub>50</sub> = 0.50 μg/mL)<sup>[5285]</sup>; antileishmanial (*Leishmania donovani*, IC<sub>50</sub> = 21.3 μg/mL, control Miltefosine, IC<sub>50</sub> = 0.087 μg/mL)<sup>[5285]</sup>; antimalarial (*Plasmodium falciparum*, IC<sub>50</sub> > 5 μg/mL, Chloroquine, IC<sub>50</sub> = 0.086 μg/mL)<sup>[5285]</sup>; cytotoxic (L6 cells, IC<sub>50</sub> > 90 μg/mL, control Podophyllotoxin, IC<sub>50</sub> = 0.008 μg/mL)<sup>[5285]</sup>. **Source:** HUANG QI *Astragalus membranaceus*, MENG GU HUANG QI *Astragalus mongholicus*, YOU YE HUANG QI *Astragalus oleifolius* (lower stem part). Ref: 2, 660, 965, 1030, 1080, 1109, 1112, 1117, 5285.



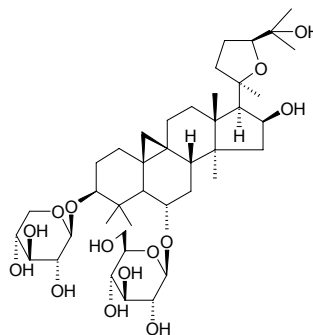
### 1938 Astragaloside III

[84687-42-3] C<sub>41</sub>H<sub>68</sub>O<sub>14</sub> (784.99). Colorless rhombic crystals (methanol), mp 245–247°C, [α]<sub>D</sub><sup>18</sup> = +21.4° (*c* = 0.83, methanol). **Pharm:** Antioxidant (inhibits lipid peroxidation strongly, rat, ip, induced by adriamycin); oxygen free radical scavenger; LD<sub>50</sub> (rat, ip) = 80 μg/mL. **Source:** HUANG QI *Astragalus membranaceus*, MENG GU HUANG QI *Astragalus mongholicus*. Ref: 658, 966, 1079.



### 1939 Astragaloside IV

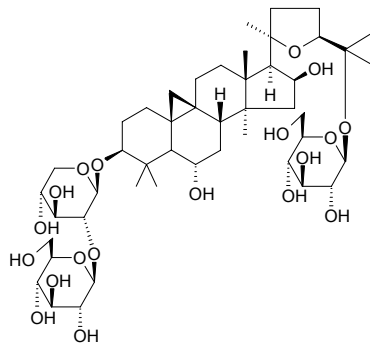
[84687-43-4] C<sub>41</sub>H<sub>68</sub>O<sub>14</sub> (784.99). **Pharm:** Antioxidant (superoxide anion scavenger, LC<sub>50</sub> = 50 μg/mL, inhibits lipid peroxidation caused by adriacin ip in rat); inhibits endotoxin, promotes dissolution of fibrin (prevention and cure of endotoxin shock, coronary heart disease, etc.); improves metamorphic ability of hatched red blood cells; antitrypanosomal (*Trypanosoma brucei rhodesiense*, IC<sub>50</sub> > 90 μg/mL, control Melarsoprol, IC<sub>50</sub> = 0.0032 μg/mL; *Trypanosoma cruzi*, IC<sub>50</sub> > 30 μg/mL, Benznidazole, IC<sub>50</sub> = 0.50 μg/mL)<sup>[5285]</sup>; antileishmanial (*Leishmania donovani*, IC<sub>50</sub> > 30 μg/mL, control Miltefosine, IC<sub>50</sub> = 0.087 μg/mL)<sup>[5285]</sup>; antimalarial (*Plasmodium falciparum*, IC<sub>50</sub> > 5 μg/mL, Chloroquine, IC<sub>50</sub> = 0.086 μg/mL)<sup>[5285]</sup>; cytotoxic (L6 cells, IC<sub>50</sub> > 90 μg/mL, control Podophyllotoxin, IC<sub>50</sub> = 0.008 μg/mL)<sup>[5285]</sup>. **Source:** HUANG QI *Astragalus membranaceus* (dried root: content scope = 0.056%–0.223%<sup>[5501]</sup>; mean content of 4 origins = 0.111%<sup>[5508]</sup>), MENG GU HUANG QI *Astragalus mongholicus* (dried root: mean content of 5 origins = 0.141%<sup>[5508]</sup>), YOU YE HUANG QI *Astragalus oleifolius* (lower stem part). Ref: 2, 660, 1079, 1080, 1585, 1586, 5285, 5501, 5508.



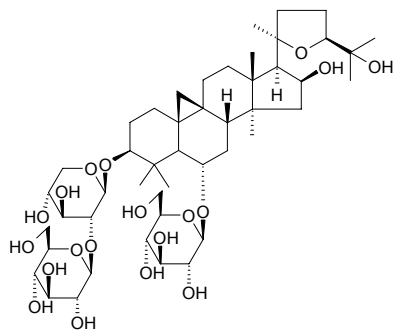


**1940 Astragaloside V**

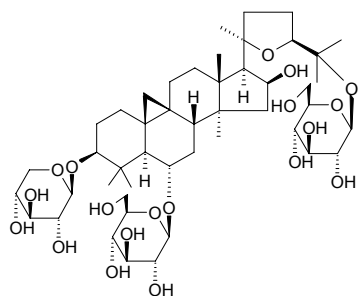
[84687-44-5]  $C_{47}H_{78}O_{19}$  (947.12). Colorless thinly crystals (methanol), mp 202~204°C,  $[\alpha]_D^{14} = +7.2^\circ$  ( $c = 1.0$ , methanol). **Pharm:** Antioxidant (lipid peroxidation inhibitor, rat, ip, induced by adriamycin). **Source:** HUANG QI *Astragalus membranaceus*. **Ref:** 966.

**1941 Astragaloside VI**

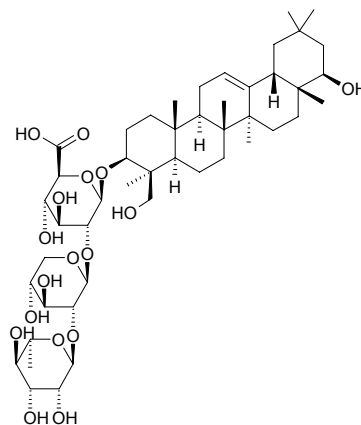
[84687-45-6]  $C_{47}H_{78}O_{19}$  (947.12). Colorless, thin crystals (methanol), mp 290~291°C,  $[\alpha]_D^{14} = +17.3^\circ$  ( $c = 1.0$ , methanol). **Pharm:** Antioxidant (inhibits lipid peroxidation, rat, ip, induced by adriamycin); antioxidant (superoxide anion scavenger). **Source:** HUANG QI *Astragalus membranaceus*. **Ref:** 966.

**1942 Astragaloside VII**

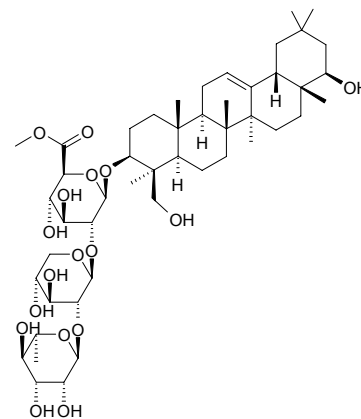
[84687-46-7]  $C_{47}H_{78}O_{19}$  (947.12). Colorless rhombic crystals (methanol), mp 292~293°C,  $[\alpha]_D^{18} = +10.3^\circ$  ( $c = 0.6$ , methanol). **Pharm:** Antioxidant (inhibits lipid peroxidation, rat, ip, induced by adriamycin). **Source:** HUANG QI *Astragalus membranaceus*. **Ref:** 966.

**1943 Astragaloside VIII**

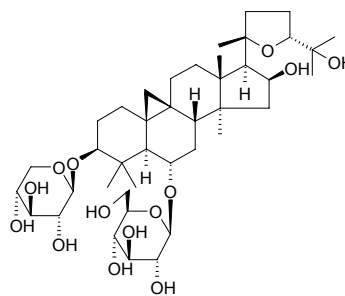
[86361-64-0]  $C_{47}H_{76}O_{17}$  (913.11). Colorless, thin crystals (methanol), mp 223~224°C,  $[\alpha]_D^{18} = -12.1^\circ$  ( $c = 1.0$ , methanol). **Pharm:** Antioxidant (inhibits lipid peroxidation, rat, ip, induced by adriamycin). **Source:** HUANG QI *Astragalus membranaceus*. **Ref:** 966, 967.

**1944 Astragaloside VIII methylester**

$C_{48}H_{78}O_{17}$  (927.15). **Source:** BIAN JING HUANG QI *Astragalus complanatus*. **Ref:** 660.

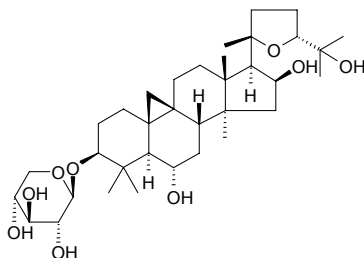
**1945 Astramembrannin I**

$C_{41}H_{68}O_{14}$  (784.99). **Source:** HUANG QI *Astragalus membranaceus*. **Ref:** 660.

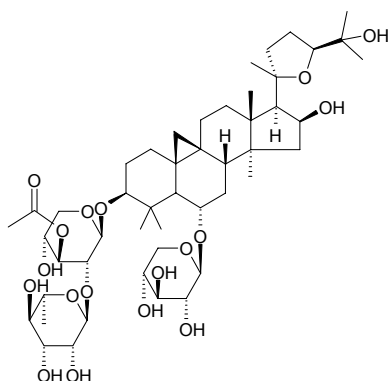


**1946 Astramembrannin II**

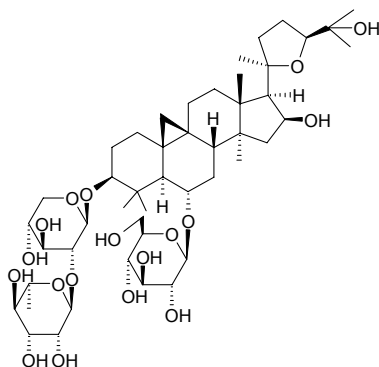
$C_{35}H_{58}O_9$  (622.85). Source: HUANG QI *Astragalus membranaceus*. Ref: 660.

**1947 Astrasieversianin IX**

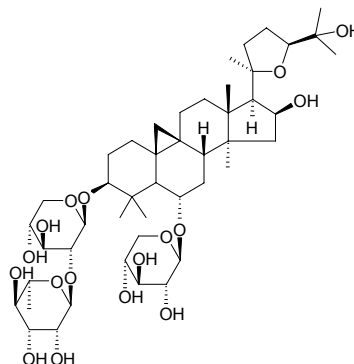
3-*O*-[ $\alpha$ -*L*-Rhamnopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -(3'-*O*-november acetyl)-*D*-xylopyranosyl]-6-*O*- $\beta$ -*D*-xylopyranosyl-20(*R*),24(*S*)-epoxy-3 $\beta$ ,6 $\alpha$ ,16 $\beta$ ,25-tetrahydroxycycloartane  $C_{48}H_{78}O_{18}$  (943.15). Source: TE LUO YI HUANG QI *Astragalus trojanus* (aerial parts). Ref: 4145.

**1948 Astrasieversianin XIV**

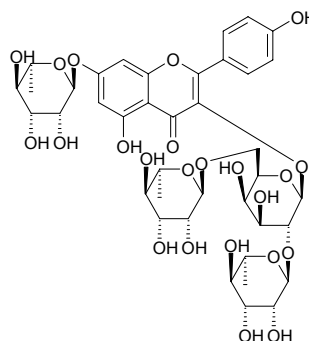
$C_{47}H_{78}O_{18}$  (931.13). Pharm: Antihypertensive. Source: MIAN MAO HUANG QI *Astragalus sieversianus*. Ref: 658.

**1949 Astrasieversianin XV**

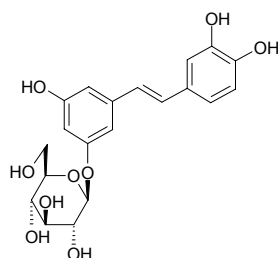
3-*O*-[ $\alpha$ -*L*-Rhamnopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -*D*-xylopyranosyl]-6-*O*- $\beta$ -*D*-xylopyranosyl-20(*R*),24(*S*)-epoxy-3 $\beta$ ,6 $\alpha$ ,16 $\beta$ ,25-tetrahydroxycycloartane  $C_{46}H_{76}O_{17}$  (901.11). Source: MIAN MAO HUANG QI *Astragalus sieversianus*. Ref: 660, 4145.

**1950 Astrasikokioside I**

Kaempferol-3-*O*- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 6)-[ $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 2)]- $\beta$ -*D*-galactopyranosyl-7-*O*- $\alpha$ -*L*-rhamnopyranoside  $C_{39}H_{50}O_{23}$  (886.82). Yellow powder,  $[\alpha]_D = -137.2^\circ$  ( $c = 0.57$ , pyridine). Source: SI GUO HUANG QI *Astragalus shikokianus* (aerial parts). Ref: 3922.

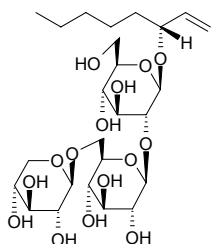
**1951 Astringin**

Piceatannol 3-*O*- $\beta$ -*D*-glucopyranoside [29884-49-9]  $C_{20}H_{22}O_9$  (406.39). Pharm: Antifungal (plant). Source: *Picea* sp., *Eucalyptus* sp., YU DA HUANG *Rheum* sp.<sup>[4064]</sup>. Ref: 658, 2834, 4064.

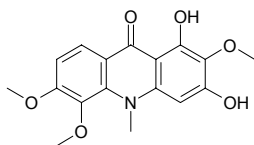


**1952 Asystoside**

(3*R*)-1-Octen-3-ol-3-*O*- $\beta$ -*D*-xylopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -*D*-glucopyranoside C<sub>25</sub>H<sub>44</sub>O<sub>15</sub> (584.62). Amorphous powder,  $[\alpha]_D^{27} = +7.7^\circ$  ( $c = 1.56$ , MeOH). Source: CHA RU SHI WAN CUO *Asystasia intrusa*. Ref: 2589.

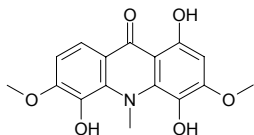
**1953 Atalafoline**

C<sub>17</sub>H<sub>17</sub>NO<sub>6</sub> (331.33). Yellow needles, mp 186–188°C. Source: DONG FENG JU GEN *Atalantia buxifolia* [Syn. *Severinia buxifolia*]. Ref: 63.

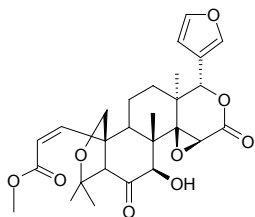
**1954 Atalafoline B**

*N*-Methyl-1,4,5-trihydroxy-3,6-dimethoxyacridine-9-one [114216-93-2]

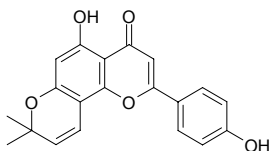
C<sub>16</sub>H<sub>15</sub>NO<sub>6</sub> (317.30). Yellow columnar crystals, mp 192–194°C. Source: DONG FENG JU YE *Atalantia buxifolia* [Syn. *Severinia buxifolia*]. Ref: 91.

**1955 Atalantin**

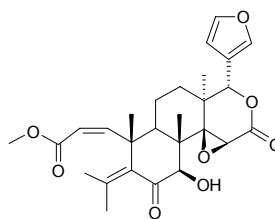
C<sub>27</sub>H<sub>32</sub>O<sub>9</sub> (500.55). Source: DAN YE DONG FENG JU *Atalantia monophylla*. Ref: 1521.

**1956 Atalantoflavone**

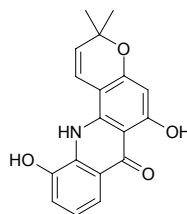
Limonianin C<sub>20</sub>H<sub>16</sub>O<sub>5</sub> (336.35). Source: MENG SANG *Morus mongolica* (root cortex: yield = 0.00014%semi-dw), NING MENG *Citrus limon* (root cortex), ZONG ZHUANG DONG FENG JU YE *Atalantia racemosa*, *Erythrina vogelii*. Ref: 1521,3034, 4421.

**1957 Atalantolide**

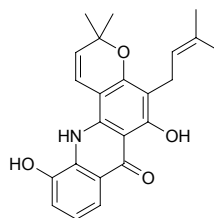
C<sub>27</sub>H<sub>32</sub>O<sub>8</sub> (484.55). Source: DONG FENG JU GEN *Atalantia buxifolia* [Syn. *Severinia buxifolia*] (root cortex). Ref: 3075.

**1958 Atalaphyllidine**

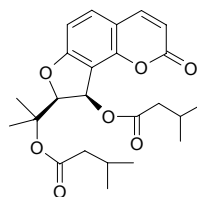
C<sub>18</sub>H<sub>15</sub>NO<sub>4</sub> (309.32). Source: DONG FENG JU GEN *Atalantia buxifolia* [Syn. *Severinia buxifolia*] (root cortex). Ref: 3075.

**1959 Atalaphyllinine**

C<sub>23</sub>H<sub>23</sub>NO<sub>4</sub> (377.44). Source: DONG FENG JU GEN *Atalantia buxifolia* [Syn. *Severinia buxifolia*] (root cortex). Ref: 3075.

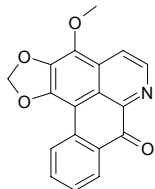
**1960 Athamantin**

[1892-56-4] C<sub>24</sub>H<sub>30</sub>O<sub>7</sub> (430.50). Pharm: Antispasmodic. Source: CHI A MI *Ammi visnaga*, LIN BAI ZHI *Angelica sylvestris*, LI BA NEN XIE HAO *Seseli libanotis*, *Peucedanum* sp. Ref: 658.

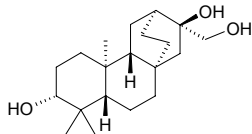


**1961 Atherospermidine**

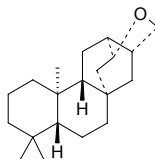
$C_{18}H_{11}NO_4$  (305.29). **Pharm:** Cytotoxic (*in vitro*, HepG2,  $IC_{50} = 0.8\mu\text{g/mL}$ ; Hep2,2,15,  $IC_{50} = 2.2\mu\text{g/mL}$ )<sup>[3083]</sup>, cytotoxic (Selective DNA-damaging activity, yeast assay: RS321NYCp50(gal),  $IC_{50} = 4.6\mu\text{g/mL}$ ; RS321NpRAD52(gal),  $IC_{50} > 100\mu\text{g/mL}$ , control Camptothecin,  $IC_{50} = 100\mu\text{g/mL}$ ; RS321NpRAD52(glu),  $IC_{50} = 55\mu\text{g/mL}$ , Camptothecin,  $IC_{50} = 0.6\mu\text{g/mL}$ )<sup>[5457]</sup>. **Source:** DING KE LA QIAN JIN TENG *Stephania dinklagei* (stem)<sup>[5457]</sup>, SHE XIANG MANG ZI *Atherosperma moschatum*<sup>[1521]</sup>, YOU GOU YING ZHAO *Artabotrys uncinatus* (root,stem)<sup>[3083]</sup>. **Ref:** 1521, 3083, 5457.

**1962 ent-Atisane-3β,16α,17-triol**

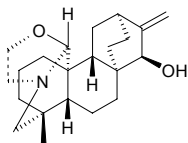
$C_{20}H_{34}O_3$  (322.49). White powder. **Source:** DA GUO DA JI *Euphorbia wallichii* (root). **Ref:** 4585.

**1963 ent-(16S)-Atisan-13,17-oxide**

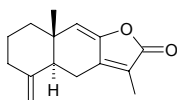
[84687-87-6]  $C_{20}H_{32}O$  (288.48). mp 124~125°C,  $[\alpha]_D^{20} = -71.0^\circ$  ( $c = 1.1$ ,  $CHCl_3$ ). **Source:** ZHE BEI MU *Fritillaria verticillata* var. *thunbergii* [Syn. *Fritillaria thunbergii*]. **Ref:** 2182.

**1964 Atisine**

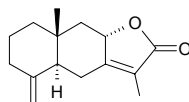
[466-43-3]  $C_{22}H_{33}NO_2$  (343.51). **Pharm:** Antipyretic. **Source:** HUANG WU TOU *Aconitum anthora*, YI YE WU TOU *Aconitum heterophyllum* WU TOU SHU *Aconitum* sp. (the compound was isolated from the plant by S.W.Pelletier, et al. in 1954)<sup>[5505]</sup>. **Ref:** 658, 5505.

**1965 Atractylenolide I**

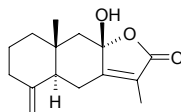
[73096-13-3]  $C_{15}H_{18}O_2$  (230.31). **Pharm:** Antineoplastic (mus lymphoma L<sub>5187</sub>Y cells,  $ID_{50} = 80\mu\text{g/mL}$ ); anti-inflammatory. **Source:** BAI ZHU *Atractyloides macrocephala* [Syn. *Atractylis macrocephala*] (dried rhizome: content scope = 0.030%~0.078%<sup>[5501]</sup>, mean content of 17 origins = 0.0324%<sup>[5508]</sup>), GUAN CANG ZHU *Atractyloides japonica*. **Ref:** 2, 658, 5501, 5508.

**1966 Atractylenolide II**

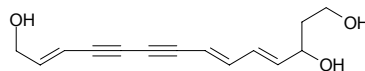
[73096-14-4]  $C_{15}H_{20}O_2$  (232.33). **Source:** BEI CANG ZHU *Atractyloides chinensis* (dried rhizome: mean content of 7 origins = 0.204%<sup>[5511]</sup>), CANG ZHU *Atractyloides lancea* (dried rhizome: content = 0.134%<sup>[5511]</sup>), CHAO XIAN CANG ZHU *Atractyloides koreana* (dried rhizome: content = 0.202%<sup>[5511]</sup>), DANG SHEN *Codonopsis pilosula*, GUAN CANG ZHU *Atractyloides japonica* (dried rhizome: mean content of 2 origins = 0.175%<sup>[5511]</sup>). **Ref:** 2, 632, 5511.

**1967 Atractylenolide III**

Codonolactone [73030-71-4]  $C_{15}H_{20}O_3$  (248.32). **Source:** BAI ZHU *Atractyloides macrocephala* [Syn. *Atractylis macrocephala*] (dried rhizome: mean content of 17 origins = 0.0339%<sup>[5508]</sup>), CHUAN DANG SHEN *Codonopsis tangshen*, DANG SHEN *Codonopsis pilosula* (dried root: mean content = 0.0060%<sup>[5508]</sup>), QIU HUA DANG SHEN *Codonopsis subglobosa*. **Ref:** 2, 632, 660, 5508.

**1968 Atractylenetriol**

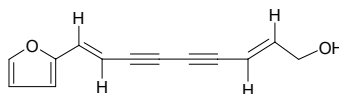
$C_{14}H_{16}O_3$  (232.28). **Source:** BAI ZHU *Atractyloides macrocephala* [Syn. *Atractylis macrocephala*]. **Ref:** 2.

**1969 Atractyloidin**

Atractylin [55290-63-6]  $C_{13}H_{10}O$  (182.23). mp 52°C. **Source:** BEI CANG ZHU *Atractyloides chinensis* (dried rhizome: mean content of 7 origins = 0.315%<sup>[5511]</sup>), CANG ZHU *Atractyloides lancea* (dried rhizome: content = 0.194%<sup>[5511]</sup>), CHAO XIAN CANG ZHU *Atractyloides koreana* (dried rhizome: content = 0.248%<sup>[5511]</sup>), GUAN CANG ZHU *Atractyloides japonica* (dried rhizome: mean content of 2 origins = 0.285%<sup>[5511]</sup>). **Ref:** 6, 660, 5511.

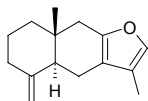
**1970 Atractyloidinol**

[61842-89-5]  $C_{13}H_{12}O_2$  (200.24). **Source:** BEI CANG ZHU *Atractyloides chinensis*. **Ref:** 2, 660.

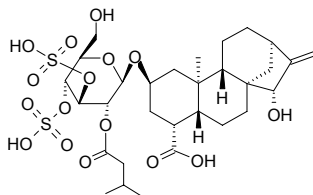


**1971 Atractylone**

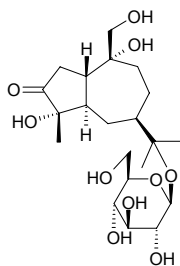
Atractylone [6989-21-5]  $C_{15}H_{20}O$  (216.33). mp 38°C,  $[\alpha]_D = +40.0^\circ$  ( $c = 10.0$ ). **Pharm:** Antineoplastic; anti-inflammatory (mus edema on ears, caused by TPA,  $ID_{50} = 0.9\text{mg/mL}$ ); cytotoxic; antihepatotoxin (mus and rat, liver toxicosis caused by  $CCl_4$  and galactosamine); antioxidant (lipid peroxidation inhibitor, caused by  $CCl_4$ ). **Source:** BAI ZHU *Atractylodes macrocephala* [Syn. *Atractylis macrocephala*] (dried rhizome: mean content from 3 methods = 0.71%<sup>[5508]</sup>), BEI CANG ZHU *Atractylodes chinensis*, CANG ZHU *Atractylodes lancea*. **Ref:** 2, 660, 957, 1160, 1203, 5501, 5508.

**1972 Atractyliside**

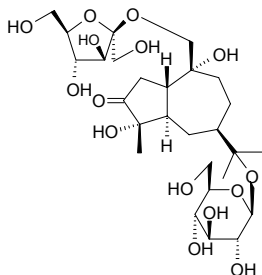
[17754-44-8]  $C_{30}H_{46}O_{16}S_2$  (726.82). mp 157~158°C (dec),  $[\alpha]_D = -53^\circ$  ( $c = 1.1$ , water). **Pharm:** Hypoglycemic (dog, rat, mus and rbt); increases amount of lactic acid (zoic blood); reduces consumption of oxygen (zoic blood);  $LD_{50}$  (rat, sc) = 431mg/kg. **Source:** OU CANG ZHU *Atractylodes gummifera*. **Ref:** 658, 661.

**1973 Atractyliside A**

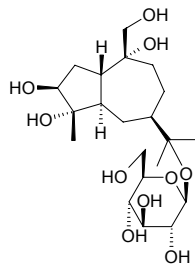
$C_{21}H_{36}O_{10}$  (448.52). **Source:** CANG ZHU *Atractylodes lancea*. **Ref:** 4348.

**1974 Atractyliside A 14-O-β-D-fructofuranoside**

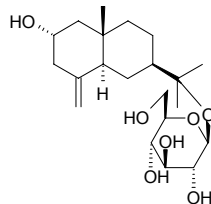
$C_{27}H_{46}O_{15}$  (610.66). Amorphous powder,  $[\alpha]_D^{22} = +2^\circ$  ( $c = 1.3$ , MeOH). **Source:** CANG ZHU *Atractylodes lancea*. **Ref:** 4348.

**1975 Atractyliside B**

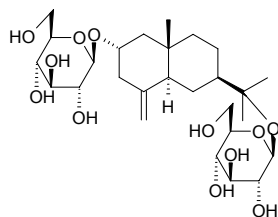
$C_{21}H_{38}O_{10}$  (450.53). **Source:** CANG ZHU *Atractylodes lancea*. **Ref:** 4348.

**1976 Atractyliside C**

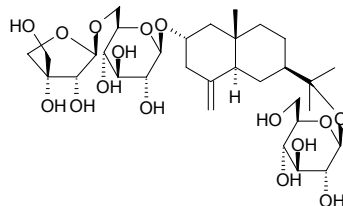
$C_{21}H_{36}O_7$  (400.52). **Source:** CANG ZHU *Atractylodes lancea*. **Ref:** 4348.

**1977 Atractyliside D**

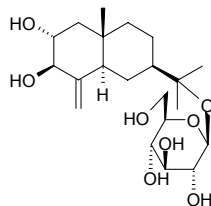
$C_{27}H_{46}O_{12}$  (562.66). **Source:** CANG ZHU *Atractylodes lancea*. **Ref:** 4348.

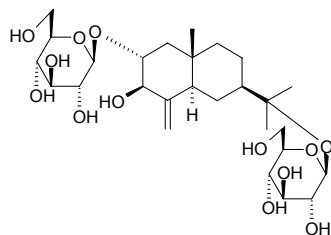
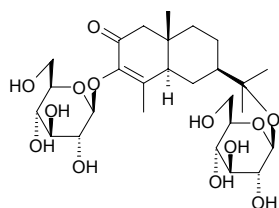
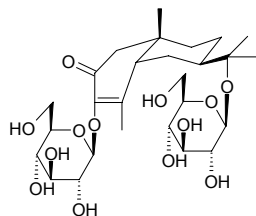
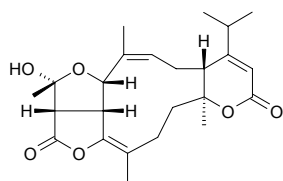
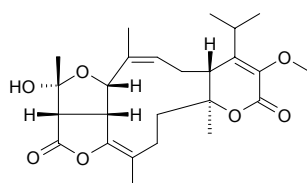
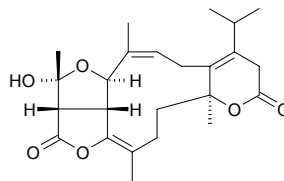
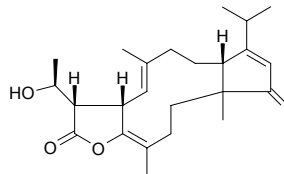
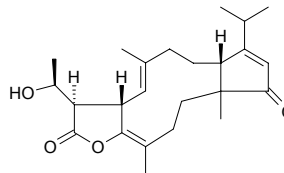
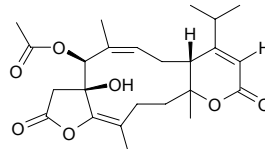
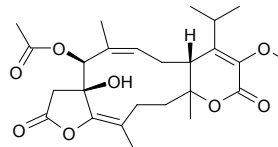
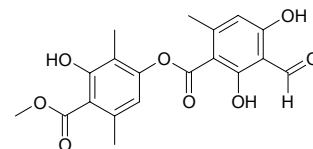
**1978 Atractyliside E**

$C_{32}H_{54}O_{16}$  (694.78). **Source:** CANG ZHU *Atractylodes lancea*. **Ref:** 4348.

**1979 Atractyliside G**

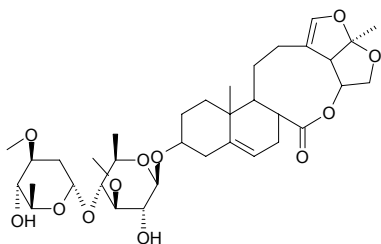
$C_{21}H_{36}O_8$  (416.52). **Source:** CANG ZHU *Atractylodes lancea*. **Ref:** 4348.



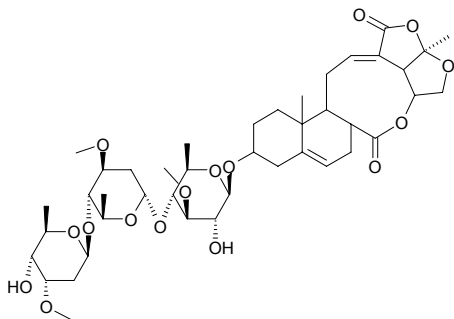
**1980 (2R,3R,5R,7R,10S)-Atractyloside G 2-O-β-D-glucopyranoside**C<sub>27</sub>H<sub>46</sub>O<sub>13</sub> (578.66). Amorphous powder,  $[\alpha]_D^{22} = -20^\circ$  ( $c = 1.5$ , MeOH).Source: CANG ZHU *Atractyloides lancea*. Ref: 4348.**1981 Atractyloside I**C<sub>27</sub>H<sub>44</sub>O<sub>13</sub> (576.64). Source: CANG ZHU *Atractyloides lancea*. Ref: 4348.**1982 cis-Atractyloside I**C<sub>27</sub>H<sub>44</sub>O<sub>13</sub> (576.64). Amorphous powder,  $[\alpha]_D^{22} = -23^\circ$  ( $c = 0.4$ , MeOH).Source: CANG ZHU *Atractyloides lancea*. Ref: 4348.**1983 Atranone A**C<sub>24</sub>H<sub>32</sub>O<sub>6</sub> (416.52). Source: fungus *Stachybotrys chartarum*, fungus*Stachybotrys atra*. Ref: 5104.**1984 Atranone B**C<sub>25</sub>H<sub>34</sub>O<sub>7</sub> (446.55). Source: fungus *Stachybotrys chartarum*. Ref: 5104.**1985 Atranone C**C<sub>24</sub>H<sub>32</sub>O<sub>6</sub> (416.52). Source: fungus *Stachybotrys chartarum*. Ref: 5104.**1986 Atranone D**C<sub>24</sub>H<sub>34</sub>O<sub>4</sub> (386.54). Clear film,  $[\alpha]_D^{20} = +21^\circ$  ( $c = 0.70$ , CHCl<sub>3</sub>). Source:fungus *Stachybotrys chartarum*. Ref: 5104.**1987 Atranone E**C<sub>24</sub>H<sub>34</sub>O<sub>4</sub> (386.54). Clear film,  $[\alpha]_D^{20} = -16^\circ$  ( $c = 0.75$ , CHCl<sub>3</sub>). Source:fungus *Stachybotrys chartarum*. Ref: 5104.**1988 Atranone F**C<sub>24</sub>H<sub>32</sub>O<sub>7</sub> (432.52). Pale yellow film,  $[\alpha]_D^{20} = +24^\circ$  ( $c = 0.16$ , CHCl<sub>3</sub>). Source:fungus *Stachybotrys chartarum*. Ref: 5104.**1989 Atranone G**C<sub>25</sub>H<sub>34</sub>O<sub>8</sub> (462.54). Pale yellow film,  $[\alpha]_D^{20} = +28^\circ$  ( $c = 0.2$ , CHCl<sub>3</sub>). Source:fungus *Stachybotrys chartarum*. Ref: 5104.**1990 Atranorin**[479-20-9] C<sub>19</sub>H<sub>18</sub>O<sub>8</sub> (374.35). mp 196–197°C. Pharm: Antibacterial; fishtoxin. Source: QI SHI HUA *Parmelia saxatilis* var. *omphalodes*, SHI RUI*Cladonia rangiferina*, SHI HUA *Parmelia saxatilis*, YE TAI *Trocholejeunea**sandvicensis*. Ref: 6, 658, 3909.

**1991 Atratoglaucoside A**

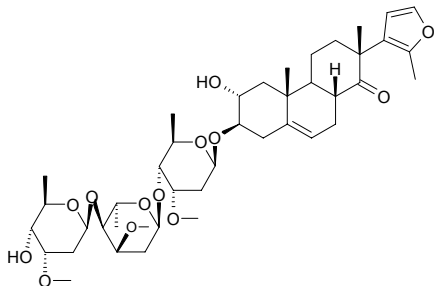
Glaucogenin C 3-*O*- $\alpha$ -*L*-diginopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-thevetopyranoside  
 $C_{35}H_{52}O_{12}$  (664.80). Colorless oil,  $[\alpha]_D^{25} = -21^\circ$  ( $c = 0.16$ ,  $CHCl_3$ ). Source:  
 BAI WEI *Cynanchum atratum* (root). Ref: 3054.

**1992 Atratoglaucoside B**

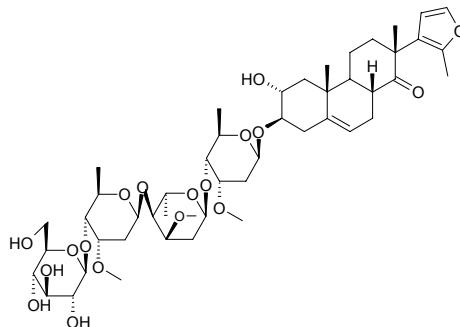
7-Desoxyneocynapanogenin A 3-*O*- $\beta$ -*D*-cymaropyranosyl-(1 $\rightarrow$ 4)- $\alpha$ -*L*-diginopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-thevetopyranoside  $C_{42}H_{62}O_{16}$  (822.95). Colorless oil,  
 $[\alpha]_D^{25} = -60^\circ$  ( $c = 1.25$ ,  $CHCl_3$ ). Pharm: Cytotoxic (*in vitro*, T24, CaSki, SiHa,  
 HT3, PLC/PRF/5, and 212 cells,  $ED_{50} > 4\mu g/mL$ , no significant activity).  
Source: BAI WEI *Cynanchum atratum* (root). Ref: 3054.

**1993 Atratoside A**

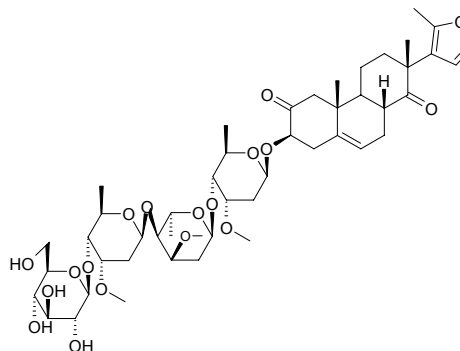
[118002-91-8]  $C_{42}H_{64}O_{13}$  (776.97). Pharm: Antineoplastic (mus, 20mg/kg orl,  
 U14 cancer, InRt = 53.0%; HepA cancer, InRt = 58.5%). Source: BAI WEI  
*Cynanchum atratum* (root). Ref: 660, 5501.

**1994 Atratoside B**

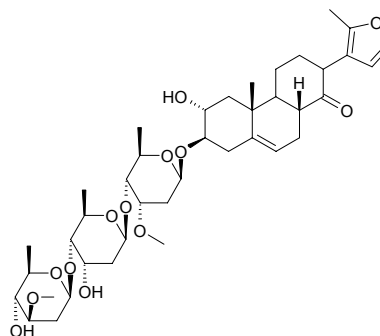
$C_{48}H_{74}O_{18}$  (939.11). Source: BAI WEI *Cynanchum atratum* (root). Ref: 660.

**1995 Atratoside C**

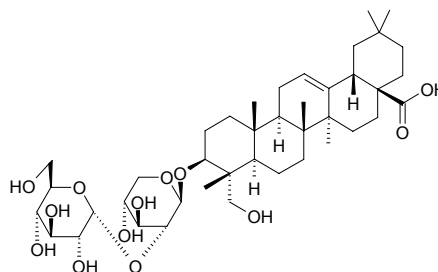
$C_{48}H_{72}O_{18}$  (937.10). Source: BAI WEI *Cynanchum atratum* (root). Ref: 660.

**1996 Atratoside D**

$C_{40}H_{60}O_{13}$  (748.92). Source: BAI WEI *Cynanchum atratum* (root). Ref: 660.

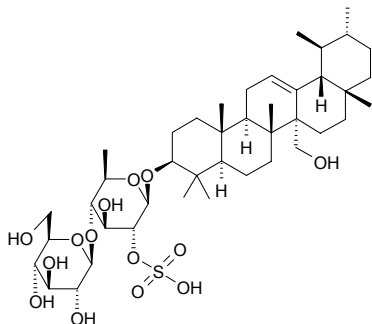
**1997 Atriplicosaponin A**

3-*O*-[ $\alpha$ -*D*-Glucopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -*D*-xylopyranosyl]-hederagenin  $C_{41}H_{66}O_{13}$   
 (766.98). Crystals, mp 215–217°C,  $[\alpha]_D^{25} = +40^\circ$  ( $c = 0.02$ , MeOH). Source:  
*Zygophyllum atriplicoides* (whole herb). Ref: 4504.

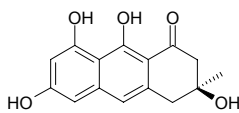


**1998 Atriplicosaponin B**

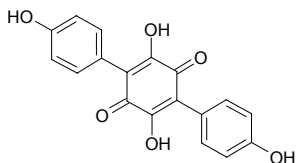
27 $\alpha$ -Hydroxyurs-12-ene-3-*O*-[ $\beta$ -*D*-glucopyranosyl(1 $\rightarrow$ 4)(2-*O*-sulpho)- $\beta$ -*D*-quinoxyranoside C<sub>42</sub>H<sub>70</sub>O<sub>14</sub>S (831.08). Crystals, mp 215–217°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +10.26° (c = 0.02, MeOH). Source: *Zygophyllum atriplicoides* (whole herb). Ref: 4504.

**1999 Atrochryson**

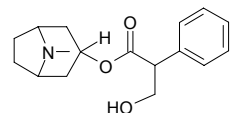
C<sub>15</sub>H<sub>14</sub>O<sub>5</sub> (274.28). Source: *Cortinarius* spp. Ref: 3799.

**2000 Atromentin**

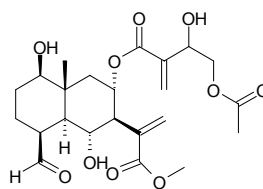
C<sub>18</sub>H<sub>12</sub>O<sub>6</sub> (324.29). Source: JIN HUANG GE JUN *Thelephora aurantiotincta*. Ref: 3423.

**2001 Atropine**

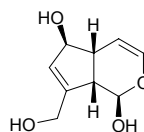
*dl*-Hyoscyamine [51-55-8] C<sub>17</sub>H<sub>23</sub>NO<sub>3</sub> (289.38). Colorless columnar crystals, mp 118–119°C, easily soluble in ethanol, chloroform, slightly soluble in ether, hot water.<sup>[5507]</sup> Pharm: Anticholinergic; antispasmodic (smooth muscle); glandular secretion inhibitor; mydriatic; releases inhibition of vagus nerve to the heart; respiratory stimulant; LD (hmn) = 100mg. Source: DIAN QIE *Atropa belladonna*, GOU QI ZI *Lycium chinense*, LANG DANG YE *Hyoscyamus niger* (leaf: content = 0.010%<sup>[5508]</sup>), LANG DANG ZI *Hyoscyamus niger* (dried ripe seed: mean content of 5 origins = 0.0596%<sup>[5508]</sup>), LOU DOU PAO NANG CAO *Physochlaina infundibularis*, MAN TUO LUO YE *Datura metel*, MAO MAN TUO LUO HUA *Datura innoxia* (flower: content = 0.095%<sup>[5508]</sup>), MAO MAN TUO LUO ZI *Datura innoxia*, NING XIA GOU QI ZI *Lycium barbarum*, OU MAN TUO LUO GEN *Datura stramonium*, SAI LANG DANG *Anisodus luridus*, TIAN PENG ZI *Scopolia sinensis*, XIA TIAN WU *Corydalis decumbens* [Syn. *Corydalis amabilis*], YANG JIN HUA *Datura metel* (flower: content = 0.088%<sup>[5508]</sup>). Ref: 2, 658, 660, 5501, 5507, 5508.

**2002 Atticin**

C<sub>23</sub>H<sub>32</sub>O<sub>10</sub> (468.51). Oil, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +21.7° (c = 0.18, CHCl<sub>3</sub>). Pharm: Antifungal (*Aspergillus niger*, MIC = 1  $\mu$ g/mL, control Miconazole, MIC = 1.5  $\mu$ g/mL; *Aspergillus ochraceus*, MIC = 2  $\mu$ g/mL, Miconazole, MIC = 1.5  $\mu$ g/mL; *Aspergillus versicolor*, MIC = 2  $\mu$ g/mL, Miconazole, MIC = 2  $\mu$ g/mL; *Aspergillus flavus*, MIC = 2  $\mu$ g/mL, Miconazole, MIC = 0.5  $\mu$ g/mL; *Penicillium ochrochloron*, MIC = 2  $\mu$ g/mL, Miconazole, MIC = 2  $\mu$ g/mL; *Penicillium funiculosum*, MIC = 2  $\mu$ g/mL, Miconazole, MIC = 2  $\mu$ g/mL; *Trichoderma viride*, MIC = 2  $\mu$ g/mL, Miconazole, MIC = 2  $\mu$ g/mL; *Cladosporium cladosporioides*, MIC = 2  $\mu$ g/mL, Miconazole, MIC = 0.03  $\mu$ g/mL; *Alternaria alternata*, MIC = 1  $\mu$ g/mL, Miconazole, MIC = 0.5  $\mu$ g/mL)<sup>[5115]</sup>. Source: *Centaurea attica* ssp. *attica* (aerial parts). Ref: 5115.

**2003 Aucubigenin**

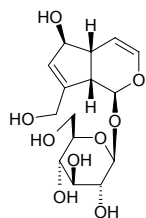
[64274-28-8] C<sub>9</sub>H<sub>12</sub>O<sub>4</sub> (184.19). Source: TIAN JIAO BAN *Aucuba chinensis* ssp. *omeiensis*. Ref: 6.

**2004 Aucubin**

[479-98-1] C<sub>15</sub>H<sub>22</sub>O<sub>9</sub> (346.34). Pharm: Laxative (mus); uricosuric; anti-inflammatory (modulator of cytokine network: prevents TNF- $\alpha$  and IL-6 production in RBL-2H3 stimulated mast cells, IC<sub>50</sub> = 101 ng/mL and 190 ng/mL, respectively, through a mechanism involving the blockade of NF- $\kappa$ B activation)<sup>[4416]</sup>; antitrypanosomal (*Trypanosoma brucei rhodesiense*, IC<sub>50</sub> = 51.1  $\mu$ g/mL, control Melarsoprol, IC<sub>50</sub> = 0.0033  $\mu$ g/mL; *Trypanosoma cruzi*, IC<sub>50</sub> > 90  $\mu$ g/mL, control Benznidazole, IC<sub>50</sub> = 0.70  $\mu$ g/mL)<sup>[5251]</sup>; antileishmanial (*Leishmania donovani*, IC<sub>50</sub> = 10.9  $\mu$ g/mL, control Miltefosin, IC<sub>50</sub> = 0.32  $\mu$ g/mL)<sup>[5251]</sup>; antimalarial (*Plasmodium falciparum*, IC<sub>50</sub> > 50  $\mu$ g/mL, control Artemisinin, IC<sub>50</sub> = 0.002  $\mu$ g/mL)<sup>[5251]</sup>; cytotoxic (L6 cells, IC<sub>50</sub> > 90  $\mu$ g/mL, control Podophyllotoxin, IC<sub>50</sub> = 0.0075  $\mu$ g/mL)<sup>[5251]</sup>. Source: A LA BO PO PO NA *Veronica persica* (aerial parts), CHANG YE CHE QIAN *Plantago lanceolata* (whole herb: mean content = 0.586%<sup>[5508]</sup>), CHE QIAN *Plantago asiatica* (whole herb: mean content = 1.26%, aerial parts: content = 0.600%, root: content = 0.776%, dried ripe fruit: content = 0.055%<sup>[5508]</sup>), CHI YE CAO *Odontites serotina*, DA CHE QIAN *Plantago major* (aerial parts: content = 0.190%, root: content = 0.738%, dried ripe fruit: content = 0.027%<sup>[5508]</sup>), DONG YING SHAN HU MU *Aucuba japonica* (in 1960 the compound was isolated from the plant by S.Fujita et al.)<sup>[5505]</sup>, DU ZHONG *Eucommia ulmoides*, DU ZHONG YE *Eucommia ulmoides* (leaf: mean content of 3 batch samples = 1.892%<sup>[5508]</sup>), GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *huechingensis*], LIN

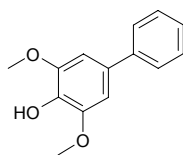


PIAN XUAN SHEN *Scrophularia lepidota* (root), LONG TU ZHU *Clerodendrum thomsonae*, MAO RUI HUA *Verbascum thapsus*, PING CHE QIAN *Plantago depressa* (whole herb: mean content = 0.988%, aerial parts: content = 0.118%, root: content = 0.218%, dried ripe fruit: content = 0.086%<sup>[5508]</sup>), TIAN JIAO BAN *Aucuba chinensis* ssp. *omeiensis*, XI ZANG HU HUANG LIAN *Picrorhiza scrophulariiflora*, XIAO MI CAO *Euphrasia officinalis*, XIAO PO PO NA *Veronica serpyllifolia*, ZHI LI PO PO NA *Veronica arvensis*, ZI MU *Catalpa ovata* (stem bark). Ref: 2, 658, 660, 4211, 4416, 5251, 5501, 5505, 5508.



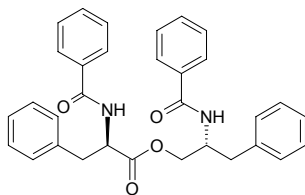
#### 2005 Aucuparin

C<sub>14</sub>H<sub>14</sub>O<sub>3</sub> (230.27). **Pharm:** Antifungal; cytotoxic (P<sub>388</sub> ED<sub>50</sub> = 3.21 μg/mL, control Mithramycin ED<sub>50</sub> = 0.06 μg/mL, HT29 ED<sub>50</sub> = 5.39 μg/mL, Mithramycin ED<sub>50</sub> = 0.08 μg/mL)<sup>[4094]</sup>. **Source:** OU ZHOU HUA QIU *Sorbus aucuparia*, MEI LI HUA QIU *Sorbus decora*, TAI WAN LV DAO TENG HUANG *Garcinia linii*. Ref: 658, 4094.



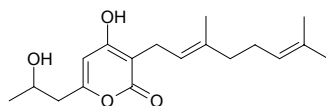
#### 2006 (-)-Auranamide

C<sub>32</sub>H<sub>30</sub>N<sub>2</sub>O<sub>4</sub> (506.61). **Pharm:** Cytotoxic (hmn cancer lines NUGC-3, IC<sub>50</sub> = 17.12 μg/mL, hmn cancer lines HONE-1, IC<sub>50</sub> = 8.68 μg/mL, hmn cancer lines A549, EC<sub>50</sub> < 2.5 μg/mL, hmn cancer lines MCF7, EC<sub>50</sub> < 2.5 μg/mL). **Source:** NAN TOU QIU HAI TANG *Begonia nantoensis* (rhizome). Ref: 4267.



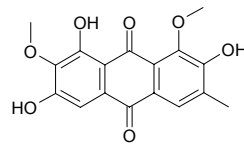
#### 2007 Aurantiacone

3-Geranyl-4-hydroxy-6-(2-hydroxypropyl)-2-pyrone C<sub>18</sub>H<sub>26</sub>O<sub>4</sub> (306.41). **Source:** JU SE GOU SUAN JIANG *Mimulus aurantiacus*. Ref: 1988.



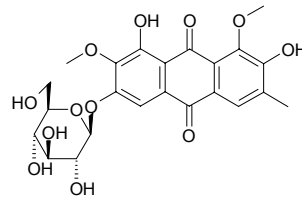
#### 2008 Aurantioobtusin

[67979-25-3] C<sub>17</sub>H<sub>14</sub>O<sub>7</sub> (330.30). **Source:** JUE MING ZI *Cassia tora*. Ref: 2.



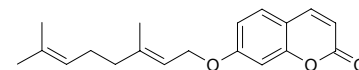
#### 2009 Aurantioobtusin β-D-glucoside

C<sub>23</sub>H<sub>24</sub>O<sub>12</sub> (492.44). **Pharm:** Platelet aggregation inhibitor (rat). **Source:** DUN YE JUE MING *Cassia obtusifolia*. Ref: 658.



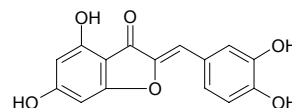
#### 2010 Auraptene

C<sub>19</sub>H<sub>22</sub>O<sub>3</sub> (298.39). mp 68°C. **Pharm:** Platelet aggregation inhibitor (high activity). **Source:** DONG FENG JU GEN *Atalantia buxifolia* [Syn. *Severinia buxifolia*] (root cortex)<sup>[3075]</sup>, GOU JU HE *Poncirus trifoliata*, QING JIAO *Zanthoxylum schinifolium*. Ref: 6, 2176, 3075.



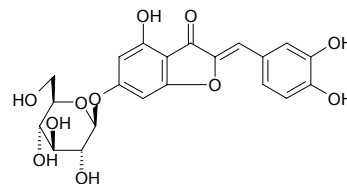
#### 2011 Aureusidin

[480-70-6] C<sub>15</sub>H<sub>10</sub>O<sub>6</sub> (286.24). mp 270°C (decomposing under 295°C). **Pharm:** Iodinate thyronine deiodinase inhibitor (rat, membrane of microsome in liver cells). **Source:** NING MENG PI *Citrus limon*. Ref: 6, 658, 660.



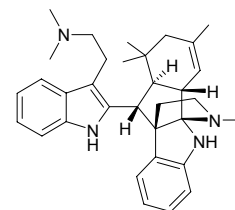
#### 2012 Aureusidin-6-glucoside

C<sub>21</sub>H<sub>20</sub>O<sub>11</sub> (448.39). mp 264.5–265.5°C. **Source:** NING MENG PI *Citrus limon*. Ref: 6, 660.



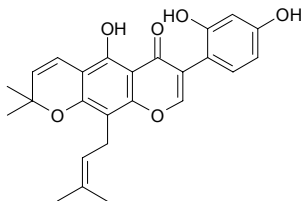
#### 2013 Auricularine

[73706-32-8] C<sub>33</sub>H<sub>42</sub>N<sub>4</sub> (494.73). **Pharm:** Antibacterial; prevents enteritis; treatment of abdominalgia, cholera in early stage, colitis and dysentery. **Source:** ER CAO *Hedyotis auricularia*. Ref: 658.

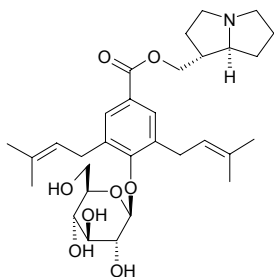


**2014 Auriculatin**

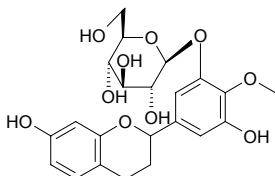
$C_{25}H_{24}O_6$  (420.47). Source: ER XING JI XUE TENG *Milletia auriculata*, *Erythrina vogelii*. Ref: 1521, 4421.

**2015 Auriculine**

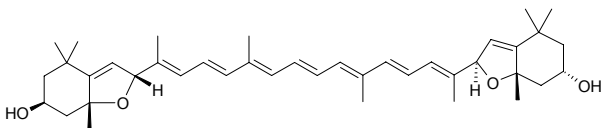
[22595-00-2]  $C_{31}H_{45}NO_8$  (559.71). Pharm: Hepatotoxin. Source: LUO XI YANG ER SUAN *Liparis loeselii*, ER XING YANG ER LAN *Liparis auriculata*. Ref: 658.

**2016 Auriculoside**

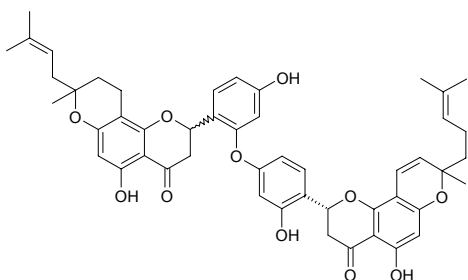
[75871-96-4]  $C_{22}H_{26}O_{10}$  (450.45). Pharm: Anxiolytic; CNS depressant. Source: ER XING JIN HE HUAN *Acacia auriculaeformis*. Ref: 658.

**2017 Auroxanthin**

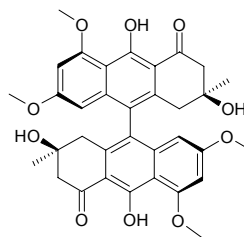
$C_{40}H_{56}O_4$  (600.89). Source: NAN GUA *Cucurbita moschata*, SAN SE JIN *Viola tricolor*, WAN SHOU JU *Tagetes erecta*, XIANG YUAN *Citrus wilsonii*, YE MU XU *Medicago falcata* (flower). Ref: 660.

**2018 Australone B**

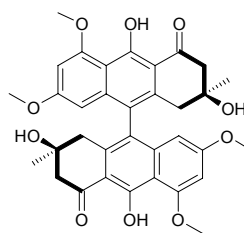
$C_{49}H_{50}O_{11}$  (814.94). Pharm: Platelet aggregation inhibitor (caused by adrenaline). Source: *Morus* sp. Ref: 2513.

**2019 Austrocolorin A<sub>1</sub>**

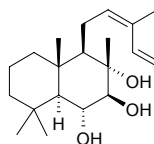
$C_{34}H_{34}O_{10}$  (602.64). Green prisms, mp 146–147°C (toluene-petrol),  $[\alpha]_D = +288^\circ$  ( $c = 0.05$ ,  $CHCl_3$ ). Source: *Dermocybe* sp. (fruit body). Ref: 3799.

**2020 Austrocolorin B<sub>1</sub>**

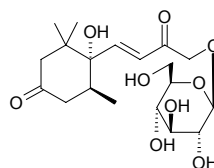
$C_{34}H_{34}O_{10}$  (602.64). Yellow-green powder, mp 139–141°C (MeOH),  $[\alpha]_D = -316^\circ$  ( $c = 0.045$ ,  $CHCl_3$ ). Source: *Dermocybe* sp. (fruit body). Ref: 3799.

**2021 Austroinulin**

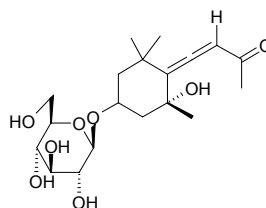
$C_{20}H_{34}O_3$  (322.49). Pharm: Cytotoxic (HeLa,  $IC_{50} = 22.3\mu g/mL$ , control Mitomycin C,  $IC_{50} = 1.7\mu g/mL$ ); cell cycle inhibitor (HeLa, at G1 stage,  $15.2\mu g/mL$  ( $47.2\mu mol/L$ )). Source: TUAN JI AI NA XIANG *Blumea glomerata*. Ref: 4092.

**2022 Austroside A**

$C_{19}H_{30}O_9$  (402.45). White powder,  $[\alpha]_D^{25} = -40.8^\circ$  ( $c = 1.3$ , MeOH). Source: HUA NAN WU ZHU YU *Evodia austrosinensis*. Ref: 5052.

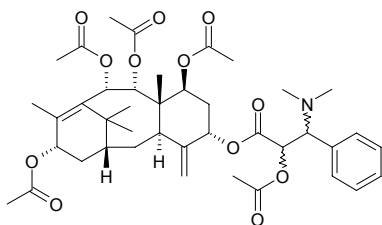
**2023 Austroside B**

$C_{19}H_{30}O_8$  (386.45). White powder,  $[\alpha]_D^{25} = -33.8^\circ$  ( $c = 0.8$ , MeOH). Source: HUA NAN WU ZHU YU *Evodia austrosinensis*. Ref: 5052.

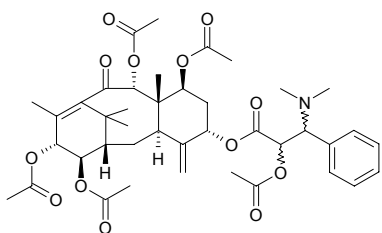


**2024 Austrospicatine**

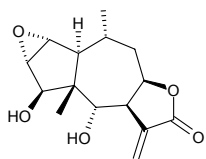
[119777-76-3]  $C_{41}H_{55}NO_{12}$  (753.89). Source: AO DA LI YA HONG DOU SHAN *Austrotaxus spicata*. Ref: 662.

**2025 Austrotaxine**

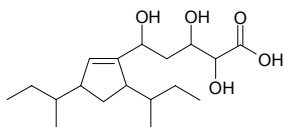
[119789-82-1]  $C_{41}H_{53}NO_{13}$  (767.88). Source: AO DA LI YA HONG DOU SHAN *Austrotaxus spicata*. Ref: 662.

**2026 Autumnolide**

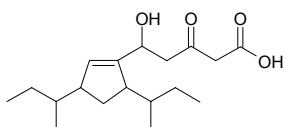
[20505-32-2]  $C_{15}H_{20}O_5$  (280.32). Colorless acicular crystals (acetone-motor naphtha), mp 199–201°C; 188–190°C,  $[\alpha]_D^{25} = +20.6^\circ$  ( $c = 1.84$ , chloroform). Pharm: Antineoplastic; cytotoxic (KB,  $ED_{50} = 3.1$  mg/mL). Source: SHAN DI DUI XIN JU *Helenium autumnale* var. *montanum*, DUI XIN JU *Helenium autumnale*. Ref: 658, 661.

**2027 Auxin A**

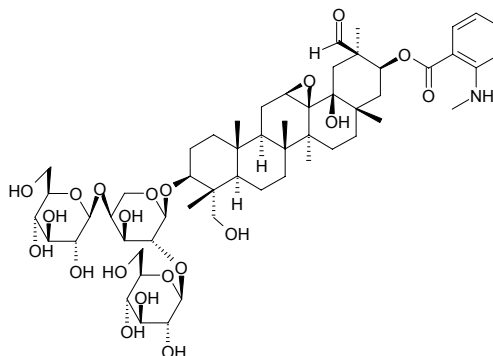
$C_{18}H_{32}O_5$  (328.45). Source: LV SUN PIAN *Sinocalamus oldhami*. Ref: 660.

**2028 Auxin B**

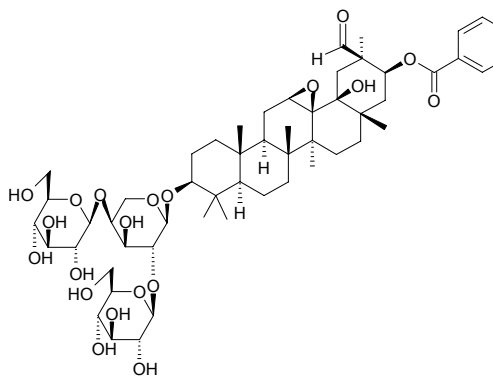
$C_{18}H_{30}O_4$  (310.44). Source: LV SUN PIAN *Sinocalamus oldhami*. Ref: 660.

**2029 Avenacin A<sub>1</sub>**

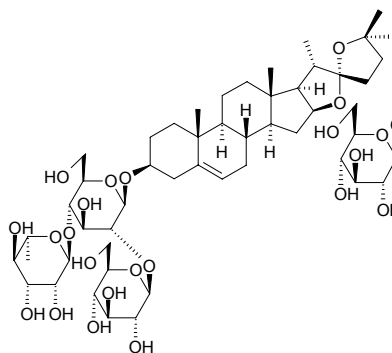
[90547-90-3]  $C_{55}H_{83}NO_{21}$  (1094.27). Pharm: Antifungal (pathogen fungi of plants); hemolytic. Source: YAN MAI *Avena sativa*. Ref: 658.

**2030 Avenacin B<sub>2</sub>**

[90547-93-6]  $C_{54}H_{80}O_{20}$  (1049.23). Pharm: Antifungal (pathogen fungi of plants); hemolytic. Source: YAN MAI *Avena sativa*. Ref: 658.

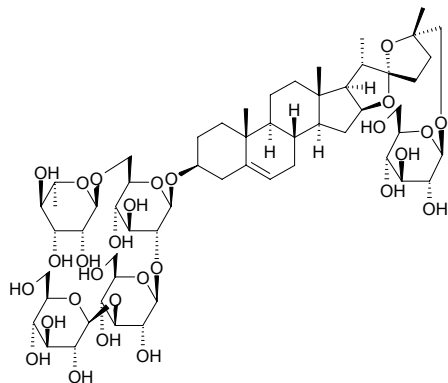
**2031 Avenacoside A**

[24915-65-9]  $C_{51}H_{82}O_{23}$  (1063.21). Pharm: Antifungal. Source: YAN MAI *Avena sativa*. Ref: 658.

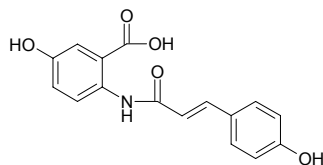


**2032 Avenacoside B**

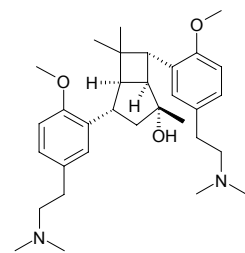
[35920-91-3]  $C_{57}H_{92}O_{28}$  (1225.35). Pharm: Antifungal. Source: YAN MAI *Avena sativa*. Ref: 658.

**2033 Avenalumin I**

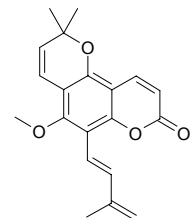
[108605-70-5]  $C_{16}H_{13}NO_5$  (299.28). Pharm: Antifungal. Source: YAN MAI *Avena sativa*. Ref: 658.

**2034 Avicennamine**

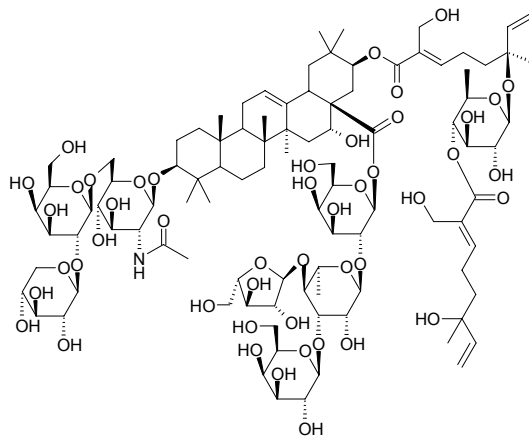
$C_{32}H_{48}N_2O_3$  (508.75). Pharm: Platelet aggregation inhibitor; DNA isomerase inhibitor; antibacterial; cytotoxic. Source: *Zanthoxylum* sp. Ref: 2176.

**2035 Avicennin**

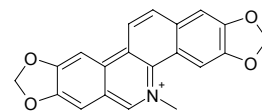
[53258-71-2]  $C_{20}H_{20}O_4$  (324.38). mp 141~142°C. Source: YING BU BO *Zanthoxylum avicennae*. Ref: 6.

**2036 Avicin D**

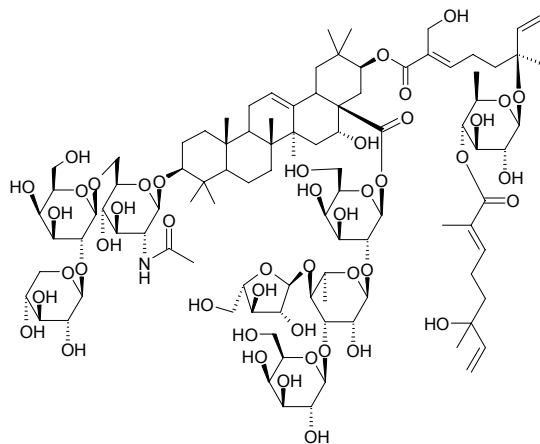
$C_{98}H_{155}NO_{47}$  (2099.31). Pharm: Anti-inflammatory (inhibits expression of COX-2 through inhibition of NF- $\kappa$ B); anti-inflammatory (NO production inhibitor). Source: WEI DUO LI YA JIN HE HUAN *Acacia Victoria*. Ref: 4415.

**2037 Avicine**

[24939-31-9]  $C_{20}H_{14}NO_4$  (332.34). Source: YING BU BO *Zanthoxylum avicennae*. Ref: 6.

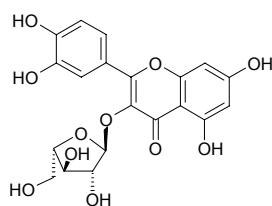
**2038 Avicin G**

$C_{98}H_{155}NO_{46}$  (2083.31). Pharm: Anti-inflammatory (inhibits expression of COX-2 through inhibition of NF- $\kappa$ B)<sup>[4415]</sup>; anti-inflammatory (NO production inhibitor)<sup>[4415]</sup>. Source: WEI DUO LI YA JIN HE HUAN *Acacia Victoria*. Ref: 4415.

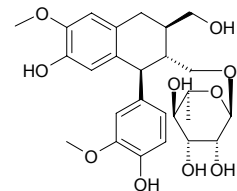


**2039 Avicularin**

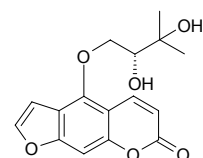
Polystachoside [5041-68-9]  $C_{20}H_{18}O_{11}$  (434.36). mp 217°C (hydrate); 222°C (anhydrous); mp 246~247°C. **Pharm:** Diuretic; antihypertensive; hepatoprotective (primary cultures of rat hepatocytes,  $H_2O_2$ -induced toxicity, 50  $\mu\text{mol/L}$ , relative protection = 20.2% ( $H_2O_2$ -treated, relative protection = 0.0%; control, relative protection = 100%), positive control Silibinin, Relative protection = 74.9%)<sup>[4996]</sup>; toxin. **Source:** BIAN XU *Polygonum aviculare* (dried aerial parts: content scope = 0.194%~0.200%)<sup>[5501]</sup>, CHI MA *Boehmeria platanifolia* [Syn. *Boehmeria tricuspis*], FAN SHI LIU GAN *Psidium guajava*, DUO SUI LIAO *Polygonum polystachyum*, FAN SHI LIU YE *Psidium guajava*, HU ZHANG YE *Polygonum cuspidatum*, LIANG QI LIAO *Polygonum amphibium*, MAN SHAN HONG *Rhododendron dauricum*, SAN BAI CAO *Saururus chinensis*, SAN SE JIN *Viola tricolor*, SANG JI SHENG *Loranthus parasiticus* [Syn. *Loranthus chinensis*; *Taxillus chinensis*] (stem and branch-leaf: content = 0.4%)<sup>[5501]</sup>, YUE JU YE *Vaccinium vitis-idaea*, RI BEN GUI DENG QING *Rodgersia podophylla* (aerial parts). **Ref:** 6, 658, 660, 1521, 4996, 5501.

**2040 Aviculin**

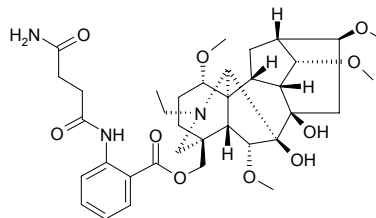
[156765-33-2]  $C_{26}H_{34}O_{10}$  (506.55). **Pharm:** Inhibits cancer cell invasion (MM1 cells, *in vitro*, 10  $\mu\text{g/mL}$ , InRt = 20.2%)<sup>[4329]</sup>. **Source:** BIAN XU *Polygonum aviculare*, HEI ZI LI GUO JI SHENG *Scurrula atropurpurea*. **Ref:** 1521, 4329.

**2041 Aviprin**

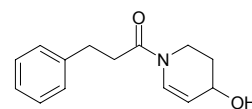
(*R*)-(+)-Oxypeucedanin hydrate; Hydroxypeucedanin hydrate [2643-85-8]  $C_{16}H_{16}O_6$  (304.30). Yellowish lamellar crystals (petroleum ether-EtOAc), mp 130~132°C,  $[\alpha]_D = +17^\circ$  ( $\text{Me}_2\text{CO}$ ); yellowish fluorescence crystals (chloroform), mp 131.5~132.0°C; 134,  $[\alpha]_D^{25} = +18^\circ$  ( $c = 1.5$ , acetone). **Pharm:** NO Production inhibitor (LPS-activated mouse peritoneal macrophages, 100  $\mu\text{mol/L}$ , InRt = (5.5 $\pm$ 3.4)%, control *L*-NMMA, 100  $\mu\text{mol/L}$ , InRt = (79.2 $\pm$ 0.9)%)<sup>[4454]</sup>; antifungal (*Cladosporium cucumerinum*, MIC = 10  $\mu\text{g}$ ); calcium antagonist. **Source:** BAI ZHI *Angelica dahurica* [Syn. *Angelica porphyrocaulis*], FEN CHA DANG GUI *Angelica furcujuga* (flower), MO GUO QIN *Sphallerocarpus gracilis*. **Ref:** 2, 900, 2500, 4454.

**2042 Awadcharidine**

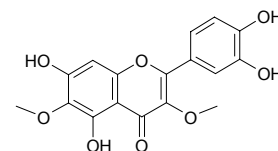
$C_{36}H_{51}N_3O_{10}$  (685.82). **Pharm:** Muscle relaxant (curariform action). **Source:** GAN WAN WU TOU *Aconitum finetianum*, GAO JIA SUO WU TOU *Aconitum orientale*, KE SHEN MI ER CUI QUE *Delphinium cashmerianum*. **Ref:** 658.

**2043 Awaine**

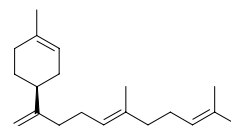
$C_{14}H_{17}NO_2$  (231.30). Colorless oil. **Source:** KA WA HU JIAO *Piper methysticum*. **Ref:** 3373.

**2044 Axillarin**

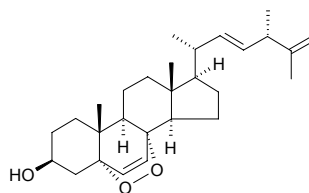
[5188-73-8]  $C_{17}H_{14}O_8$  (346.30). **Pharm:** Antiviral; aldose reductase inhibitor (eye lens). **Source:** MU<sup>(3)</sup> JU *Matricaria chamomilla* [Syn. *Matricaria recutita*], HUANG HUA HAO *Artemisia annua*, *Achillea* sp., *Artemisia* sp. **Ref:** 2, 658, 660.

**2045 (+)-Axinyssene**

(+)-1-Methyl-4-(5,9-dimethyl-1-methylene-deca-4,8-dienyl)cyclohexene  $C_{20}H_{32}$  (272.48). Colorless oil. **Source:** QUAN YUAN YE AO TUO SI TE CAO *Otostegia integrifolia* (leaf). **Ref:** 3823.

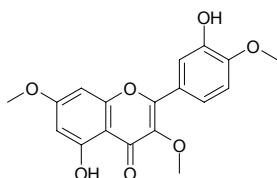
**2046 Axinysterol**

$C_{28}H_{42}O_3$  (426.65). **Source:** Sponge *Axinyssa* sp. **Ref:** 4231.

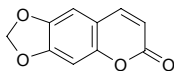


**2047 Ayanin**

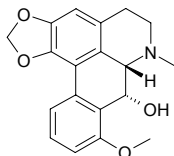
$C_{18}H_{16}O_7$  (344.32). **Pharm:** Cytotoxic (P<sub>388</sub> cell line, ED<sub>50</sub> = 0.22 μg/mL, control Mithramycin, ED<sub>50</sub> = 0.06 μg/mL; HT29, ED<sub>50</sub> = 11.2 μg/mL, Mithramycin, ED<sub>50</sub> = 0.07 μg/mL; A549, ED<sub>50</sub> = 6.9 μg/mL, Mithramycin, ED<sub>50</sub> = 0.08 μg/mL)<sup>[5405]</sup>. **Source:** BEI AI *Artemisia vulgaris*, SI ROU TUO GUO YE MI ZHU YU *Melicope semecarpifolia*. **Ref:** 660, 5405.

**2048 Ayapin**

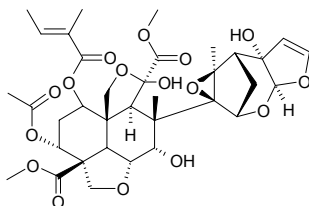
6,7-Methylenedioxy coumarin [494-56-4]  $C_{10}H_6O_4$  (190.15). Yellow crystals (MeOH), mp 222–223°C, mp 231–232°C. **Pharm:** Hemostatic (dog, ip, 500mg/kg, reduces time of coagulation by 18.4%, 350mg/kg, reduces time of coagulation by 96.1%); cytotoxic inactive (Lu1, 20 μg/mL, control Ellipticine, ED<sub>50</sub> = 0.02 μg/mL; Col2, 20 μg/mL, Ellipticine, ED<sub>50</sub> = 0.3 μg/mL; KB, 20 μg/mL, Ellipticine, ED<sub>50</sub> = 0.04 μg/mL; LN CaP, 20 μg/mL, Ellipticine, ED<sub>50</sub> = 0.8 μg/mL; KB in absence of 1 μg/mL vinblastine, 20 μg/mL, Ellipticine, ED<sub>50</sub> = 0.3 μg/mL; KB in presence of 1 μg/mL vinblastine, 20 μg/mL, Ellipticine, ED<sub>50</sub> = 0.2 μg/mL; BC1, 20 μg/mL, Ellipticine, ED<sub>50</sub> = 0.5 μg/mL)<sup>[3479]</sup>. **Source:** A YA PAN ZE LAN *Eupatorium ayapana*, *Alomia myriadenia* (aerial parts). **Ref:** 658, 661, 3479.

**2049 (-)-Ayuthianine**

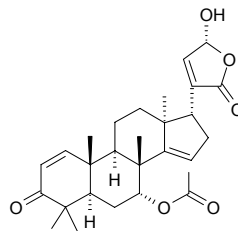
$C_{19}H_{19}NO_4$  (325.37).  $[\alpha]_D^{25} = -29.8^\circ$  (CHCl<sub>3</sub>). **Source:** *Stephania* sp. **Ref:** 3404.

**2050 Azadirachtin**

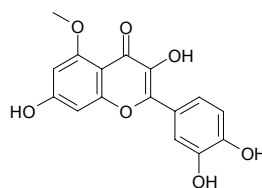
[11141-17-6]  $C_{35}H_{44}O_{16}$  (720.73). **Pharm:** Anthelmintic (effective component in seeds of *Melia azedarach*); insect antifeedant (including grasshoppers). **Source:** KU LIAN PI *Melia azedarach*. **Ref:** 658.

**2051 Azadironolide**

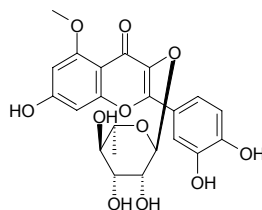
$C_{28}H_{36}O_6$  (468.60).  $[\alpha]_D^{28} = +8.9^\circ$  (c = 0.17, CHCl<sub>3</sub>) **Source:** YIN DU LIAN *Azadiractica indica*. **Ref:** 1521.

**2052 Azaleatin**

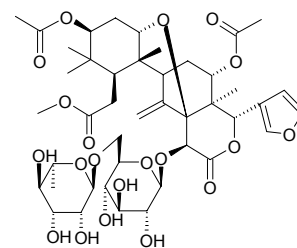
Quercetin-5-methyl ether [529-51-1]  $C_{16}H_{12}O_7$  (316.27). mp 322°C. **Source:** BAI HUA YING SHAN HONG *Rhododendron mucronatum*, GAO LIANG JIANG *Alpinia officinarum*, MAN SHAN HONG *Rhododendron dauricum*, XI YE TENG *Tetracera asiatica*, XUAN FU HUA *Inula britannica*, YING SHAN HONG *Rhododendron mucronulatum*, ZHONG GUO XUAN FU HUA *Inula britannica* var. *chinensis*. **Ref:** 6, 660.

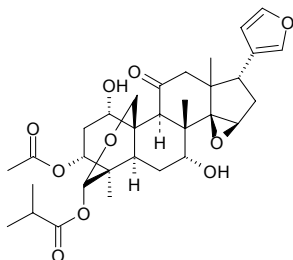
**2053 Azalein**

[29028-02-2]  $C_{22}H_{22}O_{11}$  (462.41). mp 181–185°C. **Source:** BAI HUA YING SHAN HONG *Rhododendron mucronatum*. **Ref:** 6.

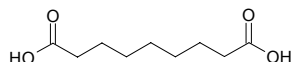
**2054 Azecin 1**

[182565-73-7]  $C_{43}H_{60}O_{20}$  (896.93). Colorless crystals solid, mp 180–182°C. **Pharm:** Insect antifeedant. **Source:** KU LIAN PI *Melia azedarach*. **Ref:** 1043.

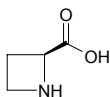
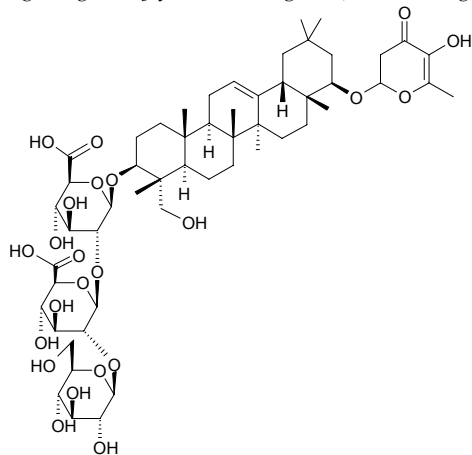
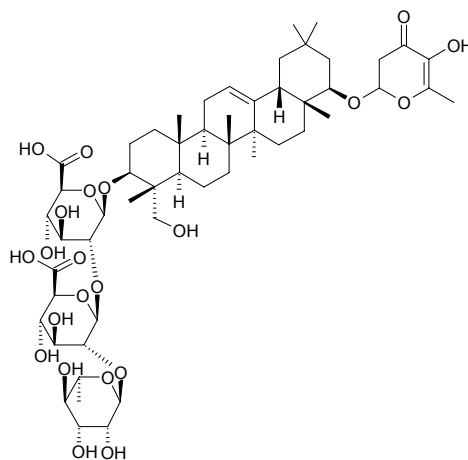
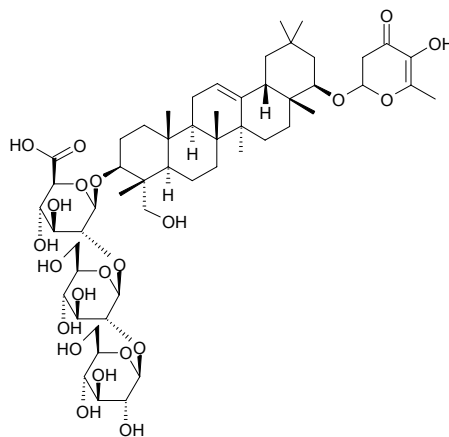
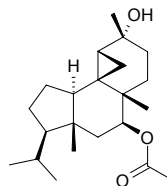


**2055 Azedarachin C**[157653-66-2] C<sub>32</sub>H<sub>42</sub>O<sub>10</sub> (586.68). [ $\alpha$ ]<sub>D</sub><sup>22</sup> = -41° (c = 0.08, chloroform).Pharm: Insect antifeedant. Source: KU LIAN PI *Melia azedarach*. Ref: 1118.**2056 Azelaic acid**

Anchoic acid [123-99-9] C<sub>9</sub>H<sub>16</sub>O<sub>4</sub> (188.23). Pharm: Anti-acne agent (used in treatment of acne and other pigment diseases instead of tetracycline). Source: DANG GUI *Angelica sinensis*, DANG SHEN *Codonopsis pilosula*, HUANG HAO *Artemisia scoparia* [Syn. *Artemisia capillaris* var. *scoparia*], MU JIN PI *Hibiscus syriacus*, SI CHI SI LENG CAO *Schnabelia tetradonta* (aerial parts: yield = 0.00031%dw)<sup>[4665]</sup>. Ref: 2, 519, 658, 4665.

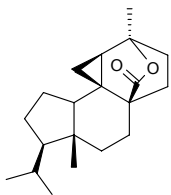
**2057 Azetidine-2-carboxylic acid**

[2133-34-8] C<sub>4</sub>H<sub>7</sub>NO<sub>2</sub> (101.11). Does not melt, but turns black at 270°C. Pharm: Antimicrobial; larvacide. Source: DUO HUA HUANG JING *Polygonatum cyrtoneura* [Syn. *Polygonatum multiflorum*], FENG HUANG MU *Delonix regia*, LING LAN *Convallaria keiskei* [Syn. *Convallaria majalis*], TIAN CAI *Beta vulgaris*, YU ZHU *Polygonatum odoratum* [Syn. *Polygonatum officinale*]. Ref: 6, 658, 660.

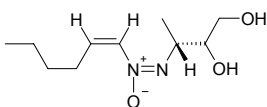
**2058 Az II**C<sub>54</sub>H<sub>82</sub>O<sub>23</sub> (1099.24). [ $\alpha$ ]<sub>D</sub><sup>23</sup> = -37.4° (c = 0.43, MeOH). Source: CHI DOU *Vigna angularis* [Syn. *Dolichus angularis*; *Phaseolus angularis*]. Ref: 2337.**2059 Az III**C<sub>54</sub>H<sub>82</sub>O<sub>22</sub> (1083.24). [ $\alpha$ ]<sub>D</sub><sup>23</sup> = -68.25° (c = 0.4, MeOH). Source: CHI DOU *Vigna angularis* [Syn. *Dolichus angularis*; *Phaseolus angularis*]. Ref: 2337.**2060 Az IV**[244776-47-4] C<sub>54</sub>H<sub>84</sub>O<sub>22</sub> (1085.26). [ $\alpha$ ]<sub>D</sub><sup>23</sup> = -80.75° (c = 0.4, MeOH). Source: CHI DOU *Vigna angularis* [Syn. *Dolichus angularis*; *Phaseolus angularis*]. Ref: 2337.**2061 Azorellanol**C<sub>22</sub>H<sub>36</sub>O<sub>3</sub> (348.53). Pharm: Trichomonocidal (*Trichomonas vaginalis*, LD<sub>50</sub> = 40.5 μmol/L)<sup>[5125]</sup>. Source: *Azorella yareta* (aerial parts). Ref: 5125.

**2062 Azorellolide**

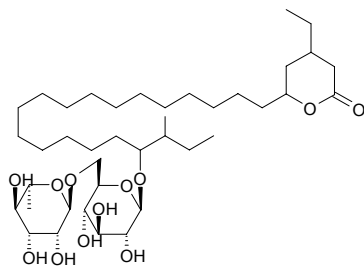
$C_{20}H_{30}O_2$  (302.46). Colorless needles (ethyl ether), mp 146–147°C,  $[\alpha]_D^{19.8} = -64.94^\circ$  ( $c = 0.56$ ,  $CHCl_3$ ). Source: YIN HUA YAO XIAO YING QIN *Azorella cryptantha* (aerial parts). Ref: 3825.

**2063 Azoxyalkene**

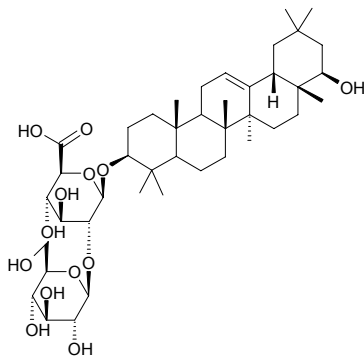
$C_{10}H_{20}N_2O_3$  (216.28). Yellow oil,  $[\alpha]_D^{25} = -30^\circ$  ( $c = 0.2$ , MeOH). Pharm: Antibiotic (*Rhodotorula* sp., weak). Source: XING SHU GEN *Prunus armeniaca*. Ref: 5402.

**2064 Azralidose**

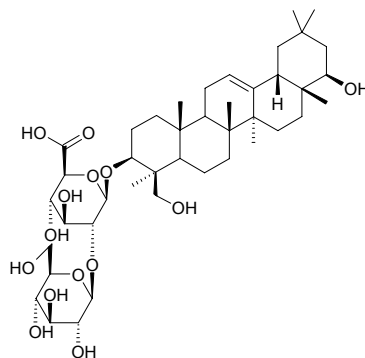
[37551-77-2]  $C_{40}H_{74}O_{12}$  (747.03). mp 108–110°C. Source: SHEN HUANG DOU *Cassia nodosa*. Ref: 6.

**2065 Azukisaponin I**

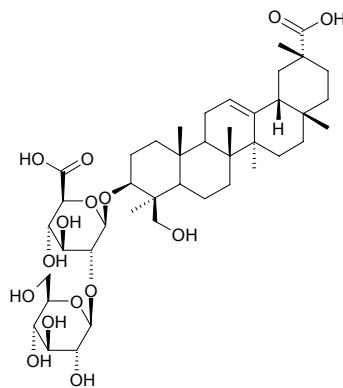
$C_{42}H_{68}O_{13}$  (781.00). Source: CHI DOU *Vigna angularis* [Syn. *Dolichus angularis*; *Phaseolus angularis*], HUIAI *Sophora japonica*. Ref: 660.

**2066 Azukisaponin II**

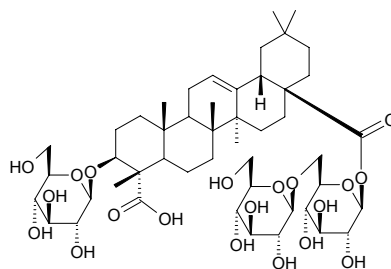
$C_{42}H_{68}O_{14}$  (797.00). Source: CHI DOU *Vigna angularis* [Syn. *Dolichus angularis*; *Phaseolus angularis*], HUIAI *Sophora japonica*. Ref: 660.

**2067 Azukisaponin III**

$C_{42}H_{66}O_{15}$  (810.99). Source: CHI DOU *Vigna angularis* [Syn. *Dolichus angularis*; *Phaseolus angularis*]. Ref: 1521.

**2068 Azukisaponin IV**

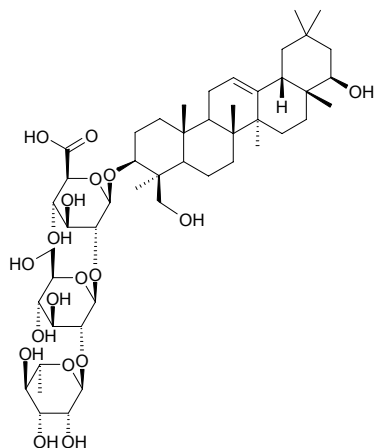
$C_{48}H_{76}O_{20}$  (973.13). Source: CHI DOU *Vigna angularis* [Syn. *Dolichus angularis*; *Phaseolus angularis*], SHI ZHU *Dianthus chinensis*. Ref: 660.



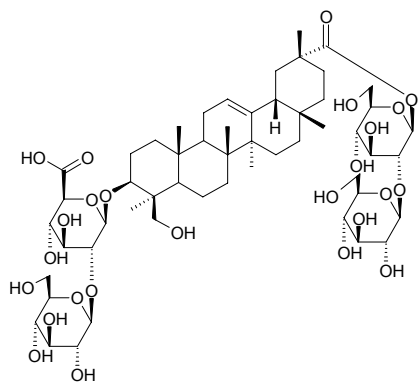


**2069 Azukisaponin V**

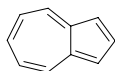
$C_{48}H_{78}O_{18}$  (943.15). Source: CHI DOU *Vigna angularis* [Syn. *Dolichus angularis*; *Phaseolus angularis*], HUAI *Sophora japonica*. Ref: 660.

**2070 Azukisaponin VI**

$C_{54}H_{86}O_{25}$  (1135.27). Source: CHI DOU *Vigna angularis* [Syn. *Dolichus angularis*; *Phaseolus angularis*]. Ref: 1521.

**2071 Azulene**

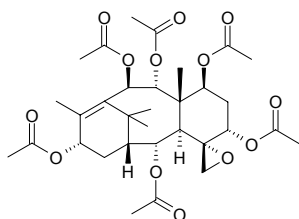
[275-51-4]  $C_{10}H_8$  (128.18). mp 98.5–99.0°C. Pharm: Antiulcerative (rat, gastric ulcer);  $5\alpha$ -reductase inhibitor inactive ( $IC_{50} > 1\text{mmol/L}$ ; control Finasteride,  $IC_{50} = (0.38 \pm 0.06)\mu\text{mol/L}$ ;  $\alpha$ -Linolenic acid,  $IC_{50} = (160.3 \pm 24.6)\mu\text{mol/L}$ )<sup>[5398]</sup>. Source: MU<sup>(3)</sup> JU *Matricaria chamomilla* [Syn. *Matricaria recutita*], YANG SHI CAO *Achillea millefolium*, ZHANG MU *Cinnamomum camphora*. Ref: 6, 658, 660, 5398.



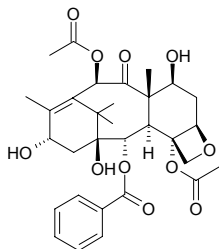
## B

**2072 Baccatin I**

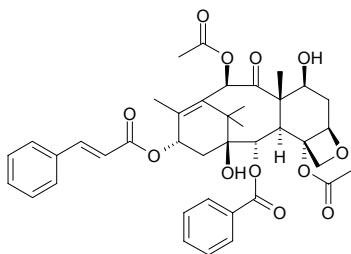
[30244-35-0] C<sub>32</sub>H<sub>44</sub>O<sub>13</sub> (636.70). mp 298°C, [α]<sub>D</sub> = +86°. Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.

**2073 Baccatin III**

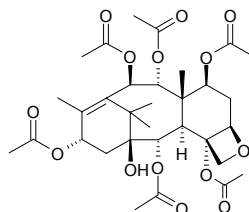
[27548-93-2] C<sub>31</sub>H<sub>38</sub>O<sub>11</sub> (586.64). White lump crystals (chloroform–diethyl ether), mp 230–234°C, mp 236–238°C, mp 229–231°C, [α]<sub>D</sub><sup>14</sup> = –87.9° (c = 0.10, chloroform), [α]<sub>D</sub> = –54° (MeOH), [α]<sub>D</sub> = –54° (MeOH). Pharm: Antineoplastic; cytotoxic; antioxidant (DPPH scavenger, IC<sub>50</sub> > 200 μmol/L, control Caffeic acid, IC<sub>50</sub> = 25.5 μmol/L)<sup>[5407]</sup>; NO production inhibitor (IC<sub>50</sub> = 120 μmol/L, control L-NMMA, IC<sub>50</sub> = 28.5 μmol/L)<sup>[5407]</sup>. Source: JIANG GUO ZI SHAN *Taxus baccata*, SU MEN DA LA HONG DOU SHAN *Taxus sumatrana* (twig and leaf)<sup>[4666]</sup>, YUN NAN HONG DOU SHAN *Taxus yunnanensis*, YUN NAN HONG DOU SHAN *Taxus yunnanensis* (wood), ZI SHAN *Taxus cuspidata*. Ref: 662, 900, 4666, 5407.

**2074 Baccatin III 13-cinnamate**

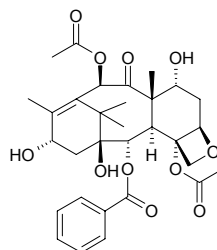
Taxuspinanane J; Deaminoacylcinnamoyltaxol C<sub>40</sub>H<sub>44</sub>O<sub>12</sub> (716.79). Gum, [α]<sub>D</sub><sup>25</sup> = –75.7° (c = 1.0, CHCl<sub>3</sub>); [α]<sub>D</sub> = –43.8° (CHCl<sub>3</sub>), [α]<sub>D</sub> = –75.7° (CHCl<sub>3</sub>). Source: JIE ZHI HONG DOU SHAN *Taxus media*, MEI LI HONG DOU SHAN *Taxus mairei*, ZI SHAN *Taxus cuspidata*. Ref: 662, 1873.

**2075 Baccatin IV**

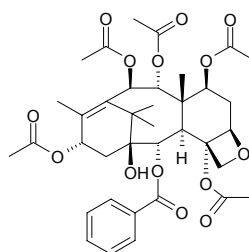
[57672-77-2] C<sub>32</sub>H<sub>44</sub>O<sub>14</sub> (652.70). mp 254–255°C, [α]<sub>D</sub> = +19°. Pharm: NO production inhibitor (IC<sub>50</sub> = 51.2 μmol/L, control L-NMMA, IC<sub>50</sub> = 28.5 μmol/L)<sup>[5407]</sup>. Source: YUN NAN HONG DOU SHAN *Taxus yunnanensis* (wood), *Taxus* sp. Ref: 662, 5407.

**2076 Baccatin V**

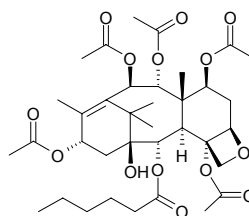
[31077-81-3] C<sub>31</sub>H<sub>38</sub>O<sub>11</sub> (586.64). mp 254–255°C, [α]<sub>D</sub> = –87°. Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.

**2077 Baccatin VI**

C<sub>37</sub>H<sub>46</sub>O<sub>14</sub> (714.77). mp 239–241°C, mp 248–250°C, mp 244–245°C, [α]<sub>D</sub> = –5° (CHCl<sub>3</sub>), [α]<sub>D</sub> = –9° (CHCl<sub>3</sub>). Source: JIANG GUO ZI SHAN *Taxus baccata*, JIE ZHI HONG DOU SHAN *Taxus media*. Ref: 662, 1521.

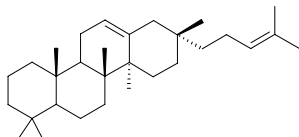
**2078 Baccatin VII**

C<sub>36</sub>H<sub>52</sub>O<sub>14</sub> (708.81). mp 270°C, [α]<sub>D</sub> = +9°. Source: *Taxus* sp. Ref: 662, 1521.

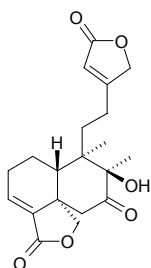


**2079 Bacchara-12,21-diene**

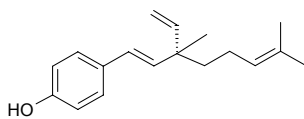
C<sub>30</sub>H<sub>50</sub> (410.73). **Source:** DAO LUAN YE FU SHI JUE *Lemnaphyllum microphyllum* var. *obovatum*. **Ref:** 660.

**2080 Bacchariol**

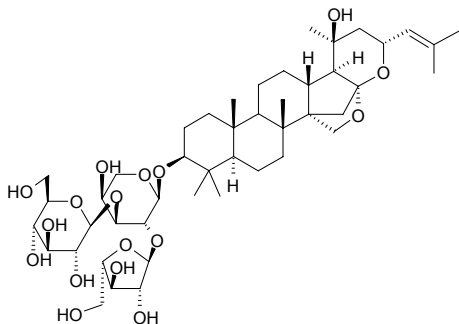
C<sub>20</sub>H<sub>24</sub>O<sub>6</sub> (360.41). White powder, mp 179~182°C,  $[\alpha]_D^{25} = -117^\circ$  ( $c = 0.7$ , CHCl<sub>3</sub>). **Source:** *Baccharis gaudichaudiana* (aerial parts). **Ref:** 4313.

**2081 Bakuchiol**

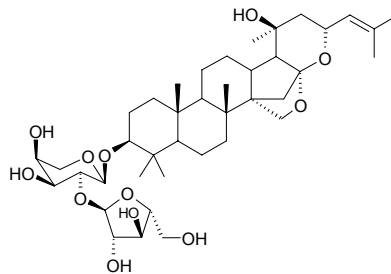
Bakuchiol [10309-37-2] C<sub>18</sub>H<sub>24</sub>O (256.37). Yellowish oily liquid, bp 145~147°C/0.7mmHg,  $[\alpha]_D = +37.2^\circ$ . **Pharm:** Antibacterial (*Staphylococcus aureus*, 10µg/mL, 2min; *trichophyton* sp., 10µg/mL, 8min; dog, *Microsporium* sp., 10µg/mL, 8min; *staphylococcus aureus* H114, 2~4µg/mL); antibacterial (*Staphylococcus aureus*, MIC = 20.0µg/mL; *Micrococcus luteus*, MIC = 10.0µg/mL)<sup>[4498]</sup>; antibacterial (*Staphylococcus aureus*, MIC = 25.0µmol/L; *Micrococcus epidermidis*, MIC = 15.0µmol/L)<sup>[5337]</sup>; protein tyrosine Phosphatase 1B (PTP1B) inhibitor (IC<sub>50</sub> = (20.8±1.9)µmol/L, control RK-682, IC<sub>50</sub> = 5.0µmol/L)<sup>[5049]</sup>. **Source:** BU GU ZHI *Psoralea corylifolia* (dried ripe fruit: mean content of 11 origins = 2.39%<sup>[5508]</sup>), HE GUO ZHUANG BU GU ZHI *Psoralea drupacea*, TAI WAN XIU XIAN JU *Spiraea formosana*. **Ref:** 1, 2, 4, 658, 661, 1521, 2575, 4498, 5049, 5337, 5508.

**2082 Bacopasaponin C**

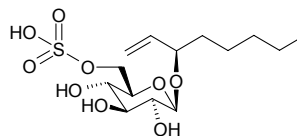
C<sub>46</sub>H<sub>74</sub>O<sub>17</sub> (899.09). **Pharm:** Cytotoxic (BST assay, IC<sub>50</sub> = 3.9µg/mL; control Podophyllotoxin, IC<sub>50</sub> = 4.5µg/mL). **Source:** JIA MA CHI XIAN *Bacopa monniera* (whole herb). **Ref:** 5332.

**2083 Bacopasaponin G**

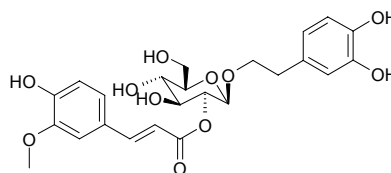
3-*O*-[ $\alpha$ -L-Arabinofuranosyl-(1→2)]- $\alpha$ -L-arabinopyranosyl-jujubogenin C<sub>40</sub>H<sub>64</sub>O<sub>12</sub> (736.95). White amorphous powder,  $[\alpha]_D^{25} = -54.5^\circ$  ( $c = 0.4$ , MeOH). **Source:** JIA MA CHI XIAN *Bacopa monniera* (whole herb: yield = 0.00080%fw). **Ref:** 4664.

**2084 Bacopaside A**

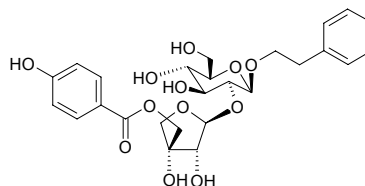
(3*R*)-1-Octan-3-yl-(6-*O*-sulfonyl)- $\beta$ -D-glucopyranoside C<sub>14</sub>H<sub>26</sub>O<sub>9</sub>S (370.42). Off-white amorphous powder,  $[\alpha]_D^{25} = +17.7^\circ$  ( $c = 0.4$ , MeOH). **Source:** JIA MA CHI XIAN *Bacopa monniera* (whole herb: yield = 0.00072%fw). **Ref:** 4664.

**2085 Bacopaside B**

3,4-Dihydroxyphenylethyl alcohol (2-*O*-feruloyl)- $\beta$ -D-glucopyranoside C<sub>24</sub>H<sub>28</sub>O<sub>11</sub> (492.48). Off-white amorphous powder,  $[\alpha]_D^{25} = -209.5^\circ$  ( $c = 0.2$ , MeOH). **Source:** JIA MA CHI XIAN *Bacopa monniera* (whole herb: yield = 0.00072%fw). **Ref:** 4664.

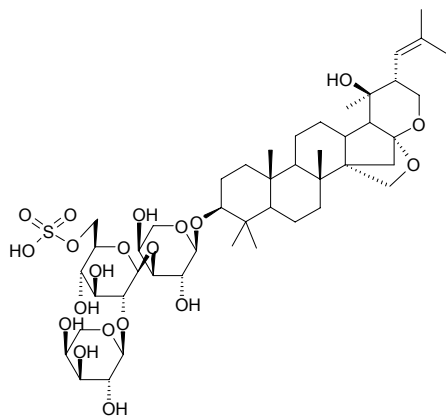
**2086 Bacopaside C**

Phenylethyl alcohol [5-*O*-*p*-hydroxybenzoyl- $\beta$ -D-apiofuranosyl-(1→2)]- $\beta$ -D-glucopyranoside C<sub>26</sub>H<sub>32</sub>O<sub>12</sub> (536.54). Off-white amorphous powder,  $[\alpha]_D^{25} = -13.8^\circ$  ( $c = 1.0$ , MeOH). **Source:** JIA MA CHI XIAN *Bacopa monniera* (whole herb: yield = 0.00048%fw). **Ref:** 4664.

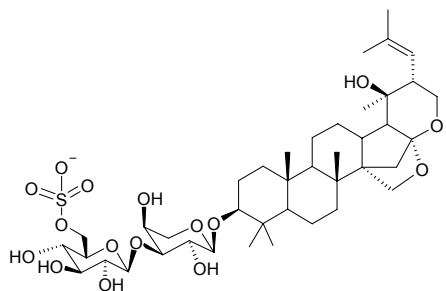


**2087 Bacopaside I**

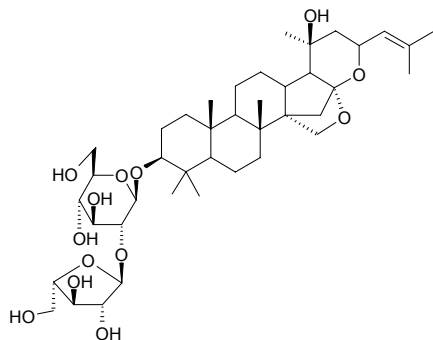
$C_{46}H_{74}O_{20}S$  (979.15). Source: JIA MA CHI XIAN *Bacopa monniera* (aerial parts). Ref: 4316.

**2088 Bacopaside III**

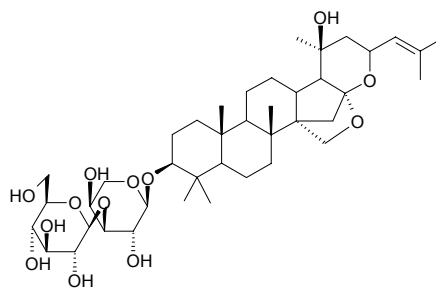
3-*O*-[6-*O*-Sulfonyl- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 3)]- $\alpha$ -*L*-arabinopyranosyl-pseudojujubogenin  $C_{41}H_{65}O_{16}S^-$  (846.03). White amorphous powder,  $[\alpha]_D^{25} = -17.4^\circ$  ( $c = 0.4$ , MeOH). Source: JIA MA CHI XIAN *Bacopa monniera* (aerial parts). Ref: 4664.

**2089 Bacopaside IIIb\***

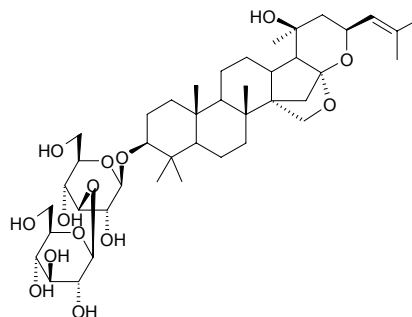
$C_{41}H_{66}O_{13}$  (766.98). Micro needles, mp 232–234°C (dec),  $[\alpha]_D^{23} = -44.8^\circ$  ( $c = 0.52$ , MeOH). Source: JIA MA CHI XIAN *Bacopa monniera* (whole herb: yield = 0.00082%fw). Ref: 4316.

**2090 Bacopaside IV**

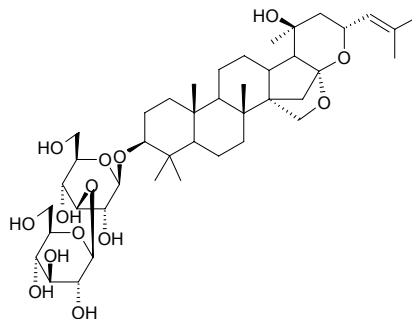
$C_{41}H_{66}O_{13}$  (766.98). Fine needles, mp 272–274°C (dec),  $[\alpha]_D^{23} = -5.2^\circ$  ( $c = 0.50$ , MeOH). Source: JIA MA CHI XIAN *Bacopa monniera* (aerial parts). Ref: 4316.

**2091 Bacopaside N<sub>1</sub>**

3-*O*-[ $\beta$ -*D*-Glucopyranosyl-(1 $\rightarrow$ 3)- $\beta$ -*D*-glucopyranosyl]jujubogenin  $C_{42}H_{68}O_{14}$  (797.00). White amorphous powder, mp 256–260°C,  $[\alpha]_D = -25.3^\circ$  ( $c = 0.025$ , CH<sub>3</sub>OH). Pharm: Cytotoxic inactive (BST assay, IC<sub>50</sub> > 100 $\mu$ g/mL; control Podophyllotoxin, IC<sub>50</sub> = 4.5 $\mu$ g/mL). Source: JIA MA CHI XIAN *Bacopa monniera* (whole herb). Ref: 5332.

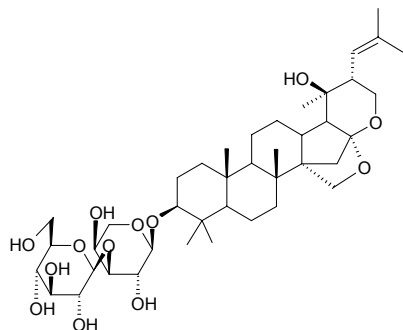
**2092 Bacopaside N<sub>2</sub>**

3-*O*-[ $\beta$ -*D*-Glucopyranosyl-(1 $\rightarrow$ 3)- $\beta$ -*D*-glucopyranosyl]pseudojujubogenin  $C_{42}H_{68}O_{14}$  (797.00). White amorphous powder, mp 278–282°C,  $[\alpha]_D = -25.0^\circ$  ( $c = 0.0058$ , CH<sub>3</sub>OH). Pharm: Cytotoxic inactive (BST assay, IC<sub>50</sub> > 100 $\mu$ g/mL; control Podophyllotoxin, IC<sub>50</sub> = 4.5 $\mu$ g/mL). Source: JIA MA CHI XIAN *Bacopa monniera* (whole herb). Ref: 5332.

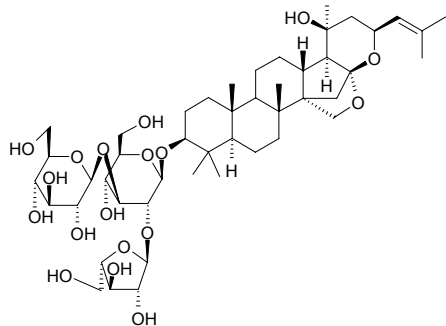


**2093 Bacopaside V**

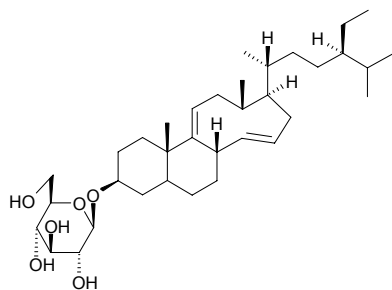
$C_{41}H_{66}O_{13}$  (766.98). Fine needles, mp 274~276°C (dec),  $[\alpha]_D^{23} = -24.9^\circ$  ( $c = 0.38$ , MeOH). Source: JIA MA CHI XIAN *Bacopa monniera* (aerial parts). Ref: 4316.

**2094 Bacoside A<sub>3</sub>**

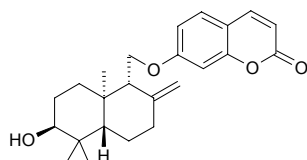
3-*O*-[ $\beta$ -*D*-Glucopyranosyl-(1 $\rightarrow$ 3)-*O*-{ $\alpha$ -*L*-arabinofuranosyl-(1 $\rightarrow$ 2)}-*O*-( $\beta$ -*D*-glucopyranosyl)]juiubogenin  $C_{47}H_{76}O_{18}$  (929.12). mp 244~250°C. Source: JIA MA CHI XIAN *Bacopa monniera* (whole herb: yield = 0.012%fw). Ref: 4664, 5332.

**2095 Bacosterol-3-*O*- $\beta$ -*D*-glucopyranoside**

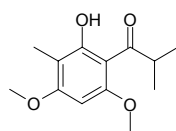
$C_{35}H_{60}O_6$  (576.86). White amorphous powder,  $[\alpha]_D^{25} = -30.2^\circ$  ( $c = 6.6 \times 10^{-4}$ , MeOH). Source: JIA MA CHI XIAN *Bacopa monniera* (aerial parts: yield = 0.0014%dw). Ref: 1541.

**2096 Badrakemin**

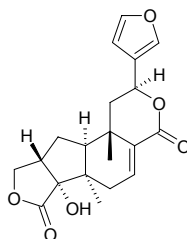
$C_{24}H_{30}O_4$  (382.50). Source: A WEI *Ferula assafoetida* (root), *Ferula badrakema*. Ref: 660, 5243.

**2097 Baeckeol**

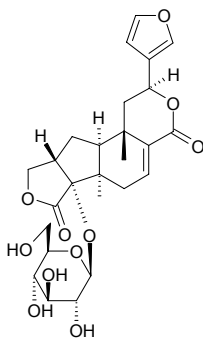
$C_{13}H_{18}O_4$  (238.29). mp 103~104°C. Source: GANG SONG *Baeckea frutescens*. Ref: 6.

**2098 Baenzigeride A**

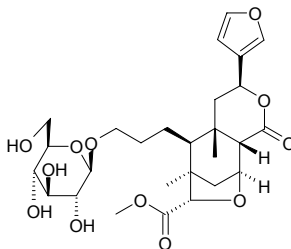
$C_{20}H_{22}O_6$  (258.39). Slightly green solid, colorless rhombs, mp 184~185°C,  $[\alpha]_D^{25} = +23.79^\circ$  ( $c = 0.14$ , MeOH). Source: *Tinospora baenzigeri*. Ref: 2394.

**2099 Baenzigeroside A**

$C_{26}H_{32}O_{11}$  (520.54). Light brown solid, Colorless powder, mp 210~212°C,  $[\alpha]_D^{25} = -7.92^\circ$  ( $c = 0.27$ , MeOH). Source: *Tinospora baenzigeri*. Ref: 2394.

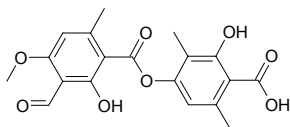
**2100 Baenzigeroside B**

$C_{27}H_{38}O_{12}$  (554.60). Colorless powder, mp 136~137°C,  $[\alpha]_D^{25} = +23.3^\circ$  ( $c = 0.33$ , MeOH). Source: *Tinospora baenzigeri* (stem). Ref: 3549.



### 2101 Baeomycesic acid

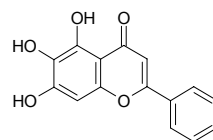
[644-66-6] C<sub>19</sub>H<sub>18</sub>O<sub>8</sub> (374.35). mp 233°C. **Pharm:** 5-LOX inhibitor (porcine leucocytes, *in vitro*, IC<sub>50</sub> = 8.3 μmol/L, control Zileuton, IC<sub>50</sub> = 0.4 μmol/L, LOX has been implicated in carcinogenesis in various types)<sup>[4082]</sup>; cytotoxic (acute promyelocytic leukemia (HL-60), EC<sub>50</sub> > 80 μg/mL, Zileuton, EC<sub>50</sub> = (38.8±12.3) μg/mL; colorectal adenocarcinoma (WiDr), EC<sub>50</sub> > 80 μg/mL, Zileuton, EC<sub>50</sub> > 80 μg/mL; erythro-leukemia (K562), EC<sub>50</sub> = (36.8±6.9) μg/mL, Zileuton, EC<sub>50</sub> = (38.5±5.4) μg/mL; gastric adenocarcinoma (AGS), EC<sub>50</sub> = (48.0±3.3) μg/mL, Zileuton, EC<sub>50</sub> = (70.5±3.1) μg/mL; mammary carcinoma (T47-D), EC<sub>50</sub> = (58.8±5.6) μg/mL, Zileuton, EC<sub>50</sub> = (23.9±4.1) μg/mL; ovarian adenocarcinoma (OVCAR-3), EC<sub>50</sub> > 80 μg/mL, Zileuton, EC<sub>50</sub> = (53.1±7.7) μg/mL; pancreas cancer (Capan1), EC<sub>50</sub> > 80 μg/mL, Zileuton, EC<sub>50</sub> = (12.9±11.7) μg/mL; pancreas cancer (Capan2), EC<sub>50</sub> = (53.8±12) μg/mL, Zileuton, EC<sub>50</sub> > 80 μg/mL; pancreas cancer (PANC1), EC<sub>50</sub> > 80 μg/mL, Zileuton, EC<sub>50</sub> = (46.6±5.4) μg/mL; prostatic cancer (PC3), EC<sub>50</sub> = (28.8±6.5) μg/mL, Zileuton, EC<sub>50</sub> = (49.9±9.0) μg/mL; small cell lung cancer (NCI-H1417), EC<sub>50</sub> = (62.2±12.2) μg/mL, Zileuton, EC<sub>50</sub> > 80 μg/mL; T-cell leukemia (Jurkat-T), EC<sub>50</sub> = (52.6±9.0) μg/mL, Zileuton, EC<sub>50</sub> = (78.3±5.0) μg/mL)<sup>[4082]</sup>. **Source:** BAN JIU *Streptopelia orientalis*, Lichen *Thamnolia vermicularis* var. *subuliformis*. **Ref:** 6, 4082.



### 2102 Baicalein

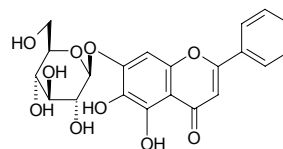
Noroxylin [491-67-8] C<sub>15</sub>H<sub>10</sub>O<sub>5</sub> (270.24). **Pharm:** Antiallergic; anti-inflammatory (modulator of cytokine network: increases TNF-α level in RAW264.7 cells)<sup>[4416]</sup>; anti-inflammatory (inhibits binding of several chemokines, such as CXC, CC to hmn leukocytes or cells transfected with chemokine receptors)<sup>[4416]</sup>; anti-inflammatory (prevents eotaxin production (IC<sub>50</sub> = 1.8 μg/mL) and mRNA eotaxin expression in hmn fibroblasts stimulated with IL-4 plus TNF-α)<sup>[4416]</sup>; anti-inflammatory (macrophages, IL-12 production inhibitor, LPS-activated, NF-κB binding inhibitor)<sup>[5437]</sup>; decreases accumulation of reactive oxygen intermediates (hmn neutrophils and monocytes, fMLP- or PMA-induced, IC<sub>50</sub> = 1.5~64.5 μmol/L)<sup>[4416]</sup>; integrin MAC-1 inhibitor (fMLP-induced, decreases increase in surface expression of MAC-1 (CD11b/CD18) and MAC-1 dependent neutrophil adhesion)<sup>[4416]</sup>; anti-inflammatory (hmn retinal pigment epithelial cell lines, IL-6 and IL-8 blocker, blocking production and expression of IL-6 and IL-8, IC<sub>50</sub> = 1~40 μmol/L)<sup>[4416]</sup>; choleric; diuretic; antithrombotic (extends clotting time of fibrinogen by thrombase in high concentration); aldoketomutase I inhibitor; lipoxygenase inhibitor (*in vitro*, IC<sub>50</sub> = (22.5±0.3) μmol/L)<sup>[2555]</sup>; lipoxygenase inhibitor (EC1.13.11.12, IC<sub>50</sub> = (22.4±1.3) μmol/L)<sup>[3802]</sup>; lipoxygenase inhibitor (*in vitro*, IC<sub>50</sub> = (22.4±1.3) μmol/L)<sup>[4319]</sup>; lipoxygenase inhibitor (type I-B EC1.13.11.12, IC<sub>50</sub> = (22.6±0.05) μmol/L)<sup>[4442]</sup>; lipoxygenase inhibitor (EC1.13.11.12, IC<sub>50</sub> = (22.0±0.05) μmol/L, mixed type, Ki = (18.0±0.02) μmol/L)<sup>[4490]</sup>; 12-lipoxygenase inhibitor (10 μg/mL, InRt = 56.23%)<sup>[5249]</sup>; antihypercholesterolemic; leukocyte elastase MMP-2/9 inhibitor<sup>[4416]</sup>; anti-inflammatory (5-lipoxygenase selective inhibitor in rat resident peritoneal macrophage; LTC<sub>4</sub> selective inhibitor in rat resident

peritoneal macrophage, IC<sub>50</sub> = 9.5 μmol/L; oral ameliorates several inflammatory symptoms of experimental colitis, such as body-weight loss, low blood haemoglobin content and rectal bleeding (baicalein only, but not baicalin and wogonin); inhibits TPA-induced ear oedema in mouse skin; ornithine decarboxylase inhibitor in mouse skin; myeloperoxidase inhibitor in mouse skin; anti-oedematogenic on rat; 15-lipoxygenase inhibitor<sup>[4415]</sup>; anti-inflammatory (NO production inhibitor)<sup>[4415]</sup>; cytotoxic (KU-1 hmn bladder cancer cell line, EJ-1 hmn bladder cancer cell line, MBT-2 murine bladder cancer cell line, inhibits cell proliferation *in vitro* in a dose-dependent manner, less active than baicalin)<sup>[5369]</sup>; cytotoxic (LXFL529L hmn large cell lung carcinoma cell line and HL-60, inhibits cell growth at a micromolar range)<sup>[5369]</sup>; cytotoxic (inhibits growth of MDA-MB-435 hmn breast carcinoma cell line, IC<sub>50</sub> = 6 μg/mL, more active than hesperetin and naringenin)<sup>[5369]</sup>; cytotoxic (inhibits proliferation of estrogen receptor-positive MCF7 hmn breast cancer cells, the inhibition was not reversible by an addition of estrogen)<sup>[5369]</sup>; cytotoxic (inhibits hmn T-lymphoid leukemia cell proliferation, IC<sub>50</sub> = 5 μmol/L)<sup>[5369]</sup>; cytotoxic (BxPC3 hmn pancreatic cancer cell line, IC<sub>50</sub> = 50 μg/mL, PLC/PRF/5 hmn hepatoma cell line, HepG2 hmn hepatoma cell line, inhibits cell growth)<sup>[5369]</sup>; cAMP phosphodiesterase inhibitor (inhibits cAMP-specific isoenzyme family PDE4, IC<sub>50</sub> = 10 μmol/L)<sup>[5369]</sup>; DNA topoisomerase II inhibitor (probably by stabilizing covalent enzyme-DNA intermediate in a ternary complex)<sup>[5369]</sup>; α-glucosidase inhibitor (mouse melanoma cells, suppresses *in vitro* invasion and *in vivo* metastasis)<sup>[5369]</sup>; xanthine oxidase inhibitor (strong action, indicating that it might be useful for the remission of brain tumors, since xanthine oxidase serum levels are increased in tissues of brain tumors)<sup>[5369]</sup>; tyrosine kinase inhibitor (tyrosine kinase of EGFR, IC<sub>50</sub> = 1.1 μmol/L, more active than Baicalin, wogonin, wogonoside and skullcapflavone II)<sup>[5369]</sup>; tyrosine kinase inhibitor (tyrosine kinase in hmn T-lymphoid leukemia cells)<sup>[5369]</sup>. **Source:** BING TOU HUANG QIN *Scutellaria scordifolia*, CHUAN HUANG QIN *Scutellaria hypericifolia*, DA CHE QIAN *Plantago major*, DIAN HUANG QIN *Scutellaria amoena*, GAN SU HUANG QIN *Scutellaria rehderiana*, HUANG QIN *Scutellaria baicalensis* (dried root: content scope of 20 samples = 0.17%~11.94%, mean content = 1.85%<sup>[5508]</sup>), LI JIANG HUANG QIN *Scutellaria likiangensis*, MU HU DIE *Oroxylum indicum*, NIAN MAO HUANG QIN *Scutellaria viscidula*. **Ref:** 2, 4, 658, 660, 2555, 3802, 4319, 4415, 4416, 4442, 4490, 5249, 5369, 5437, 5501, 5508.



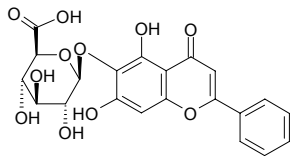
### 2103 Baicalein-7-O-β-D-glucopyranoside

Oroxin A [57396-78-8] C<sub>21</sub>H<sub>20</sub>O<sub>10</sub> (432.39). mp 178~180°C. **Source:** HUANG QIN *Scutellaria baicalensis*, MU HU DIE *Oroxylum indicum*. **Ref:** 2, 6, 660.

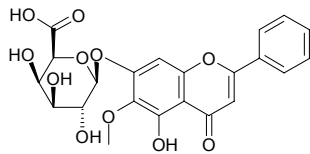


**2104 Baicalein-6-glucuronide**

$C_{21}H_{18}O_{11}$  (446.37). mp 114°C. Source: MU HU DIE *Oroxylum indicum*. Ref: 6.

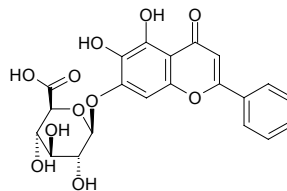
**2105 Baicalein 6-methylether-7-O-β-galactopyranuronoside**

$C_{22}H_{20}O_{11}$  (460.40). Yellowish amorphous powder Source: DONG AN NA TUO LI YA SHI CHE JU *Centaurea pseudoscabiosa* ssp. *Pseudoscabiosa*. Ref: 1947.

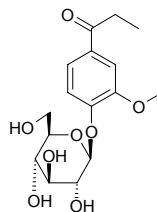
**2106 Baicalin**

Baicalin-7-glucuronide [21967-41-9]  $C_{21}H_{18}O_{11}$  (446.37). mp 223°C. Pharm: Antiallergic; antibacterial; anti-inflammatory (modulator of cytokine network: increases TNF- $\alpha$  level in RAW264.7 cells)<sup>[4416]</sup>; anti-inflammatory (significantly inhibits binding of several chemokines, such as CXCL12 to hmn leukocytes or cells transfected with chemokine receptors, IC<sub>50</sub> = 15~320 $\mu$ g/mL)<sup>[4416]</sup>; anti-inflammatory (inhibits expression and production of IL-1 $\beta$ , IL-6, TNF- $\alpha$ , IFN- $\gamma$ , MIP-1 $\alpha/\beta$  in hmn peripheral blood mononuclear cells under stimulation with superantigenic staphylococcal exotoxins)<sup>[4416]</sup>; decreases accumulation of reactive oxygen intermediates (hmn neutrophils and monocytes, fMLP- or PMA-induced, IC<sub>50</sub> = 1.5~64.5 $\mu$ mol/L)<sup>[4416]</sup>; integrin MAC-1 inhibitor (fMLP-induced, decreases increase in surface expression of MAC-1 (CD11b/CD18) and MAC-1 dependent neutrophil adhesion)<sup>[4416]</sup>; antipyretic; choleric; diuretic; antihypertensive; antitoxin (reduces death rate of mus due to strychnine toxicosis); sedative; SP-A gene expression promoter (lung adenocarcinoma cell line H441, *in vitro*, in dose-dependent and time-course manners, maximal expression of SP-A gene of 1.7-fold greater than control, is induced at 150nmol/L of baicalin treated for 48h)<sup>[5388]</sup>; a detail study on pharmacokinetics<sup>[4076]</sup>; anti-inflammatory (anti-oedematogenic on rat; inhibits production of prostaglandin E2 in C6 rat glioma cells; inhibits LTB<sub>4</sub> biosynthesis; 12-LOX inhibitor in hmn platelets, without affecting the levels of cyclooxygenase)<sup>[4415]</sup>; anti-inflammatory (NO production inhibitor)<sup>[4415]</sup>; cytotoxic (BxPC3 hmn pancreatic cancer cell line, IC<sub>50</sub> = 20 $\mu$ g/mL, PLC/PRF/5 hmn hepatoma cell line, HepG2 hmn hepatoma cell line, inhibits cell growth)<sup>[5369]</sup>; cytotoxic (KU-1 hmn bladder cancer cell line, EJ-1 hmn bladder cancer cell line, MBT-2 murine bladder cancer cell line, inhibits cell proliferation *in vitro* in a dose-dependent manner, more active than baicalein and wogonin)<sup>[5369]</sup>; cytotoxic (LXFL529L hmn large cell lung carcinoma cell line and HL-60, inhibits cell growth at a micromolar range)<sup>[5369]</sup>; tyrosine kinase inhibitor (tyrosine kinase of EGFR, IC<sub>50</sub> > 60 $\mu$ mol/L)<sup>[5369]</sup>. Source: BING TOU HUANG QIN *Scutellaria scordifolia*, CHUAN HUANG QIN *Scutellaria hypericifolia*, DA CHE QIAN *Plantago major*, DAN SHEN *Salvia*

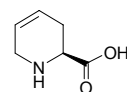
*miltiorrhiza*, DIAN HUANG QIN *Scutellaria amoena*, GAN SU HUANG QIN *Scutellaria rehderiana*, HUANG QIN *Scutellaria baicalensis* (dried root: content scope of 27 origins, 10 samples = 4.42%~23.31%, mean content = 13.06%<sup>[5508]</sup>), MU HU DIE *Oroxylum indicum*, MU HU DIE SHU PI *Oroxylum indicum*, NIAN MAO HUANG QIN *Scutellaria viscidula*. Ref: 2, 4, 5, 6, 658, 660, 4076, 4415, 4416, 5369, 5388, 5501, 5508.

**2107 Baihuaqianhuoside**

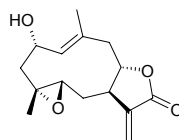
3-Methoxy-4-O- $\beta$ -D-glycopyranosylpropiophenone  $C_{16}H_{22}O_8$  (342.35). White crystalline powder, mp 165.5~167.5°C (chloroform-methanol). Pharm: Antioxidant (DPPH scavenger, EC<sub>50</sub> > 50 $\mu$ g/mL, 50 $\mu$ g/mL InRt = 18%, control Ascorbic acid, EC<sub>50</sub> = 1.6 $\mu$ g/mL = 9.1 $\mu$ mol/L)<sup>[4154]</sup>. Source: BAI HUA QIAN HU *Peucedanum praeruptorum*, BEI SHA SHEN *Glehnia littoralis* (underground part). Ref: 297, 4154.

**2108 L-Baikiaiin**

[498-98-6]  $C_6H_9NO_2$  (127.14). Pharm: Phytotoxin; plant growth inhibitor (roots of germinative lettuce). Source: SE ZE YUN SHI *Caesalpinia tinctoria*. Ref: 658.

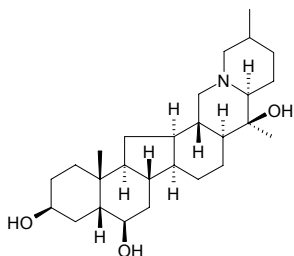
**2109 Baileyin**

[27875-37-2]  $C_{15}H_{20}O_4$  (264.32). mp 202~204°C (benzene-ethyl acetate). Pharm: Antineoplastic (P<sub>388</sub> *in vivo*, ID = 25mg/kg); cytotoxic (KB *in vitro*, ED<sub>50</sub> = 16 $\mu$ g/mL, P<sub>388</sub> *in vitro*, ED<sub>50</sub> = 2.9 $\mu$ g/mL). Source: BAI LAI SHI JU *Baileya multiradiata*, DUO BIAN HUA BAI LAI SHI JU *Baileya pleniradiata*. Ref: 658, 661.

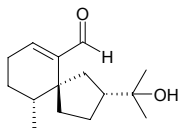


**2110 Baimonidine**

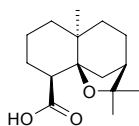
[73650-52-9]  $C_{27}H_{45}NO_3$  (431.66). mp 179.0~181.5°C,  $[\alpha]_D = -36.4^\circ$  ( $c = 1.0$ ,  $CHCl_3$ ). Source: ZHE BEI MU *Fritillaria verticillata* var. *thunbergii* [Syn. *Fritillaria thunbergii*]. Ref: 660, 2201.

**2111 Baimuxinal**

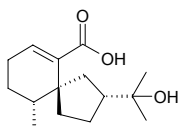
Oxoagarospirol  $C_{15}H_{24}O_2$  (236.36). Source: BAI MU XIANG *Aquilaria sinensis*, CHEN XIANG *Aquilaria agallocha*. Ref: 13, 660, 2792.

**2112 Baimuxinifuranic acid**

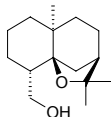
$C_{15}H_{24}O_3$  (252.36). Source: BAI MU XIANG *Aquilaria sinensis*. Ref: 13.

**2113 Baimuxinic acid**

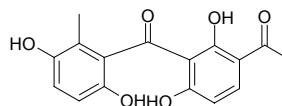
[84210-00-4]  $C_{15}H_{24}O_3$  (252.36). Colorless lump crystals (methanol), mp 192~194°C,  $[\alpha]_D^{30} = -23.1^\circ$  ( $c = 0.59$ , alcohol). Pharm: Anesthetic (mus); sedative; hypnotic. Source: BAI MU XIANG *Aquilaria sinensis*. Ref: 13, 908, 917, 5501.

**2114 Baimuxinol**

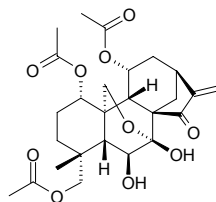
[105013-72-7]  $C_{15}H_{26}O_2$  (238.37). Colorless lump crystals (acetone), mp 128~130°C,  $[\alpha]_D^{30} = -83^\circ$  ( $c = 0.56$ , chloroform). Pharm: CNS depressant. Source: BAI MU XIANG *Aquilaria sinensis*, CHEN XIANG *Aquilaria agallocha*. Ref: 13, 57, 58, 660, 947, 1034.

**2115 Baishouwubenzophenone**

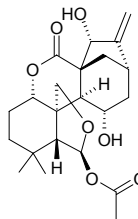
[115834-34-9]  $C_{16}H_{14}O_6$  (302.29). Yellowish acicular crystals, mp 198~200°C. Source: ER YE NIU PI XIAO *Cynanchum auriculatum*. Ref: 103.

**2116 Baiyecrystal A**

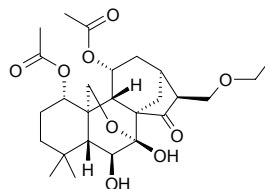
11 $\alpha$ -Acetoxyeffusanin D  $C_{26}H_{34}O_{10}$  (506.55). mp 217.5~220°C,  $[\alpha]_D^{21} = -1.68^\circ$  ( $c = 0.45$ , MeOH). Source: BAI YE XIANG CHA CAI *Isodon leucophyllus*. Ref: 4067.

**2117 Baiyecrystal B**

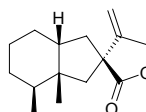
$C_{22}H_{30}O_7$  (406.48). mp 187.0~189.5°C,  $[\alpha]_D^{23} = -40.50^\circ$  ( $c = 0.50$ , MeOH). Source: BAI YE XIANG CHA CAI *Isodon leucophyllus*. Ref: 4067.

**2118 Baiyecrystal C**

$C_{26}H_{38}O_9$  (494.59). mp 212.5~215°C,  $[\alpha]_D^{21.2} = -15.04^\circ$  ( $c = 0.27$ , MeOH). Source: BAI YE XIANG CHA CAI *Isodon leucophyllus*. Ref: 4067.

**2119 Bakkenolide A**

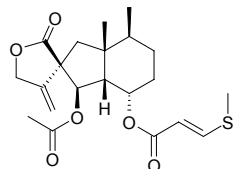
Fukinanolide [19906-72-0]  $C_{15}H_{22}O_2$  (234.34). Pharm: Antineoplastic; cytotoxic; insect antifeedant. Source: JIN ZI TA XING QIAN LI GUANG *Senecio pyramidatus*, LV TI CAO YE TUO WU *Ligularia thalictroides*, *Petasites* sp. Ref: 658.



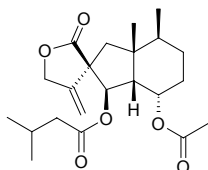


**2120 Bakkenolide D**

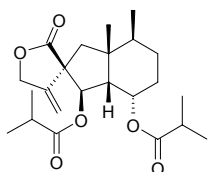
$C_{21}H_{28}O_6S$  (408.52). **Pharm:** Platelet aggregation inhibitor (100 $\mu$ mol/L AA-induced, 20 $\mu$ g/mL, InRt = (3.4 $\pm$ 1.6)%, control Aspirin, 50 $\mu$ g/mL, InRt = (100 $\pm$ 0.0)%; 10 $\mu$ g/mL collagen-induced, 100 $\mu$ g/mL, InRt = (20.6 $\pm$ 5.5)%,  $p < 0.001$ , Aspirin, 50 $\mu$ g/mL, InRt = (12.2 $\pm$ 1.7)%; 2nmol/L PAF-induced, 20 $\mu$ g/mL, InRt = (26.7 $\pm$ 13.2)%,  $p < 0.05$ , Aspirin, 50 $\mu$ g/mL, InRt = (9.6 $\pm$ 1.2)%; 0.1 $\mu$ g/mL thrombin-induced, 20 $\mu$ g/mL, InRt = (0.6 $\pm$ 1.7)%)<sup>[2377]</sup>. **Source:** TAI WAN FENG DOU CAI *Petasites formosanus*. **Ref:** 2377.

**2121 Bakkenolide G**

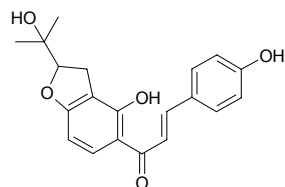
$C_{22}H_{32}O_6$  (392.50). Colorless plates (MeOH), mp 135–137°C,  $[\alpha]_D = -119^\circ$  ( $c = 0.13$ , MeOH). **Pharm:** Platelet aggregation inhibitor (100 $\mu$ mol/L AA-induced, 100 $\mu$ g/mL, InRt = (8.7 $\pm$ 1.7)%,  $p < 0.001$ , control Aspirin, 50 $\mu$ g/mL, InRt = (100 $\pm$ 0.0)%; 10 $\mu$ g/mL collagen-induced, 100 $\mu$ g/mL, InRt = (10.3 $\pm$ 3.0)%,  $p < 0.001$ , Aspirin, 50 $\mu$ g/mL, InRt = (12.2 $\pm$ 1.7)%; 2nmol/L PAF-induced, 5 $\mu$ g/mL, InRt = (97.6 $\pm$ 2.0)%,  $p < 0.001$ , Aspirin, 50 $\mu$ g/mL, InRt = (9.6 $\pm$ 1.2)%; 0.1 $\mu$ g/mL thrombin-induced, 100 $\mu$ g/mL, InRt = (10.9 $\pm$ 1.5)%,  $p < 0.001$ ). **Source:** TAI WAN FENG DOU CAI *Petasites formosanus*. **Ref:** 2377.

**2122 Bakkenolide H**

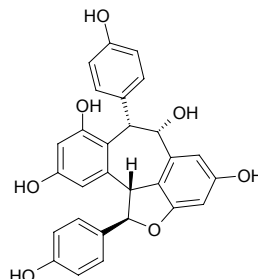
$C_{23}H_{34}O_6$  (406.52). Colorless needles (MeOH), mp 116–118°C,  $[\alpha]_D = -31.6^\circ$  ( $c = 0.0079$ , MeOH). **Pharm:** Platelet aggregation inhibitor (100 $\mu$ mol/L AA-induced, 100 $\mu$ g/mL, InRt = (12.2 $\pm$ 4.5)%,  $p < 0.05$ , control Aspirin, 50 $\mu$ g/mL, InRt = (100 $\pm$ 0.0)%; 10 $\mu$ g/mL collagen-induced, 100 $\mu$ g/mL, InRt = (10.1 $\pm$ 4.0)%,  $p < 0.05$ , Aspirin, 50 $\mu$ g/mL, InRt = (12.2 $\pm$ 1.7)%; 2nmol/L PAF-induced, 100 $\mu$ g/mL, InRt = (91.6 $\pm$ 6.8)%,  $p < 0.001$ , Aspirin, 50 $\mu$ g/mL, InRt = (9.6 $\pm$ 1.2)%; 0.1 $\mu$ g/mL thrombin-induced, 100 $\mu$ g/mL, InRt = (18.7 $\pm$ 4.5)%,  $p < 0.001$ ). **Source:** TAI WAN FENG DOU CAI *Petasites formosanus*. **Ref:** 2377.

**2123 Bakuchalcone**

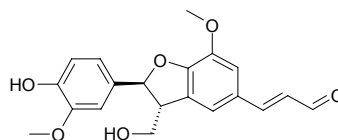
$C_{20}H_{20}O_5$  (340.38). **Source:** BU GU ZHI *Psoralea corylifolia*. **Ref:** 660.

**2124 (+)-Balanocarpol**

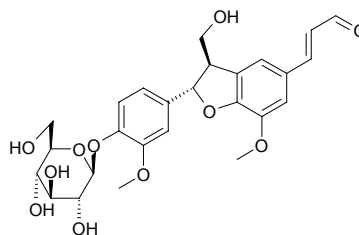
$C_{28}H_{22}O_7$  (470.48). Colorless solid.  $[\alpha]_D = +30^\circ$  ( $c = 0.03$ , MeOH). **Source:** XIAO HUA PO LEI *Hopea parviflora* (bark). **Ref:** 3936.

**2125 Balanophonin**

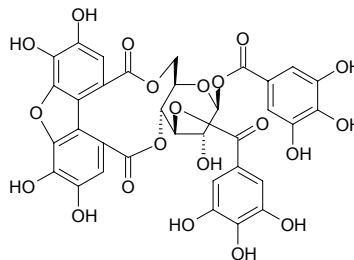
$C_{20}H_{20}O_6$  (356.38). **Source:** DA YE ZUI YU CAO *Buddleja davidii*, GE XUN *Balanophora japonica*, YUN NAN FEI SHU *Torreya yunnanensis* (leaf and twig: yield = 0.00087% dw)<sup>[4740]</sup>. **Ref:** 660, 4707.

**2126 Balanophonin-4-O-β-D-glucopyranoside**

$C_{26}H_{30}O_{11}$  (518.52). **Source:** GE XUN *Balanophora japonica* (fresh aerial parts). **Ref:** 4451.

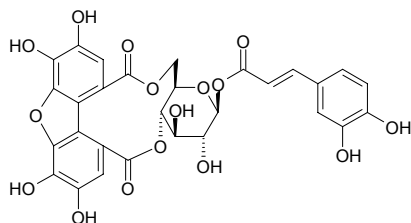
**2127 Balanophotannin A**

1,3-O-Di-galloyl-4,6-[1',1''-(3',3'',4',4''-tetrahydroxydibenzofurandicarboxyl)]-β-D-glucopyranose  $C_{34}H_{24}O_{21}$  (768.56). Tan amorphous powder,  $[\alpha]_D^{20} = +12.2^\circ$  ( $c = 0.4$ , MeOH). **Source:** GE XUN *Balanophora japonica* (fresh aerial parts). **Ref:** 4451.

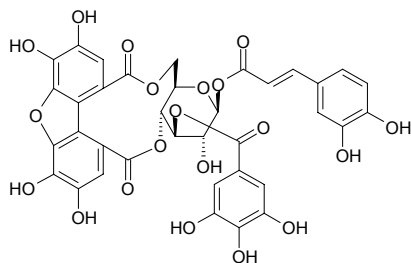


**2128 Balanophotannin B**

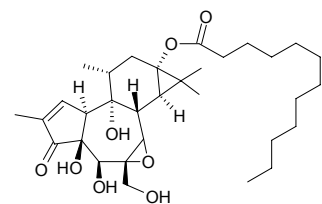
1-*O*-(*E*)-Caffeoyl-4,6-[1',1''-(3',3'',4',4''-tetrahydroxydibenzofurandicarboxyl)]- $\beta$ -*D*-glucopyranose C<sub>29</sub>H<sub>22</sub>O<sub>16</sub> (626.49). Tan amorphous powder,  $[\alpha]_D^{16} = +82.3^\circ$  ( $c = 0.2$ , MeOH). Source: GE XUN *Balanophora japonica* (fresh aerial parts). Ref: 4451.

**2129 Balanophotannin C**

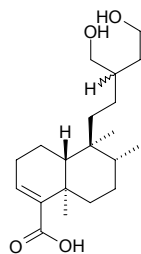
1-*O*-(*E*)-Caffeoyl-3-*O*-galloyl-4,6-[1',1''-(3',3'',4',4''-tetrahydroxydibenzofurandicarboxyl)]- $\beta$ -*D*-glucopyranose C<sub>36</sub>H<sub>26</sub>O<sub>20</sub> (778.60). Tan amorphous powder,  $[\alpha]_D^{16} = +81.7^\circ$  ( $c = 0.5$ , MeOH). Source: GE XUN *Balanophora japonica* (fresh aerial parts). Ref: 4451.

**2130 Baliospermin**

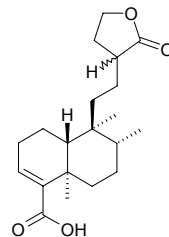
[66583-56-0] C<sub>32</sub>H<sub>50</sub>O<sub>8</sub> (562.75). Pharm: Cytotoxic. Source: BAN ZI MU *Baliospermum montanum*. Ref: 658.

**2131 Ballodiolic acid**

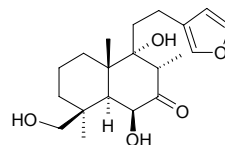
C<sub>20</sub>H<sub>34</sub>O<sub>4</sub> (338.49). Colorless oil,  $[\alpha]_D^{23} = -19.7^\circ$  ( $c = 0.172$ , CHCl<sub>3</sub>). Pharm: Lipoxygenase inhibitor (*in vitro*, IC<sub>50</sub> = (38.3±1.3) μmol/L)<sup>[4276]</sup>. Source: *Ballota limbata*. Ref: 4276.

**2132 Ballotenic acid**

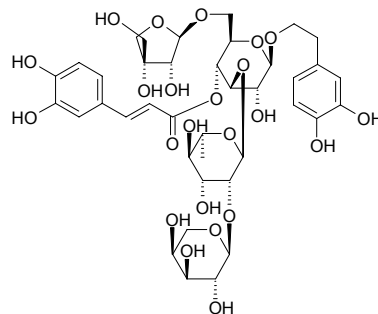
C<sub>20</sub>H<sub>30</sub>O<sub>4</sub> (334.46). Colorless oil,  $[\alpha]_D^{23} = -0.50^\circ$  ( $c = 0.104$ , CHCl<sub>3</sub>). Pharm: Lipoxygenase inhibitor (*in vitro*, IC<sub>50</sub> = (99.6±2.0) μmol/L)<sup>[4276]</sup>. Source: *Ballota limbata*. Ref: 4276.

**2133 Ballotenol**

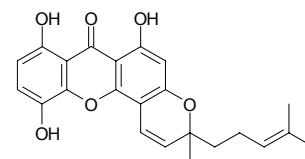
C<sub>20</sub>H<sub>30</sub>O<sub>5</sub> (350.46). White powder. Source: BO SI YI MU CAO *Leonurus persicus*, HEI BA LUO CAO *Ballota nigra*. Ref: 1521, 2499.

**2134 Ballotetroside**

C<sub>39</sub>H<sub>52</sub>O<sub>23</sub> (888.84). Pharm: Antioxidant (*in vitro* inhibits LDL peroxidation, Cu<sup>2+</sup>-induced and AAPH-induced)<sup>[5370]</sup>; inhibits minimally oxidized LDL-induced cellular toxicity (cultured bovine aortic endothelial cells, BAEC)<sup>[5370]</sup>. Source: OU XIA ZHI CAO *Marrubium vulgare* (aerial parts). Ref: 5370.

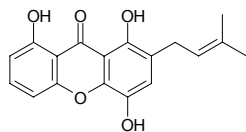
**2135 Bangangxanthone A**

1,5,8-Trihydroxy-6'-methyl-6'-(4-methylpent-3-enyl)-pyrano[2',3':3,4]xanthone C<sub>23</sub>H<sub>22</sub>O<sub>6</sub> (394.43). Yellow needle crystals, mp 157–158°C,  $[\alpha]_D^{29} = +25^\circ$  ( $c = 0.032$ , C<sub>3</sub>H<sub>6</sub>O). Pharm: Antioxidant (DPPH scavenger, IC<sub>50</sub> = 87.0 μmol/L, control 3-*t*-Butyl-4-hydroxyanisole, IC<sub>50</sub> = 42.0 μmol/L)<sup>[5317]</sup>. Source: DUO HUA TENG HUANG *Garcinia polyantha* (stem bark). Ref: 5317.

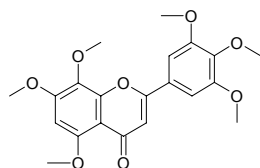


**2136 Bangangxanthone B**

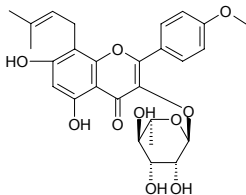
1,4,8-Trihydroxy-2-prenylxanthone C<sub>18</sub>H<sub>16</sub>O<sub>5</sub> (312.33). Yellow needle crystals, mp 199~201°C. Pharm: Antioxidant (DPPH scavenger, IC<sub>50</sub> = 482.0 μmol/L, control 3-*t*-Butyl-4-hydroxyanisole, IC<sub>50</sub> = 42.0 μmol/L)<sup>[5317]</sup>. Source: DUO HUA TENG HUANG *Garcinia polyantha* (stem bark). Ref: 5317.

**2137 Bannamurpanisin**

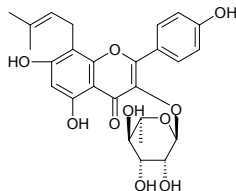
5,7,8,3',4',5'-Hexamethoxyflavone [80324-51-2] C<sub>21</sub>H<sub>22</sub>O<sub>8</sub> (402.40). Source: JIU LI XIANG *Murraya paniculata* [Syn. *Chalcas paniculata*]. Ref: 11, 660.

**2138 Baohuoside I**

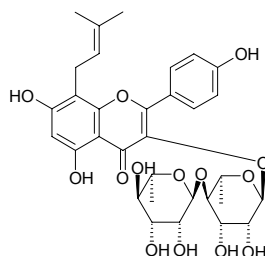
Anhydroicaritin-3-*O*- $\alpha$ -rhamnoside [113558-15-9] C<sub>27</sub>H<sub>30</sub>O<sub>10</sub> (514.53). Yellow crystalline powder, mp 208~210°C, easily soluble in methanol and ethanol, soluble in acetone. Source: CHAO XIAN YIN YANG HUO *Epimedium koreanum* (aerial parts: content = 1.043%<sup>[5508]</sup>), CHUAN DIAN YIN YANG HUO *Epimedium davidii*, JIAN YE YIN YANG HUO *Epimedium sagittatum* (aerial parts: mean content of 3 origins = 0.417%<sup>[5508]</sup>), ROU MAO YIN YANG HUO *Epimedium pubescens* (aerial parts: content = 0.654%<sup>[5508]</sup>), WU SHAN YIN YANG HUO *Epimedium wushanense* (aerial parts: mean content of 2 origins = 0.095%<sup>[5508]</sup>), YIN YANG HUO *Epimedium brevicornum* (aerial parts: mean content of 2 origins = 0.089%<sup>[5508]</sup>). Ref: 114, 540, 565, 635, 660, 5508.

**2139 Baohuoside II**

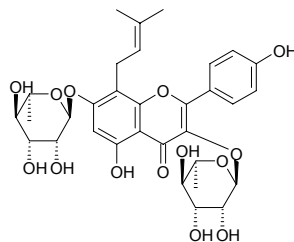
Ikariside A; 3,5,7,4'-Tetrahydroxy-8-prenylflavone-3-*O*- $\alpha$ -L-rhamnopyranoside [55395-07-8] C<sub>26</sub>H<sub>28</sub>O<sub>10</sub> (500.51). Yellow crystalline powder, mp 154~156°C, mp 132~134°C, easily soluble in ethanol and methanol. Source: CHAO XIAN YIN YANG HUO *Epimedium koreanum* (aerial parts: content = 0.790%<sup>[5508]</sup>), CHUAN DIAN YIN YANG HUO *Epimedium davidii*, CU MAO YIN YANG HUO *Epimedium acuminatum*, JIAN YE YIN YANG HUO *Epimedium sagittatum* (aerial parts: content = 0.055%<sup>[5508]</sup>), ROU MAO YIN YANG HUO *Epimedium pubescens* (aerial parts: content = 0.145%<sup>[5508]</sup>), YIN YANG HUO *Epimedium brevicornum* (aerial parts: content = 0.080%<sup>[5508]</sup>). Ref: 2, 112, 514, 565, 599, 660, 5508.

**2140 Baohuoside III**

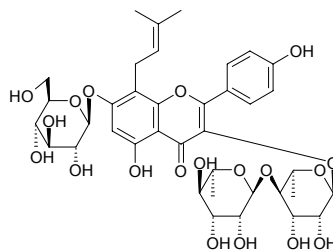
3,5,7,4'-Tetrahydroxy-8-prenylflavone-3-*O*- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\alpha$ -L-rhamnopyranoside [119708-36-0] C<sub>32</sub>H<sub>38</sub>O<sub>14</sub> (646.65). Yellow powder, mp 215~220°C, easily soluble in methanol. Source: CHUAN DIAN YIN YANG HUO *Epimedium davidii*, CHUAN DIAN YIN YANG HUO *Epimedium davidii*. Ref: 112, 660.

**2141 Baohuoside IV**

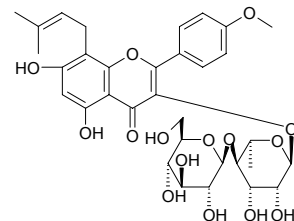
3,5,7,4'-Tetrahydroxy-8-prenylflavone-3,7-*O*- $\alpha$ -L-dirhamnopyranoside [119708-37-1] C<sub>32</sub>H<sub>38</sub>O<sub>14</sub> (646.65). Yellow powder, easily soluble in methanol. Source: CHUAN DIAN YIN YANG HUO *Epimedium davidii*, CHUAN DIAN YIN YANG HUO *Epimedium davidii*, ROU MAO YIN YANG HUO *Epimedium pubescens*. Ref: 112, 660.

**2142 Baohuoside V**

3,5,7,4'-Tetrahydroxy-8-prenylflavone-3-*O*- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\alpha$ -L-rhamnopyranosyl-7-*O*- $\beta$ -D-glucopyranoside [119708-38-2] C<sub>38</sub>H<sub>48</sub>O<sub>19</sub> (808.79). Yellow powder, easily soluble in methanol. Source: CHUAN DIAN YIN YANG HUO *Epimedium davidii*. Ref: 112.

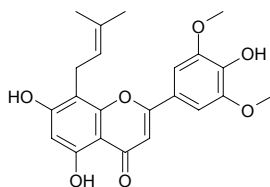
**2143 Baohuoside VII**

3,5,7-Trihydroxy-4'-methoxyl-8-prenylflavone-3-*O*- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-glucopyranoside [119730-89-1] C<sub>33</sub>H<sub>40</sub>O<sub>15</sub> (676.68). Yellow powder, easily soluble in methanol and ethanol. Source: CHUAN DIAN YIN YANG HUO *Epimedium davidii*. Ref: 114.

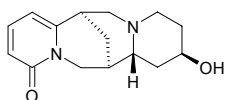


**2144 Baohuosu**

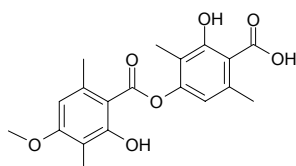
5,7,4'-Trihydroxy-3',5'-dimethoxy-8-prenylflavone [119730-90-4]  $C_{22}H_{22}O_7$  (398.42). Yellow crystalline powder, mp 254~257°C. Source: CHUAN DIAN YIN YANG HUO *Epidemium davidii*. Ref: 114.

**2145 Baptifoline**

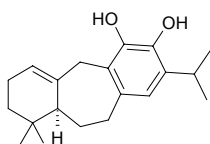
[732-50-3]  $C_{15}H_{20}N_2O_2$  (260.34). Source: KU SHEN *Sophora flavescens* [Syn. *Sophora angustifolia*]. Ref: 2, 1521.

**2146 Barbatic acid**

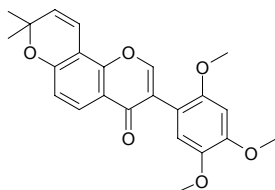
[17636-16-7]  $C_{19}H_{20}O_7$  (360.37). mp 191°C, 186°C. Source: SONG LUO *Usnea longissima*, HUAN JIE SONG LUO *Usnea diffracta*. Ref: 6, 660.

**2147 Barbatusol**

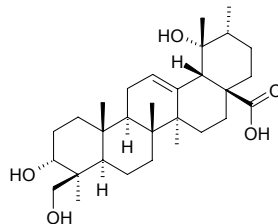
[88515-76-8]  $C_{20}H_{28}O_2$  (300.44). Source: GAN XI SHU WEI CAO *Salvia przewalskii*, RAN MAO QIAO RUI HUA *Coleus barbatus*. Ref: 1521, 4538.

**2148 Barbigerone**

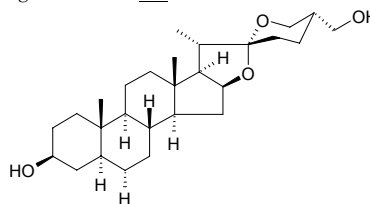
$C_{23}H_{22}O_6$  (394.43). Pharm: Antimalarial (antiplasmodial, chloroquine-resistant W2 strain of *Plasmodium falciparum*,  $IC_{50} = 27.0\mu\text{mol/L}$ , control Chloroquine,  $IC_{50} = 0.094\mu\text{mol/L}$ , control Quinine,  $IC_{50} = 0.209\mu\text{mol/L}$ ; chloroquine-sensitive D6 strain of *Plasmodium falciparum*,  $IC_{50} = 27.3\mu\text{mol/L}$ , Chloroquine,  $IC_{50} = 0.009\mu\text{mol/L}$ , Quinine,  $IC_{50} = 0.044\mu\text{mol/L}$ )<sup>[3454]</sup>. Source: *Milletia usaramensis* ssp. *usaramensis*. Ref: 3454.

**2149 Barbinervic acid**

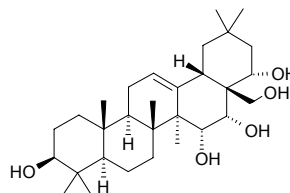
$C_{30}H_{48}O_5$  (488.71). Colorless needles ( $\text{CHCl}_3:\text{MeOH} = 6:1$ ), mp 278~280°C,  $[\alpha]_D^{23} = +32.5^\circ$  ( $c = 0.25$ , pyridine),  $[\alpha]_D^{23} = +21.8^\circ$  ( $c = 0.12$ ,  $\text{CHCl}_3$ ),  $[\alpha]_D^{20} = +12^\circ$  ( $c = 0.40$ ,  $\text{CHCl}_3$ ). Pharm: Quinone reductase inducer inactive (mouse Hepalc7 hepatoma cells,  $CD > 10\mu\text{g/mL}$ )<sup>[3434]</sup>. Source: *Coussarea brevicaulis*. Ref: 3434.

**2150 Barbourgenin**

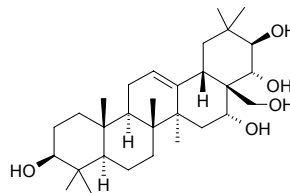
Spirostan-3,27-diol  $C_{27}H_{44}O_4$  (432.65). mp 228~230°C. Source: JIAN MA *Agave sisalana*. Ref: 2503.

**2151 Barrigenol A<sub>1</sub>**

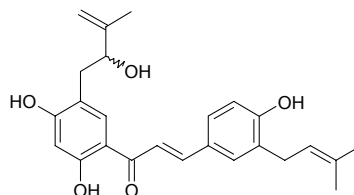
12-Oleanene-3,15,16,22,28-pentol [15448-03-0]  $C_{30}H_{50}O_5$  (490.73). mp 300~302°C. Source: CHA ZI XIN *Camellia oleifera*. Ref: 6.

**2152 Barringtogenol C**

Theasapogenol B [13844-01-4]  $C_{30}H_{50}O_5$  (490.73). mp 326~330°C (dec). Source: RI BEN QI YE SHU *Aesculus turbinata*. Ref: 6, 660.

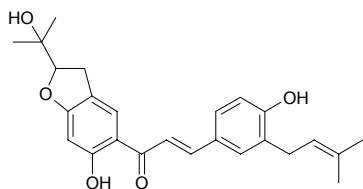
**2153 Bartericin A**

(-)-3-(3,3-Dimethylallyl)-5'-(2-hydroxy-3-methylbut-3-enyl)-4,2',4'-trihydroxychalcone  $C_{25}H_{28}O_5$  (408.50). Yellow amorphous powder (Ether-EtOAc), mp 138~140°C,  $[\alpha]_D^{25} = -107^\circ$  ( $c = 0.015$ , MeOH). Source: *Dorstenia barteri* var. *subtriangularis* (twig). Ref: 3765.

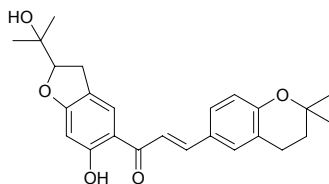


**2154 Bartericin B**

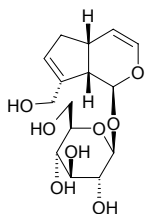
(+)-3-(3,3-Dimethylallyl)-4',5'-[2''-(1-hydroxy-1-methylethyl)-dihydrofurano]-4,2'-dihydroxychalcone C<sub>25</sub>H<sub>28</sub>O<sub>5</sub> (408.50). Yellow amorphous powder (ether–EtOAc), mp 184–185°C, [α]<sub>D</sub><sup>25</sup> = +125° (c = 0.015, MeOH). Source: *Dorstenia barteri* var. *subtriangularis* (twig). Ref: 3765.

**2155 Bartericin C**

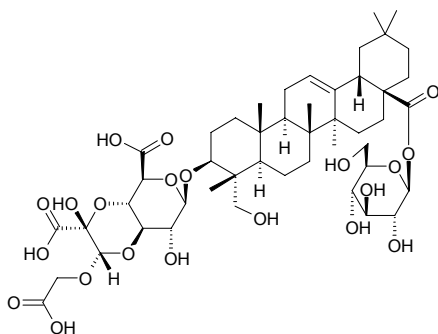
3,4-(6'',6''-Dimethyldihydropyrano)-4',5'-[2''-(1-hydroxy-1-methylethyl)-dihydrofurano]-2'-hydroxychalcone C<sub>25</sub>H<sub>28</sub>O<sub>5</sub> (408.50). Yellow oil, [α]<sub>D</sub><sup>25</sup> = +301° (c = 0.033, MeOH). Source: *Dorstenia barteri* var. *subtriangularis* (twig). Ref: 3765.

**2156 Bartsioside**

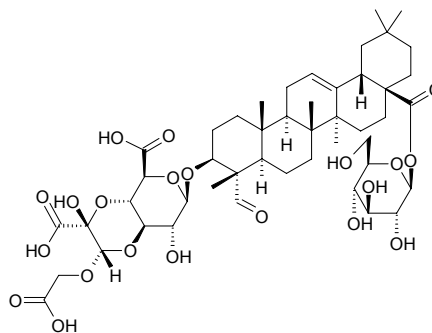
C<sub>15</sub>H<sub>22</sub>O<sub>8</sub> (330.34). Source: ROU CONG RONG *Cistanche deserticola*. Ref: 2448.

**2157 Basellasaponin A**

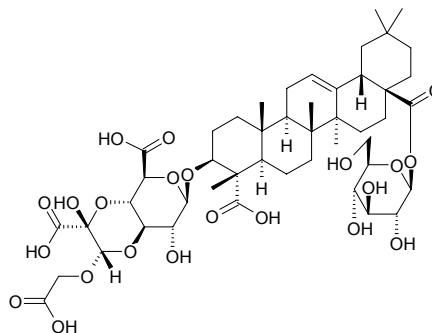
C<sub>47</sub>H<sub>70</sub>O<sub>21</sub> (971.07). Colorless fine crystals (MeOH–H<sub>2</sub>O), mp 228–230°C, [α]<sub>D</sub><sup>24</sup> = +30.1° (c = 0.1, MeOH). Source: LUO KUI HUA *Basella rubra* (aerial parts). Ref: 3544.

**2158 Basellasaponin B**

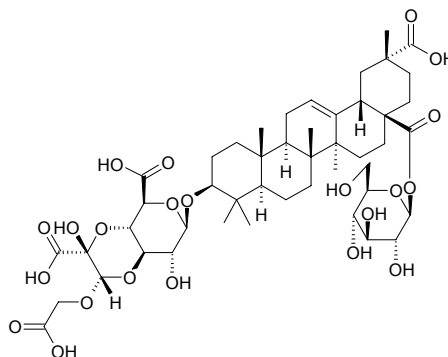
C<sub>47</sub>H<sub>68</sub>O<sub>21</sub> (969.05). Colorless fine crystals (MeOH–H<sub>2</sub>O), mp 226–228°C, [α]<sub>D</sub><sup>26</sup> = +57.4° (c = 0.1, MeOH). Source: LUO KUI HUA *Basella rubra* (aerial parts). Ref: 3544.

**2159 Basellasaponin C**

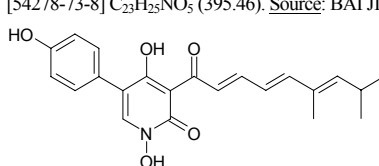
C<sub>47</sub>H<sub>68</sub>O<sub>22</sub> (985.05). Colorless fine crystals (MeOH–H<sub>2</sub>O), mp 230–232°C, [α]<sub>D</sub><sup>25</sup> = +42.1° (c = 0.1, MeOH). Source: LUO KUI HUA *Basella rubra* (aerial parts). Ref: 3544.

**2160 Basellasaponin D**

C<sub>47</sub>H<sub>68</sub>O<sub>22</sub> (985.05). Colorless fine crystals (MeOH–H<sub>2</sub>O), mp 215–217°C, [α]<sub>D</sub><sup>25</sup> = +24.0° (c = 0.1, MeOH). Source: LUO KUI HUA *Basella rubra* (aerial parts). Ref: 3544.

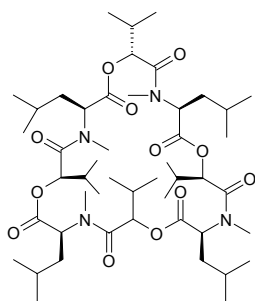
**2161 Bassianin**

[54278-73-8] C<sub>23</sub>H<sub>25</sub>NO<sub>5</sub> (395.46). Source: BAI JIANG CAN *Bombyx mori*. Ref: 6.

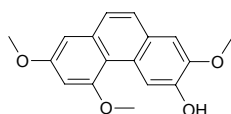


**2162 Bassianolide**

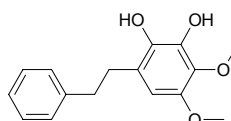
$C_{48}H_{84}N_4O_{12}$  (909.22). Source: BAI JIANG CAN *Bombyx mori*. Ref: 660.

**2163 Batatasin I**

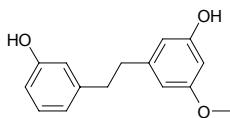
[51415-00-0]  $C_{17}H_{16}O_4$  (284.31). Pharm: Controls dormancy of common yam. Source: SHAN YAO *Dioscorea batatas* [Syn. *Dioscorea opposita*], JING JI SHU YU *Dioscorea dumetorum*. Ref: 658, 5501.

**2164 Batatasin II**

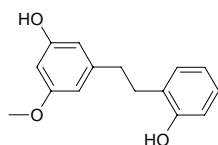
$C_{16}H_{18}O_4$  (274.32). Source: SHAN YAO *Dioscorea batatas* [Syn. *Dioscorea opposita*]. Ref: 660.

**2165 Batatasin III**

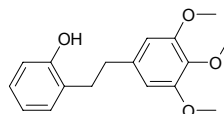
Batatacin III  $C_{15}H_{16}O_3$  (244.29). White powder. Pharm: Antiallergic  $\beta$ -Hexosaminidase inhibitor (rat basophilic RBL-2H3 cells, inhibits release of  $\beta$ -hexosaminidase,  $100\mu\text{mol/L}$ ,  $\text{InRt} = (65.5 \pm 2.7)\mu\text{mol/L}$ ,  $p < 0.01$ ;  $300\mu\text{mol/L}$  control Ketotifen fumarate,  $\text{InRt} = (72.5 \pm 0.9)\mu\text{mol/L}$ ,  $p < 0.01$ )<sup>[5022]</sup>. Source: BAI JI *Bletilla striata*, SHAN YAO *Dioscorea batatas* [Syn. *Dioscorea opposita*], SHOU ZHANG SHEN *Gymnadenia conopsea* (tuber). Ref: 660, 5022.

**2166 Batatasin IV**

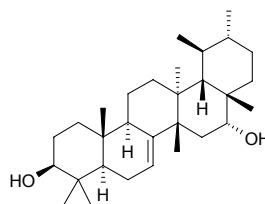
[60347-67-3]  $C_{15}H_{16}O_3$  (244.29). Pharm: Controls dormancy of common yam; antifungal (*Cladosporium cladosporioides*). Source: SHAN YAO *Dioscorea batatas* [Syn. *Dioscorea opposita*], YUAN SHU YU *Dioscorea rotundata* [Syn. *Dioscorea cayenensis*]. Ref: 658, 5501.

**2167 Batatasin V**

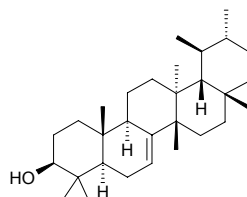
$C_{17}H_{20}O_4$  (288.35). Source: SHAN YAO *Dioscorea batatas* [Syn. *Dioscorea opposita*]. Ref: 660.

**2168 Bauer-7-ene-3 $\beta$ ,16 $\alpha$ -diol**

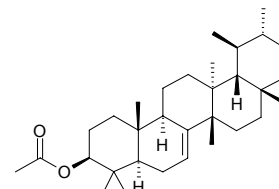
$C_{30}H_{50}O_2$  (442.73). Pharm: Antibacterial (*Escherichia coli*, IZD = 13~15mm, control Chloramphenicol, IZD = 16~20mm, DMSO (4%), IZD < 10mm; *Staphylococcus aureus*, IZD < 10mm, Chloramphenicol, IZD = 16~20mm, DMSO (4%), IZD < 10mm; *Bacillus subtilis*, IZD = 10~12mm; Chloramphenicol, IZD = 16~20mm, DMSO (4%), IZD < 10mm)<sup>[5315]</sup>. Source: MAO LIE FENG DOU CAI *Petasites tricholobus* (rhizome). Ref: 5315.

**2169 Bauerenol**

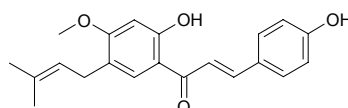
Ilexol [6466-94-0]  $C_{30}H_{50}O$  (426.73). mp 207~208°C. Source: KUAN DONG HUA *Tussilago farfara*, QIAO MU ZI ZHU *Callicarpa arborea*, SHA TANG MU *Acronychia pedunculata*, WU MU XIE *Diospyros ebenum*, ZI JIN NIU *Ardisia japonica*. Ref: 6.

**2170 Bauerenyl acetate**

$C_{32}H_{52}O_2$  (468.77). Colorless lumpish crystals. Source: HONG ZU HAO *Artemisia rubripes*, LIAN ZHU TENG *Alyxia sinensis*, ZHAI YE BAN FENG HE *Pterospermum lanceaeifolium*. Ref: 660, 2249.

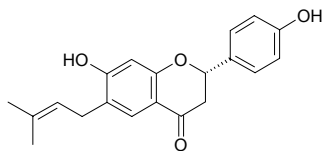
**2171 Bavachalcone**

$C_{21}H_{22}O_4$  (338.41). Source: BU GU ZHI *Psoralea corylifolia* (dried ripe fruit; mean content of 7 origins = 0.670%<sup>[5508]</sup>). Ref: 2, 545, 5508.

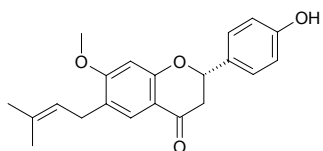


**2172 Bavachin**

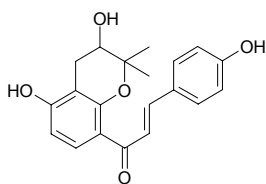
Corylifolin [19879-32-4] C<sub>20</sub>H<sub>20</sub>O<sub>4</sub> (324.38). **Pharm:** Cytotoxic (cyclooxygenase-1 inhibitor)<sup>[5038]</sup>; aromatase inhibitor inactive (*in vitro*, IC<sub>50</sub> > 40 μmol/L; control Aminoglutethimide, IC<sub>50</sub> = 6.4 μmol/L)<sup>[3090]</sup>. **Source:** BU GU ZHI *Psoralea corylifolia* (dried ripe fruit: mean content of 7 origins = 1.22%<sup>[5508]</sup>), GOU SHU *Broussonetia papyrifera*<sup>[3090]</sup>. **Ref:** 2, 545, 3090, 5038, 5508.

**2173 Bavachinin**

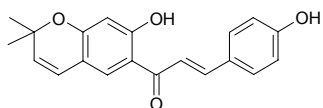
4'-Hydroxy-7-methoxy-6-prenylflavanone [19879-30-2] C<sub>21</sub>H<sub>22</sub>O<sub>4</sub> (338.41). **Source:** BU GU ZHI *Psoralea corylifolia*. **Ref:** 2, 545.

**2174 Bavachromanol**

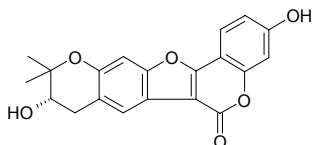
[74061-77-1] C<sub>20</sub>H<sub>20</sub>O<sub>5</sub> (340.38). **Source:** BU GU ZHI *Psoralea corylifolia*. **Ref:** 2, 545.

**2175 Bavachromene**

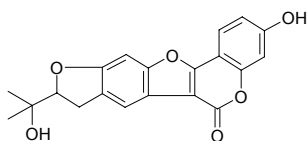
[41743-38-8] C<sub>20</sub>H<sub>18</sub>O<sub>4</sub> (322.36). **Source:** BU GU ZHI *Psoralea corylifolia*. **Ref:** 2, 545.

**2176 Bavacoumestan A**

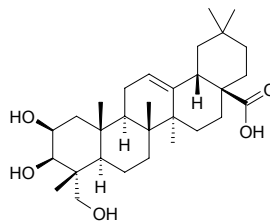
[129385-63-3] C<sub>20</sub>H<sub>16</sub>O<sub>6</sub> (352.35). **Source:** BU GU ZHI *Psoralea corylifolia*. **Ref:** 2, 545.

**2177 Bavacoumestan B**

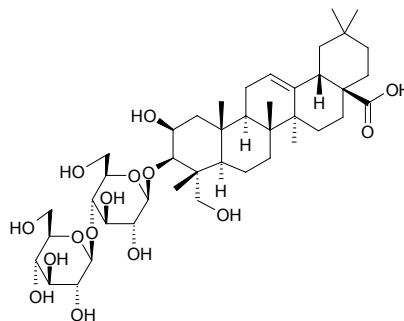
[129385-64-4] C<sub>20</sub>H<sub>16</sub>O<sub>6</sub> (352.35). **Source:** BU GU ZHI *Psoralea corylifolia*. **Ref:** 2, 545.

**2178 Bayogenin acid**

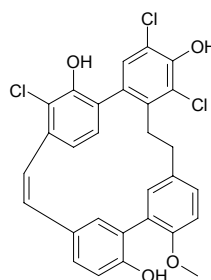
C<sub>30</sub>H<sub>48</sub>O<sub>5</sub> (488.71). White powder, mp 337~340°C. **Source:** *Drypetes molundana* (stem). **Ref:** 3989.

**2179 Bayogenin 3-O-cellobioside**

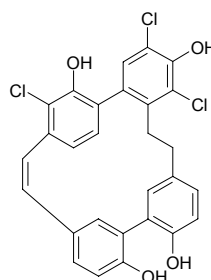
C<sub>42</sub>H<sub>68</sub>O<sub>15</sub> (813.00). **Pharm:** Molluscicide (snails, LD<sub>100</sub> = 0.012 mg/mL). **Source:** SHI ER RUI SHANG LU *Phytolacca dodecandra*. **Ref:** 658.

**2180 Bazzanin L**

1-Methyl ether of 10,12,10"-trichloroisoplagiochin C C<sub>29</sub>H<sub>21</sub>Cl<sub>3</sub>O<sub>4</sub> (539.85). [α]<sub>D</sub><sup>20</sup> = +126.5° (c = 0.2, MeOH). **Source:** WAN QU ZHI YE TAI *Lepidozia incurvata*. **Ref:** 3456.

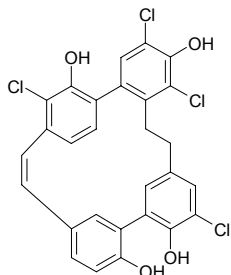
**2181 Bazzanin M**

10,12,10"-Trichloroisoplagiochin C C<sub>28</sub>H<sub>19</sub>Cl<sub>3</sub>O<sub>4</sub> (525.82). [α]<sub>D</sub><sup>20</sup> = +95° (c = 0.2, MeOH). **Source:** WAN QU ZHI YE TAI *Lepidozia incurvata*. **Ref:** 3456.

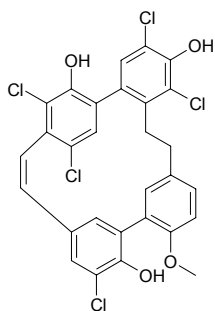


**2182 Bazzanin N**

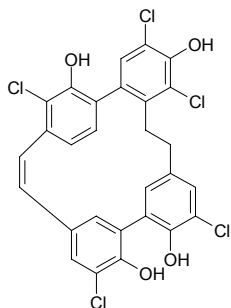
2,10,12,10'-Tetrachloroisoplagiochin C<sub>28</sub>H<sub>18</sub>Cl<sub>4</sub>O<sub>4</sub> (560.27).  $[\alpha]_D^{20} = +90^\circ$  ( $c = 0.1$ , MeOH). Source: WAN QU ZHI YE TAI *Lepidozia incurvata*. Ref: 3456.

**2183 Bazzanin O**

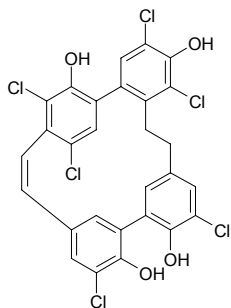
10,12,6',10',14'-Pentachloroisoplagiochin C<sub>29</sub>H<sub>19</sub>Cl<sub>5</sub>O<sub>4</sub> (608.74).  $[\alpha]_D^{20} = +54^\circ$  ( $c = 0.2$ , MeOH). Source: WAN QU ZHI YE TAI *Lepidozia incurvata*. Ref: 3456.

**2184 Bazzanin P**

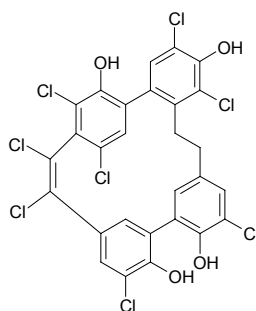
2,10,12,6',10'-Pentachloroisoplagiochin C<sub>28</sub>H<sub>17</sub>Cl<sub>5</sub>O<sub>4</sub> (594.71).  $[\alpha]_D^{20} = +225^\circ$  ( $c = 0.7$ , MeOH). Source: WAN QU ZHI YE TAI *Lepidozia incurvata*. Ref: 3456.

**2185 Bazzanin Q**

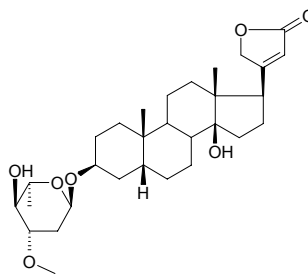
2,10,12,6',10',14'-Hexachloroisoplagiochin C<sub>28</sub>H<sub>16</sub>Cl<sub>6</sub>O<sub>4</sub> (629.16).  $[\alpha]_D^{20} = +120^\circ$  ( $c = 1.2$ , MeOH). Source: WAN QU ZHI YE TAI *Lepidozia incurvata*. Ref: 3456.

**2186 Bazzanin R**

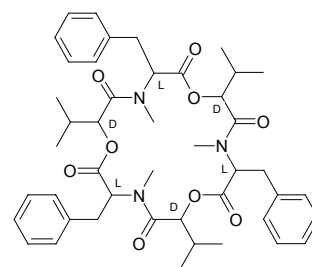
2,10,12,6',7',8',10',14'-Octachloroisoplagiochin C<sub>28</sub>H<sub>14</sub>Cl<sub>8</sub>O<sub>4</sub> (698.05). Source: WAN QU ZHI YE TAI *Lepidozia incurvata*. Ref: 3456.

**2187 Beaumontoside**

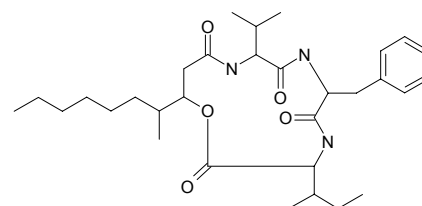
Digitoxigenin 3-O-oleandroside [31087-87-3] C<sub>30</sub>H<sub>46</sub>O<sub>7</sub> (518.70). mp 202–203°C. Pharm: Cardiotonic (anesthetic cat). Source: QING MING HUA *Beaumontia grandiflora*. Ref: 1, 6.

**2188 Beauvericin**

Beauvericin [26048-05-5] C<sub>45</sub>H<sub>57</sub>N<sub>3</sub>O<sub>9</sub> (783.97). mp 93–94°C. Source: BAI JIANG CAN *Bombyx mori*. Ref: 6.

**2189 Beauverilide A**

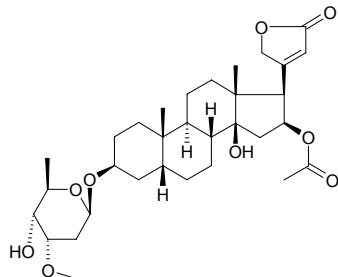
C<sub>31</sub>H<sub>49</sub>N<sub>3</sub>O<sub>5</sub> (543.75). Source: BAI JIANG CAN *Bombyx mori*. Ref: 660.



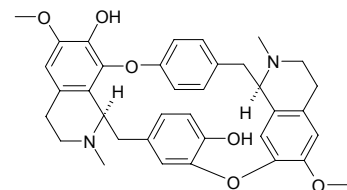


**2190 Beauwalloside**

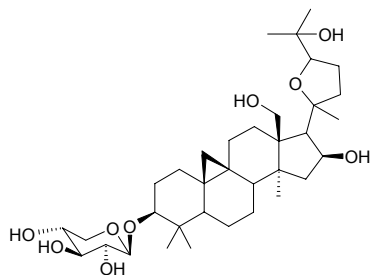
Oleandrigenin 3-*O*-*L*-cymaroside [31087-94-2] C<sub>32</sub>H<sub>48</sub>O<sub>9</sub> (576.73). mp 223–226°C. **Pharm:** Cardiotonic (anesthetic cat). **Source:** QING MING HUA *Beaumontia grandiflora*. **Ref:** 1, 6.

**2191 L-Bebeerine**

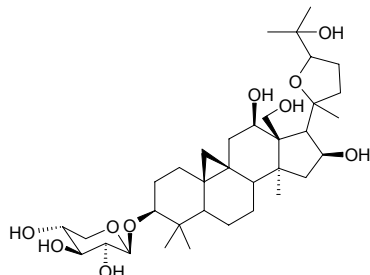
*L*-Curine C<sub>36</sub>H<sub>38</sub>N<sub>2</sub>O<sub>6</sub> (594.71). Flowery crystals (methanol), mp 213°C; mp 221°C (vacuum); rectangular prismatic crystals (benzene), including one molecule of benzene, mp 161°C, [α]<sub>D</sub> = –328° (pyridine); colorless acicular crystals (methanol), mp 213–214°C. **Pharm:** Antimalarial; cardiotonic; non-polarizing muscle relaxant (methyl iodide 0.07–0.20mg/kg, the action lasts 30–60min). **Source:** XI SHENG TENG *Cissampelos pareira*, JIN SHU HUANG YANG *Buxus sempervirens*. **Ref:** 6, 661.

**2192 Beesioside A**

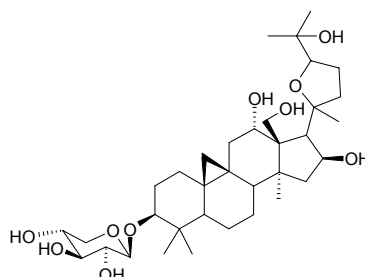
(20*S*\*,24*R*\*)-Epoxy-9,19-cyclolanostane-3β,16β,18,-25-tetraol-3-*O*-β-*D*-xylopyranoside C<sub>35</sub>H<sub>58</sub>O<sub>9</sub> (622.85). **Source:** TIE PO LUO *Beesia calthaeifolia* (whole herb). **Ref:** 3099.

**2193 Beesioside B**

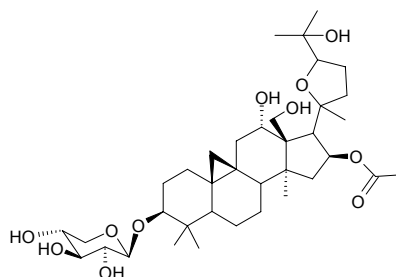
(20*S*\*,24*R*\*)-Epoxy-9,19-cyclolanostane-3β,12β,16β,18,25-pentaol-3-*O*-β-*D*-xylopyranoside C<sub>35</sub>H<sub>58</sub>O<sub>10</sub> (638.83). **Source:** TIE PO LUO *Beesia calthaeifolia* (whole herb). **Ref:** 3099.

**2194 Beesioside C**

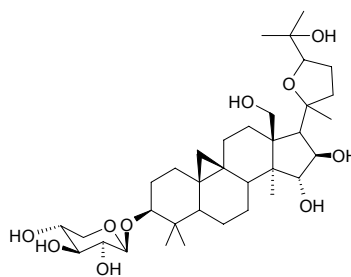
(20*S*\*,24*R*\*)-Epoxy-9,19-cyclolanostane-3β,12α,16β,18,25-pentaol-3-*O*-β-*D*-xylopyranoside C<sub>35</sub>H<sub>58</sub>O<sub>10</sub> (638.85). **Source:** TIE PO LUO *Beesia calthaeifolia* (whole herb). **Ref:** 3099.

**2195 Beesioside D**

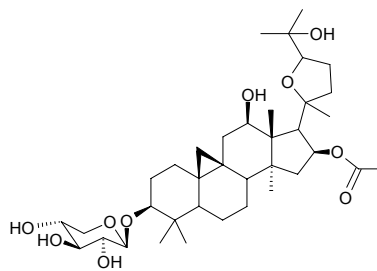
(20*S*\*,24*R*\*)-16β-Acetoxy-20,24-epoxy-9,19-cyclolanostane-3β,12α,18,25-tetraol-3-*O*-β-*D*-xylopyranoside C<sub>37</sub>H<sub>60</sub>O<sub>11</sub> (680.88). **Source:** TIE PO LUO *Beesia calthaeifolia* (whole herb). **Ref:** 3099.

**2196 Beesioside E**

(20*S*\*,24*R*\*)-Epoxy-9,19-cyclolanostane-3β,15α,16β,18,25-pentaol-3-*O*-β-*D*-xylopyranoside C<sub>35</sub>H<sub>58</sub>O<sub>10</sub> (638.85). **Source:** TIE PO LUO *Beesia calthaeifolia* (whole herb). **Ref:** 3099.

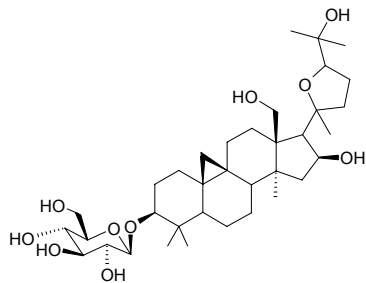
**2197 Beesioside F**

(20*S*\*,24*R*\*)-16β-Acetoxy-20,24-epoxy-9,19-cyclolanostane-3β,12β,25-triol-3-*O*-β-*D*-xylopyranoside C<sub>37</sub>H<sub>60</sub>O<sub>10</sub> (664.88). **Source:** TIE PO LUO *Beesia calthaeifolia* (whole herb). **Ref:** 3099.

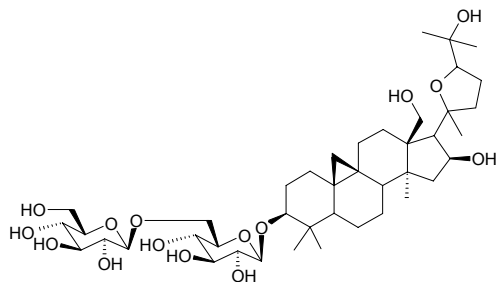


**2198 Beesioside G**

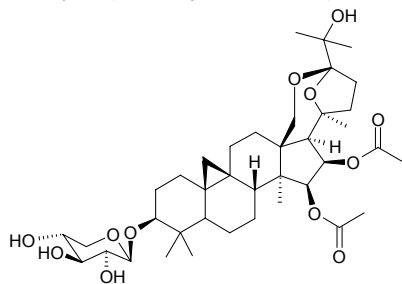
20 $\xi_1$ ,24 $\xi_2$ -Epoxy-9,19-cyclolanostane-3 $\beta$ ,16 $\beta$ ,18,25-tetraol-3-*O*- $\beta$ -D-glucopyranoside C<sub>36</sub>H<sub>60</sub>O<sub>10</sub> (652.87). Amorphous powder, mp 200–204°C (CHCl<sub>3</sub>-MeOH), [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +18.3° (c = 0.11, CHCl<sub>3</sub>:MeOH, 1:1). Source: TIE PO LUO *Beesia calthaeifolia* (rhizome: yield = 0.00071%dw). Ref: 4605.

**2199 Beesioside H**

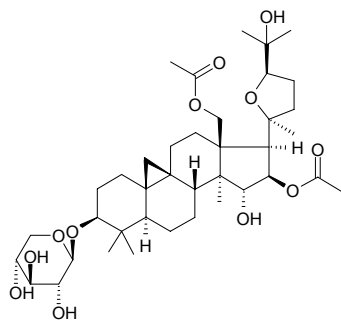
20 $\xi_1$ ,24 $\xi_2$ -Epoxy-9,19-cyclolanostane-3 $\beta$ ,16 $\beta$ ,18,25-tetraol-3-*O*-[ $\beta$ -D-glucopyranosyl-(1→6)]- $\beta$ -D-glucopyranoside C<sub>42</sub>H<sub>70</sub>O<sub>15</sub> (815.02). Amorphous powder, mp 190–194°C (CHCl<sub>3</sub>-MeOH), [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +23.8° (c = 0.08, MeOH). Source: TIE PO LUO *Beesia calthaeifolia* (rhizome: yield = 0.00071%dw). Ref: 4605.

**2200 Beesioside I**

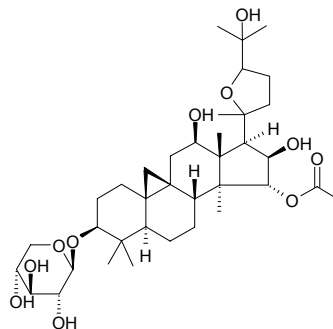
C<sub>39</sub>H<sub>60</sub>O<sub>12</sub> (720.91). Amorphous powder, mp 260–262°C (EtOAc-MeOH), [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -7.9° (c = 0.14, CHCl<sub>3</sub>:MeOH, 1:1). Source: TIE PO LUO *Beesia calthaeifolia* (rhizome: yield = 0.13%dw). Ref: 4605.

**2201 Beesioside II**

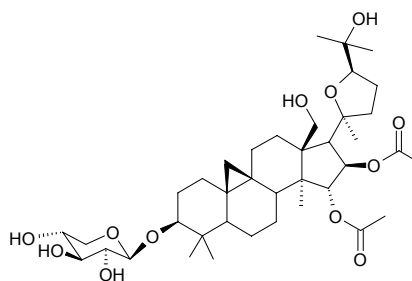
C<sub>39</sub>H<sub>62</sub>O<sub>12</sub> (722.92). Source: TIE PO LUO *Beesia calthaeifolia*. Ref: 660.

**2202 Beesioside III**

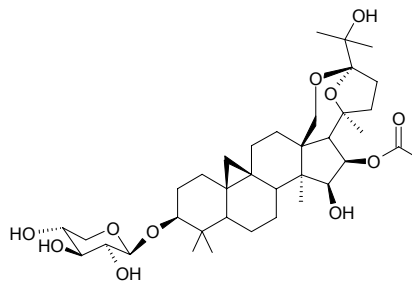
C<sub>37</sub>H<sub>60</sub>O<sub>11</sub> (680.88). Source: HUANG SAN QI *Souliea vaginata* (Rhizome), TIE PO LUO *Beesia calthaeifolia*. Ref: 660.

**2203 Beesioside J**

(20*S*,24*R*)-15 $\alpha$ ,16 $\beta$ -Diacetoxy-20,24-epoxy-9,19-cyclolanostane-3 $\beta$ ,18,25-triol-3-*O*- $\beta$ -D-xylopyranoside C<sub>39</sub>H<sub>62</sub>O<sub>12</sub> (722.92). Colorless prisms, mp 198–202°C (EtOAc-MeOH), [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +15.1° (c = 0.16, EtOAc:MeOH, 3:7). Source: TIE PO LUO *Beesia calthaeifolia* (rhizome: yield = 0.041%dw). Ref: 4605.

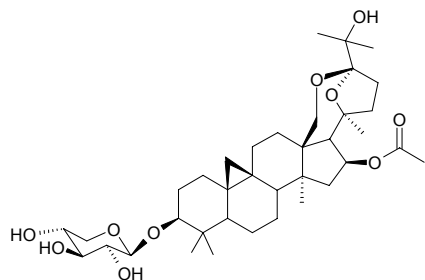
**2204 Beesioside K**

(20*S*,24*S*)-16 $\beta$ -Acetoxy-18,24;20,24-diepoxy-9,19-cyclanostane-3 $\beta$ ,15 $\beta$ ,25-triol-3-*O*- $\beta$ -D-xylopyranoside C<sub>37</sub>H<sub>58</sub>O<sub>11</sub> (678.87). Amorphous powder, mp 278–282°C (EtOAc-MeOH), [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -12.0° (c = 0.5, CHCl<sub>3</sub>:MeOH, 1:1). Source: TIE PO LUO *Beesia calthaeifolia* (rhizome: yield = 0.0043%dw). Ref: 4605.

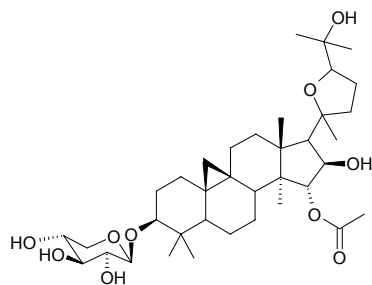


**2205 Beesioside L**

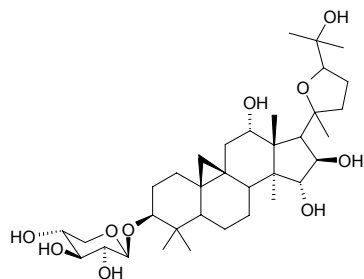
(20*S*,24*S*)-16β-Acetoxy-18,24;20,24-diepoxy-9,19-cyclanostane-3β,25-diol-3-*O*-β-*D*-xylopyranoside C<sub>37</sub>H<sub>58</sub>O<sub>10</sub> (662.87). Amorphous powder, mp 250~254°C (EtOAc-MeOH), [α]<sub>D</sub><sup>20</sup> = -2.1° (c = 0.09, CHCl<sub>3</sub>:MeOH, 1:1). Source: TIE PO LUO *Beesia calthaeifolia* (rhizome: yield = 0.00057%dw). Ref: 4605.

**2206 Beesioside M**

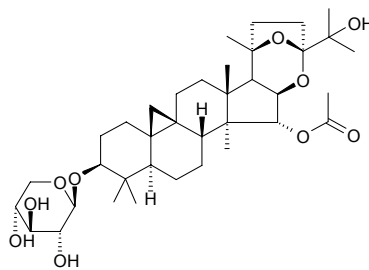
20ξ<sub>1</sub>,24ξ<sub>2</sub>-Epoxy-15*R*-acetoxy-9,19-cyclolanostane-3β,16β,25-triol-3-*O*-β-*D*-xylopyranoside C<sub>37</sub>H<sub>60</sub>O<sub>10</sub> (664.88). Amorphous powder, mp 158~164°C (CHCl<sub>3</sub>-MeOH), [α]<sub>D</sub><sup>20</sup> = -3.3° (c = 0.06, CHCl<sub>3</sub>:MeOH, 1:1). Source: TIE PO LUO *Beesia calthaeifolia* (rhizome: yield = 0.033%dw). Ref: 4605.

**2207 Beesioside N**

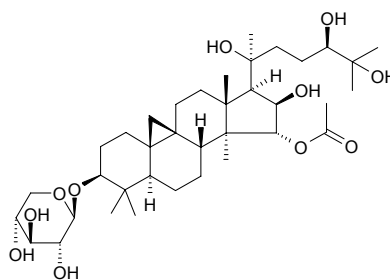
20ξ<sub>1</sub>,24ξ<sub>2</sub>-Epoxy-9,19-cyclolanostane-3β,12α,15α,16β,25-pentaol-3-*O*-β-*D*-xylopyranoside C<sub>35</sub>H<sub>58</sub>O<sub>10</sub> (638.85). Amorphous powder, mp 252~256°C (CHCl<sub>3</sub>-MeOH), [α]<sub>D</sub><sup>20</sup> = +14.2° (c = 0.19, CHCl<sub>3</sub>:MeOH, 1:1). Source: TIE PO LUO *Beesia calthaeifolia* (rhizome: yield = 0.0043%dw). Ref: 4605.

**2208 Beesioside O**

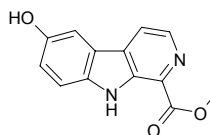
C<sub>37</sub>H<sub>58</sub>O<sub>10</sub> (662.87). White amorphous powder, mp 196~200°C (CHCl<sub>3</sub>-MeOH), [α]<sub>D</sub><sup>20</sup> = -11.3° (c = 0.12, CHCl<sub>3</sub>:MeOH = 1:1) Pharm: Immunosuppressant (mus T-cell, *in vivo*, inhibits cell proliferation induces by ConA); inhibits formation of micrangium (experiment by Chicken-embryo Allantoic bladder Membrane, CAM); inhibits skeletogenous cells (IC<sub>50</sub> = 32.78μg/mL); alkaline phosphatase inhibitor. Source: TIE PO LUO *Beesia calthaeifolia*. Ref: 2242.

**2209 Beesioside P**

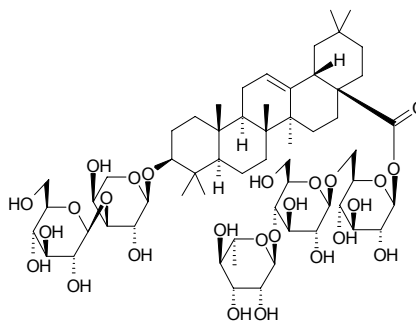
C<sub>37</sub>H<sub>62</sub>O<sub>11</sub> (682.90). White amorphous powder, mp 274~276°C (CHCl<sub>3</sub>-MeOH), [α]<sub>D</sub><sup>20</sup> = +2.6° (c = 0.12, MeOH) Pharm: Calcium channel receptor inhibitor (InRt = 79.55%). Source: TIE PO LUO *Beesia calthaeifolia*. Ref: 2242.

**2210 Begonanline**

C<sub>13</sub>H<sub>10</sub>N<sub>2</sub>O<sub>3</sub> (242.24). Yellow syrup. Source: NAN TOU QIU HAI TANG *Begonia nantoensis* (rhizome). Ref: 4267.

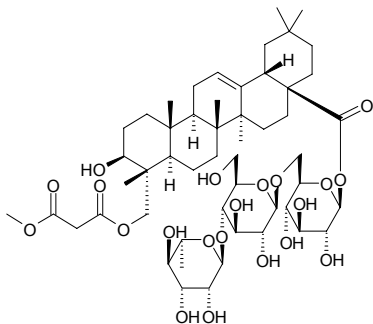
**2211 Begoniifolide A**

3-*O*-β-*D*-Glucopyranosyl(1→3)-α-*L*-arabinopyranosyl oleanolic acid 28-*O*-α-*L*-rhamnopyranosyl(1→4)-β-*D*-glucopyranosyl(1→6)-β-*D*-glucopyranoside C<sub>59</sub>H<sub>96</sub>O<sub>26</sub> (1121.41). white powder. Source: LUAN YE YIN LIAN HUA *Anemone begoniifolia*. Ref: 862.

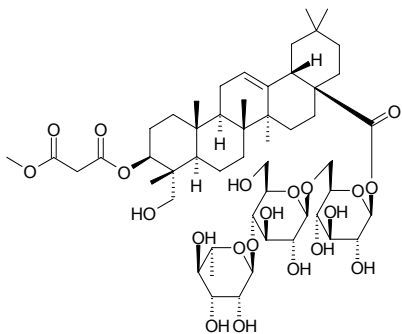


**2212 Begoniifolide B**

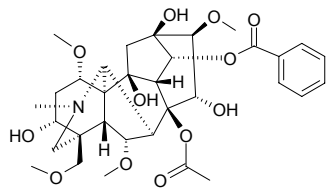
23-*O*-Methyl malonyl hederagenin 28-*O*- $\alpha$ -*L*-rhamnopyranosyl(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranoside C<sub>52</sub>H<sub>82</sub>O<sub>21</sub> (1043.22). white powder, mp 175–178°C (dec). Source: LUAN YE YIN LIAN HUA *Anemone begoniifolia*. Ref: 862.

**2213 Begoniifolide C**

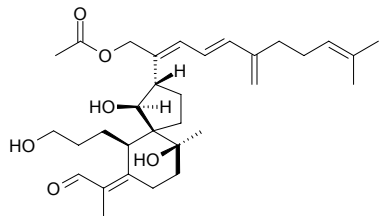
3-*O*-Methyl malonyl hederagenin 28-*O*- $\alpha$ -*L*-rhamnopyranosyl(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranoside C<sub>52</sub>H<sub>82</sub>O<sub>21</sub> (1043.22). white powder, mp 168–170°C (dec). Source: LUAN YE YIN LIAN HUA *Anemone begoniifolia*. Ref: 862.

**2214 Beiwutine**

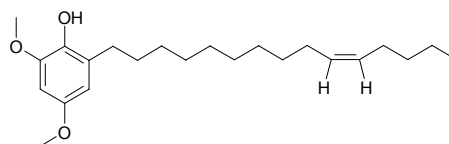
[76918-93-9] C<sub>33</sub>H<sub>45</sub>NO<sub>12</sub> (644.73). Pharm: Analgesic; LD<sub>50</sub> (mus, ip) = 0.42mg/kg. Source: BEI WU TOU *Aconitum kusnezoffii*. Ref: 1521, 5501.

**2215 Belamcandal**

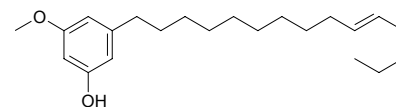
[138501-57-2] C<sub>32</sub>H<sub>48</sub>O<sub>6</sub> (528.73). Vitreous oil, [ $\alpha$ ]<sub>D</sub><sup>24</sup> = +146.8° (c = 1.0, methanol). Pharm: Irritant (throat mucosa). Source: SHE GAN *Belamcanda chinensis*, HU DIE HUA *Iris japonica*. Ref: 1090.

**2216 Belamcandol A**

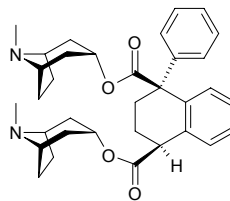
Belamcandaphenol [137786-93-7] C<sub>23</sub>H<sub>38</sub>O<sub>3</sub> (362.55). Oil. Pharm: 5-Lipoxygenase inhibitor (IC<sub>50</sub> = 0.6 $\mu$ mol/L). Source: SHE GAN *Belamcanda chinensis*. Ref: 1021.

**2217 Belamcandol B**

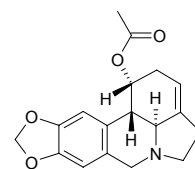
C<sub>22</sub>H<sub>36</sub>O<sub>2</sub> (332.53). Source: SHE GAN *Belamcanda chinensis*. Ref: 660.

**2218 Belladonnine**

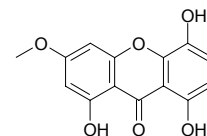
C<sub>34</sub>H<sub>42</sub>N<sub>2</sub>O<sub>4</sub> (542.72). Pharm: Local anesthetic. Source: LANG DANG ZI *Hyoscyamus niger*, DIAN QIE *Atropa belladonna*, YI PAO NANG CAO *Physochlaina alaica*. Ref: 658.

**2219 Bellamarine**

Belamarine [14383-07-4] C<sub>18</sub>H<sub>19</sub>NO<sub>4</sub> (313.36). Pharm: Cytotoxic (P<sub>388</sub> *in vitro*); uterine stimulant. Source: DA HUA YAO WEN SHU LAN *Crinum macrantherum*, GU TING HUA ZA JIAO ZHONG *Amaryllis belladonna* [hybrida]. Ref: 658.

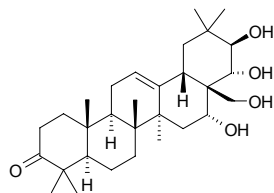
**2220 Bellidifodin**

[2798-25-6] C<sub>14</sub>H<sub>10</sub>O<sub>6</sub> (274.23). Yellow acicular crystals, mp 254–256°C. Pharm: Antihepatotoxin; monoamine oxidase A inhibitor; mutagen (*Salmonella typhimurium*); AChE inhibitor (MIC = 0.01 $\mu$ g = 0.03nmol, control Galanthamine MIC = 0.01 $\mu$ g = 0.03nmol, Physostigmine MIC = 0.005 $\mu$ g = 0.002nmol, Huperzine A MIC = 0.002 $\mu$ g = 0.0008nmol)<sup>[5039]</sup>. Source: RU BAI LONG DAN *Gentiana lactea*, QI RUI TA ZHANG YA CAI *Swertia chirata*, TIAN YE LONG DAN *Gentiana campestris* (leaf). Ref: 634, 658, 5039.

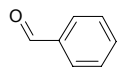


**2221 Bemeuxin**

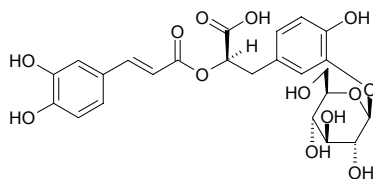
$C_{30}H_{48}O_5$  (488.71). Colorless columnar crystals (MeOH), mp 295–296°C,  $[\alpha]_D^{13} = +13.8^\circ$  ( $c = 0.52$ , pyridine). Source: YAN JIN CAI *Berneuxia tibetica*. Ref: 286.

**2222 Benzaldehyde**

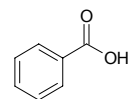
Phenylmethanal [100-52-7]  $C_7H_6O$  (106.13). mp  $-26^\circ\text{C}$ , bp  $179^\circ\text{C}/751\text{mmHg}$ . Source: AN XI XIANG *Styrax benzoin*, BA DAN XING REN *Prunus amygdalus*, BAI MEI HUA *Prunus mume*, DING XIANG *Syzygium aromaticum* [Syn. *Eugenia caryophyllata*], GUANG HUO XIANG *Pogostemon cablin* [Syn. *Mentha cablin*], JIAN ZI SU YE *Perilla frutescens* var. *acuta* [Syn. *Perilla frutescens* var. *purpurascens*], KONG SHI CHUN *Ulva pertusa*, SHUI SONG *Codium fragile*, SHUI XIAN HUA *Narcissus tazetta* var. *chinensis*. Ref: 6, 660.

**2223 Benzenepropanoic acid, 8-[(7'-(3',4'-dihydroxy-phenyl)-9'-oxo-7'-propenyl]oxy}-3-(1''-O-β-D-glucopyranosyl)-4-hydroxy-[R-(E)]**

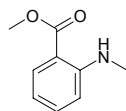
$C_{24}H_{26}O_{13}$  (522.47). Brown-yellow powder. Pharm: Anti-HIV<sup>[4586]</sup>. Source: GAN XI SHU WEI CAO *Salvia przewalskii* (root). Ref: 4586.

**2224 Benzoic acid**

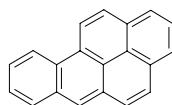
Phenylformic acid [65-85-0]  $C_7H_6O_2$  (122.12). Pharm: Antifungal; choleric; platelet aggregation inhibitor (washed rabbit platelets, 150μg/mL, 100μmol/L AA-induced, InRt = 4.5%, control 50μmol/L Aspirin, InRt = 100%; 10μg/mL collagen-induced, InRt = 6.2%, 100μmol/L Aspirin, InRt = 4.9%; 0.1U/mL thrombin-induced, InRt = 72.7%, 100μmol/L Aspirin, InRt = 1.7%; 2ng/mL PAF-induced, InRt = 35.0%, 100μmol/L Aspirin, InRt = 2.1%)<sup>[5427]</sup>. Source: BAI SHAO *Paeonia albiflora* [Syn. *Paeonia lactiflora*] (dried root: mean content = 0.048%<sup>[5508]</sup>), BAN LAN GEN *Isatis indigotica* (dried root: mean content of 5 origins = 0.00060%<sup>[5508]</sup>), CHI SHAO *Paeonia lactiflora* wild (dried root: mean content = 0.1778%<sup>[5508]</sup>), GUAN ZI YU PAN *Uvaria angolensis*, JIAO ZHI HUANG TAN *Dalbergia cochinchinensis*, QI LIN JIE *Daemonorops draco* (balsam: mean content = 2.54%<sup>[5508]</sup>), QIAO HUANG TAN *Dalbergia spruceana*, RI BEN HUANG BAI *Phellodendron japonicum* (leaf), SAN QI CAO *Gynura segetum* [Syn. *Gynura japonica*] (rhizome), TAI WAN FU RONG *Hibiscus taiwanensis*, TIAN LIAO MU *Homalium cochinchinensis* (root cortex: yield = 0.028%<sup>[4742]</sup>), ZANG HONG HUA *Crocus sativus* (pollen). Ref: 2, 594, 658, 660, 2529, 4233, 4502, 4742, 5427, 5508.

**2225 Benzoic acid 2-methyl amino methyl ester**

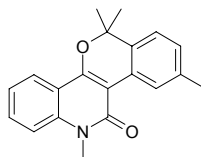
$C_9H_{11}NO_2$  (165.19). Source: JU PI *Citrus reticulata* Ref: 660.

**2226 3,4-Benzopyrene**

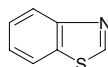
6,7-Benzopyrene [50-32-8]  $C_{20}H_{12}$  (252.32). mp 176.5–177.5°C, bp 310–312°C/10mmHg. Source: XIANG RI KUI ZI *Helianthus annuus*. Ref: 6.

**2227 Benzosimuline**

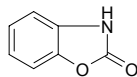
[198336-58-2]  $C_{20}H_{19}NO_2$  (305.38). Colorless oil. Pharm: Platelet aggregation inhibitor (rbt, caused by thrombin, arachidonic acid, collagen and PAF, EC = 100μg/mL); DNA isomerase inhibitor; cytotoxic (high activity). Source: YE HUA JIAO YE *Zanthoxylum simulans*. Ref: 1097, 2176.

**2228 Benzothiazole**

$C_7H_5NS$  (135.19). Source: HONG HUA *Carthamus tinctorius*. Ref: 660.

**2229 2-Benzoxazolinone**

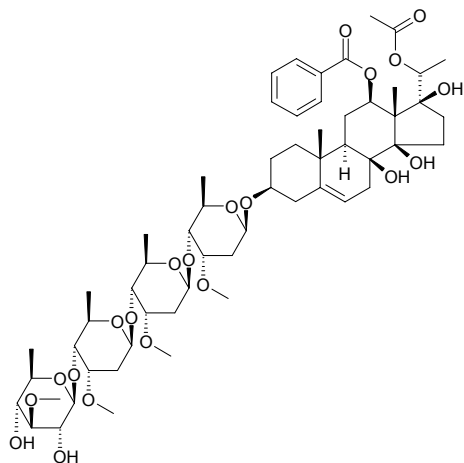
[59-49-4]  $C_7H_5NO_2$  (135.12). Pharm: Antileishmanial (*Leishmania* sp., *in vitro*, IC<sub>50</sub> = 40μg/mL); Source: LAO SHU LE *Acanthus ilicifolius*. Ref: 2080, 2107.



**2230 12-O-Benzoyl-20-O-acetylsarcostin-3-O-β-D-thevetopyranosyl-(1→4)-β-D-cymaropyranosyl-(1→4)-β-D-cymaropyranosyl-(1→4)-β-D-cymaropyranoside**

C<sub>58</sub>H<sub>88</sub>O<sub>21</sub> (1121.34). Amorphous powder, [α]<sub>D</sub><sup>24</sup> = +28.6° (c = 1.28, MeOH).

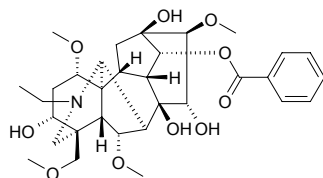
Source: *Araujia sericifera* (root). Ref: 4377.



**2231 Benzoylaconine**

C<sub>32</sub>H<sub>45</sub>NO<sub>10</sub> (603.72). Source: BEI WU TOU *Aconitum kusnezoffii*, DUO LIE WU TOU *Aconitum polyschistum*, TIE BANG CHUI *Aconitum pendulum*.

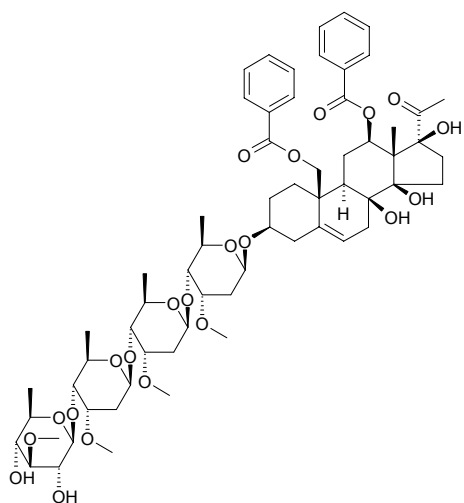
Ref: 660.



**2232 12-O-Benzoyl-19-benzoyloxydeacetylmetaplexigenin-3-O-β-D-thevetopyranosyl-(1→4)-β-D-cymaropyranosyl-(1→4)-β-D-cymaropyranosyl-(1→4)-β-D-cymaropyranoside**

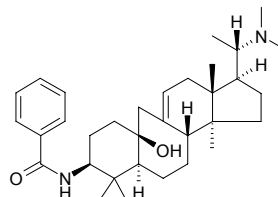
C<sub>63</sub>H<sub>88</sub>O<sub>22</sub> (1197.39). Amorphous powder, [α]<sub>D</sub><sup>22</sup> = +15.7° (c = 1.44, MeOH).

Source: *Araujia sericifera* (root). Ref: 4377.



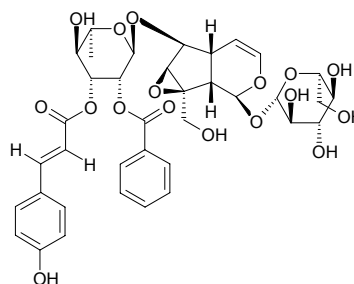
**2233 N-Benzoylbuxahyrcanine**

C<sub>33</sub>H<sub>50</sub>N<sub>2</sub>O<sub>2</sub> (506.78). Colorless amorphous powder, mp 239.7°C, [α]<sub>D</sub><sup>29</sup> = +15° (c = 0.136, CHCl<sub>3</sub>). Pharm: AChE inhibitor (*in vitro*, IC<sub>50</sub> > 1000 μmol/L; control Eserine, IC<sub>50</sub> = 0.041 μmol/L)<sup>[4694]</sup>; BChE inhibitor (*in vitro*, IC<sub>50</sub> = 310.6 μmol/L; control Eserine, IC<sub>50</sub> = 0.0857 μmol/L)<sup>[4694]</sup>. Source: HE KA NI YA HUANG YANG *Buxus hyrcana* (leaf). Ref: 4694.



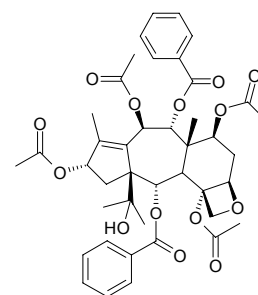
**2234 6-O-α-L-(2''-O-Benzoyl,3''-O-trans-p-coumaroyl)rhamnopyranosylcatalpol**

C<sub>37</sub>H<sub>42</sub>O<sub>17</sub> (758.74). Source: FEI LV BIN SHI ZI *Gmelina philippensis* (aerial parts). Ref: 3954.



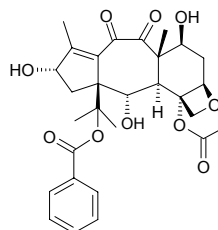
**2235 9-O-Benzoyl-9-de-O-acetyl-11(15→1)-abeo-baccatin VI**

C<sub>42</sub>H<sub>48</sub>O<sub>14</sub> (776.84). [α]<sub>D</sub> = -32.5° (CHCl<sub>3</sub>). Source: ZA JIAO JIE ZHI HONG DOU SHAN *Taxus x media*. Ref: 662.



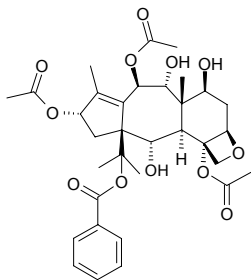
**2236 15-Benzoyl-10-deacetyl-2-debenzoyl-10-dehydro-abeo-baccatin III**

C<sub>29</sub>H<sub>34</sub>O<sub>10</sub> (542.59). Gum. Source: JIA NA DA HONG DOU SHAN *Taxus canadensis* (needle leaf). Ref: 3958.

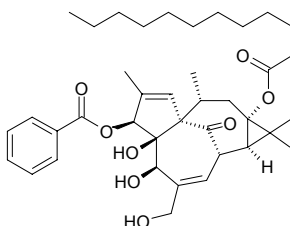


**2237 15-Benzoyl-2-debenzoyl-7,9-dideacetyl-abeo-baccatin VI**

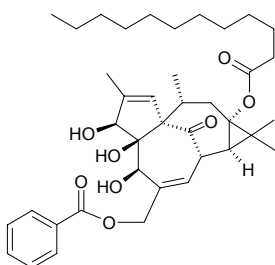
$C_{33}H_{42}O_{12}$  (630.70). Gum. Source: JIA NA DA HONG DOU SHAN *Taxus canadensis* (needle leaf). Ref: 3958.

**2238 3-O-Benzoyl-13-O-dodecanoateingenol**

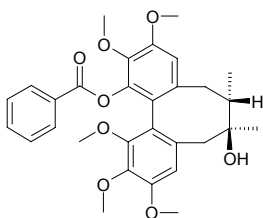
$C_{39}H_{54}O_8$  (650.86). Pharm: Induces cell cleavage arrest (*Xenopus laevis* embryo cells at the blastular stage, at 10 $\mu$ g/mL compound results in > 60% cell cleavage arrest)<sup>[4368]</sup>. Source: GAN SUI *Euphorbia kansui*. Ref: 4368.

**2239 20-O-Benzoyl-13-O-dodecanoateingenol**

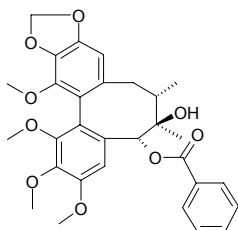
$C_{39}H_{54}O_8$  (650.86). Source: GAN SUI *Euphorbia kansui*. Ref: 4368.

**2240 Benzoylgomisin H**

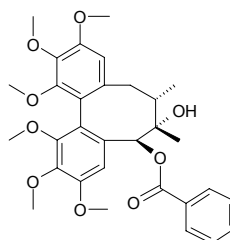
$C_{30}H_{34}O_8$  (522.60). Source: WU WEI ZI *Schisandra chinensis*. Ref: 2.

**2241 Benzoylgomisin P**

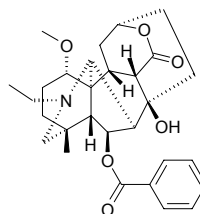
$C_{30}H_{32}O_9$  (536.58). Source: WU WEI ZI *Schisandra chinensis*. Ref: 2.

**2242 Benzoylgomisin Q**

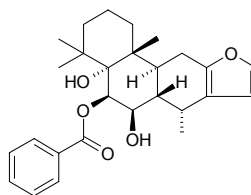
$C_{31}H_{36}O_9$  (552.63). Source: WU WEI ZI *Schisandra chinensis*. Ref: 2.

**2243 Benzoylheteratisine**

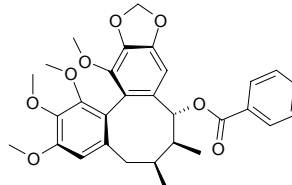
$C_{29}H_{37}NO_6$  (495.62). Source: GAN QING WU TOU *Aconitum tanguticum*. Ref: 660.

**2244 6 $\beta$ -Benzoyl-7 $\beta$ -hydroxyvouacapen-5 $\alpha$ -ol**

Isovouacapenol C  $C_{27}H_{34}O_5$  (438.57). Colorless needles, mp 193~195°C (CHCl<sub>3</sub>-MeOH),  $[\alpha]_D^{30} = +18.4$  ( $c = 0.977$ , CHCl<sub>3</sub>); Colorless crystals, mp 116~118°C (petroleum ether),  $[\alpha]_D^{20} = -18.4^\circ$  ( $c = 0.0044$ , CDCl<sub>3</sub>). Pharm: Antibacterial (*Staphylococcus aureus*, *Escherichia coli*, *Pseudomonas aeruginosa*, and *Bacillus subtilis*)<sup>[4639]</sup>; antifungal (*Candida albicans* and *Trichophyton mentagrophytes*)<sup>[4639]</sup>; antitubercular (*Mycobacterium tuberculosis* H37Ra, MIC = 25 $\mu$ g/mL, control Kanamycin sulfate, MIC = 2.5~5.0 $\mu$ g/mL)<sup>[5435]</sup>; cytotoxic (KB cells, IC<sub>50</sub> = (9.9 $\pm$ 1.3) $\mu$ g/mL, control Ellipticine, IC<sub>50</sub> = (0.3 $\pm$ 0.1) $\mu$ g/mL; BC, IC<sub>50</sub> = (3.6 $\pm$ 0.5) $\mu$ g/mL, Ellipticine, IC<sub>50</sub> = (0.3 $\pm$ 0.1) $\mu$ g/mL; NCI-H187, IC<sub>50</sub> = (2.9 $\pm$ 0.1) $\mu$ g/mL)<sup>[5435]</sup>. Source: JI MEI YUN SHI *Caesalpinia pulcherrima* (leaf: yield = 0.00022%dw). Ref: 4639, 5435.

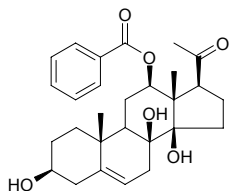
**2245 Benzoylisogomisin O**

$C_{30}H_{32}O_8$  (520.58).  $[\alpha]_D^{23} = -13.5^\circ$  ( $c = 1.23$ , CHCl<sub>3</sub>). Pharm: NFAT transcription inhibitor (IC<sub>50</sub> = (11.06 $\pm$ 1.02) $\mu$ mol/L, control Cyclosporin A, IC<sub>50</sub> = (1.20 $\pm$ 0.29) $\mu$ mol/L)<sup>[5343]</sup>. Source: LENG FAN TUAN *Kadsura coccinea* [syn. *Kadsura chenensis*; *Kadsura hainanensis*], WU WEI ZI *Schisandra chinensis*. Ref: 660, 5343.

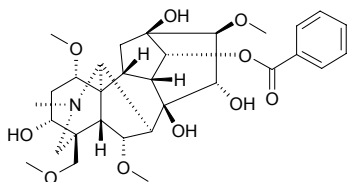


**2246 12-O-Benzoylisolineolone**

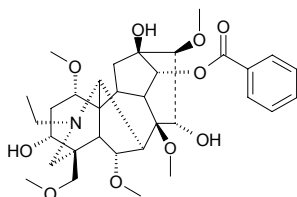
$C_{28}H_{36}O_6$  (468.60). mp 245~250°C. Source: FU SHOU CAO *Adonis amurensis*. Ref: 6.

**2247 Benzylmesaconine**

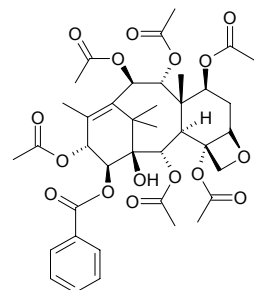
$C_{31}H_{43}NO_{10}$  (589.69). Pharm: Analgesic (mouse, tail pressure test,  $ED_{50}$  = 38.9mg/kg,  $LD_{50}/ED_{50}$  = 6.29)<sup>[5451]</sup>; acute toxicity (mouse,  $LD_{50}$  = 245mg/kg)<sup>[5451]</sup>. Source: WU TOU *Aconitum carmichaeli* (buds). Ref: 5451.

**2248 14-Benzoyl-8-O-methyl-aconine I**

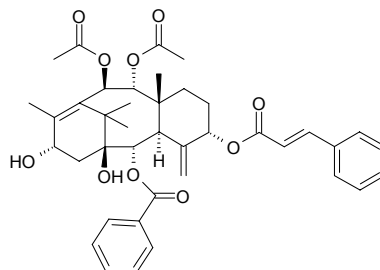
$C_{33}H_{47}NO_{10}$  (617.74). Amorphous powder,  $[\alpha]_D^{20}$  = -2.36° ( $c$  = 0.721,  $CHCl_3$ ). Source: NI YU LONG WU TOU *Aconitum pseudostapfianum*. Ref: 487.

**2249 14β-Benzoyloxybaccatin IV**

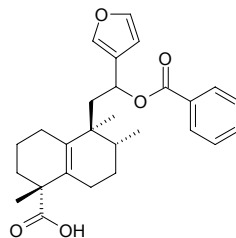
$C_{39}H_{48}O_{16}$  (772.81). Colorless prisms crystals (MeOH), mp 270~272°C,  $[\alpha]_D^{15}$  = +38.8° ( $c$  = 0.31,  $CHCl_3$ ). Source: HONG DOU SHAN *Taxus chinensis* (leaf and stem: yield = 0.000033%dw). Ref: 4750.

**2250 2α-Benzoyloxy-5α-cinnamoyloxy-9α,10β-diacetoxy-1β,13α-dihydroxy-4(20),11-taxadiene**

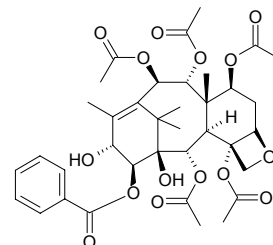
$C_{40}H_{46}O_{10}$  (686.81). mp 212~214°C,  $[\alpha]_D$  = +6.5° ( $CHCl_3$ ). Source: HONG DOU SHAN *Taxus chinensis*. Ref: 662.

**2251 12-Benzoyloxycrotahalimaneic acid**

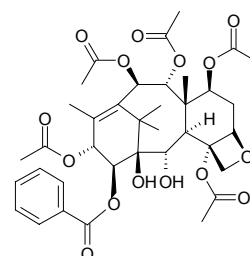
$C_{27}H_{32}O_5$  (436.55). Viscous transparent oil,  $[\alpha]_D^{25}$  = +54° ( $c$  = 1.0,  $CHCl_3$ ). Pharm: Cytotoxic inactive (*in vitro* hmn tumor cell cultures: BT474, > 10μg/mL; CHAGO, > 10μg/mL; HepG2, > 10μg/mL; Kato3, > 10μg/mL; SW620, > 10μg/mL)<sup>[4930]</sup>. Source: GUANG YE BA DOU *Croton oblongifolius* [Syn. *Croton laevigatus*] (stem bark). Ref: 4930.

**2252 14β-Benzoyloxy-13-deacetyl-baccatin IV**

$C_{37}H_{46}O_{15}$  (730.77). Colorless needle crystals (acetone-petroleum ether), mp 252~253°C,  $[\alpha]_D^{19}$  = +32.5° ( $c$  = 0.123,  $CH_3COCH_3$ ). Source: HONG DOU SHAN *Taxus chinensis* (leaf and stem: yield = 0.000067%dw). Ref: 4750.

**2253 14β-Benzoyloxy-2-deacetyl-baccatin VI**

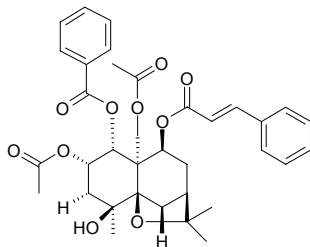
$C_{37}H_{46}O_{15}$  (730.77). Colorless lamellar crystals (acetone), mp 241~243°C,  $[\alpha]_D^{16}$  = +9.4° ( $c$  = 0.57, MeOH). Source: HONG DOU SHAN *Taxus chinensis* (leaf and stem: yield = 0.00011%dw). Ref: 4750.





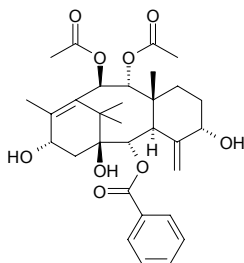
**2254 (1R,2S,4S,5R,7R,9S,10R)-1 $\alpha$ -Benzoyloxy-2 $\alpha$ ,15-diacetoxy-4 $\beta$ -hydroxy-9 $\beta$ -cinnamoyloxy- $\beta$ -dihydroagarofuran**

C<sub>35</sub>H<sub>40</sub>O<sub>10</sub> (620.70). Colorless needles (Me<sub>2</sub>CO), mp 193~194°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +153° (*c* = 1.68, CHCl<sub>3</sub>). **Pharm:** Cytotoxic (*in vitro*, Bel7402 liver carcinoma, IC<sub>50</sub> = 35.91  $\mu$ g/mL, control Etoposide, IC<sub>50</sub> = 7.00  $\mu$ g/mL). **Source:** *Euonymus nanoides* (seed). **Ref:** 4962.



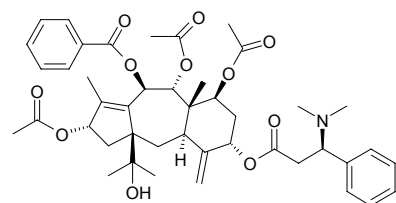
**2255 2 $\alpha$ -Benzoyloxy-9 $\alpha$ ,10 $\beta$ -diacetoxy-1 $\beta$ ,5 $\alpha$ ,13 $\alpha$ -trihydroxy-4(20),11-taxadiene**

C<sub>31</sub>H<sub>40</sub>O<sub>9</sub> (556.66). mp 196~197°C, [ $\alpha$ ]<sub>D</sub> = +5° (CHCl<sub>3</sub>). **Source:** HONG DOU SHAN *Taxus chinensis*. **Ref:** 662.



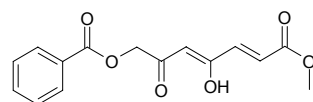
**2256 10 $\beta$ -Benzoyloxy-5 $\alpha$ -(3'-dimethylamino-3'-phenyl)propanoxy-1 $\beta$ -hydroxy-7 $\beta$ ,9 $\alpha$ ,13 $\alpha$ -triacetoxy-11(15→1)-abeo-taxa-4(20),11-dien**

C<sub>44</sub>H<sub>55</sub>NO<sub>11</sub> (773.93). **Source:** DUAN YE HONG DOU SHAN *Taxus brevifolia*. **Ref:** 662.



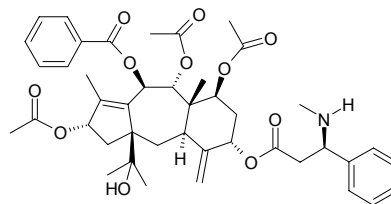
**2257 7-Benzoyloxy-4-hydroxy-1-methoxy-2E,4Z-heptadien-1,6-dione**

C<sub>15</sub>H<sub>14</sub>O<sub>6</sub> (290.28). White crystalline solid, mp 116~118°C. **Pharm:** Cytotoxic (BT474, IC<sub>50</sub> = 5.6  $\mu$ g/mL, control Doxorubicin hydrochloride, IC<sub>50</sub> = 0.1  $\mu$ g/mL; CHAGO, IC<sub>50</sub> > 10  $\mu$ g/mL, Doxorubicin hydrochloride, IC<sub>50</sub> = 2.3  $\mu$ g/mL; HepG2, IC<sub>50</sub> = 5.3  $\mu$ g/mL, Doxorubicin hydrochloride, IC<sub>50</sub> = 0.9  $\mu$ g/mL; KATO 3, IC<sub>50</sub> = 3.9  $\mu$ g/mL, Doxorubicin hydrochloride, IC<sub>50</sub> = 1.7  $\mu$ g/mL; SW620, IC<sub>50</sub> = 4.9  $\mu$ g/mL, Doxorubicin hydrochloride, IC<sub>50</sub> = 1.1  $\mu$ g/mL). **Source:** *Melodorum fruticosum* (flower). **Ref:** 5245.



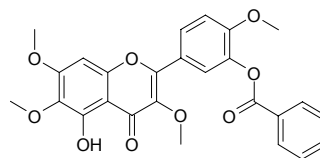
**2258 10 $\beta$ -Benzoyloxy-1 $\beta$ -hydroxy-5 $\alpha$ -(3'-methylamino-3'-phenyl)propanoxy-7 $\beta$ ,9 $\alpha$ ,13 $\alpha$ -triacetoxy-11(15→1)-abeo-taxa-4(20),11-diene**

C<sub>43</sub>H<sub>53</sub>NO<sub>11</sub> (759.90). **Source:** DUAN YE HONG DOU SHAN *Taxus brevifolia*. **Ref:** 662.



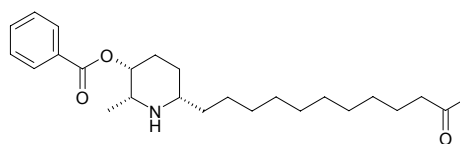
**2259 3'-Benzoyloxy-5-hydroxy-3,6,7,4'-tetramethoxyflavone**

C<sub>26</sub>H<sub>22</sub>O<sub>9</sub> (478.46). mp 210~211°C. **Pharm:** Cytotoxic (*in vitro*, Col2, ED<sub>50</sub> > 20  $\mu$ g/mL; hTERT-RPE1, ED<sub>50</sub> = 3.6  $\mu$ g/mL; HUVEC, ED<sub>50</sub> > 20  $\mu$ g/mL; KB, ED<sub>50</sub> > 20  $\mu$ g/mL; HUVEC, ED<sub>50</sub> > 20  $\mu$ g/mL; Lu1, ED<sub>50</sub> = 16.5  $\mu$ g/mL). **Source:** HUANG JING YE *Vitex negundo*. **Ref:** 4699.



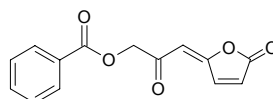
**2260 3(R)-Benzoyloxy-2(R)-methyl-6(R)-(11'-oxododecyl)-piperidine**

C<sub>23</sub>H<sub>39</sub>NO<sub>3</sub> (401.59). Pale yellow oil, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = +2.64° (*c* = 0.46, EtOH). **Pharm:** Cytotoxic (P<sub>388</sub>, IC<sub>50</sub> = 10.5  $\mu$ g/mL, control 5-FU, IC<sub>50</sub> = 0.99  $\mu$ g/mL; KB, IC<sub>50</sub> = 3.7  $\mu$ g/mL, Doxorubicin, IC<sub>50</sub> = 0.57  $\mu$ g/mL; BC-1, IC<sub>50</sub> = 6.2  $\mu$ g/mL, Doxorubicin, IC<sub>50</sub> = 0.21  $\mu$ g/mL); cytotoxic (brine shrimp lethality, IC<sub>50</sub> > 100  $\mu$ g/mL, control Monocrotophos, IC<sub>50</sub> = 0.24  $\mu$ g/mL). **Source:** ZHUANG GUAN FAN XIE *Senna spectabilis* (flower). **Ref:** 5480.



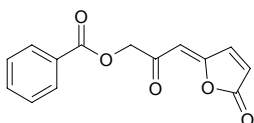
**2261 7-Benzoyloxy-6-oxo-2,4E-heptadiene-1,4-olide**

C<sub>14</sub>H<sub>10</sub>O<sub>5</sub> (258.23). Colorless bulky crystals, mp 139~140°C. **Pharm:** Cytotoxic (BT474, IC<sub>50</sub> > 10  $\mu$ g/mL, control Doxorubicin hydrochloride, IC<sub>50</sub> = 0.1  $\mu$ g/mL; CHAGO, IC<sub>50</sub> > 10  $\mu$ g/mL, Doxorubicin hydrochloride, IC<sub>50</sub> = 2.3  $\mu$ g/mL; HepG2, IC<sub>50</sub> > 10  $\mu$ g/mL, Doxorubicin hydrochloride, IC<sub>50</sub> = 0.9  $\mu$ g/mL; KATO 3, IC<sub>50</sub> > 10  $\mu$ g/mL, Doxorubicin hydrochloride, IC<sub>50</sub> = 1.7  $\mu$ g/mL; SW620, IC<sub>50</sub> > 10  $\mu$ g/mL, Doxorubicin hydrochloride, IC<sub>50</sub> = 1.1  $\mu$ g/mL). **Source:** *Melodorum fruticosum* (flower). **Ref:** 5245.

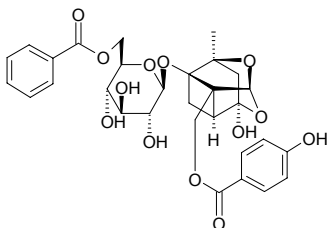


**2262 7-Benzoyloxy-6-oxo-2,4Z-heptadiene-1,4-olide**

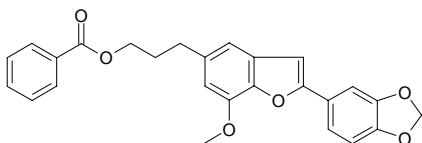
$C_{14}H_{10}O_5$  (258.23). Colorless bulky crystals, mp 136~138°C. **Pharm:** Cytotoxic (BT474,  $IC_{50} = 3.0\mu\text{g/mL}$ , control Doxorubicin hydrochloride,  $IC_{50} = 0.1\mu\text{g/mL}$ ; CHAGO,  $IC_{50} > 10\mu\text{g/mL}$ , Doxorubicin hydrochloride,  $IC_{50} = 2.3\mu\text{g/mL}$ ; HepG2,  $IC_{50} = 3.7\mu\text{g/mL}$ , Doxorubicin hydrochloride,  $IC_{50} = 0.9\mu\text{g/mL}$ ; KATO 3,  $IC_{50} = 3.3\mu\text{g/mL}$ , Doxorubicin hydrochloride,  $IC_{50} = 1.7\mu\text{g/mL}$ ; SW620,  $IC_{50} = 2.6\mu\text{g/mL}$ , Doxorubicin hydrochloride,  $IC_{50} = 1.1\mu\text{g/mL}$ ). **Source:** *Melodorum fruticosum* (flower). **Ref:** 5245.

**2263 Benzoyl-oxypaeoniflorin**

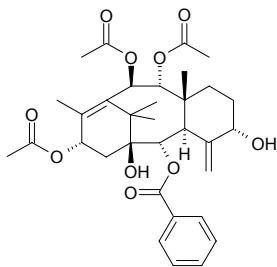
$C_{30}H_{32}O_{13}$  (600.58). **Pharm:** Platelet aggregation inhibitor. **Source:** MU DAN PI *Paeonia moutan* [Syn. *Paeonia suffruticosa*]. **Ref:** 1.

**2264 5-(3''-Benzoyloxypropyl)-7-methoxy-2-(3',4'-methylenedioxyphenyl)-benzofuran**

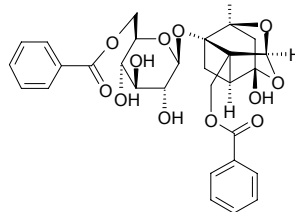
$C_{26}H_{22}O_6$  (430.46). **Source:** YAO YONG AN XI XIANG *Styrax officinalis*. **Ref:** 3426.

**2265 2a-Benzoyloxy-9a,10β,13α-triacetoxy-1β,5α-dihydroxy-4(20),11-taxadiene**

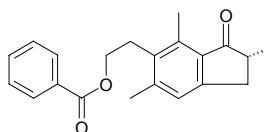
$C_{33}H_{42}O_{10}$  (598.70). mp 155~157°C,  $[\alpha]_D^{25} = +67.7^\circ$  ( $CHCl_3$ ). **Source:** HONG DOU SHAN *Taxus chinensis*. **Ref:** 662.

**2266 Benzoylpaeoniflorin**

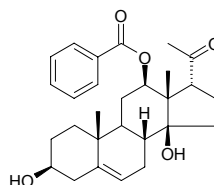
$C_{30}H_{32}O_{12}$  (584.58). **Pharm:** Antithrombotic (inhibits plasmin and plasminogen). **Source:** BAI SHAO *Paeonia albiflora* [Syn. *Paeonia lactiflora*] (root: content = 0.04%)<sup>[5501]</sup>, MU DAN PI *Paeonia moutan* [Syn. *Paeonia suffruticosa*]. **Ref:** 1, 660, 5501.

**2267 Benzoylpterosin B**

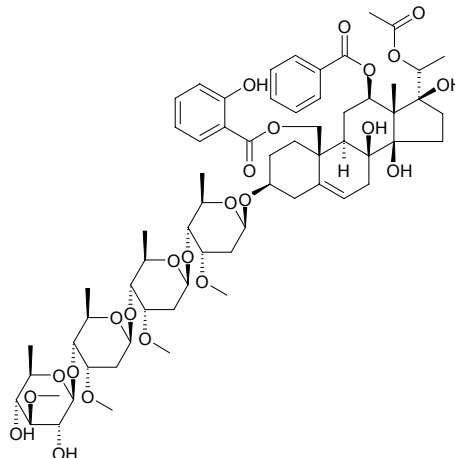
$C_{21}H_{22}O_5$  (322.41). mp 68~70°C. **Source:** JUE *Pteridium aquilinum* var. *latiusculum*. **Ref:** 6.

**2268 Benzoylramanone**

$C_{28}H_{36}O_5$  (452.60). mp 222~226°C. **Source:** LUO MO *Metaplexis japonica*. **Ref:** 6.

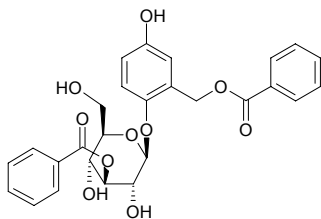
**2269 12-O-Benzoyl-19-salicyloyloxy-20-O-acetylsarcostin 3-O-β-D-thevetopyranosyl-(1→4)-β-D-cymaropyranosyl-(1→4)-β-D-cymaropyranosyl-(1→4)-β-D-cymaropyranoside**

$C_{65}H_{92}O_{24}$  (1257.44). Amorphous powder,  $[\alpha]_D^{24} = +62^\circ$  ( $c = 0.32$ , MeOH). **Source:** *Araujia sericifera* (root). **Ref:** 4377.

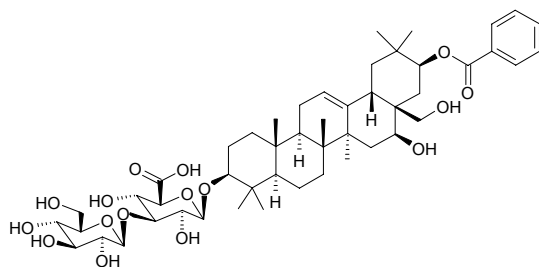


**2270 Benzoylsalireposide**

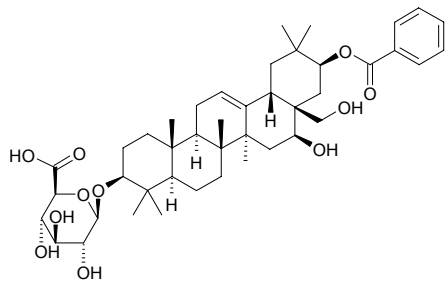
1-Benzoylmethyl-5-hydroxyphenyl- $\beta$ -D-(3'-benzoyl) glucopyranoside  
 $C_{27}H_{26}O_{10}$  (510.50). Amorphous powder,  $[\alpha]_D^{23} = -7.69^\circ$  ( $c = 0.182$ , MeOH).  
**Pharm:** Phosphodiesterase I inhibitor (*in vitro*,  $IC_{50} = (171 \pm 0.02) \mu\text{mol/L}$ ,  
 control Cysteine,  $IC_{50} = (274 \pm 0.07) \mu\text{mol/L}$ )<sup>[4093]</sup>; thymidine phosphorylase  
 inhibitor (*in vitro*,  $IC_{50} = (427.20 \pm 5.36) \mu\text{mol/L}$ , control 7-Deazaxanthine,  $IC_{50}$   
 $= (38.68 \pm 4.42) \mu\text{mol/L}$ )<sup>[4093]</sup>. **Source:** ZHU ZI SHU *Symplocos racemosa*. **Ref:**  
 3374, 4093.

**2271 21 $\beta$ -O-Benzoylsitakigenin 3-O- $\beta$ -D-glucopyranosyl(1 $\rightarrow$ 3)- $\beta$ -D-glucuronopyranoside**

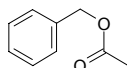
$C_{49}H_{72}O_{16}$  (917.11). Amorphous powder, mp 226~228°C,  $[\alpha]_D^{20} = +15.4^\circ$  ( $c = 0.16$ , MeOH). **Pharm:** Anti-sweetener<sup>[3037]</sup>. **Source:** CHI GENG TENG  
*Gymnema sylvestre* (leaf: yield = 0.0043%dw). **Ref:** 3037.

**2272 21 $\beta$ -Benzoylsitakigenin-3-O- $\beta$ -D-glucuronopyranoside**

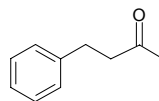
$C_{43}H_{62}O_{11}$  (754.97). Amorphous powder, mp 192~195°C,  $[\alpha]_D^{20} = 27.2^\circ$  ( $c = 0.15$ , MeOH). **Source:** CHI GENG TENG *Gymnema sylvestre*. **Ref:** 766.

**2273 Benzyl acetate**

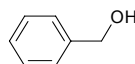
[140-11-4]  $C_9H_{10}O_2$  (150.18). bp 213.5°C/756mmHg. **Source:** DING XIANG  
*Syzygium aromaticum* [Syn. *Eugenia caryophyllata*], HUANG HUA HAO  
*Artemisia annua*, LA MEI HUA *Chimonanthus fragrans* [Syn. *Chimonanthus*  
*praecox*], SHUI XIAN HUA *Narcissus tazetta* var. *chinensis*. **Ref:** 6.

**2274 Benzyl acetone**

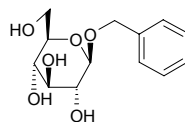
4-Phenylbutan-2-one [2550-26-7]  $C_{10}H_{12}O$  (148.21). bp 235°C. **Pharm:**  
 Antitussive. **Source:** CHEN XIANG *Aquilaria agallocha* (resinous wood:  
 mean content of 10 batch samples = 0.036%)<sup>[5508]</sup>, MAN SHAN HONG  
*Rhododendron dauricum*, XIAO YE PI PA *Rhododendron anthopogonoides*.  
**Ref:** 1, 6, 13, 660, 2984, 5508.

**2275 Benzyl alcohol**

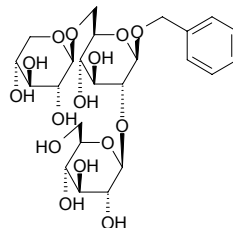
[100-51-6]  $C_7H_8O$  (108.14). **Source:** JIN YIN HUA *Lonicera japonica*, JU PI  
*Citrus reticulata*. **Ref:** 2.

**2276 Benzyl alcohol O- $\beta$ -D-glucopyranoside**

Phenylmethyl glucopyranoside [4304-12-5]  $C_{13}H_{18}O_6$  (270.28). Needles  
 (EtOAc/MeOH), mp 123~125°C,  $[\alpha]_D^{25} = -59.2^\circ$  ( $c = 0.67$ , MeOH); mp  
 120~121°C,  $[\alpha]_D^{21} = -53^\circ$ ;  $[\alpha]_D^{25} = -43^\circ$ , ( $c = 0.1$ , MeOH); **Source:** BAI MEI  
 HUA *Prunus mume* (flower: yield = 0.050%fw)<sup>[4641]</sup>, BEI SHA SHEN  
*Glehnia littoralis* (fruit), CHA RU SHI WAN CUO *Asystasia intrusa*, DA  
 HUA YIN YANG HUO BIAN ZHONG *Epimedium grandiflorum* var.  
*thumbergianum*, LIU CHUAN YU *Linaria vulgaris*, SANG YE *Morus alba*  
 (leaf: yield = 0.00075%), SHI LUO ZI *Anethum graveolens* (fruit), SUO SHA  
 MI *Amomum xanthioides* (seed), YUAN YE E ZHANG CHAI *Schefflera*  
*rotundifolia* (aerial parts). **Ref:** 2589, 2590, 3507, 3525, 4177, 4237, 4365,  
 4641, 5036.

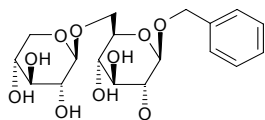
**2277 Benzyl alcohol  $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-[ $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 6)]- $\beta$ -D-glucopyranoside**

$C_{24}H_{36}O_{15}$  (564.55).  $[\alpha]_D^{22} = -41^\circ$  ( $c = 0.6$ , MeOH). **Source:** BA JIAO FENG  
*Alangium chinense* (leaf). **Ref:** 4131.

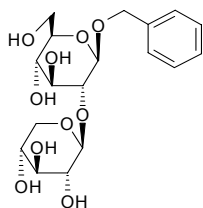


**2278 Benzyl alcohol *O*- $\beta$ -D-primveroside**

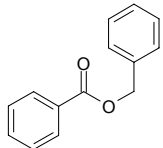
Benzyl alcohol xylopyranosyl(1 $\rightarrow$ 6)glucopyranoside C<sub>18</sub>H<sub>26</sub>O<sub>10</sub> (402.40). Source: BAI MEI HUA *Prunus mume* (flower: yield = 0.0005%fw), LIU CHUAN YU *Linaria vulgaris*. Ref: 4237, 4641.

**2279 Benzyl alcohol  $\beta$ -D-(2'-*O*- $\beta$ -xylopyranosyl)glucopyranoside**

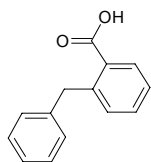
C<sub>18</sub>H<sub>26</sub>O<sub>10</sub> (402.40). Source: JIA HUI SE JIU LI XIANG PO PO NA *Veronica thymoides* ssp. *pseudocinerea*, JIN HUANG CAO SU *Phlomis aurea* (leaf), LIU CHUAN YU *Linaria vulgaris*. Ref: 3846, 4237, 5093.

**2280 Benzyl benzoate**

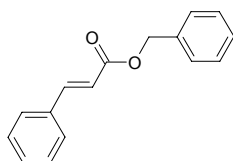
[120-51-4] C<sub>14</sub>H<sub>12</sub>O<sub>2</sub> (212.25). Oil, mp 21°C, bp 323~324°C. Source: BI LU XIANG JIAO *Myroxylon pereirae*, DU HUI MAO DOU *Tephrosia toxicaria* (stem: yield = 0.0018%dw)<sup>[4718]</sup>, JIAN ZI YU PAN *Uvaria acuminata* (root), JIN YIN HUA *Lonicera japonica*, QU MAI *Dianthus superbus*. Ref: 6, 660, 4261.

**2281 *o*-Benzyl benzoic acid**

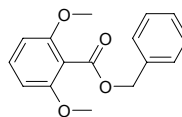
[612-35-1] C<sub>14</sub>H<sub>12</sub>O<sub>2</sub> (212.25). mp 117°C. Source: QI ZHOU YI ZHI HAO *Conyza canadensis* [Syn. *Erigeron canadensis*]. Ref: 6.

**2282 Benzyl cinnamate**

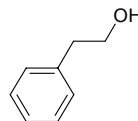
[103-41-3] C<sub>16</sub>H<sub>14</sub>O<sub>2</sub> (238.29). mp 39°C, bp 195~200°C/5mmHg. Source: BI LU XIANG JIAO *Myroxylon pereirae*, DU HUI MAO DOU *Tephrosia toxicaria* (stem: yield = 0.00093%dw)<sup>[4718]</sup>, SHAN ZHU YU *Cornus officinalis* [Syn. *Macrocarpum officinale*]. Ref: 2, 6, 4718.

**2283 Benzyl 2,6-dimethoxybenzoate**

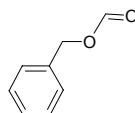
C<sub>16</sub>H<sub>16</sub>O<sub>4</sub> (272.30). Pharm: Antibacterial (*Staphylococcus aureus*, *Escherichia coli*, *Pseudomonas aeruginosa*, and *Bacillus subtilis*)<sup>[4639]</sup>; antifungal (*Candida albicans* and *Trichophyton mentagrophytes*)<sup>[4639]</sup>. Source: JI MEI YUN SHI *Caesalpinia pulcherrima* (leaf: yield = 0.00022%dw)<sup>[4639]</sup>, YI ZHI HUANG HUA *Solidago virgaurea* var. *leiocarpa* [Syn. *Solidago decurrens*]. Ref: 660, 4639.

**2284 Benzyl ethyl alcohol**

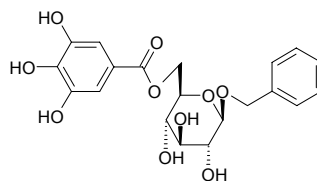
$\beta$ -Phenylethyl alcohol [60-12-8] C<sub>8</sub>H<sub>10</sub>O (122.17). Pharm: Antibacterial; antiseptic; inhibits contraction of auricular smooth muscle (*in vitro*, high concentration); inhibits smooth muscle (rat ad rbt, Ileum and uterus, *in vitro*); antihypertensive (anesthetic rbt, iv, mild action); bronchodilator (gpg *in vitro*, high dose); LD<sub>50</sub> (rat, orl) = 1790mg/kg. Source: BI BA *Piper longum*, CHAN YANG *Populus tremuloides*, GAO DANG GUI *Ligusticum elatum*, GAO SHAN HUA JIAO *Zanthoxylum hamiltonianum*, HUI BAI DU HUO *Heraclium canescens*, JIN YIN HUA *Lonicera japonica*, MEI GUI HUA *Rosa rugosa*, MU TIAN LIAO *Actinidia polygama*, WEI XIAO WAN SHOU JU *Tagetes minuta*, ZHOU YE OU QIN *Petroselinum crispum*. Ref: 2, 6, 658.

**2285 Benzyl formate**

[104-57-4] C<sub>8</sub>H<sub>8</sub>O<sub>2</sub> (136.15). bp 202~203°C/747mmHg. Source: CHA YE *Camellia sinensis* [Syn. *Thea sinensis*]. Ref: 6.

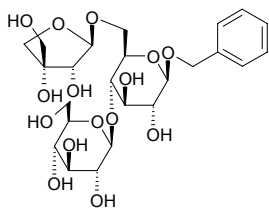
**2286 Benzyl 6'-*O*-galloyl- $\beta$ -D-glucopyranoside**

C<sub>20</sub>H<sub>22</sub>O<sub>10</sub> (422.98). White amorphous powder, [ $\alpha$ ]<sub>D</sub> = -29.4° (*c* = 1.7, MeOH); [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -30° (*c* = 1.5, MeOH). Pharm: Antifungal (*Candida albicans* ATCC2091, MIC = 50 $\mu$ g/mL, control Amphotericin B, MIC = 1 $\mu$ g/mL; *Candida albicans* 32, MIC = 50 $\mu$ g/mL, Amphotericin B, MIC = 4 $\mu$ g/mL; *Candida albicans* 19, MIC = 100 $\mu$ g/mL, Amphotericin B, MIC = 2 $\mu$ g/mL)<sup>[5021]</sup>, cytotoxic inactive (MIC > 200 $\mu$ g/mL)<sup>[5021]</sup>, antibacterial inactive<sup>[5021]</sup>. Source: *Baseonema acuminatum* (leaf), *Monochaetum multiflorum* (leaf). Ref: 5021, 5185.



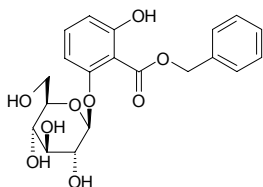
**2287 Benzyl  $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-[ $\beta$ -D-apiofuranosyl-(1 $\rightarrow$ 6)]- $\beta$ -D-glucopyranoside**

C<sub>24</sub>H<sub>36</sub>O<sub>15</sub> (564.55). Pale-yellow powder, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -58°, (c = 0.1, MeOH).  
**Source:** YUAN YE E ZHANG CHAI *Schefflera rotundifolia* (aerial parts).  
**Ref:** 5036.



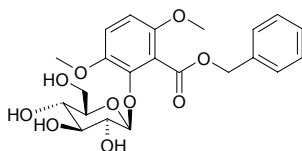
**2288 Benzyl 2-O- $\beta$ -D-glucopyranosyl-2,6-dihydroxybenzoate**

C<sub>20</sub>H<sub>22</sub>O<sub>9</sub> (406.39). Colorless oil. **Pharm:** Plant growth stimulatory or inhibitory activity (radicle length: *Lactuca sativa*, 1  $\mu$ mol/L, StRt < 10%, 10  $\mu$ mol/L, StRt = (10~30)%, 100  $\mu$ mol/L, StRt = (10~30)%, 1 mmol/L, StRt = (10~30)%; *Raphanus sativus*, 1  $\mu$ mol/L, StRt = (31~60)%, 10  $\mu$ mol/L, StRt = (31~60)%, 100  $\mu$ mol/L, InRt = (10~30)%, 1 mmol/L, InRt = (31~60)%; *Allium cepa*, 1  $\mu$ mol/L, StRt = (10~30)%, 10  $\mu$ mol/L, StRt = (31~60)%, 100  $\mu$ mol/L, StRt or InRt < 10%, 1 mmol/L, InRt = (10~30)%). **Source:** XI YANG JIE GU MU *Sambucus nigra*. **Ref:** 5217.



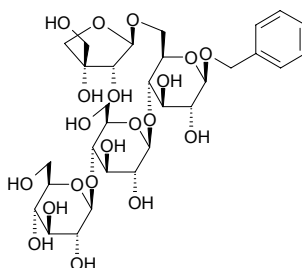
**2289 Benzyl 2 $\beta$ -O-D-glucopyranosyl-3,6-dimethoxybenzoate**

C<sub>22</sub>H<sub>26</sub>O<sub>10</sub> (450.45). Amorphous. **Source:** PO LUO MEN ZAO JIA *Cassia fistula* (seed: yield = 0.00046%). **Ref:** 4642.



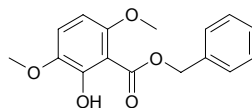
**2290 Benzyl  $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-[ $\beta$ -D-apiofuranosyl-(1 $\rightarrow$ 6)]- $\beta$ -D-glucopyranoside**

C<sub>30</sub>H<sub>46</sub>O<sub>20</sub> (726.69). Yellowish powder, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -26°, (c = 0.1, MeOH).  
**Source:** YUAN YE E ZHANG CHAI *Schefflera rotundifolia* (aerial parts).  
**Ref:** 5036.



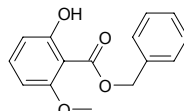
**2291 Benzyl 2-hydroxy-3,6-dimethoxybenzoate**

C<sub>16</sub>H<sub>16</sub>O<sub>5</sub> (288.3). mp 134~136°C. **Source:** PO LUO MEN ZAO JIA *Cassia fistula* (seed: yield = 0.00043%). **Ref:** 4642.



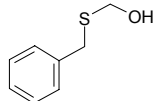
**2292 Benzyl 2-hydroxy-6-methoxybenzoate**

C<sub>15</sub>H<sub>14</sub>O<sub>4</sub> (258.28). **Source:** YI ZHI HUANG HUA *Solidago virgaurea* var. *leiocarpa* [Syn. *Solidago decurrens*]. **Ref:** 660.



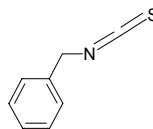
**2293 Benzyl hydroxymethyl sulphide**

C<sub>8</sub>H<sub>10</sub>OS (154.23). Colorless oil. **Pharm:** Antifungal (plant pathogenic fungi *Cladosporium sphaerospermum*, MIC > 25  $\mu$ g, control Nystatin, MIC = 1.0  $\mu$ g; *Cladosporium cladosporioides*, MIC > 25  $\mu$ g, control Nystatin, MIC = 1.0  $\mu$ g)<sup>[5159]</sup>; antineoplastic (mechanism-based yeast bioassay for DNA-modifying agents, mutant yeast *Saccharomyces cerevisiae*: RS 188N (rad+), IC<sub>12</sub> = 67  $\mu$ g/mL; RS 321, IC<sub>12</sub> = 58  $\mu$ g/mL; RS 52YK (rad 52Y), IC<sub>12</sub> = 76  $\mu$ g/mL, control Camptothecin, RS52YK(rad52Y), IC<sub>12</sub> = 0.6  $\mu$ g/mL)<sup>[5159]</sup>. **Source:** SUAN CHOU MU JI CAO *Petiveria alliacea* (root, stem and leaf). **Ref:** 5159.



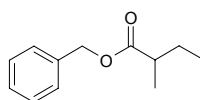
**2294 Benzyl isothiocyanate**

[622-78-6] C<sub>8</sub>H<sub>7</sub>NS (149.22). bp 243°C; 124~125°C/12mmHg. **Pharm:** Antibacterial (gram-positive and gram-negative bacteria, IC = 1:1000000~1:3000000); LD<sub>50</sub> (mus, ip) = 76~107mg/kg, (gpg, ip) = 68mg/kg, (rat, ip) = 72mg/kg, (mus, orl) = 134mg/kg, (gpg, orl) = 81mg/kg, (rat, orl) = 128mg/kg. **Source:** BO NIANG HAO *Descurainia sophia*, FAN MU GUA *Carica papaya*, HAN LIAN HUA *Tropaeolum majus*, JIE ZI *Brassica juncea*, TING LI ZI *Lepidium apetalum* [Syn. *Lepidium micranthum*]. **Ref:** 1, 6, 660, 661.



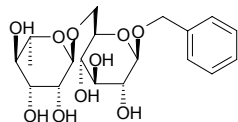
**2295 Benzyl D-2-methylbutyrate**

[56423-40-6] C<sub>12</sub>H<sub>16</sub>O<sub>2</sub> (192.26). **Source:** HUANG HUA HAO *Artemisia annua*. **Ref:** 6.

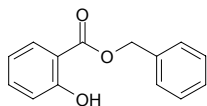


**2296 Benzyl 6-O- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 6) $\beta$ -D-glucopyranoside**

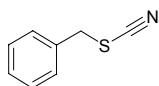
C<sub>19</sub>H<sub>28</sub>O<sub>10</sub> (416.43).  $[\alpha]_D^{25} = -50^\circ$  (c = 0.1, MeOH). **Pharm:** Antifungal inactive (*Candida albicans*, MIC > 200 $\mu$ g/mL; control Amphotericin B, MIC = 1–4 $\mu$ g/mL)<sup>[5021]</sup>; antibacterial inactive<sup>[5021]</sup>. **Source:** MAO GUO QI *Acer nikoense* (stem bark: yield = 0.0003%), XIE JI CU YE MU *Lasianthus wallichii* (leaf), *Baseonema acuminatum* (leaf). **Ref:** 4238, 4304, 5021.

**2297 Benzyl salicylate**

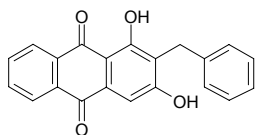
[1180-58-1] C<sub>14</sub>H<sub>12</sub>O<sub>3</sub> (228.25). bp 208°C/26mmHg. **Source:** QU MAI *Dianthus superbus*, SHI ZHU *Dianthus chinensis*. **Ref:** 6, 660.

**2298 Benzyl thiocyanate**

Tropaeolin [3012-37-1] C<sub>8</sub>H<sub>7</sub>NS (149.22). Rhomboid, mp 43°C, 36–38°C, bp 235°C, 256°C. **Pharm:** Antispasmodic; coronary vasodilator (cat, iv, 1.5 $\mu$ L/kg, flow of coronary artery increases (70–118)% and the action continues 30–60min); anti-carcinogenic (rat, inhibits carcinogenic action of multiple-ring aromatic hydrocarbons); pesticide (beetles and cockroaches); synergist of buhach; LD<sub>50</sub> (mus, orl) = 16 $\mu$ g/kg, (rat, orl) = 250 $\mu$ g/kg, (cat, orl) = 22 $\mu$ g/kg. **Source:** HAN LIAN HUA *Tropaeolum majus*. **Ref:** 6, 661.

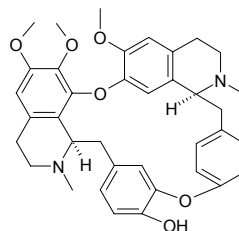
**2299 2-Benzylxanthopurpurin**

2-Benzyl-1,3-dihydroxy-anthraquinone [34425-61-1] C<sub>21</sub>H<sub>14</sub>O<sub>4</sub> (330.34). mp 300°C. **Source:** TU LIAN QIAO *Hymenodictyon excelsum*, HU CI *Dammacanthus indicus*. **Ref:** 6.

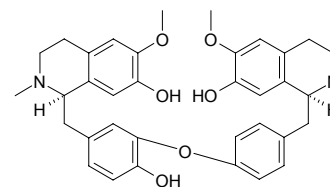
**2300 Berbamine**

[478-61-5] C<sub>37</sub>H<sub>40</sub>N<sub>2</sub>O<sub>6</sub> (608.74). **Pharm:** Antiarrhythmic; antineoplastic; anti-ischemia myocardial; antispasmodic; antitubercular (*Mycobacterium tuberculosis*); immunoenhancer; increases leucocyte; inhibits myocardial contractility; antihypertensive; regulates drug immunological injury (mus); vascular relaxant (relaxes strip of arteriae renalis, rbt, *in vitro*); vasodilator; slows heart rate. **Source:** BAI YAO ZI *Stephania cepharantha*, BAN RUI TANG SONG CAO *Thalictrum petaloideum* (root: content < 0.001%)<sup>[5508]</sup>, DA YE TANG SONG CAO *Thalictrum faberi* (root: content < 0.001%)<sup>[5508]</sup>, HUA NAN GONG LAO MU *Mahonia japonica*, JIN SI MA WEI LIAN *Thalictrum glandulosissimum* (root: content < 0.005%)<sup>[5508]</sup>, MA WEI LIAN *Thalictrum foliolosum* (root: content < 0.001%)<sup>[5508]</sup>, OU ZHOU XIAO BO *Berberis vulgaris*, RI BEN XIAO BO *Berberis thunbergii*, SHAO CHI XIAO BO *Berberis potaninii* (root, stem: mean content = 1.665%)<sup>[5508]</sup>, TAI WAN

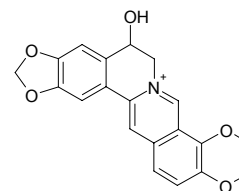
QIAN JIN TENG *Stephania sasakii*, XI YE GONG LAO MU *Mahonia fortunei*, XIA XU TANG SONG CAO *Thalictrum atriplex* (root: content < 0.001%)<sup>[5508]</sup>, XIAN HUANG XIAO BO *Berberis diaphana*(root, stem: mean content = 0.440%)<sup>[5508]</sup>, XIAO GUO TANG SONG CAO *Thalictrum microgynum* (root: content = 0.08%)<sup>[5508]</sup>, YAN GUO CAO *Thalictrum thunbergii* (root: content = 0.03%)<sup>[5508]</sup>, YING SHUI HUANG LIAN *Thalictrum simplex* [Syn. *Thalictrum simplex* var. *brevipes*] (root: content = 0.01%)<sup>[5508]</sup>, ZHI YI XIAO BO *Berberis dubia* (root, stem: mean content = 0.396%)<sup>[5508]</sup>. **Ref:** 1, 2, 4, 5, 660, 5501, 5508.

**2301 Berbamunine**

C<sub>35</sub>H<sub>38</sub>N<sub>2</sub>O<sub>6</sub> (582.70). **Source:** XIAO BO *Berberis amurensis*. **Ref:** 660.

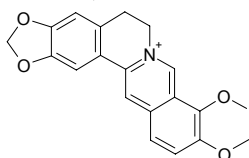
**2302 Berberastine**

C<sub>20</sub>H<sub>18</sub>NO<sub>5</sub><sup>+</sup> (352.37). **Pharm:** Similar action with berberine. **Source:** BAI MAO GEN<sup>(4)</sup> *Hydrastis canadensis*, RI BEN HUANG LIAN *Coptis japonica*, YUE GUI XIAO BO *Berberis laurina*. **Ref:** 658.

**2303 Berberine**

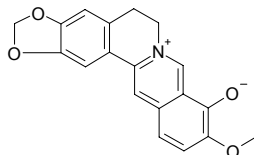
Umbellatine [2086-83-1] C<sub>20</sub>H<sub>18</sub>NO<sub>4</sub><sup>+</sup> (336.37). Yellow acicular crystals, mp 145°C, soluble in hot water, ethanol, slightly soluble in ether, benzene, chloroform, acetone.<sup>[5507]</sup> **Pharm:** Adrenaline  $\alpha_1$ - and  $\alpha_2$ -receptor agonist; analgesic; antidiarrheal; anti-inflammatory; antihypertensive; antimicrobial; antiprotozoal; antipyretic; choleric; hypnotic (extends sleeping time due to pentobarbital); hypoglycemic; increases tolerance to anoxia; local anesthetic; reduces intra-ocular pressure in rbt; vasodilator, vascular smooth muscle relaxant; smooth muscle stimulant (uterus, bladder, gastrointestinal tract and bronchus); sedative; anti-HIV inactive (H9 lymphocytes, control AZT, IC<sub>50</sub> = 500 $\mu$ g/mL, EC<sub>50</sub> = 0.0317 $\mu$ g/mL, TI = 15,800)<sup>[5364]</sup>, antibacterial (oral pathogens: *Streptococcus mutans*, MIC = 125 $\mu$ g/mL, control Chlorhexidine gluconate, MIC = 1.25 $\mu$ g/mL; *Fusobacterium nucleatum*, MIC = 15.6 $\mu$ g/mL, Chlorhexidine gluconate, MIC = 2.5 $\mu$ g/mL)<sup>[5418]</sup>, cytotoxic (some hmn cancer cell lines, mouse P<sub>388</sub> leukemia cells, and rat 9L glioma cell line)<sup>[5369]</sup>; cytotoxic (*in vitro*, inhibits proliferation of six esophageal cancer cell lines in a concentration-dependent manner)<sup>[5369]</sup>. **Source:** BAI MAO GEN<sup>(4)</sup> *Hydrastis canadensis* (root), BAI QU CAI *Chelidonium majus*

(whole herb: mean content of 5 origins = 0.017%)<sup>[5508]</sup>, BAI YAO ZI *Stephania cepharantha*, BAN RUI TANG SONG CAO *Thalictrum petaloideum* (root: content = 0.07%)<sup>[5508]</sup>, CHANG JU YAN HU SUO *Corydalis longicalcarata* (rhizome: content = 0.122%)<sup>[5508]</sup>, CHENG KOU SHI DA GONG LAO *Mahonia shenii* (stem: content = 1.67%)<sup>[5510]</sup>, CHI BAN YAN HU SUO *Corydalis remota* [Syn. *Corydalis bulbosa* var. *typica*] (rhizome: content = 0.01%)<sup>[5508]</sup>, CHUAN DIAN SHI DA GONG LAO *Mahonia veitchiorum* (stem: content = 0.43%)<sup>[5510]</sup>, DA YE TANG SONG CAO *Thalictrum faberi* (root: content = 0.46%)<sup>[5508]</sup>, DA ZAO *Ziziphus jujuba*, DUAN E HUANG LIAN *Coptis chinensis* var. *brevise-pala* (rhizome: content = 5.31%)<sup>[5508]</sup>, DUI YE YUAN HU *Corydalis ledebouriana* (rhizome: content = 0.040%)<sup>[5508]</sup>, E MEI YE HUANG LIAN *Coptis omeiensis* (rhizome: content = 8.77%)<sup>[5508]</sup>, FANG JI *Stephania tetrandra* (dried root: mean content of 3 origins = 0.152%)<sup>[5508]</sup> GU LIN YE LIAN *Coptis gulinensis* (rhizome: content = 4.82%)<sup>[5508]</sup>, HU BEI SHI DA GONG LAO *Mahonia confusa* (stem: content = 0.19%)<sup>[5510]</sup>, HUA NAN GONG LAO MU *Mahonia japonica* (stem: content = 0.14%)<sup>[5510]</sup>, HUANG BAI *Phellodendron amurense* (bark: content scope = 0.63%~5.91%)<sup>[5501]</sup>, content scope = 0.68%~2.82%, mean content = 1.27%<sup>[5508]</sup> HUANG LIAN *Coptis chinensis* (rhizome: content scope = 3.1%~8.4%)<sup>[5501]</sup>, mean content = 5.92%<sup>[5508]</sup>, HUANG PI SHU *Phellodendron chinense* (bark: mean content of 7 origins = 3.65%)<sup>[5508]</sup>, HUI LV YAN HU SUO *Corydalis adunca* (rhizome: content = 0.156%)<sup>[5508]</sup>, JI YING SU *Argemone mexicana*, JIN HUA XIAO BO *Berberis wilsonae*, JIN SI MA WEI LIAN *Thalictrum glandulosissimum* (root: content = 1.16%)<sup>[5508]</sup>, KUAN BAO SHI DA GONG LAO *Mahonia eurybracteata* (stem: mean content of 3 origins = 0.30%)<sup>[5510]</sup>, MA WEI LIAN *Thalictrum foliolosum* (root: content = 1.25%)<sup>[5508]</sup>, RI BEN XIAO BO *Berberis thunbergii*, SAN JIAO YE HUANG LIAN *Coptis deltoidea* (rhizome: mean content = 4.39%)<sup>[5508]</sup>, SHAO CHI XIAO BO *Berberis potaninii* (root, stem: mean content = 0.315%)<sup>[5508]</sup>, SHI DA GONG LAO MU *Mahonia bealei* (stem: mean content of 4 origins 0.38%)<sup>[5510]</sup>, TU HUANG LIAN *Berberis julianae*, WANG CHUN YU LAN *Magnolia biondii* [Syn. *Magnolia fargesii*] (stem: mean content of 4 origins = 0.14%)<sup>[5510]</sup>, XI BING SHI DA GONG LAO *Mahonia gracilipes* (stem: mean content of 4 origins = 0.23%)<sup>[5510]</sup>, XI YE GONG LAO MU *Mahonia fortunei* (stem: mean content of 4 origins = 0.48%)<sup>[5510]</sup>, XIA XU TANG SONG CAO *Thalictrum atriplex* (root: content = 0.21%)<sup>[5508]</sup>, XIAN E HUANG LIAN *Coptis linearisepala* (rhizome: content = 8.39%)<sup>[5508]</sup>, XIAN HUANG XIAO BO *Berberis diaphana* (root, stem: mean content = 1.284%)<sup>[5508]</sup>, XIAO GUO SHI DA GONG LAO *Mahonia bodinieri* (stem: content = 0.48%)<sup>[5510]</sup>, XIAO GUO TANG SONG CAO *Thalictrum microgynum* (root: content < 0.001%)<sup>[5508]</sup>, YAN GUO CAO *Thalictrum thunbergii* (root: content = 0.11%)<sup>[5508]</sup>, YAN HU SUO *Corydalis yanhusuo* [Syn. *Corydalis turtshaninovii* f. *yanhusuo*] (rhizome: mean content of 3 origins = 0.007%)<sup>[5508]</sup>, YING SHUI HUANG LIAN *Thalictrum simplex* [Syn. *Thalictrum simplex* var. *brevipes*] (root: content = 0.28%)<sup>[5508]</sup>, YUN NAN HUANG LIAN *Coptis teetoides* [Syn. *Coptis teeta*] (rhizome: mean content = 8.10%)<sup>[5508]</sup>, ZHI YI XIAO BO *Berberis dubia* (root, stem: mean content = 0.595%)<sup>[5508]</sup>, Ref: 1, 2, 4, 538, 660, 5364, 5369, 5418, 5501, 5507, 5508, 5510.



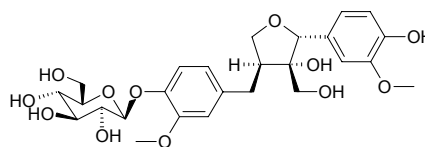
### 2304 Berberrubine

9-Berberoline C<sub>19</sub>H<sub>15</sub>NO<sub>4</sub> (321.34). **Pharm:** Antibacterial; hemostatic; increases blood pressure; cytotoxic (P<sub>388</sub> leukemia, L<sub>1210</sub> leukemia, B16 melanoma and some hmn cancer cell lines)<sup>[5369]</sup>; topoisomerase II inhibitor (*in vitro*)<sup>[5369]</sup>; Berberrubine induced DNA cleavage inducer (in a site-specific and concentration dependent manner)<sup>[5369]</sup>. **Source:** CU CI XIAO BO *Berberis actinacantha*, DA ER WEN XIAO BO *Berberis darwinii*, LV BAI TIAN XIAN TENG *Fibraurea chloroleuca*, OU ZHOU XIAO BO *Berberis vulgaris*, WA SHI XIAO BO *Berberis valdiviana*, ZA XING TANG SONG CAO *Thalictrum polygamum*. Ref: 1, 660, 1521, 5369.



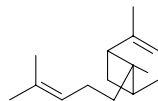
### 2305 Berchemol-4'-O-β-D-glucoside

C<sub>26</sub>H<sub>34</sub>O<sub>12</sub> (538.55). [α]<sub>D</sub><sup>21</sup> = -15° (c = 0.01, DMSO). **Source:** XIE CAO *Valeriana officinalis* (root: yield = 0.017%dw)<sup>[4656]</sup>. Ref: 4656.



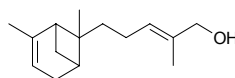
### 2306 α-Bergamotene

2,6-Dimethyl-6-(4-methyl-3-pentenyl)biscyclo[3,1,1]hept-2-ene C<sub>15</sub>H<sub>24</sub> (204.36). **Source:** DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*], HUA DONG LAN CI TOU *Echinops grijsii*, NAN HE SHI *Daucus carota*, SHENG JIANG *Zingiber officinale*, YIN CHEN HAO *Artemisia capillaris*, ZI SU YE *Perilla frutescens* var. *arguta*. Ref: 2, 660.



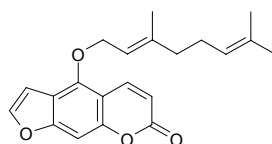
### 2307 9(10)Z,α-trans-Bergamotenol

C<sub>15</sub>H<sub>24</sub>O (220.36). Colorless oily liquid, [α]<sub>D</sub> = -55.64° (c = 0.39, CHCl<sub>3</sub>). **Source:** TAN XIANG *Santalum album*. Ref: 285.



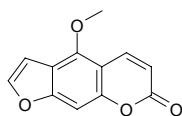
### 2308 Bergamotin

Bergamottin C<sub>21</sub>H<sub>22</sub>O<sub>4</sub> (338.41). **Source:** BEI SHA SHEN *Glehnia littoralis*, JU MAO LEI A WEI *Ferulago capillaris* (aerial parts), KUAN YE QIANG HUO *Notopterygium forbesii* [Syn. *Notopterygium franchetii*]. Ref: 660, 3938.

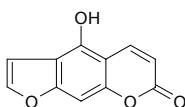


**2309 Bergapten**

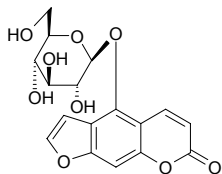
Psoraderm; 5-Methoxypsoralen [484-20-8] C<sub>12</sub>H<sub>8</sub>O<sub>4</sub> (216.20). mp 188~190°C. **Pharm:** Antihypertensive (rbt); antibacterial; molluscicide; photosensitizer (skin); cytotoxic (HSC-2 cells, CC<sub>50</sub> = 0.72mmol/L; HGF, CC<sub>50</sub> > 0.93mmol/L)<sup>[3025]</sup>; cytotoxic (24h, HL-60, IC<sub>50</sub> > 50µg/mL, control Adriamycin IC<sub>50</sub> < 0.10µg/mL; P<sub>388</sub>, IC<sub>50</sub> = 36.6µg/mL, Adriamycin IC<sub>50</sub> < 0.10µg/mL; CoLo 205, IC<sub>50</sub> = 40.8µg/mL, Adriamycin IC<sub>50</sub> = 0.63µg/mL; HeLa, IC<sub>50</sub> = 24.7µg/mL, Adriamycin IC<sub>50</sub> = 0.15µg/mL)<sup>[5486]</sup>; toxin (fish, toad and snail with fluke). **Source:** AO PA CAO *Oppopanax chironium* (root), BAI HUA QIAN HU *Peucedanum praeruptorum*, CHOU CAO *Ruta graveolens*, CHOU SHAN YANG *Orixa japonica* (stem: yield = 0.00068%dw)<sup>[4774]</sup>, DIAN QIN *Sinodielsia yunnanensis* (root), FAN QIE *Lycopersicon esculentum*, FANG FENG *Saposhnikovia divaricata* [Syn. *Ledebouriella seseloides*], GOU JI *Cudrania cochinchinensis* (root: yield = 0.00056%dw)<sup>[3025]</sup>, HANG BAI ZHI *Angelica taiwaniana*, QING JIAO *Zanthoxylum schinifolium* (dried ripe pericarp: content = 0.472%<sup>[5508]</sup>), SAN YE FANG FENG *Seseli meirei*, SHE CHUANG ZI *Cnidium monnieri* (fruit), SHE CHUANG ZI *Cnidium monnieri* (ripe seed: mean content of 4 methods = 0.237%<sup>[5508]</sup>), WU HUA GUO *Ficus carica*, XIANG NING MENG *Citrus bergamia*, YAN JIAO CAO *Boeninghausenia albiflora*, *Heracleum* sp., *Ligusticum* sp., *Ammi* sp., *Seseli* sp., *Petroselinum* sp., occurs in many plants. **Ref:** 2, 5, 268, 344, 507, 542, 549, 551, 658, 660, 1454, 3025, 4071, 4305, 4774, 5486, 5501, 5508.

**2310 Bergaptol**

[486-60-2] C<sub>11</sub>H<sub>6</sub>O<sub>4</sub> (202.17). **Source:** QIANG HUO *Notopterygium incisum*. **Ref:** 2, 507.

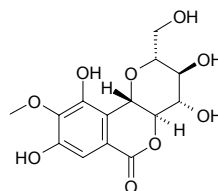
**2311 Bergaptol-O-β-D-glucopyranoside**

C<sub>17</sub>H<sub>16</sub>O<sub>9</sub> (364.31). **Pharm:** Antioxidant (DPPH scavenger, EC<sub>50</sub> > 50µg/mL, 50µg/mL InRt = 19%, control Ascorbic acid, EC<sub>50</sub> = 1.6µg/mL = 9.1µmol/L)<sup>[4154]</sup>. **Source:** BEI SHA SHEN *Glehnia littoralis* (underground part). **Ref:** 4154.

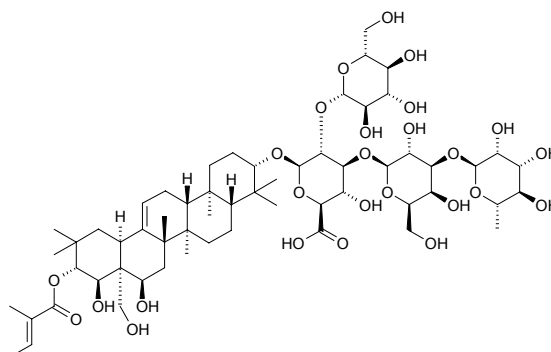
**2312 Bergenin**

Arolisic acid B [477-90-7] C<sub>14</sub>H<sub>16</sub>O<sub>9</sub> (328.28). **Pharm:** DPPH scavenger (IC<sub>50</sub> = 131µmol/L, control Trolox, IC<sub>50</sub> = (25.4±0.8)µmol/L)<sup>[4244]</sup>; cytotoxic (FM3A, IC<sub>50</sub> = 44µmol/L)<sup>[4244]</sup>; anti-inflammatory; antitussive; LD<sub>50</sub> (mus, ip) = 10g/kg. **Source:** BAI LIANG JIN *Ardisia crispa*, DA HUA LUO XIN FU

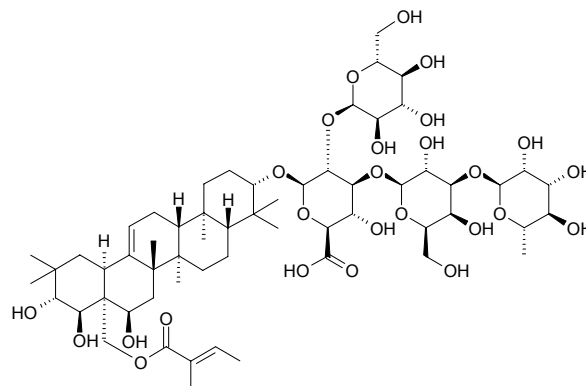
*Astilbe macroflora*, ER CI YUN SHI *Caesalpinia digyna*, HOU YE YAN BAI CAI *Bergenia crassifolia*, HU ER CAO *Saxifraga stolonifera* (dried whole herb: mean content of 3 origins = 0.46%<sup>[5508]</sup>), LUO XIN FU *Astilbe chinensis* (whole herb: content = 5.97%<sup>[5508]</sup>), LV SONG QIU MAO *Mallotus philippinensis*, MU HE *Rodgersia aesculifolia* (dried rhizome: mean content = 5.13%<sup>[5508]</sup>), TING YUAN ZI JIN NIU *Ardisia hortorum*, YAN BAI CAI *Bergenia purpurascens* (content scope = 2.1%~3.0%<sup>[5501]</sup>), YE WU TONG *Mallotus japonicus*, YOU SE ZI JIN NIU *Ardisia colorata* (fruit), ZI JIN NIU *Ardisia japonica* (whole herb: content scope from 5 lab's results = 0.42%~3.26%, mean content = 1.30%<sup>[5508]</sup>). **Ref:** 1, 4, 6, 660, 4244, 5501, 5508.

**2313 Berneuxia saponin A****21-Tigloylbarringtonol C**

3β-O-α-L-rhamnopyranosyl-(1→2)-β-D-galactopyranosyl-(1→3)[β-D-glucopyranosyl-(1→2)-β-D-glucuronopyranoside] [214350-98-8] C<sub>59</sub>H<sub>94</sub>O<sub>26</sub> (1219.39). [α]<sub>D</sub><sup>13</sup> = -12.2° (c = 1.1, MeOH). **Source:** YAN JIN CAI *Berneuxia thibetica*. **Ref:** 712.

**2314 Berneuxia saponin B**

28-Tigloylbarringtonol C 3β-O-α-L-rhamnopyranosyl-(1→2)-β-D-galactopyranosyl-(1→3)[β-D-glucopyranosyl-(1→2)-β-D-glucuronopyranoside] [214359-08-7] C<sub>59</sub>H<sub>94</sub>O<sub>26</sub> (1219.39). [α]<sub>D</sub><sup>26</sup> = -15.6° (c = 1, MeOH). **Source:** YAN JIN CAI *Berneuxia thibetica*. **Ref:** 712.

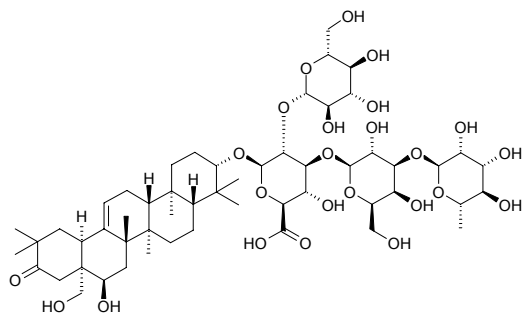




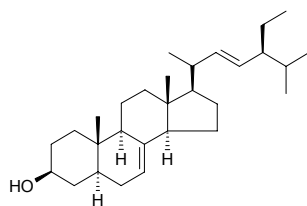
**2315 Berneuxia saponin C**

16 $\alpha$ -28-dihydroxyolean-12-en-21-one-3-*O*- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 3)[ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucuronopyranoside] [214359-10-1] C<sub>54</sub>H<sub>86</sub>O<sub>24</sub> (1119.27). [ $\alpha$ ]<sub>D</sub><sup>13</sup> = -6.8° (c = 0.75, MeOH).

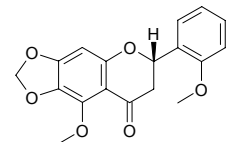
Source: YAN JIN CAI *Berneuxia thibetica*. Ref: 712.

**2316 Bessisterol**

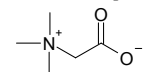
[481-18-5] C<sub>29</sub>H<sub>48</sub>O (412.71). mp 172–175°C. Source: MU ZEI *Equisetum hiemale*. Ref: 6.

**2317 Betagarin**

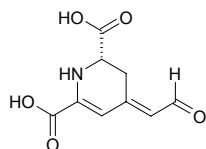
C<sub>18</sub>H<sub>16</sub>O<sub>6</sub> (328.32). Pharm: Antifungal. Source: TIAN CAI *Beta vulgaris*. Ref: 658.

**2318 Betaine**

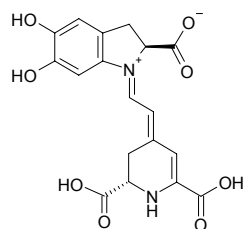
[107-43-7] C<sub>5</sub>H<sub>11</sub>NO<sub>2</sub> (117.15). mp 293°C. Pharm: Antineoplastic; antihepatotoxin (lipotropism); antihypertensive. Source: DA BO GU *Adhatoda vasica*, GOU QI ZI *Lycium chinense* (1%), HAI REN CAO *Digena simplex*, HUANG QI *Astragalus membranaceus*, MIAN HUA *Gossypium herbaceum*, ROU CONG RONG *Cistanche deserticola* (fleshy stem: mean content = 4.21%)<sup>[5508]</sup>, TIAN CAI *Beta vulgaris*, TU DING GUI *Evolvulus alsinoides*, WEI SUI XIAN *Amaranthus caudatus*, WU TONG ZI *Firmiana simplex*. Ref: 1, 2, 4, 15, 530, 658, 660, 5501, 5508.

**2319 Betalamic acid**

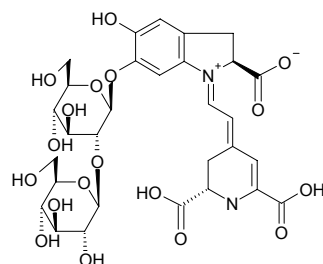
[18766-66-0] C<sub>9</sub>H<sub>9</sub>NO<sub>5</sub> (211.18). Pharm: Pigment. Source: DA HUA MA CHI XIAN *Portulaca grandiflora*, JI GUAN HUA *Celosia cristata*, TIAN CAI *Beta vulgaris*. Ref: 658.

**2320 Betanidin**

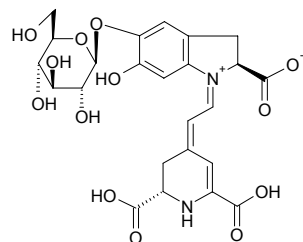
[2181-76-2] C<sub>18</sub>H<sub>16</sub>N<sub>2</sub>O<sub>8</sub> (388.34). Pharm: Purple phytochrome. Source: DA HUA MA CHI XIAN *Portulaca grandiflora*, SHI YONG RI ZHONG HUA *Mesembryanthemum edule*. Ref: 658.

**2321 Betanidin 6-O- $\beta$ -sophoroside**

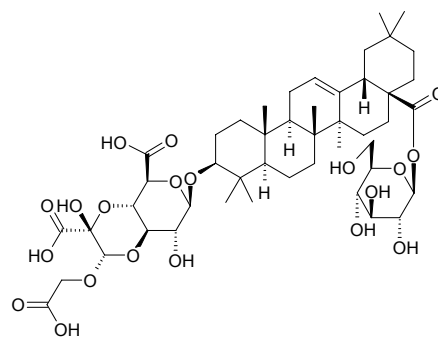
C<sub>30</sub>H<sub>36</sub>N<sub>2</sub>O<sub>18</sub> (712.62). Source: GUANG YE ZI HUA *Bougainvillea glabra*. Ref: 6.

**2322 Betanin**

Beetroot red [7659-95-2] C<sub>24</sub>H<sub>26</sub>N<sub>2</sub>O<sub>13</sub> (550.48). Pharm: Pigment. Source: MEI SHANG LU *Phytolacca americana* [Syn. *Phytolacca decandra*], DA HUA MA CHI XIAN *Portulaca grandiflora*. Ref: 6, 658.

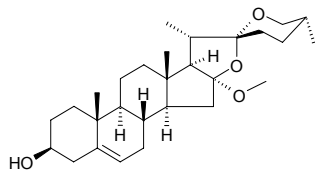
**2323 Betavulgaroside I**

C<sub>47</sub>H<sub>70</sub>O<sub>20</sub> (955.07). Source: LUO KUI HUA *Basella rubra* (aerial parts). Ref: 3544.

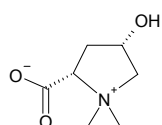


**2324 Bethogenin**

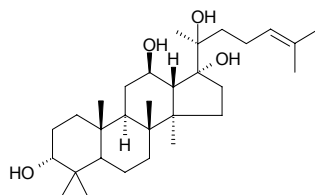
[471-55-6] C<sub>28</sub>H<sub>44</sub>O<sub>4</sub> (444.66). mp 193~194°C. Source: YU ER QI *Trillium camtschaticum*. Ref: 6.

**2325 Betonicine**

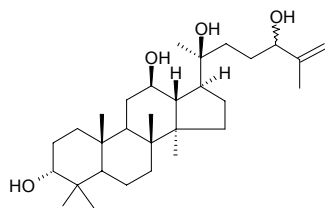
[515-25-3] C<sub>7</sub>H<sub>13</sub>NO<sub>3</sub> (159.19). mp 254~256°C. Pharm: Anti-inflammatory. Source: LIN DI SHUI SU *Stachys sylvatica*, OU XIA ZHI CAO *Marrubium vulgare*, SHE XIANG SHI CAO *Achillea moschata*, YANG SHI CAO *Achillea millefolium*, YAO SHUI SU *Betonica officinalis*. Ref: 6, 658.

**2326 Betulafolienetretol**

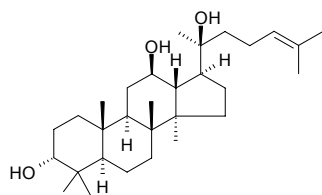
Dammar-24-ene-3,12,17,20-tetrol [58851-26-6] C<sub>30</sub>H<sub>52</sub>O<sub>4</sub> (476.75). mp 168~170°C. Source: HUA MU PI *Betula platyphylla*. Ref: 6.

**2327 Betulafolienetraol A**

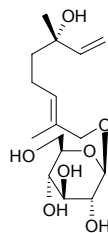
C<sub>30</sub>H<sub>52</sub>O<sub>4</sub> (476.75). Source: HUA MU PI *Betula platyphylla*. Ref: 660.

**2328 Betulafolientriol**

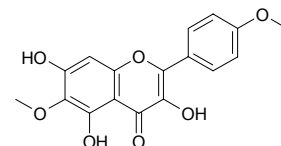
Dammar-24-ene-3,12,20-triol [7755-01-3] C<sub>30</sub>H<sub>52</sub>O<sub>3</sub> (460.75). mp 127~129°C. Source: HUA MU PI *Betula platyphylla*. Ref: 6.

**2329 Betulalbuside A**

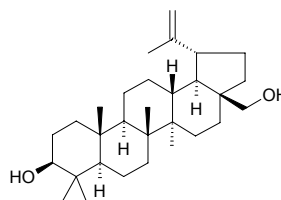
3,7-Dimethylocta-1,6-dien-3,8-diol 8-O-β-D-glucopyranoside [64776-96-1] C<sub>16</sub>H<sub>28</sub>O<sub>7</sub> (322.40). Amorphous powder. Source: YAO YONG HEI MIAN SHEN YE *Breynia officinalis* (leaf), *Betula alba*. Ref: 2583.

**2330 Betuletol**

6,4'-Dimethoxy-3,5,7-trihydroxyflavone C<sub>17</sub>H<sub>14</sub>O<sub>7</sub> (330.30). Source: CU YING MAO DIAN ZI CAO *Onosma hispidum* (whole herb), FENG JIAO *Apis mellifera ligustica*, YUE HUA *Betula ermanii*. Ref: 660, 4490.

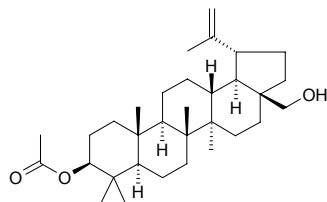
**2331 Betulin**

Betulinol [473-98-3] C<sub>30</sub>H<sub>50</sub>O<sub>2</sub> (442.73). mp 248~254°C; mp 251~253°C, [α]<sub>D</sub><sup>23</sup> = +21° (c = 0.18, CHCl<sub>3</sub>). Pharm: Antineoplastic (rat W<sub>256</sub> and SWA16, 400mg/kg); cytotoxic inactive (NSCLC-N6 cell line)<sup>[3806]</sup>; osteoblastic proliferation stimulator (UMR106 cell line, optimum concentration = 21.5μmol/L, at high concentration inhibits cellular growth; remarkably promotes activity of); alkaline phosphatase promoter (UMR106 cells); antitubercular (*Mycobacterium tuberculosis*, MIC = 30.0μg/mL, cytotoxic, Vero cells, IC<sub>50</sub> = 101μg/mL, SI (IC<sub>50</sub>/MIC) = 3.37, positive control Rifampin, MIC = 0.03μg/mL, IC<sub>50</sub> = 98.3μg/mL, SI = 3277)<sup>[4986]</sup>; mucin release stimulator (acts directly on airway mucin-secreting cells, increased mucin release (40~50)% above control at the highest concentrations (0.00001~0.001)mol/L, possible use to treatment of chronic airway diseases)<sup>[4084]</sup>; antineoplastic (EBV-EA induced by TPA, IC<sub>50</sub> = 378(mol ratio/32 pmol TPA), control Curcumin IC<sub>50</sub> = 343(mol ratio/32 pmol TPA))<sup>[4099]</sup>. Source: AO LEI TONG QI MU *Alnus oregana*, CAN DOU *Vicia faba*, DA ZAO *Ziziphus jujuba*, HONG HUA PI *Betula platyphylla* var. *japonica*, HU TAO REN *Juglans regia*, HUO YAN HUA *Phlogacanthus curviflorus* (root: yield = 0.0277%dw)<sup>[4799]</sup>, JIE GENG *Platycodon grandiflorum*, JIE GU MU *Sambucus williamsii* (stem branch), JU MI JIN HE HUAN *Acacia mellifera* (stem bark), JUN QIAN ZI *Diospyros lotus*, MI DIE XIANG *Rosmarinus officinalis*, MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*], QIAN JIN ZI *Euphorbia lathyris*, QIANG DAO YAO *Hypoestes purpurea* [Syn. *Justicia purpurea*; *Hypoestes sinica*] (aerial parts: yield = 0.000042%dw)<sup>[4783]</sup>, SHU HUA JIE CAO *Valeriana laxiflora* (aerial parts and root), WU MU XIE *Diospyros ebenum*, LUO E YE XIA ZHU *Phyllanthus flexuosus* (stem bark). Ref: 2, 5, 6, 658, 660, 3806, 4084, 4099, 4783, 4799, 4908, 4986.

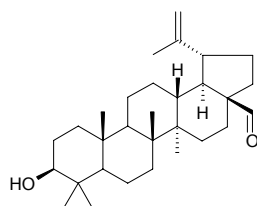


**2332 Betulin-3-acetate**

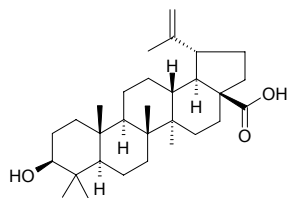
$C_{32}H_{52}O_3$  (484.77). mp 260°C. Source: LI MU *Lyonia ovalifolia*, SHAN REN YE *Rhodomyrtus tomentosa*. Ref: 6.

**2333 Betulinolaldehyde**

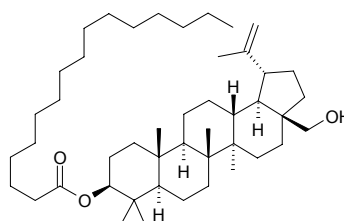
$C_{30}H_{48}O_2$  (440.72). Source: WU YA GUO *Dillenia indica*. Ref: 660.

**2334 Betulinic acid**

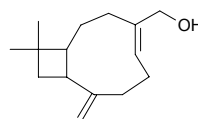
Betulinic acid [472-15-1]  $C_{30}H_{48}O_3$  (456.72). White solid, mp 285~287°C, easily soluble in chloroform, acetone, acetic ester, hardly soluble in water; white needles ( $CHCl_3$ -MeOH), mp 275~278°C,  $[\alpha]_D^{20} = +7.8^\circ$  ( $c = 0.9$ , pyridine). Pharm: Antineoplastic ( $W_{256}$ ); cytotoxic (cyclooxygenase-2 inhibitor)<sup>[5038]</sup>; antitubercular (*Mycobacterium tuberculosis*, MIC = 62.1  $\mu$ g/mL, cytotoxic, Vero cells,  $IC_{50} = 78.5 \mu$ g/mL, SI ( $IC_{50}/MIC$ ) = 1.26, positive control Rifampin, MIC = 0.03  $\mu$ g/mL,  $IC_{50} = 98.3 \mu$ g/mL, SI = 3277)<sup>[4986]</sup>; cytotoxic (K562,  $ED_{50} = (13 \pm 1.3) \mu$ mol/L, control Adriamycin,  $ED_{50} = (0.09 \pm 0.03) \mu$ mol/L; B-16 (F-10),  $ED_{50} = (14 \pm 2) \mu$ mol/L, Adriamycin,  $ED_{50} = (0.06 \pm 0.10) \mu$ mol/L; SK-MEL-2,  $ED_{50} = (7.2 \pm 0.6) \mu$ mol/L, Adriamycin,  $ED_{50} = (0.09 \pm 0.30) \mu$ mol/L; PC3,  $ED_{50} = (15 \pm 0.5) \mu$ mol/L, Adriamycin,  $ED_{50} = (0.83 \pm 0.18) \mu$ mol/L; LOX-IMVI,  $ED_{50} = (9.2 \pm 0.3) \mu$ mol/L, Adriamycin,  $ED_{50} = (0.38 \pm 0.33) \mu$ mol/L; A549,  $ED_{50} = (14 \pm 2) \mu$ mol/L, Adriamycin,  $ED_{50} = (0.67 \pm 0.21) \mu$ mol/L)<sup>[5479]</sup>; antimalarial inactive (*in vitro Plasmodium falciparum*)<sup>[2091]</sup>; antibacterial (*Mycobacterium tuberculosis*, MIC = 25  $\mu$ g/mL)<sup>[2091]</sup>. Source: DA ZAO *Ziziphus jujuba*, HU ZHANG CAO *Anemone rivularis* (root), JIAN PU ZHAI ZAO *Ziziphus cambodiana* (root cortex: yield = 0.054%<sub>dw</sub>)<sup>[2091]</sup>, JU MI JIN HE HUAN *Acacia mellifera* (stem bark), SHU HUA JIE CAO *Valeriana laxiflora* (aerial parts and root), SHU XING DU JUAN *Rhododendron arboreum*, SHUI LIU DOU *Pongamia pinnata* (stem bark: yield = 0.0033%)<sup>[4721]</sup>, SUAN ZAO REN *Ziziphus jujuba* var. *spinosa* (seed: content = 0.184%)<sup>[5508]</sup>, TIAN SHAN ZHU ZI *Garcinia dulcis* (fruit), XI SHU *Camptotheca acuminata*. Ref: 2, 453, 531, 591, 610, 658, 660, 2091, 3806, 4721, 4986, 5038, 5319, 5479, 5508.

**2335 Betulin 3-O-palmitate**

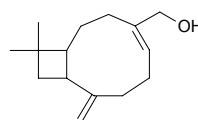
$C_{46}H_{80}O_3$  (681.15). Amorphous powder,  $[\alpha]_D^{23} = +34.9^\circ$  ( $c = 0.1$ ,  $CHCl_3$ ). Source: HUANG LONG DAN *Gentiana lutea* (rhizome and root). Ref: 4307.

**2336  $\alpha$ -Betulol**

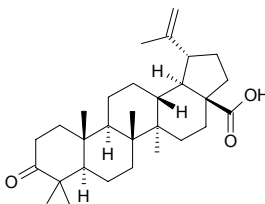
$C_{15}H_{24}O$  (220.36). bp 157~158°C/20mmHg. Source: LIANG YE HUA PI *Betula luminifera*. Ref: 6.

**2337  $\beta$ -Betulol**

$C_{15}H_{24}O$  (220.36). bp 157~158°C/20mmHg. Source: LIANG YE HUA PI *Betula luminifera*. Ref: 6.

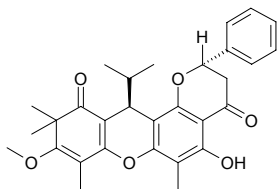
**2338 Betulonic acid**

Liquidambronic acid  $C_{30}H_{46}O_3$  (454.70). White powder, mp 253~255°C,  $[\alpha]_D^{20} = +7.0^\circ$  ( $c = 1.0$ , pyridine). Pharm: Cytotoxic (*in vitro*, HONE-1 cell,  $IC_{50} = (4.9 \pm 2.1) \mu$ mol/L, control Etoposide,  $IC_{50} = (0.5 \pm 0.2) \mu$ mol/L, *cis*-Platin,  $IC_{50} = (3.2 \pm 0.5) \mu$ mol/L; KB cell,  $IC_{50} = (8.2 \pm 1.8) \mu$ mol/L, Etoposide,  $IC_{50} = (0.9 \pm 0.3) \mu$ mol/L, *cis*-Platin,  $IC_{50} = (4.4 \pm 0.9) \mu$ mol/L; HT29 cell,  $IC_{50} > 10 \mu$ mol/L, Etoposide,  $IC_{50} = (2.4 \pm 0.5) \mu$ mol/L, *cis*-Platin,  $IC_{50} = (5.7 \pm 1.1) \mu$ mol/L)<sup>[5254]</sup>; cytotoxic (K562,  $ED_{50} = (13.4 \pm 1.5) \mu$ mol/L, control Adriamycin,  $ED_{50} = (0.09 \pm 0.03) \mu$ mol/L; B-16 (F-10),  $ED_{50} > 20 \mu$ mol/L, Adriamycin,  $ED_{50} = (0.06 \pm 0.10) \mu$ mol/L; SK-MEL-2,  $ED_{50} > 20 \mu$ mol/L, Adriamycin,  $ED_{50} = (0.09 \pm 0.30) \mu$ mol/L; PC3,  $ED_{50} = (19 \pm 0.8) \mu$ mol/L, Adriamycin,  $ED_{50} = (0.83 \pm 0.18) \mu$ mol/L; LOX-IMVI,  $ED_{50} = (16 \pm 0.6) \mu$ mol/L, Adriamycin,  $ED_{50} = (0.38 \pm 0.33) \mu$ mol/L; A549,  $ED_{50} = (8.9 \pm 2.1) \mu$ mol/L, Adriamycin,  $ED_{50} = (0.67 \pm 0.21) \mu$ mol/L)<sup>[5479]</sup>. Source: DA ZAO *Ziziphus jujuba*, JU MI JIN HE HUAN *Acacia mellifera* (stem bark), LU LU TONG *Liquidambar formosana* [Syn. *Liquidambar taiwaniana*], RONG SHU *Ficus microcarpa* (aerial root), SHAN REN YE *Rhodomyrtus tomentosa*. Ref: 660, 3806, 5254, 5479.

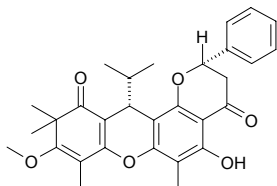


**2339 BF-4**

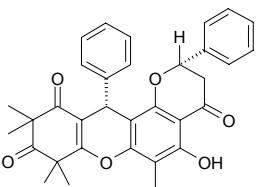
$C_{30}H_{32}O_6$  (488.59). Crystals (MeOH), mp 155~156°C,  $[\alpha]_D = 0^\circ$  Pharm:  
Cytotoxic (leukemia cell L<sub>1210</sub> in tissue culture, IC<sub>50</sub> = 0.2~0.5µg/mL). Source:  
GANG SONG *Baeckea frutescens*. Ref: 1892.

**2340 BF-5**

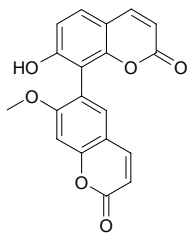
$C_{30}H_{32}O_6$  (488.59). Crystals (MeOH), mp 81~83°C,  $[\alpha]_D = 0^\circ$  Pharm:  
Cytotoxic (leukemia cell L<sub>1210</sub> in tissue culture, IC<sub>50</sub> = 0.2~0.5µg/mL). Source:  
GANG SONG *Baeckea frutescens*. Ref: 1892.

**2341 BF-6**

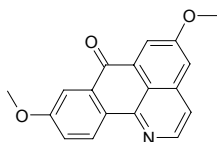
$C_{33}H_{30}O_6$  (522.60). Crystals (MeOH), mp 89~93°C,  $[\alpha]_D = 0^\circ$  Source: GANG  
SONG *Baeckea frutescens*. Ref: 1892.

**2342 Bhubaneswin**

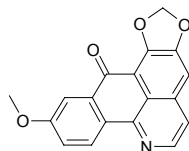
[89320-82-1]  $C_{19}H_{12}O_6$  (336.30). mp 320°C. Source: SHI JIAO CAO  
*Boenninghausenia sessilicarpa*, YAN JIAO CAO *Boenninghausenia albiflora*.  
Ref: 2495.

**2343 Bianfugecine**

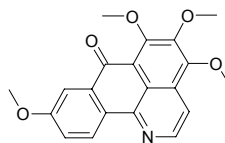
5,9-Dimethoxy-7*H*-dibenzo(de,h)quinolin-7-one [96681-50-4]  $C_{18}H_{13}NO_3$   
(291.31). Yellow brownish green powder, mp 160°C, sublimating at 160°C  
and changing into yellow acicular crystals, decomposing at 200~202°C.  
Source: BIAN FU GE *Menispermum dauricum*. Ref: 23.

**2344 Bianfugedine**

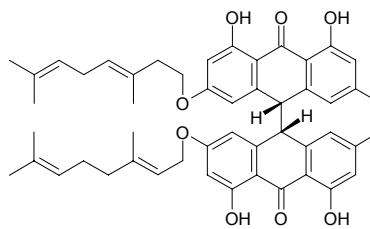
5,6-Methylenedioxy-9-methoxy-7*H*-dibenzo(de,h)quinolin-7-one [96681-51-5]  
 $C_{18}H_{11}NO_4$  (305.29). Yellow prismatic crystals, mp 292~296°C (dec). Source:  
BIAN FU GE *Menispermum dauricum*. Ref: 23.

**2345 Bianfugenine**

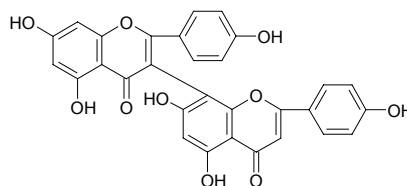
Dauriporphine [88142-60-3]  $C_{20}H_{17}NO_5$  (351.36). Yellowish green thin  
acicular crystals, mp 162~164°C, mp 167.0~167.5°C, producing a strong  
yellowish green fluorescence in solution with chloroform. Source: BIAN FU  
GE *Menispermum dauricum*. Ref: 23, 2402.

**2346 Bianthrone A<sub>1</sub>**

$C_{50}H_{54}O_8$  (782.98).  $[\alpha]_D^{25} = 0^\circ$  ( $c = 2.273$ ,  $CHCl_3$ ). Pharm: Antitrypanosomal  
(*Trypanosoma brucei*, IC<sub>50</sub> = (53.5±18.4)µg/mL, control Melarsoprol, IC<sub>50</sub> =  
(0.0015±0.0009)µg/mL; *Trypanosoma cruzi*, IC<sub>50</sub> > 90µg/mL, control  
Benznidazole, IC<sub>50</sub> = (0.39±0.15)µg/mL)<sup>[5008]</sup>; antileishmanial (*Leishmania  
donovani*, IC<sub>50</sub> > 30µg/mL, control Miltefosine, IC<sub>50</sub> = (0.23±0.03)µg/mL;  
*Plasmodium falciparum*, IC<sub>50</sub> = (41.1±6.6)µg/mL, control Chloroquine, IC<sub>50</sub>  
= (0.055±0.02)µg/mL, control Artemisinin, IC<sub>50</sub> =  
(0.0011±0.0006)µg/mL)<sup>[5008]</sup>; cytotoxic (L6, IC<sub>50</sub> > 90µg/mL, control  
Podophyllotoxin, IC<sub>50</sub> = 0.0075µg/mL; brine shrimp lethality, IC<sub>50</sub> >  
100µg/mL, control Cyclophosphamide, IC<sub>50</sub> = 16.33µg/mL)<sup>[5008]</sup>. Source:  
DONG FANG WEI SI MU *Vismia orientalis* (stem bark). Ref: 5008.

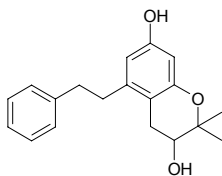
**2347 3,8''-Biapigenin**

5,7,4',5'',7'',4'''-Hexahydroxy-(3,8'')-biflavone  $C_{30}H_{18}O_{10}$  (538.47). Source:  
GUAN YE LIAN QIAO *Hypericum perforatum*, QIAO MAI *Fagopyrum  
esculentum*, *Hypericum* spp. Ref: 660.

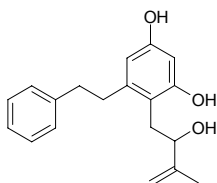


**2348 Bibenzyl CPB-2002-50-1390-3**

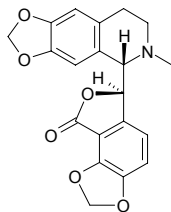
$C_{19}H_{22}O_3$  (298.39). Oil,  $[\alpha]_D^{22} = +8.4^\circ$  ( $c = 0.38$ ,  $CHCl_3$ ). Source: BIAN YUAN BIAN E TAI *Radula marginata*. Ref: 4236.

**2349 Bibenzyl CPB-2002-50-1390-4**

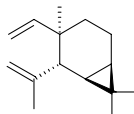
$C_{19}H_{22}O_3$  (298.39). Oil,  $[\alpha]_D^{22} = 0^\circ$  ( $c = 0.37$ ,  $CHCl_3$ ). Source: BIAN YUAN BIAN E TAI *Radula marginata*. Ref: 4236.

**2350 Bicuculline**

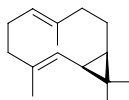
$C_{20}H_{17}NO_6$  (367.36). Source: BIAN BING HUANG JIN *Corydalis mucronifera*, DONG BEI YAN HU SUO *Corydalis ambigua* var. *amurensis* [Syn. *Corydalis ambigua*], JU ZI JIN *Corydalis gigantea*, KU DI DING *Corydalis bungeana*, WU WEI CAO *Corydalis taliensis*, XIA TIAN WU *Corydalis decumbens* [Syn. *Corydalis amabilis*], YAN HU SUO *Corydalis yanhusuo* [Syn. *Corydalis turtschaninovii* f. *yanhusuo*]. Ref: 660.

**2351 Bicycloelemene**

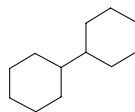
$C_{15}H_{24}$  (204.36). Source: DANG GUI *Angelica sinensis*, SHE TAI *Conocephalum conicum*. Ref: 660.

**2352 Bicyclogermacrene**

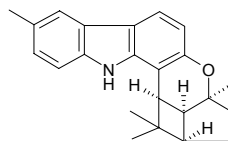
[24703-35-3]  $C_{15}H_{24}$  (204.36). Source: REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], SHANG ZUO JIAN YE GUANG E TAI *Porella acutifolia* ssp. *tosana*. Ref: 2, 3932.

**2353 1,1'-Bicyclohexyl**

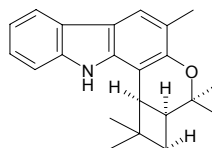
$C_{12}H_{22}$  (166.31). Source: JIN YIN HUA *Lonicera japonica*. Ref: 660.

**2354 Bicyclomahanimbicine**

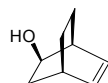
[28613-80-1]  $C_{23}H_{25}NO$  (331.46). Source: JIU LI XIANG *Murraya paniculata* [Syn. *Chalcas paniculata*]. Ref: 11, 1521.

**2355 Bicyclomahanimbine**

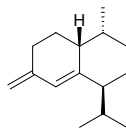
[31077-94-8]  $C_{23}H_{25}NO$  (331.46). Source: JIU LI XIANG *Murraya paniculata* [Syn. *Chalcas paniculata*]. Ref: 11.

**2356 Bicyclo[2,2,2]oct-5-en-2-ol**

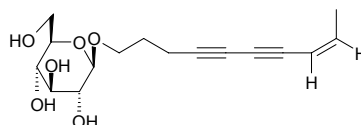
$C_8H_{12}O$  (124.18). Source: ROU CONG RONG *Cistanche deserticola*. Ref: 2.

**2357 Bicyclosesquiphellandrene**

$C_{15}H_{24}$  (204.36). Source: BI CHENG QIE *Piper cubeba*, LUO LE *Ocimum basilicum*. Ref: 660.

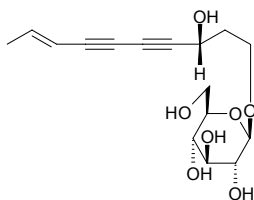
**2358 Bidenoside C**

8*Z*-Decaene-4,6-diyn-1-*O*- $\beta$ -*D*-glucopyranoside  $C_{16}H_{22}O_6$  (310.35). Colorless syrup,  $[\alpha]_D^{25} = -18^\circ$  ( $c = 0.10$ , MeOH). Source: GUI ZHEN CAO *Bidens bipinnata* (aerial parts). Ref: 4275.

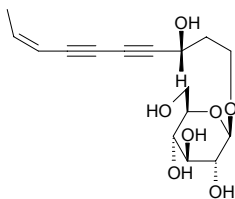


**2359 Bidensyneoside A<sub>1</sub>**

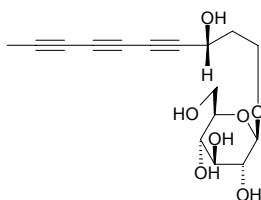
3(*R*),8(*E*)-8-Decene-4,6-diyne-1,3-diol 1-*O*-β-*D*-glucopyranoside C<sub>16</sub>H<sub>22</sub>O<sub>7</sub> (326.35). Brown powder,  $[\alpha]_D^{23} = -146.4^\circ$  ( $c = 0.6$ , MeOH). **Pharm:** Antihistamine (mast cells, inhibits histamine release induced by antigen-antibody reaction, IC<sub>50</sub> = 0.074 μmol/L, control Indumethacin, IC<sub>50</sub> = 0.625 μmol/L)<sup>[4105]</sup>; NO production inhibitor (mus macrophages RAW264.7, activated by 100ng/mL LPS at 37°C, for 18h, IC<sub>50</sub> = 0.225 μmol/L, activated by 100ng/mL LPS + 10U/mL IFN-γ at 37°C, for 18h, IC<sub>50</sub> = 0.111 μmol/L). **Source:** XIAO HUA GUI ZHEN *Bidens parviflora* (whole herb). **Ref:** 4105.

**2360 Bidensyneoside A<sub>2</sub>**

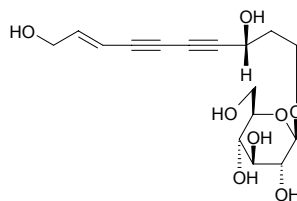
C<sub>16</sub>H<sub>22</sub>O<sub>7</sub> (326.35). Brown powder,  $[\alpha]_D^{23} = -157.5^\circ$  ( $c = 0.4$ , MeOH). **Pharm:** Antihistamine (mast cells, inhibits histamine release induced by antigen-antibody reaction, IC<sub>50</sub> = 0.119 μmol/L, control Indumethacin, IC<sub>50</sub> = 0.625 μmol/L)<sup>[4105]</sup>; NO production inhibitor (mus macrophages RAW264.7, activated by 100ng/mL LPS at 37°C, for 18h, IC<sub>50</sub> > 1.00 μmol/L, activated by 100ng/mL LPS + 10U/mL IFN-γ at 37°C, for 18h, IC<sub>50</sub> > 1.00 μmol/L)<sup>[4105]</sup>. **Source:** XIAO HUA GUI ZHEN *Bidens parviflora* (whole herb). **Ref:** 4105.

**2361 Bidensyneoside B**

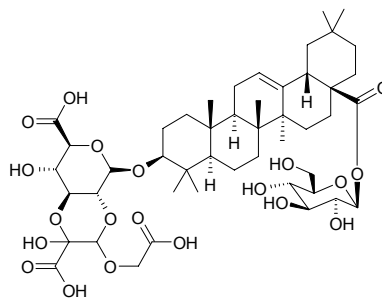
3(*R*)-Deca-4,6,8-triyn-1,3-diol 1-*O*-β-*D*-glucopyranoside C<sub>16</sub>H<sub>20</sub>O<sub>7</sub> (324.33). Brown powder,  $[\alpha]_D^{23} = -52.2^\circ$  ( $c = 0.6$ , MeOH). **Pharm:** Antihistamine (mast cells, inhibits histamine release induced by antigen-antibody reaction, IC<sub>50</sub> = 0.186 μmol/L, control Indumethacin, IC<sub>50</sub> = 0.625 μmol/L)<sup>[4105]</sup>; NO production inhibitor (mus macrophages RAW264.7, activated by 100ng/mL LPS at 37°C, for 18h, IC<sub>50</sub> = 0.141 μmol/L, activated by 100ng/mL LPS + 10U/mL IFN-γ at 37°C, for 18h, IC<sub>50</sub> = 0.081 μmol/L)<sup>[4105]</sup>. **Source:** XIAO HUA GUI ZHEN *Bidens parviflora* (whole herb). **Ref:** 4105.

**2362 Bidensyneoside C**

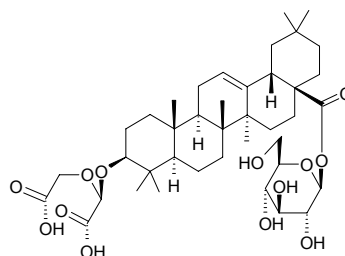
Deca-8(*E*)-en-4,6-diyne-1,3,10-triol 1-*O*-β-*D*-glucopyranoside; Bidenside D C<sub>16</sub>H<sub>22</sub>O<sub>8</sub> (342.35). Brown powder,  $[\alpha]_D^{23} = -71.6^\circ$  ( $c = 0.5$ , MeOH). **Pharm:** Antihistamine (mast cells, inhibits histamine release induced by antigen-antibody reaction, IC<sub>50</sub> = 0.072 μmol/L, control Indumethacin, IC<sub>50</sub> = 0.625 μmol/L)<sup>[4105]</sup>; NO production inhibitor (mus macrophages RAW264.7, activated by 100ng/mL LPS at 37°C, for 18h, IC<sub>50</sub> = 0.193 μmol/L, activated by 100ng/mL LPS + 10U/mL IFN-γ at 37°C, for 18h, IC<sub>50</sub> = 0.126 μmol/L)<sup>[4105]</sup>. **Source:** GUI ZHEN CAO *Bidens bipinnata* (aerial parts), XIAO HUA GUI ZHEN *Bidens parviflora* (whole herb). **Ref:** 4105, 4275.

**2363 Bidentatoside I**

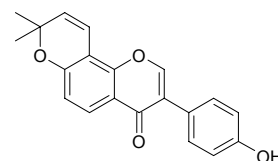
C<sub>47</sub>H<sub>70</sub>O<sub>20</sub> (955.07). Colorless amorphous powder,  $[\alpha]_D^{25} = +44.0^\circ$  ( $c = 0.05$ , MeOH). **Source:** NIU XI *Achyranthes bidentata* (root: yield = 0.0073%dw)<sup>[3038]</sup>. **Ref:** 3038.

**2364 Bidentatoside II**

3-*O*-β-[29-(20-*O*-Glycolyl)-glyoxylyl]-oleanolic acid 28-*O*-β-*D*-glucopyranoside C<sub>40</sub>H<sub>62</sub>O<sub>13</sub> (750.93). White amorphous powder,  $[\alpha]_D^{25} = +6^\circ$  ( $c = 0.1$ , MeOH). **Source:** NIU XI *Achyranthes bidentata*. **Ref:** 4147.

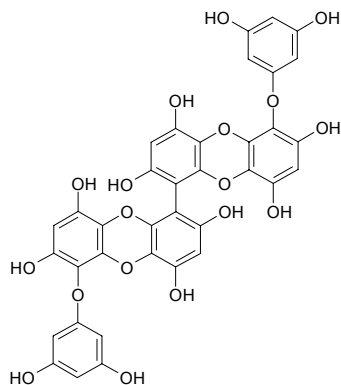
**2365 Bidwillon C**

C<sub>20</sub>H<sub>16</sub>O<sub>4</sub> (320.35). **Source:** *Bituminaria morisiana* (leaf). **Ref:** 5077.

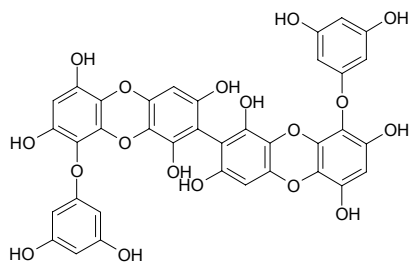


**2366 6,6'-Bieckol**

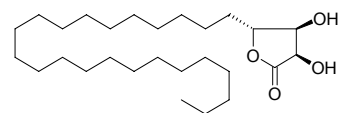
[88095-81-2] C<sub>36</sub>H<sub>22</sub>O<sub>18</sub> (742.55). Colorless rhombic crystals (water), mp > 300°C. **Pharm:** Antifibrinolysis ( $\alpha_2$ -macroglobulin *in vitro*, IC<sub>50</sub> = 2.0 $\mu$ g/mL;  $\alpha_2$ -fibrinolysin *in vitro*, IC<sub>50</sub> = 0.5 $\mu$ g/mL; fibrinolysin *in vitro*, IC<sub>50</sub> = 23 $\mu$ g/mL; thrombin *in vitro*, IC<sub>50</sub> = 11 $\mu$ g/mL; parenzyme *in vitro*, IC<sub>50</sub> = 56 $\mu$ g/mL). **Source:** HEI KUN BU *Ecklonia kurome*. **Ref:** 1020.

**2367 8,8'-Bieckol**

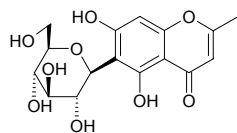
[89445-12-5] C<sub>36</sub>H<sub>22</sub>O<sub>18</sub> (742.55). Maple rhombic crystals (water), mp > 300°C. **Pharm:** Antifibrinolysis ( $\alpha_2$ -macroglobulin *in vitro*, IC<sub>50</sub> = 2.0 $\mu$ g/mL;  $\alpha_2$ -fibrinolysin *in vitro*, IC<sub>50</sub> = 0.7 $\mu$ g/mL; fibrinolysin *in vitro*, IC<sub>50</sub> = 32 $\mu$ g/mL; thrombin *in vitro*, IC<sub>50</sub> = 32 $\mu$ g/mL). **Source:** HEI KUN BU *Ecklonia kurome*. **Ref:** 1020.

**2368 Bifloride A**

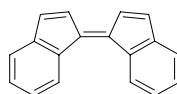
C<sub>27</sub>H<sub>52</sub>O<sub>4</sub> (440.71). **Source:** HONG SI XIAN *Lycianthes biflora*. **Ref:** 2230.

**2369 Biflorin**

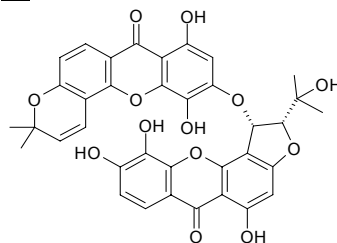
6 $\beta$ -C-Glucopyranosyl-5,7-dihydroxy-2-methylchromone [89701-85-9] C<sub>16</sub>H<sub>18</sub>O<sub>9</sub> (354.32). Colorless needles, mp 158~164°C, [ $\alpha$ ]<sub>D</sub><sup>21</sup> = +40.9° (c = 0.33, MeOH). **Pharm:** Phosphodiesterase inhibitor. **Source:** GANG SONG *Baekkea frutescens*, QUAN NENG HUA *Pancreatium biflorum*. **Ref:** 658, 1895.

**2370 (Z)-1,1'-Biindenyliden**

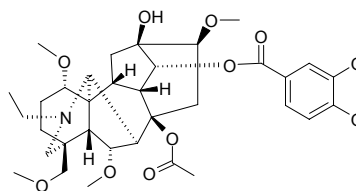
C<sub>18</sub>H<sub>12</sub> (228.30). White flakes solid mp > 300°C. **Source:** HUAI *Sophora japonica*. **Ref:** 2150.

**2371 Bijaponicaxanthone**

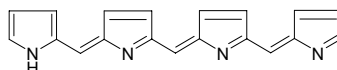
C<sub>36</sub>H<sub>28</sub>O<sub>13</sub> (668.62). Yellow amorphous powder, mp 248~250°C. **Source:** DI ER CAO *Hypericum japonicum*, HENG LI DI ER CAO *Hypericum henryi*. **Ref:** 775.

**2372 Bikhacoinitine**

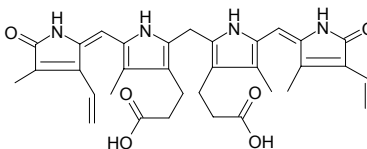
[6078-26-8] C<sub>36</sub>H<sub>51</sub>NO<sub>11</sub> (673.81). **Pharm:** Paralyzes respiration; antiarrhythmic (stops ventricular fibrillation); supertoxic agent. **Source:** NI BO ER WU TOU *Aconitum ferox*, SUI ZHUANG WU TOU *Aconitum spicatum*, ZI WU TOU *Aconitum violaceum*. **Ref:** 658.

**2373 Bilatriene**

C<sub>19</sub>H<sub>14</sub>N<sub>4</sub> (298.35). **Source:** JI NEI JIN *Gallus gallus domesticus*. **Ref:** 6.

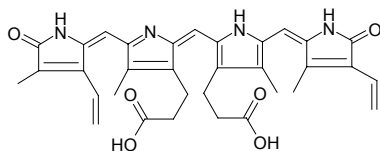
**2374 Bilirubin**

2,17-Diethenyl-1,10,19,22,23,24-hexahydro-3,7,13,17-tetramethyl-1,19-dioxo-21H-bilene-8,12-dipropanoic acid [635-65-4] C<sub>33</sub>H<sub>36</sub>N<sub>4</sub>O<sub>6</sub> (584.67). **Pharm:** A component of artificial calculus bovis (stones from the Bovidae gallbladder or biliary duct). **Source:** NIU HUANG *Bos taurus domesticus*; *Bubalus bubalis* (gallstone: content scope = 29.7%~59.2%, mean content = 40.9%<sup>[5508]</sup>). **Ref:** 2, 658, 5507, 5508.

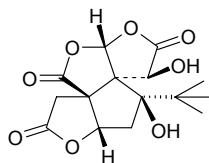


**2375 Biliverdin**

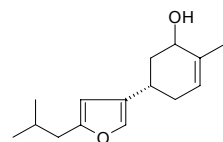
[114-25-0] C<sub>33</sub>H<sub>34</sub>N<sub>4</sub>O<sub>6</sub> (582.66). Source: NIU HUANG *Bos taurus domesticus*; *Bubalus bubalis*. Ref: 2.

**2376 Bilobalide A**

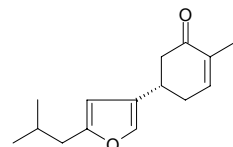
C<sub>15</sub>H<sub>18</sub>O<sub>8</sub> (326.31). Pharm: Neuroprotective and neurotrophic; antipneumocystis agent; antibacterial. Source: BAI GUO YE *Ginkgo biloba* (leaf: mean content of 12 samples = 1.18%<sup>[5508]</sup>). Ref: 660, 1521, 5508.

**2377 Bilobanol**

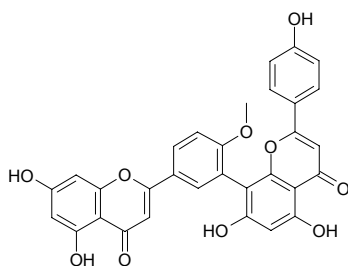
C<sub>15</sub>H<sub>22</sub>O<sub>2</sub> (234.34). Source: YIN YANG HUO *Epimedium brevicornum*. Ref: 2.

**2378 Bilobanone**

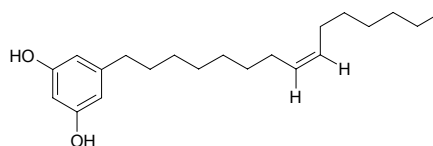
[17015-33-7] C<sub>15</sub>H<sub>20</sub>O<sub>2</sub> (232.33). mp 118~122°C/0.09mmHg. Source: BAI GUO SHU PI *Ginkgo biloba*. Ref: 6.

**2379 Bilobetin**

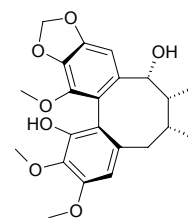
[521-32-4] C<sub>31</sub>H<sub>20</sub>O<sub>10</sub> (552.50). Yellow powder. Pharm: Anti-inflammatory (NO production inhibitor)<sup>[4415]</sup>; normalizes the ratio between phosphatide and cholesterol; antihypercholesterolemic (reduces the level of cholesterol in serum). Source: BAI GUO *Ginkgo biloba* (in 1959, the compound was isolated from the plant by Kôichi Nakazawa)<sup>[5505]</sup>, BAI GUO YE *Ginkgo biloba* (leaf: mean content = 0.950%<sup>[5508]</sup>), HAO WANG JIAO LUO HAN SONG *Podocarpus elongatu*. Ref: 1, 2, 442, 4415, 5501, 5505, 5508.

**2380 Bilobol**

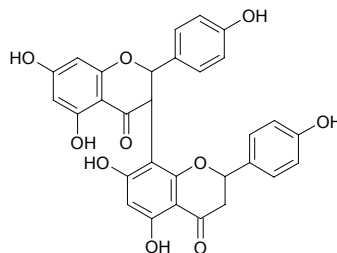
Cardol monoene; Alkylresorcinol B [22910-86-7] C<sub>21</sub>H<sub>34</sub>O<sub>2</sub> (318.50). crystals (pentene), mp 36~37°C; colorless powder, mp 30~31°C (methanol–water). Pharm: Antibacterial (*Staphylococcus aureus*, MIC = 25µg/mL); antineoplastic (EAC, leukemia SN36 and S<sub>180</sub>); uterine stimulant (*in vitro*); 15-lipoxygenase inhibitor (*in vitro*, IC<sub>50</sub> = 250µmol/L); paralyzes small intestinal smooth muscle (rbt, *in vitro*); aldose reductase inhibitor; tyrosinase inhibitor (inhibits oxidation of L-dopa in mushroom, 0.8mmol/L, InRt = 85%, ID<sub>50</sub> = 0.08mmol/L); DPPH scavenger (IC<sub>50</sub> = 87µmol/L, control Trolox, IC<sub>50</sub> = (25.4±0.8)µmol/L)<sup>[4244]</sup>; cytotoxic (murine breast cancer cell line FM3A, IC<sub>50</sub> = 2.0µmol/L)<sup>[4244]</sup>; LD<sub>50</sub> (mus) = 761mg/kg. Source: BAI GUO *Ginkgo biloba* (in 1928, the compound was isolated from the plant by Sanehira Kawamura)<sup>[5505]</sup>, DU XIAN ZI *Anacardium occidentale*, XIAO RU XIANG *Schinus terebinthifolius*, YOU SE ZI JIN NIU *Ardisia colorata* (fruit). Ref: 900, 4244, 5501, 5505.

**2381 Binankadsurin A**

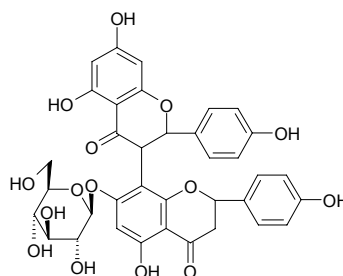
C<sub>22</sub>H<sub>26</sub>O<sub>7</sub> (402.45). Source: CHANG GENG NAN WU WEI ZI *Kadsura peltigera* [Syn. *Kadsura longipedunculata*]. Ref: 660.

**2382 3,8''-Binaringenin**

C<sub>30</sub>H<sub>22</sub>O<sub>10</sub> (542.50). Source: SHAN ZHU ZI *Garcinia multiflora*. Ref: 660.

**2383 3,8''-Binaringenin-7''-O-β-glucoside**

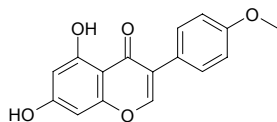
C<sub>36</sub>H<sub>32</sub>O<sub>15</sub> (704.65). Source: SHAN ZHU ZI *Garcinia multiflora*. Ref: 6.



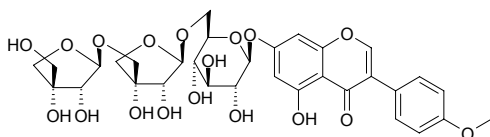


**2384 Biochanin A**

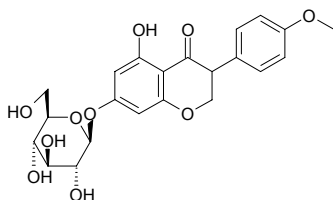
5,7-Dihydroxy-4'-methoxyisoflavone; Olmelin [491-80-5]  $C_{16}H_{12}O_5$  (284.27). mp 215~216°C. **Pharm:** Cytotoxic (KB,  $ED_{50} > 100\mu\text{g/mL}$ ); estrogenic activity; antihypercholesterolemic (reduces the level of cholesterol in serum). **Source:** CHAN RAO HUANG TAN *Dalbergia volubilis*, DI XIA CHE ZHOU CAO *Trifolium subterraneum*, DA DOU *Glycine max* (Soybean phytochemical concentrate: yield = 0.0018%dw)<sup>[4630]</sup>, HONG CHE ZHOU CAO *Trifolium pratense*, HUI HUI DOU *Cicer arietinum*, MENG MAI ROU DOU KOU *Myristica malabarica* (heartwod), ZHAN MAO XUN ZI *Cotoneaster pannosus*. **Ref:** 1, 6, 3906, 4630.

**2385 Biochanin A-7-O-[β-D-apiofuranosyl-(1→5)-β-D-apiofuranosyl-(1→6)-β-D-glucopyranoside]**

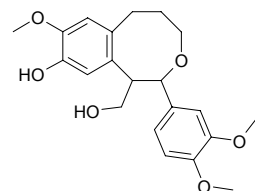
$C_{32}H_{38}O_{18}$  (710.65). Yellow amorphous powder,  $[\alpha]_D^{25} = -106.1^\circ$  ( $c = 0.26$ , MeOH). **Source:** YIN DU HUANG TAN *Dalbergia sissoo* (leaf and stem cortex). **Ref:** 5172.

**2386 Biochanin-7-glucoside**

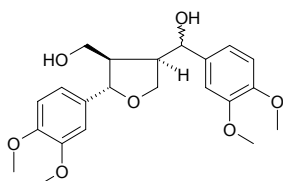
$C_{22}H_{24}O_{10}$  (448.43). mp 220°C. **Source:** HUI HUI DOU *Cicer arietinum*. **Ref:** 6.

**2387 Biondinin A**

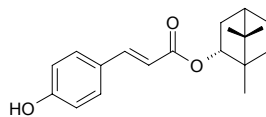
$C_{21}H_{26}O_6$  (374.44). Colorless oil. **Source:** WANG CHUN YU LAN *Magnolia biondii* [Syn. *Magnolia fargesii*]. **Ref:** 8, 660.

**2388 Biondinin B**

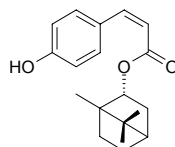
$C_{22}H_{28}O_7$  (404.46). Colorless oil. **Source:** WANG CHUN YU LAN *Magnolia biondii* [Syn. *Magnolia fargesii*]. **Ref:** 8.

**2389 Biondinin C**

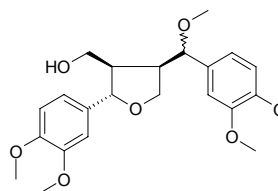
$C_{19}H_{24}O_3$  (300.40). Colorless cubical crystals, mp 153~155°C,  $[\alpha]_D^{15} = -20^\circ$  ( $c = 1.0$ ,  $\text{CHCl}_3$ ). **Source:** WANG CHUN YU LAN *Magnolia biondii* [Syn. *Magnolia fargesii*]. **Ref:** 8.

**2390 Biondinin D**

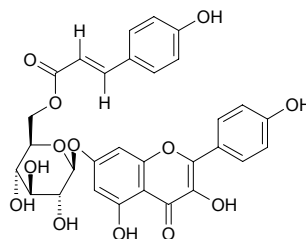
$C_{19}H_{24}O_3$  (300.40). Colorless oil. **Source:** WANG CHUN YU LAN *Magnolia biondii* [Syn. *Magnolia fargesii*]. **Ref:** 8.

**2391 Biondinin E**

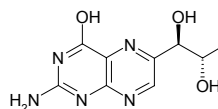
$C_{23}H_{30}O_7$  (418.49). Oil. **Source:** WANG CHUN YU LAN *Magnolia biondii* [Syn. *Magnolia fargesii*]. **Ref:** 8.

**2392 Biondoid I**

Kaempferol-7-O-β-D-(6''-O-p-hydrocinnamoyl)-D-glucoside  $C_{30}H_{26}O_{13}$  (594.53). Yellow crystals, mp 220~221°C. **Source:** WANG CHUN YU LAN *Magnolia biondii* [Syn. *Magnolia fargesii*]. **Ref:** 306, 660.

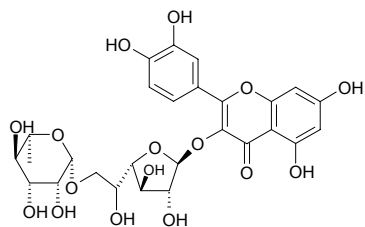
**2393 Biopterin**

Ranachrome 1 [22150-76-1]  $C_9H_{11}N_5O_3$  (237.22). Carbonization at 243~280°C. **Source:** FENG RU *Apis cerana*, HEI MA YI *Formica fusca*, JIN YU *Carassius auratus*, QING WA *Rana nigromaculata*; *Rana plancyi*. **Ref:** 6.

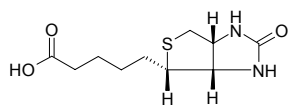


**2394 Bioquercetin**

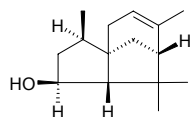
Quercetin-3-*O*-[ $\alpha$ -*L*-rhamnopyranosyl(1 $\rightarrow$ 6)]- $\beta$ -*D*-galactofuranoside  
 $C_{27}H_{30}O_{16}$  (610.53). Source: SHAN ZHA HUA *Crataegus pinnatifida*. Ref: 660.

**2395 Biotin**

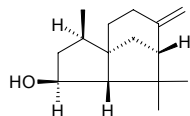
*D*(+)-Biotin; Vitamin B<sub>7</sub> [58-85-5]  $C_{10}H_{16}N_2O_3S$  (244.31). Pharm: Has carboxylation activity during metabolism of protein and carbohydrate. Source: REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. Ref: 2, 658.

**2396  $\alpha$ -Biotol**

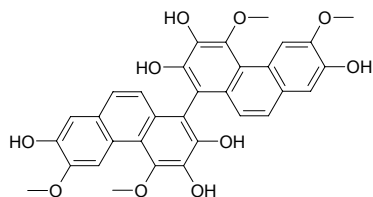
[19902-30-8]  $C_{15}H_{24}O$  (220.36). mp 78°C. Source: CE BAI ZHI JIE *Thuja orientalis* [Syn. *Platyclusus orientalis*; *Biota orientalis*]. Ref: 6.

**2397  $\beta$ -Biotol**

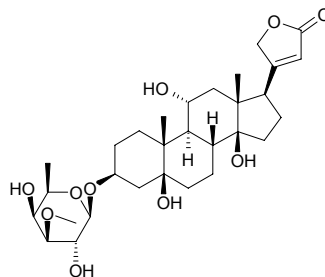
[19902-26-2]  $C_{15}H_{24}O$  (220.36). mp 84°C. Source: CE BAI ZHI JIE *Thuja orientalis* [Syn. *Platyclusus orientalis*; *Biota orientalis*]. Ref: 6.

**2398 Biphenanthrene**

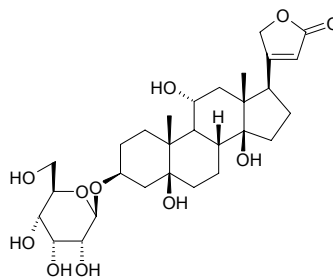
4,4',6,6'-Tetramethoxy-[1,1'-biphenanthrene]-2,2',3,3',7,7'-hexol  $C_{32}H_{26}O_{10}$  (570.56). Gum,  $[\alpha]_D^{27} = +5.8^\circ$  ( $c = 0.26$ ,  $CH_3OH$ ). Source: QIAO SHI DOU LAN *Bulbophyllum vaginatum* (whole herb). Ref: 4768.

**2399 Bipindaloside**

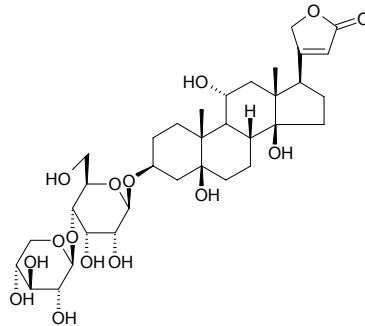
Bipindogenin 3-*O*- $\beta$ -*D*-digitaloside  $C_{30}H_{46}O_{10}$  (566.70). Pharm: Toxin (vertebrate). Source: SE LUN YANG JIAO AO *Strophanthus thollonii*, XI FEI YANG JIAO AO *Strophanthus sarmentosus* var. *senegambiae*. Ref: 658.

**2400 Bipindogenin-3-*O*- $\beta$ -*D*-allopyranoside**

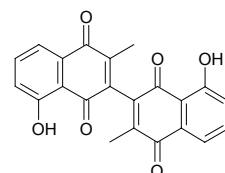
$C_{29}H_{44}O_{11}$  (568.67). Source: LING LAN *Convallaria keiskei* [Syn. *Convallaria majalis*]. Ref: 660.

**2401 Bipindogenin-3-*O*- $\beta$ -*D*-xylopyranosyl(1 $\rightarrow$ 4)- $\beta$ -*D*-allopyranoside**

$C_{34}H_{52}O_{15}$  (700.78). Source: WAN NIAN QING GEN *Rohdea japonica* [Syn. *Orontium japonicum*]. Ref: 660.

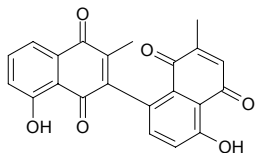
**2402 3,3'-Biplumbagin**

[34341-27-0]  $C_{22}H_{14}O_6$  (374.35). Orange plates ( $C_6H_6$ ), mp 214–217°C, mp 214–216°C. Pharm: Ichthyotoxin (MLC = 1.0mg/L, control Juglone, MLC = 0.2mg/L)<sup>[4185]</sup>. Source: BAI HUA DAN *Plumbago zeylanica* (root), HAI SHI *Diospyros maritima* (fruit). Ref: 6, 4185.

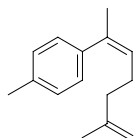


**2403 3,8'-Biplumbagin**

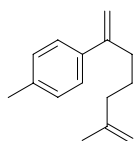
$C_{22}H_{14}O_6$  (374.35). Orange plates (hexane- $C_6H_6$ ), mp 204~205°C, mp 200~201°C. **Pharm:** Ichthyotoxin (MLC = 3.0mg/L, control Juglone, MLC = 0.2mg/L). **Source:** HAI SHI *Diospyros maritima* (fruit). **Ref:** 4185.

**2404 Bisabola-1,3,5,7,11-pentaene**

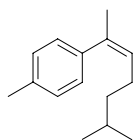
(2-Methyl-6-(4-methylphenyl)-1,5-heptadiene)  $C_{15}H_{20}$  (200.33). Colorless oil. **Source:** NING BIAN E TAI *Radula perrottetii* (essential oil). **Ref:** 5272.

**2405 Bisabola-1,3,5,7(14),11-pentaene**

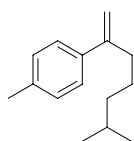
(2-Methyl-6-(4-methylphenyl)-1,6-heptadiene)  $C_{15}H_{20}$  (200.33). Colorless oil. **Source:** NING BIAN E TAI *Radula perrottetii* (essential oil). **Ref:** 5272.

**2406 Bisabola-1,3,5,7-tetraene**

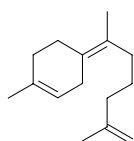
$C_{15}H_{22}$  (202.34). Colorless oil. **Source:** TIE JIAO JUE YU TAI *Plagiochila asplenioides* (essential oil). **Ref:** 5257.

**2407 Bisabola-1,3,5,7(14)-tetraene**

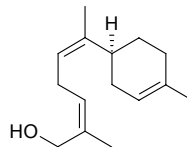
$C_{15}H_{22}$  (202.34). Colorless oil. **Source:** TIE JIAO JUE YU TAI *Plagiochila asplenioides* (essential oil). **Ref:** 5257.

**2408 Bisabola-2,6,11-triene**

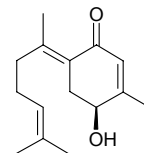
(4-(1,5-Dimethylhex-5-enylidene)-1-methylcyclohexene)  $C_{15}H_{24}$  (204.36). Colorless oil. **Source:** NING BIAN E TAI *Radula perrottetii* (essential oil). **Ref:** 5272.

**2409 2,(7Z,10Z)-Bisabolatrien-13-ol**

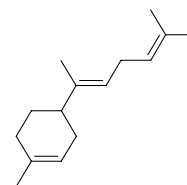
$C_{15}H_{24}O$  (220.36). Colorless oil. **Source:** XIAO HUA SHA ZHEN *Osyris tenuifolia* (essential oil). **Ref:** 3821.

**2410 (4S)-2,6,10-Bisabolatrien-4-ol-1-one**

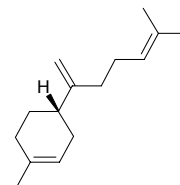
$C_{15}H_{22}O_2$  (234.34). Colorless oil,  $[\alpha]_D^{25} = -75.2^\circ$  ( $c = 0.59$ ,  $CHCl_3$ ). **Source:** RI BEN LIU SHAN *Cryptomeria japonica* (black heartwood). **Ref:** 4279.

**2411  $\alpha$ -Bisabolene**

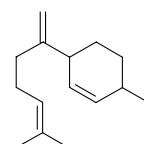
4-(1,5-Dimethyl-1,4-hexadienyl)-1-methyl-cyclohexene  $C_{15}H_{24}$  (204.36). **Source:** DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*], WU WEI ZI *Schisandra chinensis*. **Ref:** 2.

**2412  $\beta$ -Bisabolene**

*L*-Bisabolene [495-61-4]  $C_{15}H_{24}$  (204.36). bp (-) 129~130°C/10.5mmHg. **Source:** DA YE XIANG RU *Mosla dianthera*, DANG GUI *Angelica sinensis*, DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*], DU SONG SHI *Juniperus rigida*, FANG FENG *Saposhnikovia divaricata* [Syn. *Ledebouriella seseloides*], FENG DOU CAI *Petasites japonicus*, GAN JIANG *Zingiber officinale*, HOU PO *Magnolia officinalis*, JI NING *Mosla grosseserrata*, NAN HE SHI *Daucus carota*, REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], SHENG JIANG *Zingiber officinale*, WU WEI ZI *Schisandra chinensis*, XI YANG SHEN *Panax quinquefolium*, XIE CAO *Valeriana officinalis*. **Ref:** 2, 6, 660.

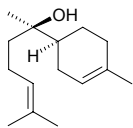
**2413  $\beta_2$ -Bisabolene**

$C_{15}H_{24}$  (204.36). **Source:** WU LING ZHI *Trogopterus xanthipes*; *Pteromys volans*. **Ref:** 6.

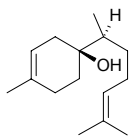


**2414  $\beta$ -Bisabolol**

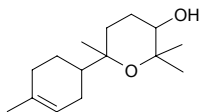
$\alpha$ -Bisabolol [515-69-5] C<sub>15</sub>H<sub>26</sub>O (222.37). bp 154.0~156.0°C/12mmHg.  
**Pharm:** Anti-inflammatory. **Source:** ZHI YANG *Populus balsamifera*, MU<sup>(3)</sup>  
 JU *Matricaria chamomilla* [Syn. *Matricaria recutita*]. **Ref:** 1, 2, 6, 658, 660.

**2415 Bisabolol**

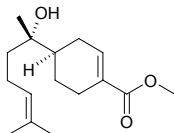
C<sub>15</sub>H<sub>26</sub>O (222.37). **Pharm:** Cytotoxic (*in vitro*, HONE-1 cell line, 50 $\mu$ mol/L, cell growth InRt = 0%; NUGC-3 cell line, 50 $\mu$ mol/L, cell growth InRt = 0%).  
**Source:** *Peperomia sui*. **Ref:** 3401.

**2416 Bisabolol oxide A**

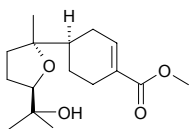
C<sub>15</sub>H<sub>26</sub>O<sub>2</sub> (238.37). bp 156~158°C. **Source:** MU<sup>(3)</sup> JU *Matricaria chamomilla*  
 [Syn. *Matricaria recutita*]. **Ref:** 6.

**2417 Bisaborosaol A**

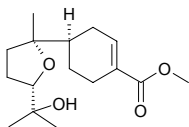
C<sub>16</sub>H<sub>26</sub>O<sub>3</sub> (266.38). **Source:** MEI GUI HUA *Rosa rugosa*. **Ref:** 660.

**2418 Bisaborosaol B<sub>1</sub>**

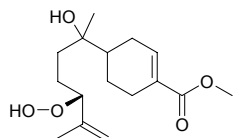
C<sub>16</sub>H<sub>26</sub>O<sub>4</sub> (282.38). **Source:** MEI GUI HUA *Rosa rugosa*. **Ref:** 660.

**2419 Bisaborosaol B<sub>2</sub>**

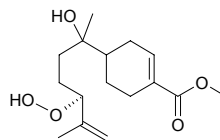
C<sub>16</sub>H<sub>26</sub>O<sub>4</sub> (282.38). **Source:** MEI GUI HUA *Rosa rugosa*. **Ref:** 660.

**2420 Bisaborosaol C<sub>1</sub>**

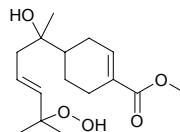
C<sub>16</sub>H<sub>26</sub>O<sub>5</sub> (298.38). **Source:** MEI GUI HUA *Rosa rugosa*. **Ref:** 660.

**2421 Bisaborosaol C<sub>2</sub>**

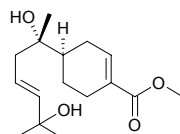
C<sub>16</sub>H<sub>26</sub>O<sub>5</sub> (298.38). **Source:** MEI GUI HUA *Rosa rugosa*. **Ref:** 660.

**2422 Bisaborosaol D**

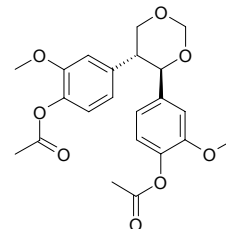
C<sub>16</sub>H<sub>26</sub>O<sub>5</sub> (298.38). **Source:** MEI GUI HUA *Rosa rugosa*. **Ref:** 660.

**2423 Bisaborosaol F**

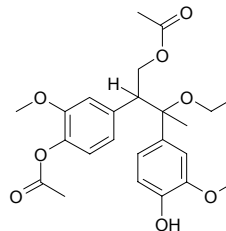
C<sub>16</sub>H<sub>26</sub>O<sub>4</sub> (282.38). **Source:** MEI GUI HUA *Rosa rugosa*. **Ref:** 660.

**2424 *trans*-4,5-Bis(4-acetoxy-3-methoxyphenyl)-1,3-dioxacyclohexane**

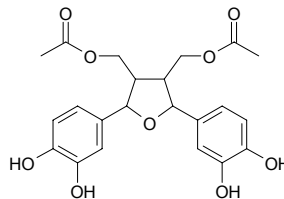
C<sub>22</sub>H<sub>24</sub>O<sub>8</sub> (416.43). Amorphous powder; [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -46° (*c* = 0.08, CHCl<sub>3</sub>).  
**Source:** TIAN XIAN GUO *Ficus beecheyana* [Syn. *Ficus erecta* var. *beecheyana*] (root: yield = 0.0025%dw). **Ref:** 4657.

**2425 *erythro*-2,3-Bis(4-acetoxy-3-methoxyphenyl)-3-ethoxypropan-1-ol acetate**

C<sub>23</sub>H<sub>28</sub>O<sub>8</sub> (432.47). Amorphous powder; [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -14° (*c* = 0.14, CHCl<sub>3</sub>).  
**Source:** TIAN XIAN GUO *Ficus beecheyana* [Syn. *Ficus erecta* var. *beecheyana*] (root: yield = 0.0037%dw). **Ref:** 4657.

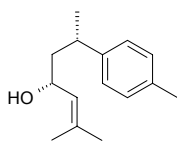
**2426 9,9-Bisacetylneoolivil**

C<sub>22</sub>H<sub>24</sub>O<sub>9</sub> (432.43). **Source:** YI ZHU QIAN MA *Urtica dioica*. **Ref:** 660.

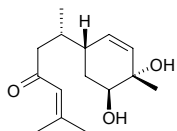


**2427 Bisacumol**

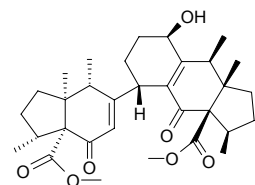
[120710-98-7] C<sub>15</sub>H<sub>22</sub>O (218.34). **Pharm:** NO production inhibitor (mus peritoneal macrophages, induced by LPS, 100μmol/L, InRt = (61.9±1.5)%, control L-NMMA, 100μmol/L, InRt = (79.2±0.9)%, *p*<0.01)<sup>[4150]</sup>. **Source:** JIANG HUANG *Curcuma longa*, PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. **Ref:** 3, 4150.

**2428 Bisacurone**

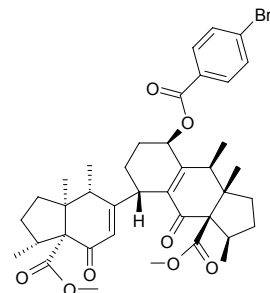
C<sub>15</sub>H<sub>24</sub>O<sub>3</sub> (252.36). **Pharm:** NO production inhibitor (mus peritoneal macrophages, induced by LPS, 100μmol/L, InRt = (54.3±4.0)%, control L-NMMA, 100μmol/L, InRt = (79.2±0.9)%, *p*<0.01)<sup>[4150]</sup>. **Source:** JIANG HUANG *Curcuma longa*, PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. **Ref:** 660, 4150.

**2429 Bisacutifolone A**

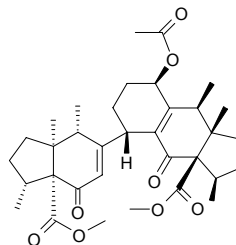
C<sub>32</sub>H<sub>44</sub>O<sub>7</sub> (540.70). Colorless prisms, mp 204~206°C, [α]<sub>D</sub><sup>21</sup> = +59.0° (*c* = 0.51, CHCl<sub>3</sub>). **Source:** SHANG ZUO JIAN YE GUANG E TAI *Porella acutifolia* ssp. *tosana*. **Ref:** 3932.

**2430 Bisacutifolone A p-bromobenzoate**

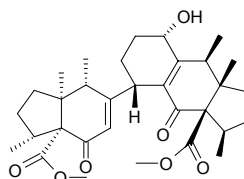
C<sub>39</sub>H<sub>47</sub>BrO<sub>8</sub> (723.71). Colorless oil, [α]<sub>D</sub><sup>23</sup> = +69.1° (*c* = 0.55, CHCl<sub>3</sub>). **Source:** SHANG ZUO JIAN YE GUANG E TAI *Porella acutifolia* ssp. *tosana*. **Ref:** 3932.

**2431 Bisacutifolone A mono acetate**

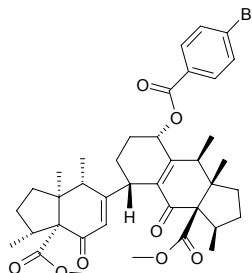
C<sub>34</sub>H<sub>46</sub>O<sub>8</sub> (582.74). Colorless oil, [α]<sub>D</sub><sup>19</sup> = +71.0° (*c* = 0.65, CHCl<sub>3</sub>). **Source:** SHANG ZUO JIAN YE GUANG E TAI *Porella acutifolia* ssp. *tosana*. **Ref:** 3932.

**2432 Bisacutifolone B**

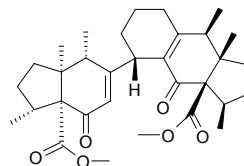
C<sub>32</sub>H<sub>44</sub>O<sub>7</sub> (540.70). Colorless oil, [α]<sub>D</sub><sup>20</sup> = +18.1° (*c* = 0.74, CHCl<sub>3</sub>). **Source:** SHANG ZUO JIAN YE GUANG E TAI *Porella acutifolia* ssp. *tosana*. **Ref:** 3932.

**2433 Bisacutifolone B p-bromobenzoate**

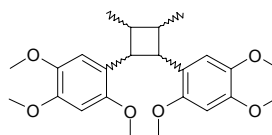
C<sub>39</sub>H<sub>47</sub>BrO<sub>8</sub> (723.71). Colorless amorphous powder, [α]<sub>D</sub><sup>23</sup> = -3.0° (*c* = 0.10, CHCl<sub>3</sub>). **Source:** SHANG ZUO JIAN YE GUANG E TAI *Porella acutifolia* ssp. *tosana*. **Ref:** 3932.

**2434 Bisacutifolone C**

C<sub>32</sub>H<sub>44</sub>O<sub>6</sub> (524.70). Colorless amorphous powder, [α]<sub>D</sub><sup>21</sup> = +69.5° (*c* = 0.36, CHCl<sub>3</sub>). **Source:** SHANG ZUO JIAN YE GUANG E TAI *Porella acutifolia* ssp. *tosana*. **Ref:** 3932.

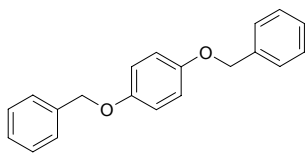
**2435 Bissaricin**

Acorodin [73036-51-8] C<sub>24</sub>H<sub>32</sub>O<sub>6</sub> (416.52). mp 98.5~100.0°C. **Pharm:** Antihypercholesterolemic. **Source:** JIN QIAN PU *Acorus gramineus*, BAI CHANG *Acorus calamus*. **Ref:** 1.

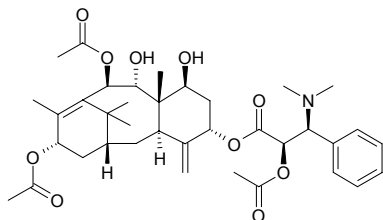


**2436 1,4-Bis-benzyloxy-benzene**

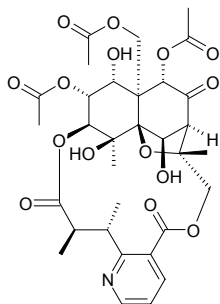
$C_{20}H_{18}O_2$  (290.37). Monoclinic crystals, mp 45.8–46.5°C. Source: BO YE WANG YI ZAO *Hydroclathrus tenuis*. Ref: 4889.

**2437 7β,9α-Bisdeacetylaustrospicatine**

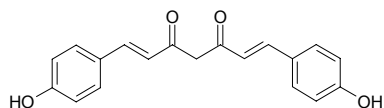
$C_{37}H_{51}NO_{10}$  (669.82).  $[\alpha]_D = +41^\circ$ . Source: AO DA LI YA HONG DOU SHAN *Austrotaxus spicata*. Ref: 662.

**2438 1,6-Bis-deacetyl evonine**

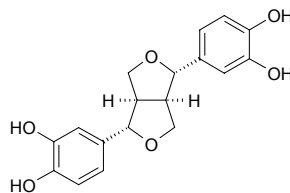
$C_{32}H_{39}NO_{15}$  (677.67). Colorless oil,  $[\alpha]_D^{25} = +20.0^\circ$  ( $c = 0.13$ ,  $CHCl_3$ ). Source: OU ZHOU WEI MAO *Euonymus europaeus* (seed). Ref: 4162.

**2439 Bisdemethoxycurcumin**

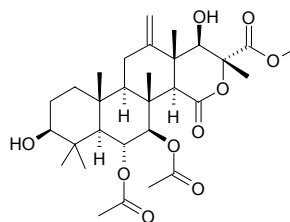
Demethoxycurcumin [22608-12-4]  $C_{19}H_{16}O_4$  (308.34). Yellow needles, mp 232–233°C, mp 218–222°C. Pharm: Neuroprotective (*in vitro* protects PC12 cells from  $\beta$ -Amyloid insult: anti- $\beta$ A(25-35),  $ED_{50} = (2.0 \pm 0.6) \mu\text{g/mL}$ ; anti- $\beta$ A(1-41),  $ED_{50} = (3.5 \pm 0.7) \mu\text{g/mL}$ ; control Congo red: anti- $\beta$ A(25-35),  $ED_{50} = (37.5 \pm 5.4) \mu\text{g/mL}$ ; anti- $\beta$ A(1-41),  $ED_{50} = (39.2 \pm 5.2) \mu\text{g/mL}$ )<sup>[4643]</sup>. Source: JIANG HUANG *Curcuma longa* (turmeric powder: yield = 0.0059%dw)<sup>[4643]</sup>, YU JIN *Curcuma aromatica*. Ref: 6, 660, 4643.

**2440 (±)-3',3''-Bisdemethylpinoresinol**

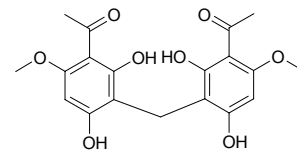
*rel*-(7 $\alpha$ ,7' $\alpha$ ,8 $\alpha$ ,8' $\alpha$ )-7,9':7',9'-Diepoxylignan-3,3',4,4'-tetraol)  $C_{18}H_{18}O_6$  (330.34). Brown crystals, mp 106–109°C (MeOH– $CHCl_3$ ). Source: BA XI QIAO AN MU *Joannesia princeps* (seed). Ref: 3369.

**2441 3,17-Bisdeoxo-3,17-dihydroxypenisimplicin A**

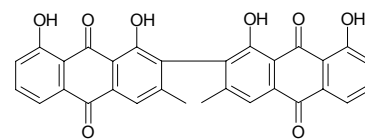
$C_{30}H_{44}O_{10}$  (564.68). Source: JI JIAN DAN QING MEI *Penicillium simplicissimum*. Ref: 4501.

**2442 1,1'-Bis(2,6-dihydroxy-3-acetyl-4-methoxyphenyl)methane**

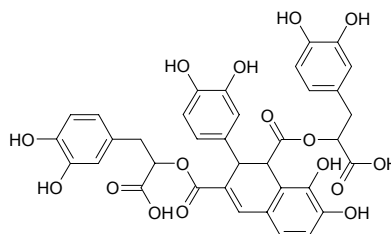
3,3'-Diacyl-4,4'-dimethoxy-2,2',6,6'-tetrahydroxy diphenyl methane  $C_{19}H_{20}O_8$  (376.37). Light yellow acicular crystals, mp 253°C. Source: GAN SUI *Euphorbia kansui*, YUE XIAN DA JI *Euphorbia ebracteolata*. Ref: 660, 678.

**2443 2,2'-Bis[(1,8-dihydroxy-3-methyl)anthraquinone]**

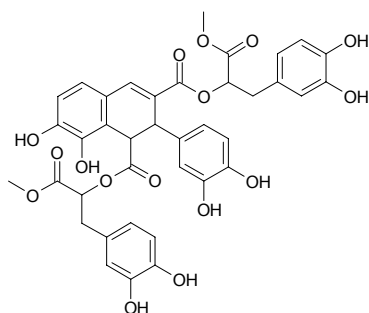
$C_{30}H_{18}O_8$  (506.47). Source: HONG SHI ER *Umbilicaria hypococcinea*. Ref: 660.

**2444 1,3-Bis-[2-(3,4-dihydroxyphenyl)-1-carboxy]ethoxycarbonyl-2-(3,4-dihydroxyphenyl)-7,8-dihydroxy-1,2-dihydronaphthalene**

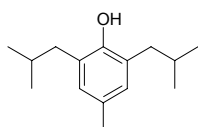
$C_{36}H_{30}O_{16}$  (718.63). Source: BO HE *Mentha haplocalyx* [Syn. *Mentha canadaensis*; *Mentha arvensis* var. *haplocalyx*; *Mentha arvensis*]. Ref: 660.



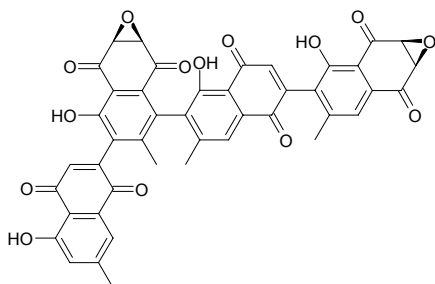
**2445 1,3-Bis-[2-(3,4-dihydroxyphenyl)-1-methoxycarbonyl]ethoxycarbonyl-2-(3,4-dihydroxyphenyl)-7,8-dihydroxy-1,2-dihydronaphthalene**  
 $C_{38}H_{34}O_{16}$  (746.69). Source: BO HE *Mentha haplocalyx* [Syn. *Mentha canadaensis*; *Mentha arvensis* var. *haplocalyx*; *Mentha arvensis*]. Ref: 660.



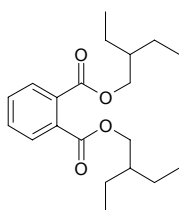
**2446 2,6-Bis(1,1-dimethylethyl)-4-methyl phenol**  
 $C_{15}H_{24}O$  (220.36). Source: ROU CONG RONG *Cistanche deserticola*. Ref: 2.



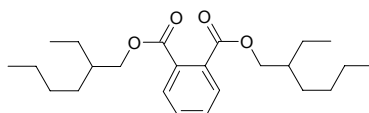
**2447 6'',8''-Bisdiosquinone**  
 $C_{44}H_{26}O_{14}$  (778.69). Brown red crystalline. Source: BA BU YA XIN JI NEI YA SHI *Diospyros mafensis*. Ref: 1882.



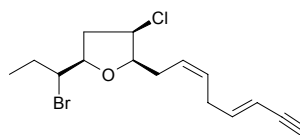
**2448 Bis(2-ethylbutyl)phthalate**  
 Di-(2-ethylbutyl)phthalate [7299-89-0]  $C_{20}H_{30}O_4$  (334.46). Source: SHUI QIN *Oenanthe javanica*. Ref: 6.



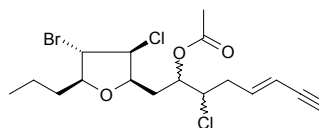
**2449 Bis(2-ethyl-hexyl)-phthalate**  
 Dioctyl 1,2-benzenedicarboxylate [117-81-7]  $C_{24}H_{38}O_4$  (390.57). Source: ROU CONG RONG *Cistanche deserticola*, JIAN YE LONG XUE SHU *Dracaena cochinchinensis*. Ref: 2, 616.



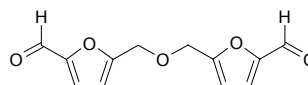
**2450 Bisezakyne A**  
 $C_{15}H_{20}BrClO$  (331.68). Oil,  $[\alpha]_D^{22} = -7.13^\circ$  ( $c = 0.33$ ,  $CHCl_3$ ). Source: *Laurencia* sp. Ref: 2306.



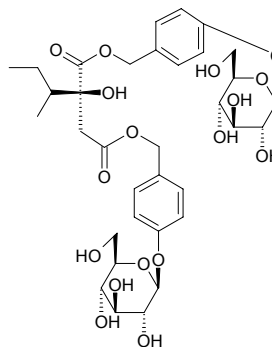
**2451 Bisezakyne B**  
 $C_{17}H_{23}BrCl_2O_3$  (426.18). mp 69~70°C,  $[\alpha]_D^{22} = -45.1^\circ$  ( $c = 0.27$ ,  $CHCl_3$ ). Source: *Laurencia* sp. Ref: 2306.



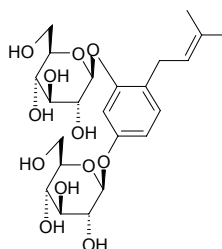
**2452 Bis(5-formylfurfuryl)ether**  
 Cirsiumaldehyde; 5,5'-Oxydimethylene-bis-(2-furaldehyde)  $C_{12}H_{10}O_5$  (234.21). White needles (pet. ether-acetone), mp 113.5~115.5°C. Source: BEI CANG ZHU *Atractylodes chinensis*, JU PI *Citrus reticulata*. Ref: 2510, 2867.



**2453 Bis[4-(β-D-glucopyranosyloxy) benzyl] (S)-2-butylmalate**  
 $C_{34}H_{46}O_{17}$  (726.74). White amorphous powder, mp 107~110°C,  $[\alpha]_D^{20} = -40.07^\circ$  ( $c = 2.25$ , MeOH). Source: SHAN HU LAN *Galeola faberi*. Ref: 280.

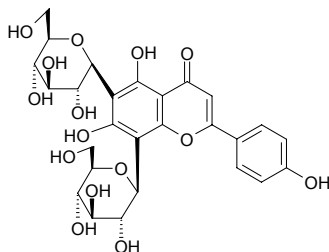


**2454 1,5-Bis(β-D-glucopyranosyloxy-2-(3',3'-dimethylallyl) benzene**  
 $C_{23}H_{34}O_{12}$  (502.52). Amorphous powder,  $[\alpha]_D^{25} = -5.0^\circ$  ( $c = 0.1$ , MeOH). Source: CU MAO NIU SHE CAO *Anchusa strigosa*. Ref: 5441.

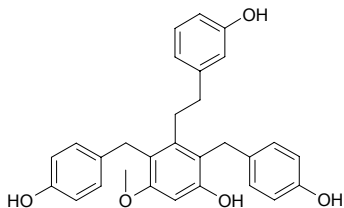


**2455 6,8-Bis(C- $\beta$ -glucosyl)-apigenin**

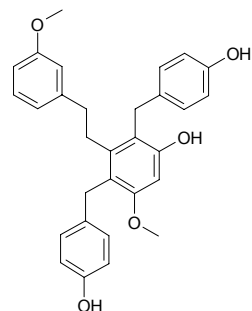
Vicenin 2 [23666-13-9]  $C_{27}H_{30}O_{15}$  (594.53). mp 220°C (dec). **Pharm:** Anti-inflammatory (*in vivo*, carrageenan-induced rat paw edema)<sup>[5040]</sup>; stimulates laying egg (*Papilo xuthus* on leaves in *Citrus* genus plants). **Source:** GAN CAO *Glycyrrhiza uralensis*, HUANG GAN CAO *Glycyrrhiza kansuensis*, JIAN ZI SU YE *Perilla frutescens* var. *acuta* [Syn. *Perilla frutescens* var. *purpurascens*], NING MENG PI *Citrus limon*, *Lychnophora ericoides* (fresh leaf), XIAO MAI *Triticum aestivum* [Syn. *Triticum vulgare*], XIN XI LAN MU JING *Vitex lucens*, *Tragopogon* sp., *Sophora* sp. **Ref:** 2, 6, 658, 660, 5040.

**2456 2',6'-Bis(*p*-hydroxybenzyl)-3,3'-dihydroxy-5-methoxybibenzyl**

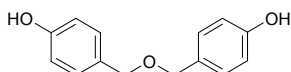
3,3'-Dihydroxy-2,6-bis(4-hydroxybenzyl)-5-methoxybibenzyl  $C_{29}H_{28}O_5$  (456.54). Colorless needles. **Pharm:** Antiallergic  $\beta$ -Hexosaminidase inhibitor (rat basophilic RBL-2H3 cells, inhibits release of  $\beta$ -hexosaminidase, 100 $\mu$ mol/L, InRt = (96.5 $\pm$ 3.3) $\mu$ mol/L,  $p < 0.01$ ; 300 $\mu$ mol/L control Ketotifen fumarate, InRt = (72.5 $\pm$ 0.9) $\mu$ mol/L,  $p < 0.01$ )<sup>[5022]</sup>. **Source:** LAN YU BAI JI *Bletilla formosana* (whole herb), SHOU ZHANG SHEN *Gymnadenia conopsea* (tuber). **Ref:** 4500, 5022.

**2457 2,6-Bis(*p*-hydroxybenzyl)-3',5-dimethoxy-3-hydroxybibenzyl**

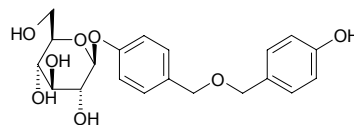
$C_{30}H_{30}O_5$  (470.57). **Source:** BAI JI *Bletilla striata*. **Ref:** 660.

**2458 Bis(4-hydroxybenzyl)ether**

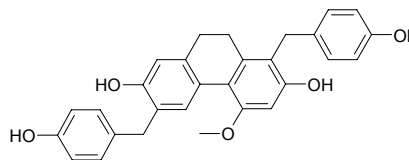
4,4'-Dihydroxybenzyl ether  $C_{14}H_{14}O_3$  (230.27). **Source:** BAN XIA *Pinellia ternata*, TIAN MA *Gastrodia elata*. **Ref:** 2.

**2459 Bis(4-hydroxybenzyl)ether mono- $\beta$ -D-glucopyranoside**

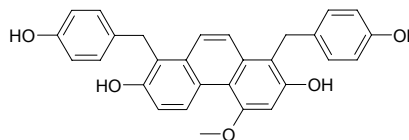
$C_{20}H_{24}O_8$  (392.41). **Source:** TIAN MA *Gastrodia elata*. **Ref:** 2.

**2460 1,6-Bis(4-hydroxybenzyl)-4-methoxy-9,10-dihydrophenanthrene-2,7-diol**

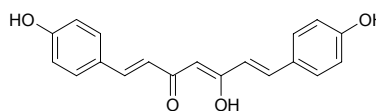
$C_{29}H_{26}O_5$  (454.53). **Source:** BAI JI *Bletilla striata*, LAN YU BAI JI *Bletilla formosana* (whole herb). **Ref:** 660, 4500.

**2461 1,8-Bis(4-hydroxybenzyl)-4-methoxyphenanthrene-2,7-diol**

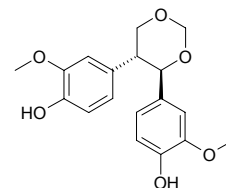
$C_{29}H_{24}O_5$  (452.51). **Source:** BAI JI *Bletilla striata*, LAN YU BAI JI *Bletilla formosana* (whole herb). **Ref:** 660, 4500.

**2462 Bis(4-hydroxycinnamoyl)methane**

$C_{19}H_{16}O_4$  (308.34). **Pharm:** NO production inhibitor (mus peritoneal macrophages, induced by LPS, 100 $\mu$ mol/L, InRt = (57.1 $\pm$ 3.4)%), control *L*-NMMA, 100 $\mu$ mol/L, InRt = (79.2 $\pm$ 0.9)%,  $p < 0.01$ )<sup>[4150]</sup>. **Source:** PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. **Ref:** 4150.

**2463 *trans*-4,5-Bis(4-hydroxy-3-methoxyphenyl)-1,3-dioxacyclohexane**

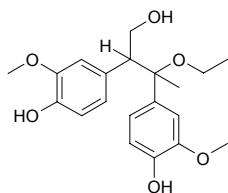
$C_{18}H_{20}O_6$  (332.36). **Source:** TIAN XIAN GUO *Ficus beecheyana* [Syn. *Ficus erecta* var. *beecheyana*] (root). **Ref:** 4657.



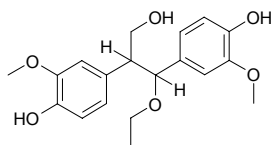


**2464 erythro-2,3-Bis(4-hydroxy-3-methoxyphenyl)-3-ethoxypropan-1-ol**

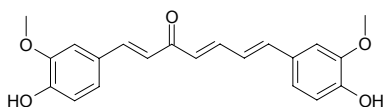
C<sub>19</sub>H<sub>24</sub>O<sub>6</sub> (348.4). **Source:** TIAN XIAN GUO *Ficus beecheyana* [Syn. *Ficus erecta* var. *beecheyana*] (root). **Ref:** 4657.

**2465 threo-2,3-Bis(4-hydroxy-3-methoxyphenyl)-3-ethoxypropan-1-ol**

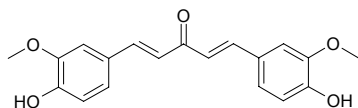
C<sub>19</sub>H<sub>24</sub>O<sub>6</sub> (348.4). Amorphous white powder,  $[\alpha]_D^{25} = +16^\circ$  ( $c = 0.13$ , CHCl<sub>3</sub>). **Source:** TIAN XIAN GUO *Ficus beecheyana* [Syn. *Ficus erecta* var. *beecheyana*] (root: yield = 0.032%dw). **Ref:** 4657.

**2466 1,7-Bis(4-hydroxy-3-methoxyphenyl)-1,4,6-heptatrien-3-one**

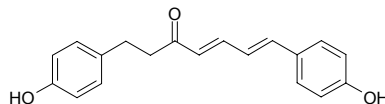
C<sub>21</sub>H<sub>20</sub>O<sub>5</sub> (352.39). Yellow powder, mp 128–129°C. **Pharm:** Neuroprotective inactive (*in vitro* protects PC12 cells from  $\beta$ -Amyloid insult: anti- $\beta$ A(25-35), ED<sub>50</sub> > 50 $\mu$ g/mL; anti- $\beta$ A(1-41), ED<sub>50</sub> > 50 $\mu$ g/mL; control Congo red: anti- $\beta$ A(25-35), ED<sub>50</sub> = (37.5 $\pm$ 5.4) $\mu$ g/mL; anti- $\beta$ A(1-41), ED<sub>50</sub> = (39.2 $\pm$ 5.2) $\mu$ g/mL). **Source:** JIANG HUANG *Curcuma longa* (turmeric powder: yield = 0.0001%dw). **Ref:** 4643.

**2467 1,5-Bis(4-hydroxy-3-methoxyphenyl)-1,4-pentadien-3-one**

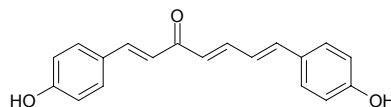
C<sub>19</sub>H<sub>18</sub>O<sub>5</sub> (326.35). Yellow powder, mp 85–86°C. **Pharm:** Neuroprotective inactive (*in vitro* protects PC12 cells from  $\beta$ -Amyloid insult: anti- $\beta$ A(25-35), ED<sub>50</sub> > 50 $\mu$ g/mL; anti- $\beta$ A(1-41), ED<sub>50</sub> > 50 $\mu$ g/mL; control Congo red: anti- $\beta$ A(25-35), ED<sub>50</sub> = (37.5 $\pm$ 5.4) $\mu$ g/mL; anti- $\beta$ A(1-41), ED<sub>50</sub> = (39.2 $\pm$ 5.2) $\mu$ g/mL). **Source:** JIANG HUANG *Curcuma longa* (turmeric powder: yield = 0.0004%dw). **Ref:** 4643.

**2468 1,7-Bis(4-hydroxyphenyl)hepta-4E,6E-dien-3-one**

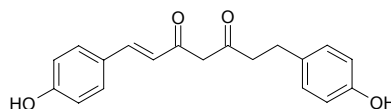
Anticancer Diarylheptanoid PMV70P691-72 C<sub>19</sub>H<sub>18</sub>O<sub>3</sub> (294.35). Yellow amorphous solid. **Pharm:** Cytotoxic (Colon26-L5, ED<sub>50</sub> = 57.7 $\mu$ mol/L; HT1080, ED<sub>50</sub> = 78.8 $\mu$ mol/L)<sup>[3042]</sup>; cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells)<sup>[5038]</sup>. **Source:** FEN BA JIAO ZA JIAO ZHONG ZHI BIAN ZHONG *Musa x paradisiaca* cultivar, YUN NAN CAO KOU *Alpinia blepharocalyx* (seed: yield = 0.00052%)<sup>[3042]</sup>. **Ref:** 3042, 5038.

**2469 1,7-Bis(4-hydroxyphenyl)-1,4,6-heptatrien-3-one**

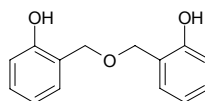
C<sub>19</sub>H<sub>16</sub>O<sub>3</sub> (292.34). Yellow powder, mp 147–148°C. **Pharm:** TNF- $\alpha$  production inhibitor (LPS-activated macrophages, mean IC<sub>50</sub> = 12.3 $\mu$ mol/L)<sup>[4416]</sup>; neuroprotective inactive (*in vitro* protects PC12 cells from  $\beta$ -Amyloid insult: anti- $\beta$ A(25-35), ED<sub>50</sub> > 50 $\mu$ g/mL; anti- $\beta$ A(1-41), ED<sub>50</sub> > 50 $\mu$ g/mL; control Congo red: anti- $\beta$ A(25-35), ED<sub>50</sub> = (37.5 $\pm$ 5.4) $\mu$ g/mL; anti- $\beta$ A(1-41), ED<sub>50</sub> = (39.2 $\pm$ 5.2) $\mu$ g/mL)<sup>[4643]</sup>. **Source:** JIANG HUANG *Curcuma longa* (turmeric powder: yield = 0.0001%dw)<sup>[4643]</sup>, PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. **Ref:** 4416, 4643.

**2470 1,7-Bis(4-hydroxyphenyl)-1-heptene-3,5-dione**

C<sub>19</sub>H<sub>18</sub>O<sub>4</sub> (310.35). Yellow needles, mp 145–146°C. **Pharm:** Neuroprotective (*in vitro* protects PC12 cells from  $\beta$ -Amyloid insult: anti- $\beta$ A(25-35), ED<sub>50</sub> = (0.5 $\pm$ 0.2) $\mu$ g/mL; anti- $\beta$ A(1-41), ED<sub>50</sub> = (1.0 $\pm$ 0.3) $\mu$ g/mL; control Congo red: anti- $\beta$ A(25-35), ED<sub>50</sub> = (37.5 $\pm$ 5.4) $\mu$ g/mL; anti- $\beta$ A(1-41), ED<sub>50</sub> = (39.2 $\pm$ 5.2) $\mu$ g/mL)<sup>[4643]</sup>. **Source:** JIANG HUANG *Curcuma longa* (turmeric powder: yield = 0.0004%dw)<sup>[4643]</sup>. **Ref:** 4643.

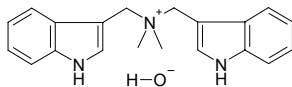
**2471 Bis(2-hydroxyphenyl)methyl ether**

C<sub>14</sub>H<sub>14</sub>O<sub>3</sub> (230.27). **Source:** *Milusa balansae* (branch and leaf: yield = 0.00013%dw)<sup>[3016]</sup>. **Ref:** 3016.

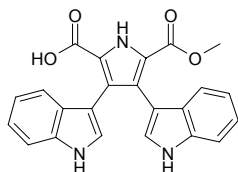


**2472 3,3'-Bis(indolylmethyl)dimethyl ammonium hydroxide**

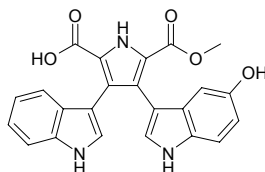
$C_{20}H_{23}N_3O$  (321.43). Source: LU ZHU GEN *Arundo donax*. Ref: 6.

**2473 Bisindolylpyrrole CPB-53-594-3**

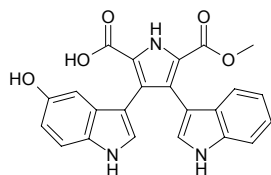
$C_{23}H_{17}N_3O_4$  (399.41). Brown amorphous powder. Pharm: Cytotoxic inactive (HeLa cells,  $IC_{50} = 93.3 \mu\text{g/mL}$ )<sup>[4465]</sup>. Source: FEN LIU JUN *Lycogala epidendrum* (wild sporocarp). Ref: 4465.

**2474 Bisindolylpyrrole CPB-53-594-4**

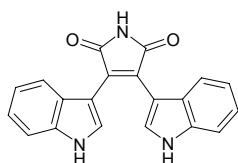
$C_{23}H_{17}N_3O_5$  (415.41). Pale yellow amorphous powder. Source: FEN LIU JUN *Lycogala epidendrum* (wild sporocarp). Ref: 4465.

**2475 Bisindolylpyrrole CPB-53-594-5**

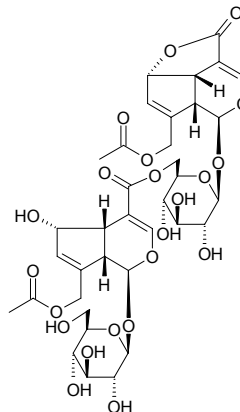
$C_{23}H_{17}N_3O_5$  (415.41). Pale yellow amorphous powder. Source: FEN LIU JUN *Lycogala epidendrum* (wild sporocarp). Ref: 4465.

**2476 Bisindolylpyrrole CPB-53-594-6**

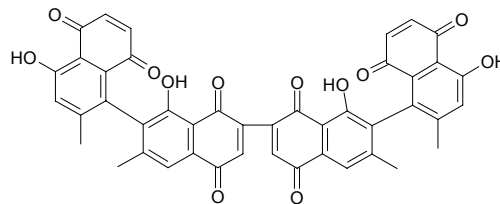
$C_{20}H_{13}N_3O_2$  (327.35). Source: FEN LIU JUN *Lycogala epidendrum* (wild sporocarp), HUI JIN SE TUAN WANG JUN *Arcyria cinerea* (wild sporocarp), AN HONG TUAN WANG JUN *Arcyria denudata*. Ref: 4465.

**2477 Bis-iridoid glucoside**

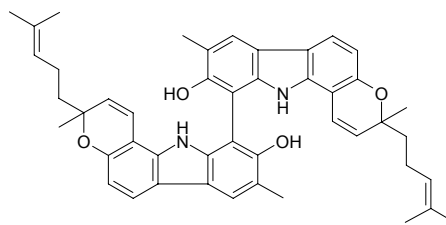
$C_{36}H_{44}O_{22}$  (828.74). Amorphous powder,  $[\alpha]_D^{27} = -58.4^\circ$  ( $c = 0.66$ , MeOH). Source: XIE JI CU YE MU *Lasianthus wallichii* (leaf). Ref: 4238.

**2478 Bisiodiospyrin**

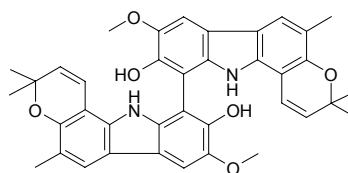
[30276-87-0]  $C_{44}H_{26}O_{12}$  (746.69). mp >320°C. Source: JUN QIAN ZI *Diospyros lotus*. Ref: 6.

**2479 Bisisomahanine**

9,9"-Dihydroxy-3,3",8,8"-tetramethyl-3,3"-bis-(4-methyl-3-pentenyl)-3,3",11,11"-tetrahydro-10,10"-bipyran[3,2-a]carbazole  $C_{46}H_{48}N_2O_4$  (696.91). Pale ivory powder, mp 130~140°C,  $[\alpha]_D^{20} = -13.1^\circ$  ( $c = 0.25$ ,  $CHCl_3$ ). Source: XIA GUO SHAN XIAO JU GEN *Glycosmis stenocarpa*. Ref: 2569.

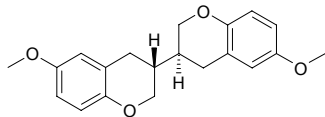
**2480 8,8''-Biskoenigine**

$C_{38}H_{36}N_2O_6$  (616.72). Brown gum,  $[\alpha]_D^{24} = +139.6^\circ$  ( $c = 1.00$ ,  $CHCl_3$ ). Pharm: Antiosteoporosis (cathepsin B model,  $IC_{50} = 1.3 \mu\text{g/mL}$ )<sup>[4681]</sup>. Source: YIN DU JIU LI XIANG *Murraya koenigii* (aerial parts). Ref: 4681.

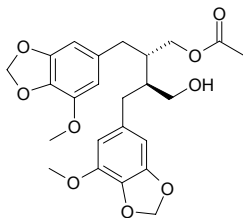


**2481 3,3'-Bis(6-methoxychroman)**

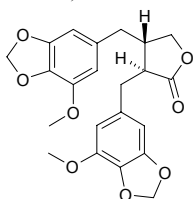
3,3'-Bis(3,4-dihydro-6-methoxy-2H-1-benzopyran); Bischroman C<sub>20</sub>H<sub>22</sub>O<sub>4</sub> (326.40). Colorless needles, mp 112–113°C,  $[\alpha]_D^{24} = -60.546^\circ$  ( $c = 0.331$ , MeOH). Source: XIAN GENG XI XIAN *Siegesbeckia orientalis* var. *pubescens* [Syn. *Siegesbeckia pubescens*]. Ref: 2197.

**2482 (2S,3S)-2,3-Bis(5-methoxy-3,4-methylenedioxybenzyl)-butane-1,4-diol monoacetate**

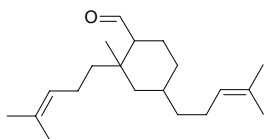
C<sub>24</sub>H<sub>28</sub>O<sub>9</sub> (460.49). Colorless gum,  $[\alpha]_D^{25} = +9.5^\circ$  ( $c = 0.153$ , CHCl<sub>3</sub>). Source: MENG ZI CAO HU JIAO *Peperomia duclouxii* (whole herb: yield = 0.00012%). Ref: 4733.

**2483 (2S,3S)-2,3-Bis(5-methoxy-3,4-methylenedioxybenzyl)-butyrolactone**

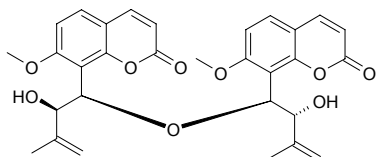
C<sub>22</sub>H<sub>22</sub>O<sub>8</sub> (414.42). Pale yellow gum,  $[\alpha]_D^{25} = +29.0^\circ$  ( $c = 0.547$ , CHCl<sub>3</sub>). Source: MENG ZI CAO HU JIAO *Peperomia duclouxii* (whole herb: yield = 0.0014%). Ref: 4733.

**2484 4,6-Bis(4-methylpent-3-en-1-yl)-6-methylcyclohexa-1,3-diene-carbaldehyde**

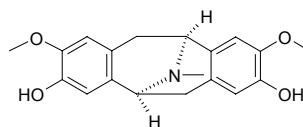
C<sub>20</sub>H<sub>34</sub>O (290.49). Pharm: Affinity to nAChR ( $\alpha 4\beta 2^*$  subtype,  $K_i > 50000$ nmol/L, control (-)-Nicotine,  $K_i = (0.838 \pm 0.132)$ nmol/L;  $\alpha 7^*$  subtype,  $K_i > 50000$ nmol/L, (-)-Nicotine,  $K_i = (127 \pm 5)$ nmol/L)<sup>[5029]</sup>. Source: BEI HAI XIAN TAI CHONG *Flustra foliacea* Ref: 5029.

**2485 Bismurrangatin**

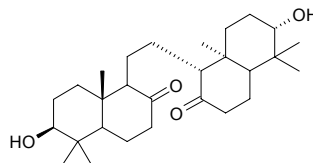
C<sub>30</sub>H<sub>30</sub>O<sub>9</sub> (534.57). Colorless oil,  $[\alpha]_D = +2.5^\circ$  ( $c = 0.14$ , MeOH). Source: ZHONG HUA JIU LI XIANG *Murraya exotica* (vegetative branches). Ref: 4510.

**2486 Bisnorargemonine**

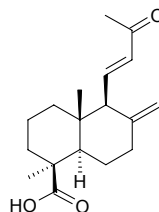
C<sub>19</sub>H<sub>21</sub>NO<sub>4</sub> (327.38). Source: HOU KE GUI *Cryptocarya chinensis* (leaf). Ref: 4129.

**2487 26,27-Bisnor-8,14-dioxo- $\alpha$ -onocerin**

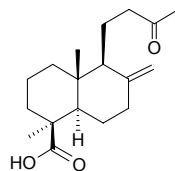
C<sub>28</sub>H<sub>46</sub>O<sub>4</sub> (446.68). Source: YU BAI SHI SONG *Lycopodium obscurum*. Ref: 660.

**2488 15,16-Bisnor-13-oxo-8(17),11E-labdadien-19-oic acid**

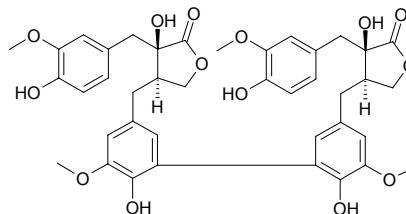
C<sub>18</sub>H<sub>26</sub>O<sub>3</sub> (290.41). Source: BAI ZI REN *Biota orientalis* [Syn. *Thuja orientalis*; *Platyclusus orientalis*]. Ref: 660.

**2489 15,16-Bisnor-13-oxo-8(17)-labden-19-oic acid**

C<sub>18</sub>H<sub>28</sub>O<sub>3</sub> (292.42). Source: BAI ZI REN *Biota orientalis* [Syn. *Thuja orientalis*; *Platyclusus orientalis*]. Ref: 660.

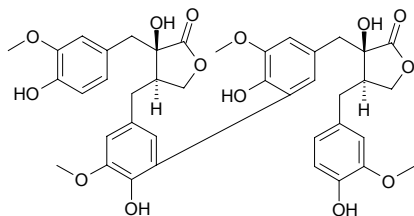
**2490 Bis-5,5-nortrachelogenin**

C<sub>40</sub>H<sub>42</sub>O<sub>14</sub> (746.77). Light yellow oil,  $[\alpha]_D^{23} = +55.0^\circ$  ( $c = 0.10$ , MeOH). Pharm: NO production inhibitor ( $IC_{50} = 48.6$ μmol/L)<sup>[4526]</sup>; DPPH scavenger ( $IC_{50} = 133.2$ μmol/L)<sup>[4526]</sup>. Source: LIAO GE WANG GEN *Wikstroemia indica*. Ref: 4526.

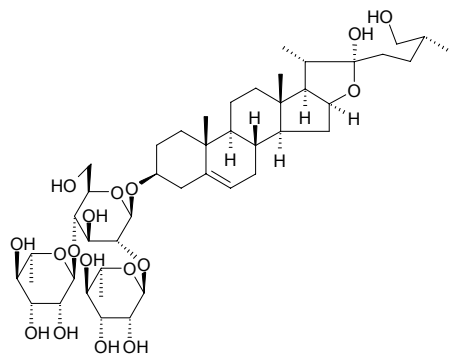


**2491 Bis-5,5'-nortrachegenin**

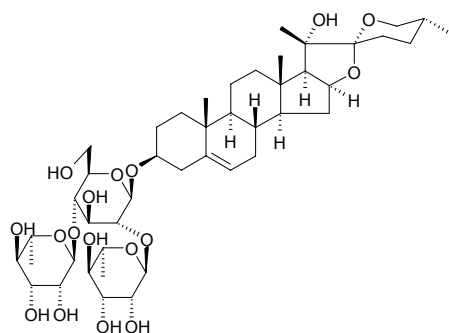
$C_{40}H_{42}O_{14}$  (746.77). Light yellow oil,  $[\alpha]_D^{23} = +68.0^\circ$  ( $c = 0.42$ , MeOH). **Pharm:** NO production inhibitor inactive ( $IC_{50} > 200\mu\text{mol/L}$ )<sup>[4526]</sup>; DPPH scavenger inactive ( $IC_{50} > 200\mu\text{mol/L}$ )<sup>[4526]</sup>. **Source:** LIAO GE WANG GEN *Wikstroemia indica*. **Ref:** 4526.

**2492 3-O-[Bis- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2 and 1 $\rightarrow$ 4)- $\beta$ -D-glucopyranosyl]-25R-furost-5-ene-3 $\beta$ ,22 $\alpha$ ,26-triol**

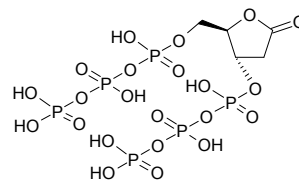
$C_{45}H_{74}O_{17}$  (887.08). White amorphous powder,  $[\alpha]_D^{25} = -61.8^\circ$  ( $c = 0.1$ , pyridine). **Pharm:** Cytotoxic (*in vitro* A375,  $IC_{50} = (17.88 \pm 1.12)\mu\text{mol/L}$ , control Mithramycin,  $IC_{50} = (0.37 \pm 0.05)\mu\text{mol/L}$ ; L-929,  $IC_{50} = (15.43 \pm 6.89)\mu\text{mol/L}$ , Mithramycin,  $IC_{50} = (0.31 \pm 0.03)\mu\text{mol/L}$ ; HeLa,  $IC_{50} = (9.87 \pm 5.48)\mu\text{mol/L}$ , Mithramycin,  $IC_{50} = (0.19 \pm 0.03)\mu\text{mol/L}$ ). **Source:** HUANG SHAN YAO *Dioscorea panthaica* (rhizome). **Ref:** 5000.

**2493 3-O-[Bis- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2 and 1 $\rightarrow$ 4)- $\beta$ -D-glucopyranosyl]-22R,25R-spirost-5-ene-3 $\beta$ ,20 $\alpha$ -diol**

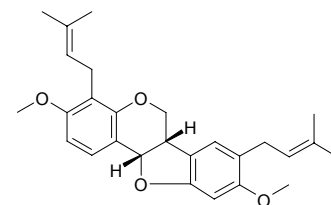
$C_{45}H_{72}O_{17}$  (885.07). White amorphous powder, mp 225–228°C,  $[\alpha]_D^{25} = -55.0^\circ$  ( $c = 0.1$ , pyridine). **Pharm:** Cytotoxic (*in vitro*: A375,  $IC_{50} = (1.23 \pm 0.82)\mu\text{mol/L}$ , control Mithramycin,  $IC_{50} = (0.37 \pm 0.05)\mu\text{mol/L}$ ; L-929,  $IC_{50} = (1.56 \pm 1.03)\mu\text{mol/L}$ , Mithramycin,  $IC_{50} = (0.31 \pm 0.03)\mu\text{mol/L}$ ; HeLa,  $IC_{50} = (1.18 \pm 0.81)\mu\text{mol/L}$ , Mithramycin,  $IC_{50} = (0.19 \pm 0.03)\mu\text{mol/L}$ ). **Source:** HUANG SHAN YAO *Dioscorea panthaica* (rhizome). **Ref:** 5000.

**2494 3,4-trans-(erythro)-3,5-Bis(tripolyphosphate)-4-pentanolide**

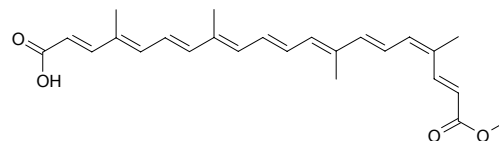
2-Deoxy-D-ribose-3,5-bis(tripolyphosphate)-1,4-lactone  $C_5H_{14}O_{22}P_6$  (612.00). Colorless solid, mp. 189–190°C (MeOH), IR[25, D] =  $-1.9^\circ$  ( $c = 1.65$ , H<sub>2</sub>O). **Source:** GONG XING MA DOU LING *Aristolochia arcuata*. **Ref:** 2037.

**2495 Bitucarpin A**

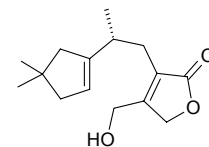
$C_{27}H_{32}O_4$  (420.55).  $[\alpha]_D^{25} = -98^\circ$  ( $c = 0.7$ , MeOH). **Pharm:** Cytotoxic (KB,  $IC_{50} > 75\mu\text{mol/L}$ , control Helenalin,  $IC_{50} = (0.64 \pm 0.08)\mu\text{mol/L}$ , Melphalan,  $IC_{50} = (6.0 \pm 0.5)\mu\text{mol/L}$ ; Mono-Mac-6,  $IC_{50} > 75\mu\text{mol/L}$ , Helenalin,  $IC_{50} = (3.1 \pm 0.3)\mu\text{mol/L}$ ; Jurkat-T,  $IC_{50} > 75\mu\text{mol/L}$ , Helenalin,  $IC_{50} = (1.14 \pm 0.08)\mu\text{mol/L}$ , Melphalan,  $IC_{50} = (9.1 \pm 0.8)\mu\text{mol/L}$ ). **Source:** *Bituminaria morisiana* (leaf). **Ref:** 5077.

**2496 Bixin**

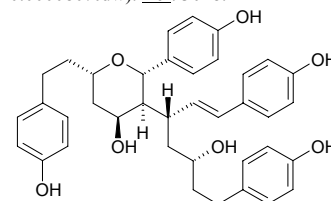
$\alpha$ -Bixin  $C_{25}H_{30}O_4$  (394.52). **Pharm:** Orange pigment. **Source:** HONG MU *Bixa orellana*. **Ref:** 658, 1521, 5507.

**2497 Blennin C**

$C_{15}H_{22}O_3$  (250.34). **Source:** MEI WEI HONG GU *Russula delica* (sporocarp). **Ref:** 4374.

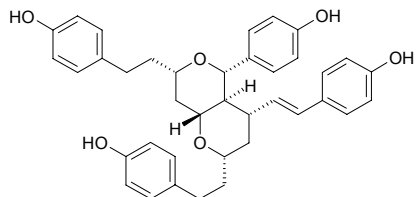
**2498 Blepharocalyxin C**

$C_{38}H_{42}O_7$  (610.75). Light yellow amorphous solid,  $[\alpha]_D^{25} = +63.5^\circ$  ( $c = 0.035$ , MeOH). **Pharm:** Cytotoxic (Colon26-L5,  $ED_{50} = 29.6\mu\text{mol/L}$ , control 5-FU,  $ED_{50} = 0.53\mu\text{mol/L}$ ; HT1080,  $ED_{50} = 54.3\mu\text{mol/L}$ , 5-FU,  $ED_{50} = 8.0\mu\text{mol/L}$ ). **Source:** YUN NAN CAO KOU *Alpinia blepharocalyx* (seed: yield = 0.000080%dw). **Ref:** 3048.

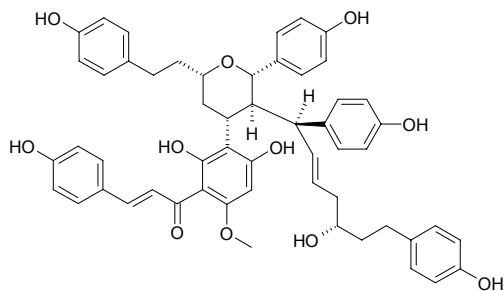


**2499 Blepharocalyxin D**

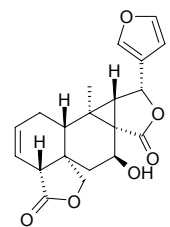
$C_{38}H_{40}O_6$  (592.74). Light yellow amorphous solid,  $[\alpha]_D^{25} = +18.5^\circ$  ( $c = 0.025$ , MeOH). **Pharm:** Cytotoxic (Colon26-L5,  $ED_{50} = 3.61\mu\text{mol/L}$ , control 5-FU,  $ED_{50} = 0.53\mu\text{mol/L}$ ; HT1080,  $ED_{50} = 25.7\mu\text{mol/L}$ , 5-FU,  $ED_{50} = 8.0\mu\text{mol/L}$ )<sup>[3048]</sup>. **Source:** YUN NAN CAO KOU *Alpinia blepharocalyx* (seed: yield = 0.000055%dw)<sup>[3048]</sup>. **Ref:** 3035, 3048.

**2500 Blepharocalyxin E**

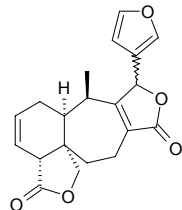
$C_{54}H_{54}O_{11}$  (879.03). Light yellow amorphous solid,  $[\alpha]_D^{25} = +145.5^\circ$  ( $c = 0.025$ , MeOH). **Pharm:** Cytotoxic (Colon26-L5,  $ED_{50} = 32.2\mu\text{mol/L}$ , control 5-FU,  $ED_{50} = 0.53\mu\text{mol/L}$ ; HT1080,  $ED_{50} = 9\mu\text{mol/L}$ , 5-FU,  $ED_{50} = 8.0\mu\text{mol/L}$ ). **Source:** YUN NAN CAO KOU *Alpinia blepharocalyx* (seed: yield = 0.000070%dw). **Ref:** 3048.

**2501 Blepharolide A**

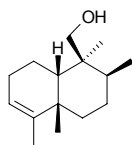
[260969-76-4]  $C_{20}H_{20}O_6$  (356.38). Colorless crystals, mp 252–254°C,  $[\alpha]_D^{20} = -13.7^\circ$  ( $c = 0.204$ ,  $\text{CHCl}_3$ ). **Source:** JIE MAO YE SHU WEI CAO *Salvia blepharophylla*. **Ref:** 2411.

**2502 Blepharolide B**

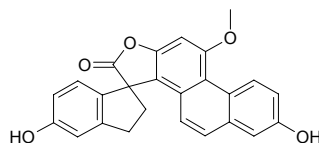
[260969-77-5]  $C_{20}H_{20}O_5$  (340.38). Colorless crystals, mp 260–262°C,  $[\alpha]_D^{20} = -98.1^\circ$  ( $c = 0.212$ ,  $\text{CHCl}_3$ ). **Source:** JIE MAO YE SHU WEI CAO *Salvia blepharophylla*. **Ref:** 2411.

**2503 Blepharostol**

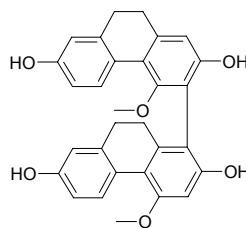
$C_{15}H_{26}O$  (222.37). Colorless oil,  $[\alpha]_D^{20} = +27.8^\circ$  ( $c = 0.19$ ,  $\text{CHCl}_3$ ). **Source:** JIE MAO TAI *Blepharostoma trichophyllum*. **Ref:** 3843.

**2504 Blespirol**

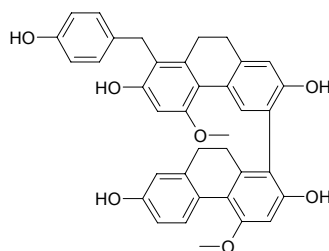
$C_{25}H_{18}O_5$  (398.42). **Source:** BAI JI *Bletilla striata*. **Ref:** 660.

**2505 Blestrianol A**

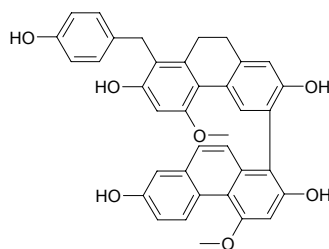
[136966-83-1]  $C_{30}H_{26}O_6$  (482.54). **Source:** BAI JI *Bletilla striata*. **Ref:** 660.

**2506 Blestrianol B**

[136966-84-2]  $C_{37}H_{32}O_7$  (588.66). **Source:** BAI JI *Bletilla striata*. **Ref:** 660.

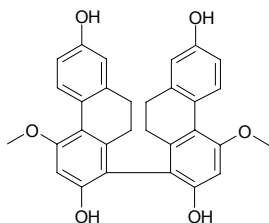
**2507 Blestrianol C**

[136966-85-3]  $C_{37}H_{30}O_7$  (586.65). **Source:** BAI JI *Bletilla striata*. **Ref:** 660.

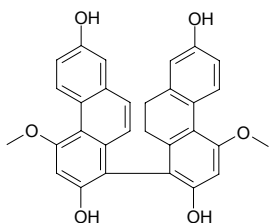


**2508 Blestriarene A**

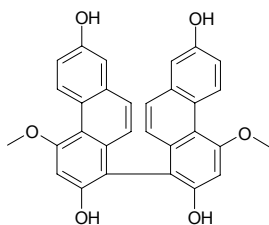
$C_{30}H_{26}O_6$  (482.54). Colorless crystals. **Pharm:** Antiallergic  $\beta$ -Hexosaminidase inhibitor (rat basophilic RBL-2H3 cells, inhibits release of  $\beta$ -hexosaminidase,  $100\mu\text{mol/L}$ ,  $\text{InRt} = (86.8 \pm 1.1)\mu\text{mol/L}$ ,  $p < 0.01$ ;  $300\mu\text{mol/L}$  control Ketotifen fumarate,  $\text{InRt} = (72.5 \pm 0.9)\mu\text{mol/L}$ ,  $p < 0.01$ )<sup>[5022]</sup>. **Source:** BAI JI *Bletilla striata*, SHOU ZHANG SHEN *Gymnadenia conopsea* (tuber). **Ref:** 660, 5022.

**2509 Blestriarene B**

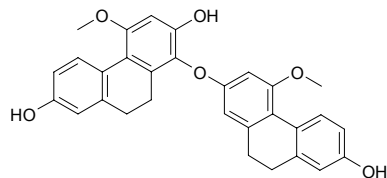
[127211-03-4]  $C_{30}H_{24}O_6$  (480.52). **Pharm:** Antibacterial (*Staphylococcus aureus* and *Streptococcus mutans*). **Source:** BAI JI *Bletilla striata*, LAN YU BAI JI *Bletilla formosana* (whole herb). **Ref:** 658, 4500.

**2510 Blestriarene C**

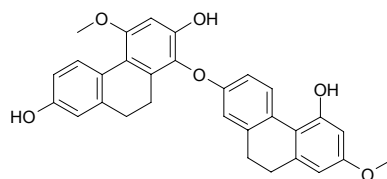
$C_{30}H_{22}O_6$  (478.51). **Source:** BAI JI *Bletilla striata*. **Ref:** 660.

**2511 Blestrin A**

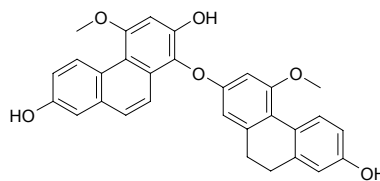
$C_{30}H_{26}O_6$  (482.54). **Source:** BAI JI *Bletilla striata*. **Ref:** 660.

**2512 Blestrin B**

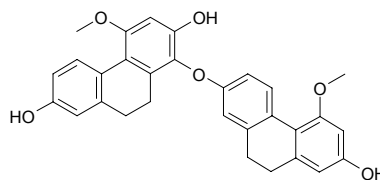
$C_{30}H_{26}O_6$  (482.54). **Source:** BAI JI *Bletilla striata*. **Ref:** 660.

**2513 Blestrin C**

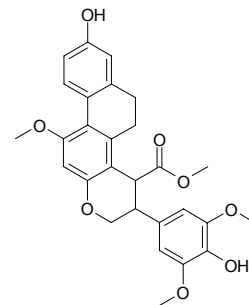
$C_{30}H_{24}O_6$  (480.52). **Source:** BAI JI *Bletilla striata*. **Ref:** 660.

**2514 Blestrin D**

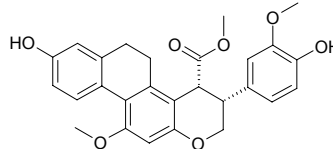
$C_{30}H_{26}O_6$  (482.54). **Source:** BAI JI *Bletilla striata*. **Ref:** 660.

**2515 Bletilol A**

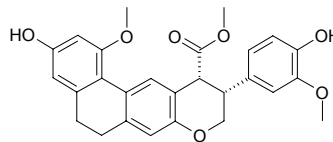
$C_{28}H_{28}O_8$  (492.53). **Source:** BAI JI *Bletilla striata*. **Ref:** 660.

**2516 Bletilol B**

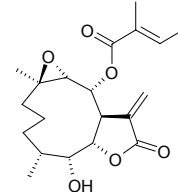
$C_{27}H_{26}O_7$  (462.50). **Source:** BAI JI *Bletilla striata*. **Ref:** 660.

**2517 Bletilol C**

$C_{27}H_{26}O_7$  (462.50). **Source:** BAI JI *Bletilla striata*. **Ref:** 660.

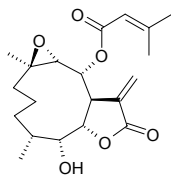
**2518 Blumealactone A**

$C_{20}H_{28}O_6$  (364.44). **Source:** AI NA XIANG *Blumea balsamifera*. **Ref:** 660.

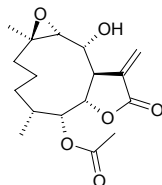


**2519 Blumealactone B**

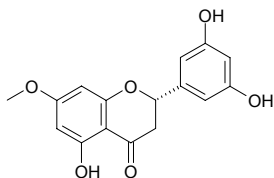
$C_{20}H_{28}O_6$  (364.44). Source: AI NA XIANG *Blumea balsamifera*. Ref: 660.

**2520 Blumealactone C**

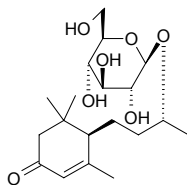
$C_{17}H_{24}O_6$  (324.38). Source: AI NA XIANG *Blumea balsamifera*. Ref: 660.

**2521 Blumeatin**

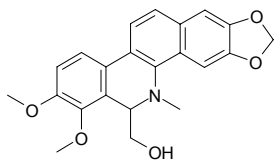
5,3',5'-Trihydroxy-7-methoxy dihydroflavone  $C_{16}H_{14}O_6$  (302.29). Source: AI NA XIANG *Blumea balsamifera*. Ref: 660.

**2522 Blumenol C glucoside**

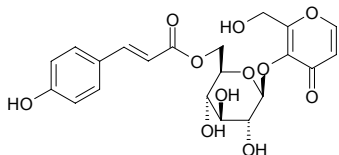
(6*S*,9*R*)-Megastigman-3-on-4-en-9-ol 9-*O*- $\beta$ -*D*-glucopyranoside  $C_{19}H_{32}O_7$  (372.46). Source: CHUI ZHU SUAN PAN ZI *Glochidion zeylanicum* (leaf). Ref: 4323.

**2523 Boconoline**

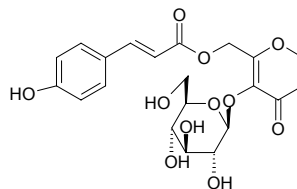
$C_{22}H_{21}NO_5$  (379.42). Source: BO LUO HUI *Macleaya cordata*, RU DI JIN NIU *Zanthoxylum nitidum*. Ref: 660.

**2524 Bockioside A**

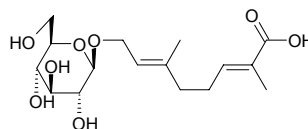
Hyxymaltol 3-*O*-(6-*O*-*p*-coumaryl)- $\beta$ -*D*-glucopyranoside  $C_{21}H_{22}O_{11}$  (450.40). Colorless amorphous solid,  $[\alpha]_D^{25} = -73.8^\circ$  ( $c = 1.3$ , MeOH). Source: XI NAN BA QIA *Smilax bockii* (tuber). Ref: 3773.

**2525 Bockioside B**

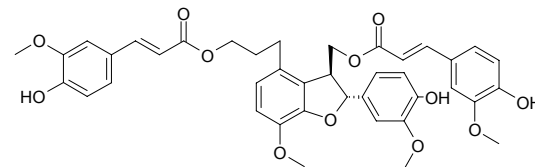
7-*O*-*p*-Coumaroylhydroxymaltol 3-*O*- $\beta$ -*D*-glucopyranoside  $C_{21}H_{22}O_{11}$  (450.40). Colorless amorphous solid,  $[\alpha]_D^{25} = -21.3^\circ$  ( $c = 0.3$ , MeOH). Source: XI NAN BA QIA *Smilax bockii* (tuber). Ref: 3773.

**2526 Bodinierin**

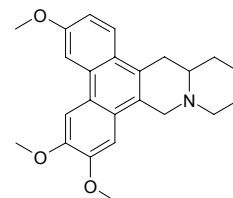
$C_{16}H_{26}O_8$  (346.38). White powder, mp 180°C (dec). Source: FENG WEI CHA *Elsholtzia bodinieri* (whole herb). Ref: 4590.

**2527 Boehmenan**

[57296-22-7]  $C_{40}H_{40}O_{12}$  (712.76). Powder. Pharm: Anti-HIV (H9 lymphocytic cells, inhibits replication,  $IC_{50}$  (concentration that inhibits uninfected H9 cell growth by 50%) = 19.42  $\mu$ g/mL)<sup>[2529]</sup>; cytotoxic (hmn, A549,  $EC_{50} = 18.4 \mu$ g/mL, MCF7,  $EC_{50} = 10.9 \mu$ g/mL)<sup>[2529]</sup>. Source: CHI MA *Boehmeria platanifolia* [Syn. *Boehmeria tricuspis*], TAI WAN FU RONG *Hibiscus taiwanensis*. Ref: 660, 1521, 2529.

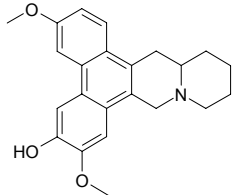
**2528 Boehmeriasin A**

$C_{24}H_{27}NO_3$  (377.49). White needles ( $CH_2Cl_2$ - $CH_3OH$ ), mp 216–218°C,  $[\alpha]_D^{20} = -80.4^\circ$  ( $c = 0.1$ , MeOH). Pharm: Cytotoxic (K562,  $GI_{50} = 100$  ng/mL; HL-60,  $GI_{50} = 5$  ng/mL; DU145,  $GI_{50} = 2$  ng/mL; PC3,  $GI_{50} = 5$  ng/mL; A549,  $GI_{50} = 0.3$  ng/mL; NCI-H460,  $GI_{50} = 0.3$  ng/mL; MCF7,  $GI_{50} = 5$  ng/mL; MDA-MB-231,  $GI_{50} = 3$  ng/mL; ACHN,  $GI_{50} = 0.3$  ng/mL; UO-31,  $GI_{50} = 0.4$  ng/mL; HT29,  $GI_{50} = 0.2$  ng/mL; Colon205,  $GI_{50} = 0.3$  ng/mL; control Taxol,  $GI_{50} = >100$  ng/mL, 77 ng/mL, 40 ng/mL, 44 ng/mL, 30 ng/mL, 20 ng/mL, 80 ng/mL, 40 ng/mL,  $>100$  ng/mL,  $>100$  ng/mL, 40 ng/mL, 40 ng/mL, respectively)<sup>[5450]</sup>. Source: SHU XU ZHU MA *Boehmeria siamensis*. Ref: 5450.

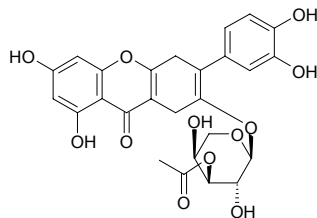


**2529 Boehmeriasin B**

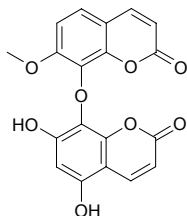
$C_{23}H_{25}NO_3$  (363.46). White powder ( $CH_2Cl_2-CH_3OH$ ), mp 248–250°C,  $[\alpha]_D^{20} = -63.7^\circ$  ( $c = 0.2$ , MeOH). **Pharm:** Cytotoxic (lower activity than Boehmeriasin A). **Source:** SHU XU ZHU MA *Boehmeria siamensis*. **Ref:** 5450.

**2530 Boehmerin**

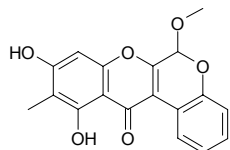
$C_{26}H_{24}O_{12}$  (528.47). **Source:** CHI MA *Boehmeria platanifolia* [Syn. *Boehmeria tricuspis*]. **Ref:** 660.

**2531 Boennin**

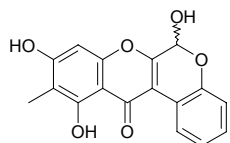
$C_{19}H_{12}O_8$  (368.30). **Source:** SHI JIAO CAO *Boenninghausenia sessilicarpa*, YAN JIAO CAO *Boenninghausenia albiflora*. **Ref:** 2495.

**2532 Boeravinone A**

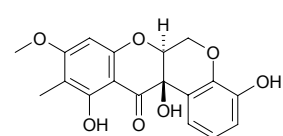
$C_{18}H_{14}O_6$  (326.31). **Source:** HUANG XI XIN *Boerhavia diffusa*. **Ref:** 660.

**2533 Boeravinone B**

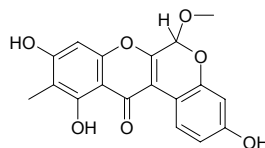
$C_{17}H_{12}O_6$  (312.28). **Source:** HUANG XI XIN *Boerhavia diffusa*. **Ref:** 660.

**2534 Boeravinone C**

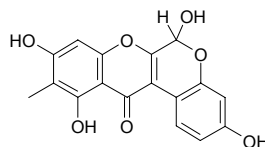
$C_{18}H_{16}O_7$  (344.32). **Source:** HUANG XI XIN *Boerhavia diffusa*. **Ref:** 660.

**2535 Boeravinone D**

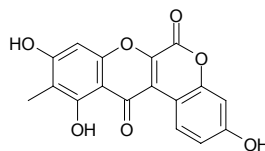
$C_{18}H_{14}O_7$  (342.31). **Source:** HUANG XI XIN *Boerhavia diffusa*. **Ref:** 660.

**2536 Boeravinone E**

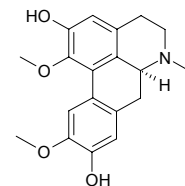
$C_{17}H_{12}O_7$  (328.28). **Source:** HUANG XI XIN *Boerhavia diffusa*. **Ref:** 660.

**2537 Boeravinone F**

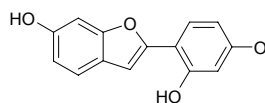
$C_{17}H_{10}O_7$  (326.27). **Source:** HUANG XI XIN *Boerhavia diffusa*. **Ref:** 660.

**2538 Boldine**

[476-70-0]  $C_{19}H_{21}NO_4$  (327.38). **Pharm:** Choleric (bile secretion promotor); laxative; antihypercholesterolemic; antihepatotoxic; treatment of hepatic insufficiency. **Source:** BO LU DU SHU *Peumus boldus*, CHAN GAO MU JIANG ZI *Litsea glutinosa*, LI FEI MU JIANG ZI *Litsea lefeana*, MEI ZHOU CHA MU *Sassafras albidum*, NI ZHAO MU JIANG ZI *Litsea turfosa*, YUE GUI SHU YE MU JIANG ZI *Litsea laurifolia*, ZHOU SHAN XIN MU JIANG ZI *Neolitsea sericea*. **Ref:** 658.

**2539 Bolusanthin IV**

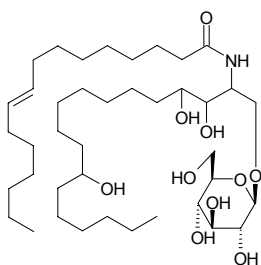
6,6'-Dihydroxy-4'-methoxy-2-arylbenzofuran  $C_{15}H_{12}O_4$  (256.26). Brown solid, mp 178–180°C. **Pharm:** Antibacterial (*Escherichia coli*, MIA = 0.5µg, control Chloramphenicol, MIA = 0.001µg; *Bacillus subtilis*, MIA = 0.05µg, Chloramphenicol, MIA = 0.001µg; *Staphylococcus aureus*, MIA = 0.01µg, Chloramphenicol, MIA = 0.001µg); antifungal (*Candida mycoderma*, MIA = 0.05µg, Miconazole, MIA = 0.0001µg); antioxidant (DPPH scavenger, TLC detection limit = 0.1µg, IC<sub>50</sub> = 29µg/mL; control Quercetin, TLC detection limit < 0.05µg, IC<sub>50</sub> = 7µg/mL; Gallic acid, TLC detection limit < 0.05µg, IC<sub>50</sub> = 4µg/mL; Ascorbic acid, TLC detection limit < 0.10µg, IC<sub>50</sub> = 18µg/mL). **Source:** *Bolusanthus speciosus* (root wood). **Ref:** 3785.



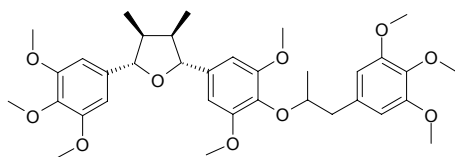


**2540 Bonaroside**

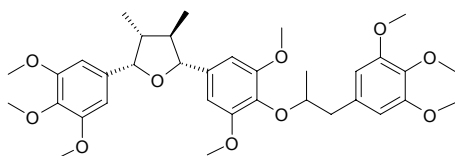
$C_{40}H_{77}NO_{10}$  (732.06). White powder, mp 172–174°C,  $[\alpha]_D^{25} = +178.6^\circ$  ( $c = 0.14$ , MeOH). Source: XIANG SI CAO *Conyza bonariensis* [Syn. *Erigeron bonariensis*; *Erigeron linifolius*; *Erigeron crispus*] (aerial parts). Ref: 5206.

**2541 Bonaspectin A**

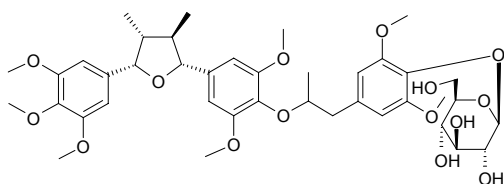
$C_{35}H_{46}O_{10}$  (626.75). Oil. Source: *Bonamia spectabilis* (aerial parts). Ref: 3904.

**2542 Bonaspectin B**

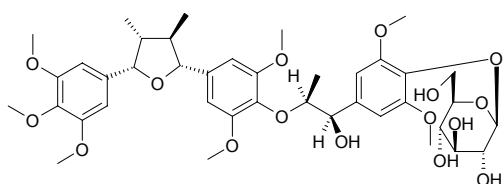
$C_{35}H_{46}O_{10}$  (626.75). Oil,  $[\alpha]_D^{20} = +11.5^\circ$  ( $c = 0.2$ ,  $CHCl_3$ ). Source: *Bonamia spectabilis* (aerial parts). Ref: 3904.

**2543 Bonaspectin C 4''-β-glucoside**

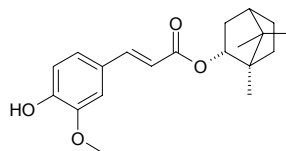
$C_{40}H_{54}O_{15}$  (774.87). Oil,  $[\alpha]_D^{20} = +12.4^\circ$  ( $c = 0.23$ ,  $CHCl_3$ ). Source: *Bonamia spectabilis* (aerial parts). Ref: 3904.

**2544 Bonaspectin D 4''-β-glucoside**

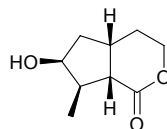
$C_{40}H_{54}O_{16}$  (790.87). Oil,  $[\alpha]_D^{20} = +15.3^\circ$  ( $c = 0.3$ ,  $CHCl_3$ ). Source: *Bonamia spectabilis* (aerial parts). Ref: 3904.

**2545 (-)-Bonyl ferulate**

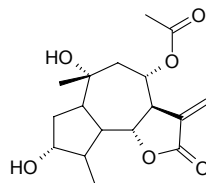
$C_{20}H_{26}O_4$  (330.43).  $[\alpha]_D^{22} = -31.7^\circ$  ( $c = 1$ , EtOH). Source: QIANG HUO *Notopterygium incisum*. Ref: 723.

**2546 Boonein**

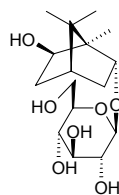
$C_9H_{14}O_3$  (170.21). Source: RI BEN ZHANG YA CAI *Swertia japonica*. Ref: 2528.

**2547 Borenolide**

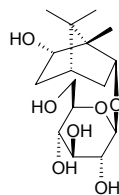
$C_{17}H_{24}O_6$  (34.38). Pharm: Anti-apoptosis (etoposide-induced,  $IC_{50} = (6.2 \pm 0.7) \mu g/mL$ ; control PDTC,  $IC_{50} = (8.0 \pm 0.5) \mu g/mL$ )<sup>[5455]</sup>. Source: BEI YE JU *Chrysanthemum boreale*. Ref: 5455.

**2548 (1R,2R,4S,6R)-Bornane-2,6-diol 2-O-β-D-glucopyranoside**

$C_{16}H_{28}O_7$  (332.40). Source: SUO SHA MI *Amomum xanthioides* (seed). Ref: 4365.

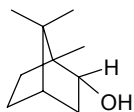
**2549 (1S,2S,4R,6S)-Bornane-2,6-diol 2-O-β-D-glucopyranoside**

$C_{16}H_{28}O_7$  (332.40). Colorless needles (MeOH), mp 114–116°C,  $[\alpha]_D^{23} = +9^\circ$  ( $c = 0.8$ , MeOH). Source: SUO SHA MI *Amomum xanthioides* (seed). Ref: 4365.

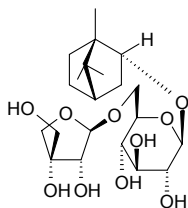


**2550 Borneol**

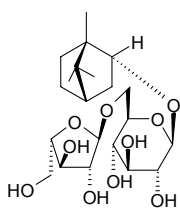
1,7,7-Trimethyl endo-bicyclo[2.2.1]heptan-2-ol  $C_{10}H_{18}O$  (154.25). mp 208°C, bp 212°C. **Pharm:** Antibacterial (D-isomer, 0.5%); anthelmintic; antispasmodic; stimulant (D-isomer); analgesic (D-isomer); induces sweating; LD<sub>50</sub> (mus, ip) = 907mg/kg. **Source:** AI NA XIANG *Blumea balsamifera*, BAI CHANG *Acorus calamus*, BAI DOU KOU *Amomum kravanh* [Syn. *Amomum cardamomum*], BING PIAN *Dryobalanops aromatica* (58.93%~59.78%), DA CAO KOU *Alpinia speciosa*, DU SONG SHI *Juniperus rigida*, GANG SONG *Baeckea frutescens*, JU HUA *Chrysanthemum morifolium* [Syn. *Dendranthema morifolium*] (dried capitulum: mean content of 3 origins = 0.911%<sup>[5508]</sup>), LA MEI HUA *Chimonanthus fragrans* [Syn. *Chimonanthus praecox*], MI DIE XIANG *Rosmarinus officinalis*, MIAN MAO MA DOU LING *Aristolochia mollissima* (dried root and stem: yield = 0.0019%<sup>[3026]</sup>), SHA REN *Amomum villosum* (dried ripe fruit: mean content = 0.031%<sup>[5524]</sup>), SHAN NAI *Kaempferia galanga*, SHE XIANG CAO *Thymus vulgaris*, SHENG JIANG *Zingiber officinale*, SHI XIANG RU *Mosla chinensis* [Syn. *Orthodon chinensis*], SHUANG YE XI XIN *Asarum caulescens*, SUO SHA MI *Amomum xanthioides*, XIE CAO *Valeriana officinalis*, YANG SHI CAO *Achillea millefolium*, ZHI ZHU XIANG *Valeriana jatamansii* [Syn. *Valeriana wallichii*], occurs in many plants. **Ref:** 1, 2, 660, 3026, 5501, 5508, 5524.

**2551 Borneol-2-O-β-D-apiofuranosyl(1→6)-β-D-glucopyranoside**

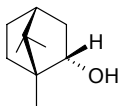
$C_{21}H_{36}O_{10}$  (448.52). **Source:** MAI DONG *Ophiopogon japonicus*. **Ref:** 660.

**2552 Borneol-2-O-α-L-arabinofuranosyl(1→6)-β-D-glucopyranoside**

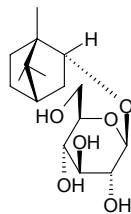
$C_{21}H_{36}O_{10}$  (448.52). **Source:** MAI DONG *Ophiopogon japonicus*. **Ref:** 660.

**2553 D-Borneol**

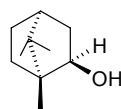
(+)-(1R,2S)-Borneol [464-43-7]  $C_{10}H_{18}O$  (154.25). **Source:** BING PIAN *Dryobalanops aromatica*. **Ref:** 2.

**2554 Borneol-2-O-β-D-glucopyranoside**

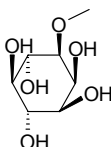
$C_{16}H_{28}O_6$  (316.40). **Source:** MAI DONG *Ophiopogon japonicus*. **Ref:** 660.

**2555 L-Borneol**

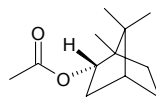
(-)-(1S,2R)-Borneol [464-45-9]  $C_{10}H_{18}O$  (154.25). mp 204°C, bp 210°C/779mmHg. **Source:** AI NA XIANG *Blumea balsamifera*, GANG SONG *Baeckea frutescens*, SHE XIANG CAO *Thymus vulgaris*, YANG SHI CAO *Achillea millefolium*, YE XIANG MAO *Cymbopogon goeringii*, ZHI ZHU XIANG *Valeriana jatamansii* [Syn. *Valeriana wallichii*], KUO YE XIE CAO *Valeriana officinalis* var. *latifolia*. **Ref:** 6, 660.

**2556 L(+)-Bornesitol**

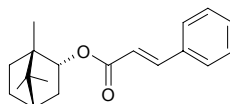
1-O-Methyl-myo-inositol  $C_7H_{14}O_6$  (194.19). mp 201~203°C. **Source:** HUANG HUA JIA ZHU TAO *Thevetia nerifolia* [Syn. *Thevetia peruviana*], JIANG LI MU GEN *Rhamnus leptophylla*. **Ref:** 6.

**2557 Bornyl acetate**

$C_{12}H_{20}O_2$  (196.29). (+) Crystals, mp 29°C; bp 225~226°C. **Pharm:** Antitussive (dispels phlegm). **Source:** HAI NAN SHA REN *Amomum longiligulare* (dried ripe fruit: mean content = 1.40%<sup>[5508]</sup>), MI DIE XIANG *Rosmarinus officinalis*, SHA REN *Amomum villosum* (dried ripe fruit: mean content of 19 origins = 2.10%<sup>[5508]</sup>; mean content = 0.160%<sup>[5524]</sup>), SHAN HU JIAO *Lindera glauca*, SUO SHA MI *Amomum xanthioides* (dried ripe fruit: mean content = 1.53%<sup>[5508]</sup>), YANG SHI CAO *Achillea millefolium*. **Ref:** 658, 661, 5501, 5508, 5524.

**2558 Bornyl cinnamate**

$C_{20}H_{28}O_2$  (300.44). **Source:** LU LU TONG *Liquidambar formosana* [Syn. *Liquidambar taiwaniana*]. **Ref:** 660.

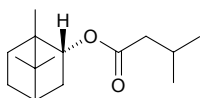


**2559 Bornylene**

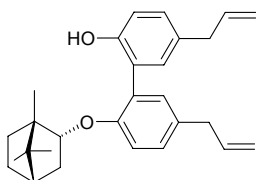
$C_{10}H_{16}$  (136.24). Source: CHENG GAN CAO *Eupatorium japonicum*, HUA ZE LAN *Eupatorium chinense*, QU CHONG BAN JIU JU *Vernonia anthelmintica*, ROU DOU KOU *Myristica fragrans*. Ref: 660.

**2560 Bornyl isovalerianate**

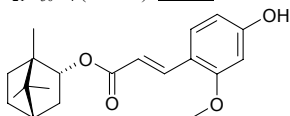
[76-50-6]  $C_{15}H_{26}O_2$  (238.37). Source: HUANG HUA HAO *Artemisia annua*. Ref: 2.

**2561 Bornylmagnolol**

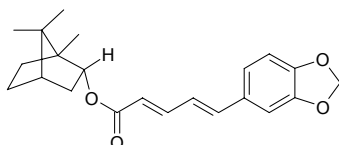
$C_{28}H_{34}O_2$  (402.58). Source: HOU PO *Magnolia officinalis*. Ref: 2, 660.

**2562 Bornyl-2-methoxy-4-hydroxycinnamate**

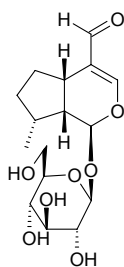
$C_{21}H_{30}O_4$  (346.47). Source: SHE TAI *Conocephalum conicum*. Ref: 660.

**2563 (+)-Bornyl piperate**

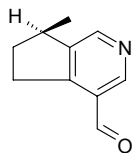
$C_{22}H_{26}O_4$  (354.45). Colorless needles, mp 93~95°C (hexane),  $[\alpha]_D^{27} = +7.80^\circ$  ( $c = 0.1$ ,  $CHCl_3$ ). Source: *Piper* aff. *pedicellatum* (underground root). Ref: 4296.

**2564 Boschnaloside**

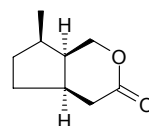
$C_{16}H_{24}O_8$  (344.36). Pharm: Enhances sex drive (male mouse with stress loading); antioxidant; anti-ischemia myocardial (coronary arteries-ligated rat, significant improvement in ECG parameters, reduces the area of cardiac muscle infarction, enhances SOD activity and CPK activity in cardiac muscles); SOD activity enhancer (mouse erythrocytes); reduces MDA content (mouse serum); antimutagenic (mouse). Source: ROU CONG RONG *Cistanche deserticola*. Ref: 5501.

**2565 Boschniakine**

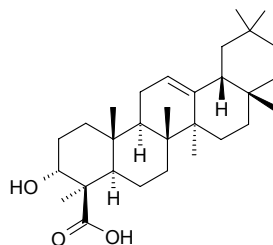
[18070-40-1]  $C_{10}H_{11}NO$  (161.21). bp 80~90°C/3mmHg. Source: CAO CONG RONG *Boschniakia rossica*. Ref: 6.

**2566 Boschnialactone**

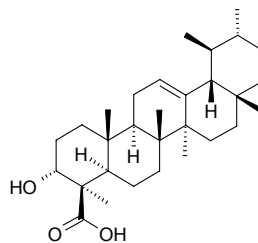
[17957-87-8]  $C_9H_{14}O_2$  (154.21). bp 105~112°C/6mmHg. Pharm: Stimulant (cat). Source: CAO CONG RONG *Boschniakia rossica*. Ref: 6, 658.

**2567  $\alpha$ -Boswellic acid**

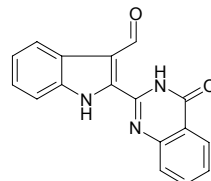
3 $\alpha$ -Hydroxy-12-oleanen-24-oic acid [471-66-9]  $C_{30}H_{48}O_3$  (456.72). mp 289°C. Source: RU XIANG *Boswellia carterii*. Ref: 6.

**2568  $\beta$ -Boswellic acid**

[631-69-6]  $C_{30}H_{48}O_3$  (456.72). mp 238~240°C. Source: RU XIANG *Boswellia carterii*. Ref: 6.

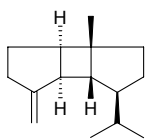
**2569 Bouchardatine**

2-(2-[3-Tormylindolyl])-(3H)-quinazolin-4-one  $C_{17}H_{11}N_3O_2$  (289.30). Yellow amorphous powder. Source: *Bouchardatia neurococca*. Ref: 3445.

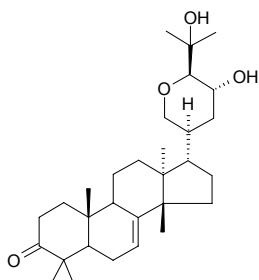


**2570  $\beta$ -Bourbonene**

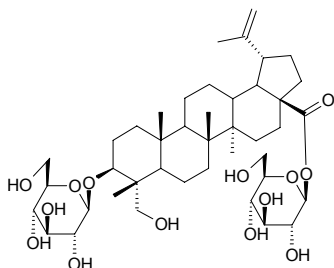
[5208-59-3] C<sub>15</sub>H<sub>24</sub> (204.36). Source: MU HAO *Artemisia japonica*, HUANG HUA HAO *Artemisia annua*. Ref: 6, 660.

**2571 Bourjotinolone A**

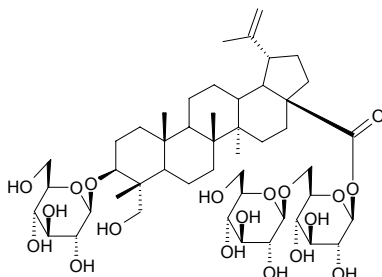
C<sub>30</sub>H<sub>48</sub>O<sub>4</sub> (472.71). Source: *Eurycoma* sp. Ref: 4556.

**2572 Bourneioside A**

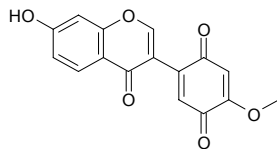
3-*O*- $\beta$ -*D*-Glucopyranosyl-23-hydroxy-lup-20(29)-en-28-oic acid-28-*O*- $\beta$ -*D*-glucopyranosyl ester C<sub>42</sub>H<sub>68</sub>O<sub>14</sub> (797.00). White crystals (MeOH), mp 205~207°C, [ $\alpha$ ]<sub>D</sub><sup>21</sup> = +55.0° (*c* = 0.1, MeOH). Source: XI NAN REN DONG *Lonicera bournei* (flower bud). Ref: 3986.

**2573 Bourneioside B**

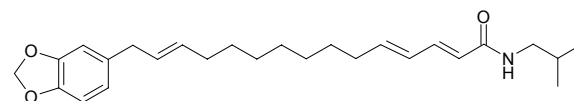
3-*O*- $\beta$ -*D*-Glucopyranosyl-23-hydroxy-lup-20(29)-en-28-oic acid-28-*O*-[ $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranosyl]ester C<sub>48</sub>H<sub>78</sub>O<sub>19</sub> (959.15). White crystals (MeOH), mp 214~216°C, [ $\alpha$ ]<sub>D</sub><sup>21</sup> = +40.0° (*c* = 0.1, MeOH). Source: XI NAN REN DONG *Lonicera bournei* (flower bud). Ref: 3986.

**2574 Bowdichione**

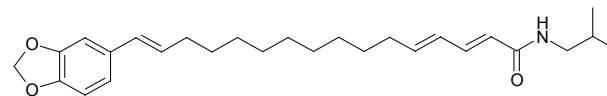
[53774-75-7] C<sub>16</sub>H<sub>10</sub>O<sub>6</sub> (298.25). Source: JIANG ZHEN XIANG *Dalbergia odorifera*. Ref: 716.

**2575 Brachystamide C**

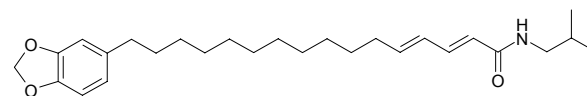
C<sub>26</sub>H<sub>37</sub>NO<sub>3</sub> (411.59). White amorphous solid, mp 90~95°C. Source: DUAN SUI HU JIAO *Piper brachystachyum*. Ref: 2013.

**2576 Brachystamide D**

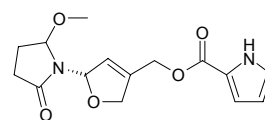
C<sub>27</sub>H<sub>39</sub>NO<sub>3</sub> (425.62). White amorphous solid, mp 88~90°C. Source: CHANG GUO BI BA *Piper retrofractum*, DUAN SUI HU JIAO *Piper brachystachyum*. Ref: 2013.

**2577 Brachystamide E**

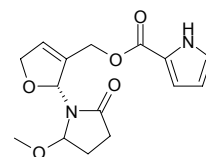
C<sub>27</sub>H<sub>41</sub>NO<sub>3</sub> (427.63). Source: DUAN SUI HU JIAO *Piper brachystachyum*. Ref: 2013.

**2578 Brachystemidine A**

C<sub>15</sub>H<sub>18</sub>N<sub>2</sub>O<sub>5</sub> (306.32). White solid, mp 210~211.5°C, [ $\alpha$ ]<sub>D</sub><sup>28</sup>: laevo but unstable (*c* = 0.24, MeOH). Source: DUAN BAN HUA *Brachystemma calycinum* (root: yield = 0.00004%dw). Ref: 4629.

**2579 Brachystemidine B**

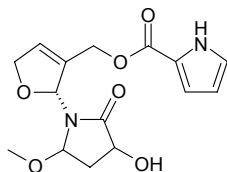
C<sub>15</sub>H<sub>18</sub>N<sub>2</sub>O<sub>5</sub> (306.32). White solid, mp 151~152°C, [ $\alpha$ ]<sub>D</sub><sup>27</sup> = -3.1° (*c* = 0.32, MeOH) Source: DUAN BAN HUA *Brachystemma calycinum* (root: yield = 0.000005%dw). Ref: 4629.



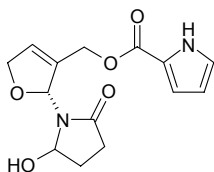
**2580 Brachystemidine C**

$C_{15}H_{18}N_2O_6$  (322.32). Colorless gum,  $[\alpha]_D^{21} = -21.0^\circ$  ( $c = 0.25$ ,  $CHCl_3$ ).

Source: DUAN BAN HUA *Brachystemma calycinum* (root: yield = 0.00002%dw). Ref: 4629.

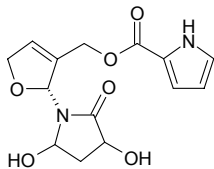
**2581 Brachystemidine D**

$C_{14}H_{16}N_2O_5$  (292.29). Colorless block, mp 147.5~149°C,  $[\alpha]_D^{25} = +3.52^\circ$  ( $c = 0.43$ , MeOH). Source: DUAN BAN HUA *Brachystemma calycinum* (root: yield = 0.000004%dw). Ref: 4629.

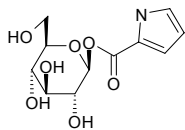
**2582 Brachystemidine E**

$C_{14}H_{16}N_2O_6$  (308.29). Colorless gum,  $[\alpha]_D^{28} = +0.76^\circ$  ( $c = 1.65$ , MeOH).

Source: DUAN BAN HUA *Brachystemma calycinum* (root: yield = 0.000008%dw). Ref: 4629.

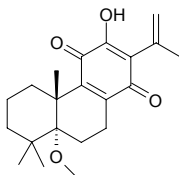
**2583 Brachystemoside A**

1'- $\beta$ -D-Glucopyranosyl-2-pyrrole-carboxylate  $C_{11}H_{15}NO_7$  (273.24). Colorless oil. Source: DUAN BAN HUA *Brachystemma calycinum*. Ref: 2146.

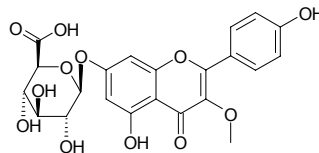
**2584 Bractealine**

5-Methoxy-12-hydroxy-11,14-dioxo-abieta-8,12,15-triene  $C_{21}H_{28}O_4$  (344.45).

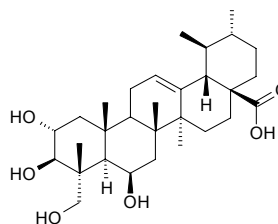
$[\alpha]_D = 0^\circ$  ( $c = 0.8$ ,  $CHCl_3$ ). Pharm: Antibacterial (*Bacillus subtilis*, MIC = 32.9  $\mu$ g/mL; *Staphylococcus epidermidis*, MIC = 16.80  $\mu$ g/mL)<sup>[2406]</sup>. Source: BAO PIAN SHU WEI CAO *Salvia bracteata* (root). Ref: 2406.

**2585 Bracteoside**

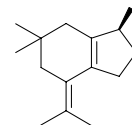
Isokaempferide 7-O- $\beta$ -D-glucopyranouronide  $C_{22}H_{20}O_{12}$  (476.40). Pale yellow solid,  $[\alpha]_D^{20} = -42.3^\circ$  ( $c = 0.10$ , MeOH). Source: BAO PIAN SHI CHE JU *Centaurea bracteata* (aerial parts). Ref: 5151.

**2586 Brahmic acid**

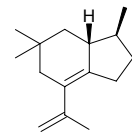
Madecassic acid [18449-41-7]  $C_{30}H_{48}O_6$  (504.71). mp 293°C. Source: JI XUE CAO *Centella asiatica*. Ref: 6.

**2587 Brasila-1(6),5(10)-diene**

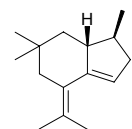
$C_{15}H_{24}$  (204.36). Source: SHE TAI *Conocephalum conicum*. Ref: 2299.

**2588 Brasila-5,10-diene**

$C_{15}H_{24}$  (204.36). Source: SHE TAI *Conocephalum conicum*. Ref: 2299.

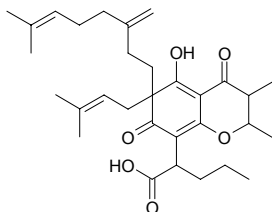
**2589 Brasila-5(10),6-diene**

$C_{15}H_{24}$  (204.36). Source: SHE TAI *Conocephalum conicum*. Ref: 2299.

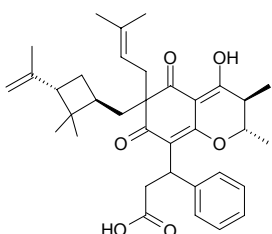


**2590 Brasiliensic acid**

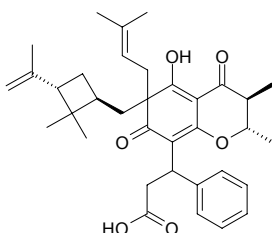
$C_{31}H_{44}O_6$  (512.69). **Pharm:** Cytotoxic (KB,  $IC_{50} = 11.0\mu\text{g/mL}$ ); antibacterial (*Staphylococcus aureus*,  $20\mu\text{g/disk}$ ,  $DIZ = 11.0\text{mm}$ ; *Escherichia coli*,  $20\mu\text{g/disk}$ , inactive; *Vibrio anguillarum*,  $20\mu\text{g/disk}$ , inactive); antifungal inactive (*Candida tropicalis*,  $20\mu\text{g/disk}$ ). **Source:** BA XI HU TONG *Calophyllum brasiliense*, HAI TANG GUO *Calophyllum inophyllum* (root cortex and nut). **Ref:** 1521, 3866.

**2591 Brasiliensophyllic acid A**

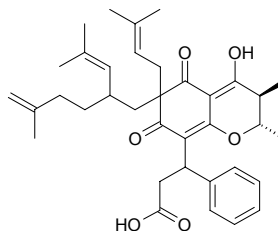
3-[*rel*-(2*R*,3*R*)-4-Hydroxy-6-(3*α*-isopropenyl-2,2-dimethylcyclobutyl- $\beta$ -methyl)-2,3-dimethyl-6-(3-methylbut-2-enyl)-5,7-dioxo-3,5,6,7-tetrahydro-2*H*-chromen-8-yl]-3-phenylpropionic acid  $C_{35}H_{44}O_6$  (560.74). Green gum,  $[\alpha]_D^{20} = -5^\circ$  ( $c = 0.1$ , MeOH). **Pharm:** Antibacterial (*Bacillus cereus*,  $MIC = 1\mu\text{g/mL}$ ; control Chloramphenicol,  $MIC = 4\mu\text{g/mL}$ ; *Staphylococcus epidermidis*,  $MIC = 16\mu\text{g/mL}$ , Chloramphenicol,  $MIC = 4\mu\text{g/mL}$ ); cytotoxic inactive (KB, Jurkat-T, and myosarcoma,  $20\mu\text{g/mL}$ ). **Source:** BA XI HU TONG *Calophyllum brasiliense* (bark: yield = 0.0030%dw). **Ref:** 3019.

**2592 Brasiliensophyllic acid B**

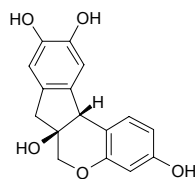
3-[*rel*-(2*R*,3*R*)-4-Hydroxy-6-(3*α*-isopropenyl-2,2-dimethylcyclobutyl- $\beta$ -methyl)-2,3-dimethyl-6-(3-methylbut-2-enyl)-5,7-dioxo-3,5,6,7-tetrahydro-2*H*-chromen-8-yl]-3-phenylpropionic acid  $C_{35}H_{44}O_6$  (560.74). Yellow gum,  $[\alpha]_D^{20} = -25^\circ$  ( $c = 0.1$ , MeOH). **Pharm:** Antibacterial (*Bacillus cereus*,  $MIC = 4\mu\text{g/mL}$ ; control Chloramphenicol,  $MIC = 4\mu\text{g/mL}$ ; *Staphylococcus epidermidis*,  $MIC = 16\mu\text{g/mL}$ , Chloramphenicol,  $MIC = 4\mu\text{g/mL}$ ); cytotoxic inactive (KB, Jurkat-T, and myosarcoma,  $20\mu\text{g/mL}$ ). **Source:** BA XI HU TONG *Calophyllum brasiliense* (bark: yield = 0.0005%dw). **Ref:** 3019.

**2593 Brasiliensophyllic acid C**

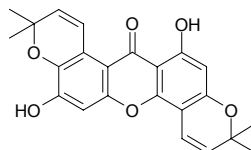
3-[*rel*-(2*R*,3*R*)-4-Hydroxy-2,3-dimethyl-6-(3-methylbut-2-enyl)-6-[5-methyl-2-(2-methylpropenyl)hex-5-enyl]-5,7-dioxo-3,5,6,7-tetrahydro-2*H*-chromen-8-yl]-3-phenylpropionic acid  $C_{36}H_{46}O_6$  (574.76). Green gum,  $[\alpha]_D^{20} = -30^\circ$  ( $c = 0.1$ , MeOH). **Pharm:** Antibacterial (*Bacillus cereus*,  $MIC = 16\mu\text{g/mL}$ ; control Chloramphenicol,  $MIC = 4\mu\text{g/mL}$ ; *Staphylococcus epidermidis*,  $MIC = 16\mu\text{g/mL}$ , Chloramphenicol,  $MIC = 4\mu\text{g/mL}$ ); cytotoxic inactive (KB, Jurkat-T, and myosarcoma,  $20\mu\text{g/mL}$ ). **Source:** BA XI HU TONG *Calophyllum brasiliense* (bark: yield = 0.001%dw). **Ref:** 3019.

**2594 Brasilin**

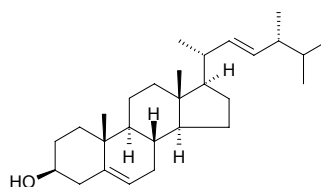
Brazilin [474-07-7]  $C_{16}H_{14}O_5$  (286.29). Amber yellow crystals, turning orange when exposed to air and sun.  $mp > 130^\circ\text{C}$  (dec); colorless acicular crystals,  $mp 191\text{--}192.5^\circ\text{C}$ . **Pharm:** Antibacterial; anti-inflammatory (rat, swollen foot model caused by carrageenan). **Source:** JI YUN SHI *Caesalpinia echinata*, SU MU *Caesalpinia sappan*. **Ref:** 1, 6, 660, 661, 4494.

**2595 Brasillixanthone A**

$C_{23}H_{20}O_6$  (392.41). **Source:** HEI XIAN TIAO TENG HUANG *Garcinia nigrolineata* (stam bark). **Ref:** 3482.

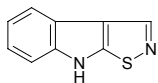
**2596 Brassicasterol**

24-Methylcholesta-5,22-dien-3 $\beta$ -ol [474-67-9]  $C_{28}H_{46}O$  (398.68).  $mp 157\text{--}158^\circ\text{C}$ ,  $mp 148^\circ\text{C}$ . **Pharm:** One of components in plant epicyte. **Source:** SHE TAI *Conocephalum conicum*, WU MAO JUE *Blechnum orientale*, WU QING *Brassica rapa*, OU ZHOU YOU CAI *Brassica napus*, YUN TAI ZI *Brassica campestris* [Syn. *Brassica campestris* var. *oleifera*]. **Ref:** 6, 658, 1408, 1472, 1521.

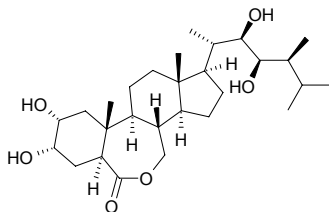


**2597 Brassilexin**

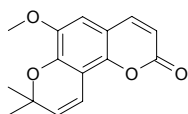
$C_9H_6N_2S$  (174.32). Source: JIE CAI *Brassica juncea*. Ref: 660.

**2598 Brassinolide**

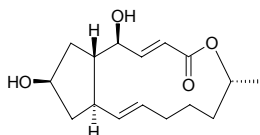
[72962-43-7]  $C_{28}H_{48}O_6$  (480.69). Pharm: Insecticidal (anti-ecdysone); promotes cell division and growth of plants. Source: OU ZHOU YOU CAI *Brassica napus*. Ref: 658.

**2599 Braylin**

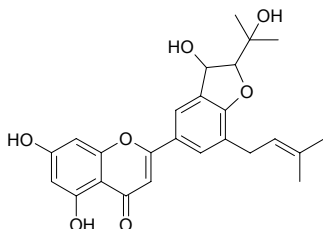
$C_{15}H_{14}O_4$  (258.28). Source: *Cedrelopsis grevei* (trunk bark). Ref: 5368.

**2600 Brefeldin A**

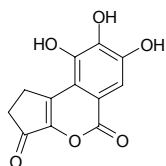
[20350-15-6]  $C_{16}H_{24}O_4$  (280.37). Source: DANG GUI *Angelica sinensis*. Ref: 1521.

**2601 Breviflavone B**

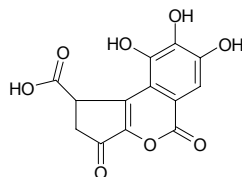
$C_{25}H_{26}O_7$  (438.48). Yellow powder,  $[\alpha]_D^{27} = -43.6^\circ$  ( $c = 0.003$ , EtOH). Pharm: Cytotoxic (inhibits the growth of breast cancer cells)<sup>[5053]</sup>. Source: YIN YANG HUO *Epimedium brevicornum* (leaf). Ref: 5053.

**2602 Brevifolin**

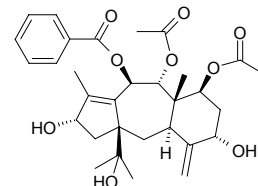
$C_{12}H_8O_6$  (248.19). Source: E BU SHI CAO *Centipeda minima*, QING GUO *Canarium album*. Ref: 660.

**2603 Brevifolincarboxylic acid**

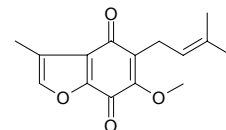
$C_{13}H_8O_8$  (292.20). Yellow amorphous powder,  $[\alpha]_D^{20} = -18.3^\circ$  ( $c = 0.9$ , acetone). Source: SHEN YE TIAN ZHU KUI *Pelargonium reniforme* (aerial parts). Ref: 3975.

**2604 Brevifoliol**

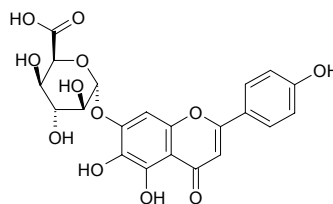
[134955-83-2]  $C_{31}H_{40}O_9$  (556.66). mp 200–203°C. Pharm: Cytotoxic (KB,  $IC_{50} = 0.4\mu\text{g/mL}$ ). Source: DUAN YE HONG DOU SHAN *Taxus brevifolia*. Ref: 662, 1775.

**2605 Breviquinone**

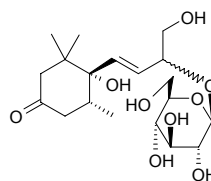
$C_{15}H_{16}O_4$  (260.29). Source: DUAN BAO YE SHA CAO *Cyperus brevibracteatus* (the compound was isolated from the plant by R.D.Allau, et al. in 1973). Ref: 5505.

**2606 Breviscapine**

$C_{21}H_{18}O_{12}$  (462.37). Purity > 98%. Pharm: Cardioprotective (*in vitro*, during hypoxia of cardiomyocytes)<sup>[4074]</sup>; cardioprotective (*in vivo*, during myocardial infarction)<sup>[4074]</sup>; Potassium channel activator; Calcium channel blocker. Source: DENG ZHAN XI XIN *Erigeron breviscapus*. Ref: 4074.

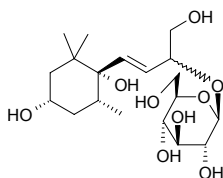
**2607 Breyniaionoside A**

(5*R*,6*S*,9*ξ*)-Megastigman-7-ene-6,9,10-triol-3-one 9-*O*-β-*D*-glucopyranoside  $C_{19}H_{32}O_9$  (404.46). Amorphous powder,  $[\alpha]_D^{27} = -48.8^\circ$  ( $c = 1.21$ , MeOH). Source: YAO YONG HEI MIAN SHEN YE *Breynia officinalis* (leaf). Ref: 2583.

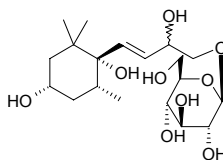


**2608 Breyniaionoside B**

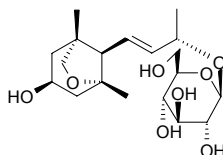
(3*S*\*,5*R*\*,6*S*\*,9*ξ*)-Megastigman-7-ene-3,6,9,10-tetrol 9-*O*- $\beta$ -D-glucopyranoside C<sub>19</sub>H<sub>34</sub>O<sub>9</sub> (406.48). Amorphous powder,  $[\alpha]_D = -66.5^\circ$ . Source: YAO YONG HEI MIAN SHEN YE *Breynia officinalis* (leaf). Ref: 2583.

**2609 Breyniaionoside C**

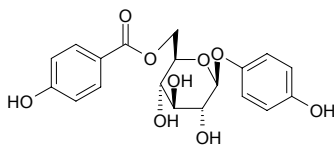
(3*S*\*,5*R*\*,6*S*\*,9*ξ*)-Megastigman-7-ene-3,6,9,10-tetrol 10-*O*- $\beta$ -D-glucopyranoside C<sub>19</sub>H<sub>34</sub>O<sub>9</sub> (406.48). Amorphous powder,  $[\alpha]_D = -24.3^\circ$ . Source: YAO YONG HEI MIAN SHEN YE *Breynia officinalis* (leaf). Ref: 2583.

**2610 Breyniaionoside D**

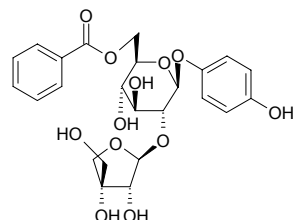
(1*S*,3*S*,5*R*,6*R*,9*R*)-Megastigman-7-ene-3,9-diol-5,12-epoxide 9-*O*- $\beta$ -D-glucopyranoside C<sub>19</sub>H<sub>32</sub>O<sub>8</sub> (388.46). Amorphous powder,  $[\alpha]_D = -1.50^\circ$ . Source: YAO YONG HEI MIAN SHEN YE *Breynia officinalis* (leaf). Ref: 2583.

**2611 Breynioside A**

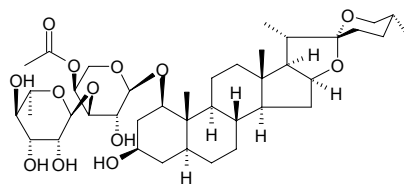
4'-Hydroxyximine C<sub>19</sub>H<sub>22</sub>O<sub>9</sub> (392.37). Colorless needles, mp 244~246°C,  $[\alpha]_D = -38.4^\circ$ . Source: YAO YONG HEI MIAN SHEN YE *Breynia officinalis* (leaf). Ref: 2583.

**2612 Breynioside B**

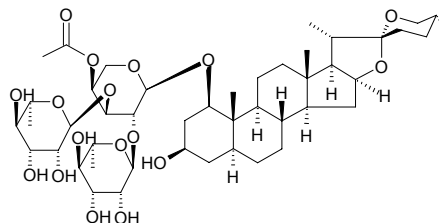
6'-Benzoylseguinoside A C<sub>24</sub>H<sub>28</sub>O<sub>12</sub> (508.48). Amorphous powder,  $[\alpha]_D = -67.1^\circ$ . In original paper, the structure of Api was wrong in Chart 2. Source: YAO YONG HEI MIAN SHEN YE *Breynia officinalis* (leaf). Ref: 2583.

**2613 Brisbagenin-1-O-[O- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 3)-4-O-acetyl- $\alpha$ -L-arabinopyranoside]**

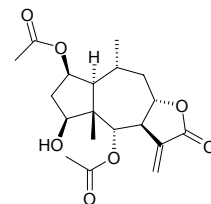
C<sub>40</sub>H<sub>64</sub>O<sub>13</sub> (752.95). Amorphous powder,  $[\alpha]_D^{28} = -36.7^\circ$  ( $c = 0.1$ , CHCl<sub>3</sub>:MeOH 1:1). Pharm: cAMP phosphodiesterase inhibitor (IC<sub>50</sub> = 206 $\mu$ g/mL). Source: *Dichelostemma multiflorum*. Ref: 738.

**2614 Brisbagenin 1-O-[O- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)-O-[ $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 3)]-4-O-acetyl- $\alpha$ -L-arabinopyranoside]**

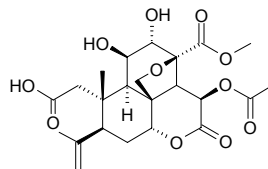
C<sub>46</sub>H<sub>74</sub>O<sub>17</sub> (899.09). Amorphous powder,  $[\alpha]_D^{28} = -51.3^\circ$  ( $c = 0.1$ , CHCl<sub>3</sub>:MeOH, 1:1). Pharm: cAMP phosphodiesterase inhibitor (IC<sub>50</sub> = 118 $\mu$ g/mL). Source: *Dichelostemma multiflorum*. Ref: 738.

**2615 Britanin**

Britanin [33627-28-0] C<sub>19</sub>H<sub>26</sub>O<sub>7</sub> (366.41). mp 189~191°C. Pharm: Antiprotozoal (*in vitro*, *Trichomonas vaginalis* and amoeba protozoon, 0.24~7.80 $\mu$ g/mL). Source: DA HUA XUAN FU HUA CAO *Imula britannica*, JIN FEI CAO *Imula japonica*, XIAN YE XUAN FU HUA *Imula linariaefolia*. Ref: 1, 6, 660, 5501.

**2616 Broceaketolic acid**

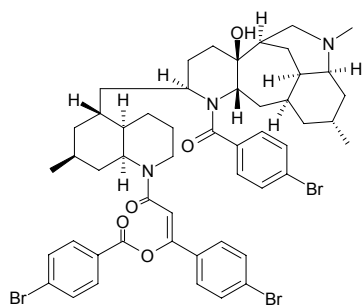
C<sub>23</sub>H<sub>30</sub>O<sub>11</sub> (482.49). Source: YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*]. Ref: 660.



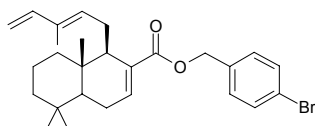


**2617 *p*-Bromobenzoyl derivative of tetrahydrodeoxyoxolucidine A**

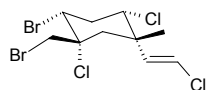
C<sub>51</sub>H<sub>60</sub>Br<sub>3</sub>N<sub>3</sub>O<sub>5</sub> (1034.78). Crystals, mp 228–232°C (MeOH), [α]<sub>D</sub><sup>21.5</sup> = +7.3° (*c* = 1.1, CHCl<sub>3</sub>). **Source:** GUANG LIANG SHI SONG *Lycopodium lucidulum*. **Ref:** 3927.

**2618 4-Bromobenzyl-labda-7,12(E),14-triene-17-oate**

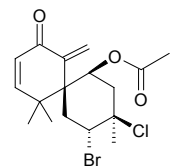
C<sub>27</sub>H<sub>35</sub>BrO<sub>2</sub> (471.48). Viscous liquid, [α]<sub>D</sub><sup>20</sup> = –13.36° (*c* = 1.16, CHCl<sub>3</sub>). **Pharm:** Cytotoxic inactive (*in vitro*, BT474, CHAGO, HepG2, Kato3, SW620: > 10 μg/mL)<sup>[5363]</sup>. **Source:** GUANG YE BA DOU *Croton oblongifolius* [Syn. *Croton laevigatus*]. **Ref:** 5363.

**2619 (1*R*\*,2*S*\*,4*S*\*,5*S*\*)-4-Bromo-5-bromomethyl-1*E*-chlorovinyl-2,5-dichloromethylcyclohexane**

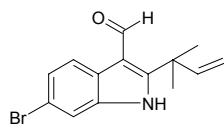
C<sub>10</sub>H<sub>13</sub>Br<sub>2</sub>Cl<sub>3</sub> (399.38). **Pharm:** Cytotoxic (*in vitro*, WHCO1, IC<sub>50</sub> = 34.8 μmol/L, KB cancer, IC<sub>50</sub> = 33.3 μmol/L, control *cis*-Platin, IC<sub>50</sub> = 13 μmol/L)<sup>[5277]</sup>, antitubercular (*Mycobacterium tuberculosis*, moderate activity)<sup>[5277]</sup>. **Source:** SHAN HU GEN HAI TOU HONG *Plocamium corallorrhiza*. **Ref:** 5277.

**2620 2-Bromo-3-chloro-5-acetoxy-chamigra-7(14),9-dien-8-one**

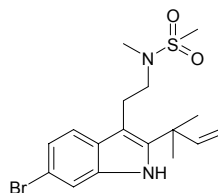
C<sub>17</sub>H<sub>22</sub>BrClO<sub>3</sub> (389.72). **Source:** *Laurencia mariannensis*. **Ref:** 5191.

**2621 6-Bromo-2-(1,1-dimethyl-2-propenyl)-1*H*-indole-3-carbaldehyde**

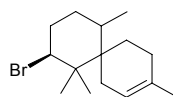
C<sub>14</sub>H<sub>14</sub>BrNO (292.18). **Pharm:** Affinity to nAChR (α4β2\* subtype, *Ki* > 50000 nmol/L, control (–)-Nicotine, *Ki* = (0.838±0.132) nmol/L; α7\* subtype, *Ki* > 50000 nmol/L, (–)-Nicotine, *Ki* = (127±5) nmol/L)<sup>[5029]</sup>. **Source:** BEI HAI XIAN TAI CHONG *Flustra foliacea*. **Ref:** 5029.

**2622 *N*-(2-[6-Bromo-2-(1,1-dimethyl-2-propenyl)-1*H*-indol-3-yl]ethyl)-*N*-methylmethanesulfonamide**

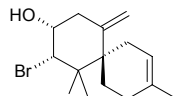
C<sub>17</sub>H<sub>23</sub>BrN<sub>2</sub>O<sub>2</sub>S (399.35). **Pharm:** Affinity to nAChR (α4β2\* subtype, *Ki* > 50000 nmol/L, control (–)-Nicotine, *Ki* = (0.838±0.132) nmol/L; α7\* subtype, *Ki* > 50000 nmol/L, (–)-Nicotine, *Ki* = (127±5) nmol/L)<sup>[5029]</sup>. **Source:** BEI HAI XIAN TAI CHONG *Flustra foliacea*. **Ref:** 5029.

**2623 8-Bromo-1-en-Chamigrene**

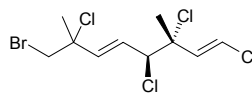
C<sub>15</sub>H<sub>23</sub>Br (285.27). Colorless acicular crystals, mp 124–125°C. **Source:** LUE DA AO DING ZAO *Laurencia majuscula*. **Ref:** 2152.

**2624 (6*R*,9*R*,10*S*)-10-Bromo-9-hydroxy-chamigra-2,7(14)-diene**

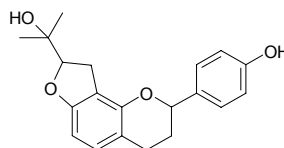
C<sub>15</sub>H<sub>23</sub>BrO (299.25). Oil, [α]<sub>D</sub><sup>25</sup> = –110° (*c* = 0.20, CHCl<sub>3</sub>). **Pharm:** Antibacterial (marine bacteria: *Alcaligenes aquamarinus*, MIC = 20 μg/disc; *Azomonas agilis*, MIC = 20 μg/disc; *Azotobacter beijerinckii*, MIC = 15 μg/disc; *Erwinia amylovora*, MIC = 15 μg/disc; *Escherichia coli*, MIC = 10 μg/disc; *Alteromonas* sp., *Halobacterium* sp., *Halococcus* sp., no inhibition). **Source:** LUE DA AO DING ZAO *Laurencia majuscula*. **Ref:** 5191.

**2625 8-Bromo-1,3,4,7-tetrachloro-3,7-dimethyl-1*E*,5*E*-octadiene**

C<sub>10</sub>H<sub>13</sub>BrCl<sub>4</sub> (354.93). **Pharm:** Cytotoxic (*in vitro*, WHCO1, IC<sub>50</sub> = 17.2 μmol/L, control *cis*-Platin, IC<sub>50</sub> = 13 μmol/L)<sup>[5277]</sup>. **Source:** SHAN HU GEN HAI TOU HONG *Plocamium corallorrhiza*. **Ref:** 5277.

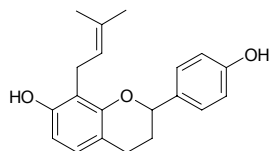
**2626 Brosimine A**

4'-Hydroxy-7,8-[2-(2-hydroxyisopropyl)dihydrofuran]flavan C<sub>20</sub>H<sub>22</sub>O<sub>4</sub> (326.40). [α]<sub>D</sub><sup>25</sup> = –7.06° (*c* = 0.35, CHCl<sub>3</sub>). **Source:** JIAN YE BAO SHI MU *Brosimum acutifolium* (trunk bark). **Ref:** 3942.

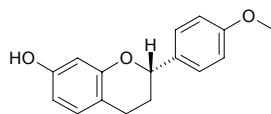


**2627 Brosimine B**

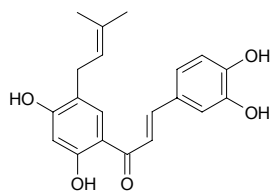
4',7-Dihydroxy-8-(3,3-dimethylallyl)flavan  $C_{20}H_{22}O_3$  (310.40).  $[\alpha]_D^{25} = -4.88^\circ$  ( $c = 0.5$ ,  $CHCl_3$ ). Source: JIAN YE BAO SHI MU *Brosimum acutifolium* (trunk bark). Ref: 3942.

**2628 Broussin**

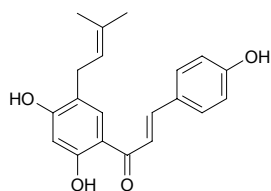
[76045-50-6]  $C_{16}H_{16}O_3$  (256.30). Pharm: Antimicrobial (*Bipolaris leersial*). Source: GOU SHU GUO *Broussonetia papyrifera*. Ref: 658.

**2629 Brousochalcone A**

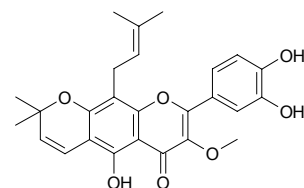
$C_{20}H_{20}O_5$  (340.38). Pharm: Aromatase inhibitor inactive (*in vitro*,  $IC_{50} > 40 \mu\text{mol/L}$ ; control Aminoglutethimide,  $IC_{50} = 6.4 \mu\text{mol/L}$ )<sup>[3090]</sup>; anti-inflammatory (NO production inhibitor)<sup>[4415]</sup>. Source: GOU SHU BAI PI *Broussonetia papyrifera*, GOU SHU *Broussonetia papyrifera*. Ref: 660, 1521, 3090, 4415.

**2630 Brousochalcone B**

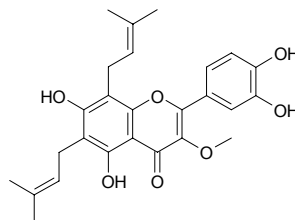
Anticancer Flavonoid PMV70P691-79  $C_{20}H_{20}O_4$  (324.38). Pharm: Aromatase inhibitor inactive (*in vitro*,  $IC_{50} > 40 \mu\text{mol/L}$ ; control Aminoglutethimide,  $IC_{50} = 6.4 \mu\text{mol/L}$ )<sup>[3090]</sup>; cytotoxic (estrogen  $\alpha$  receptor-binding assay)<sup>[5038]</sup>; cytotoxic (estrogen  $\beta$  receptor-binding assay)<sup>[5038]</sup>. Source: GOU SHU BAI PI *Broussonetia papyrifera*, GOU SHU *Broussonetia papyrifera*. Ref: 660, 3090, 5038.

**2631 Brousoflavonol A**

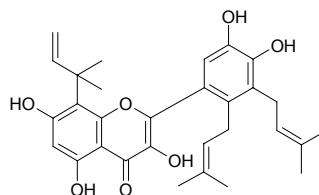
$C_{26}H_{26}O_7$  (450.49). Source: GOU SHU BAI PI *Broussonetia papyrifera*. Ref: 660.

**2632 Brousoflavonol B**

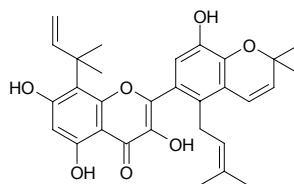
$C_{26}H_{28}O_7$  (452.51). Source: GOU SHU BAI PI *Broussonetia papyrifera*. Ref: 660.

**2633 Brousoflavonol C**

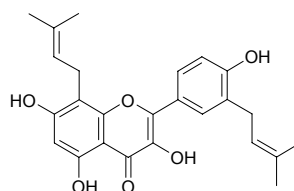
$C_{30}H_{34}O_7$  (506.60). Source: GOU SHU GEN *Broussonetia papyrifera*. Ref: 660.

**2634 Brousoflavonol D**

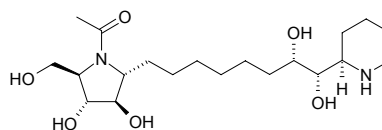
$C_{30}H_{32}O_7$  (504.59). Source: GOU SHU GEN *Broussonetia papyrifera*. Ref: 660.

**2635 Brousoflavonol F**

Anticancer Flavonoid PMV70P691-80  $C_{25}H_{26}O_6$  (422.48). Pharm: Cytotoxic (antiproliferative hmn breast cancer cells)<sup>[5038]</sup>; cytotoxic (cyclooxygenase-1 inhibitor)<sup>[5038]</sup>; cytotoxic (antioxidant assay)<sup>[5038]</sup>; cytotoxic (aromatase inhibitor)<sup>[5038]</sup>; aromatase inhibitor (*in vitro*,  $IC_{50} = 9.7 \mu\text{mol/L}$ , control Aminoglutethimide,  $IC_{50} = 6.4 \mu\text{mol/L}$ )<sup>[3090]</sup>. Source: GOU SHU *Broussonetia papyrifera*. Ref: 3090, 5038.

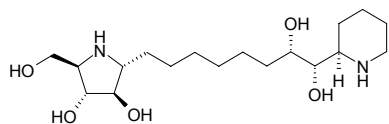
**2636 Broussonetine J<sub>1</sub>**

(2*R*)-2-[(1*S*,2*S*)-1,2-Dihydroxy-8-[(2*R*,3*R*,4*R*,5*R*)-5-(2-hydroxymethyl)-3,4-di-hydroxy-1-acetylpyrrolidinyl]octyl]piperidine  $C_{20}H_{28}N_2O_6$  (402.54). Colorless oil,  $[\alpha]_D = -17.5^\circ$  ( $c = 0.30$ , MeOH). Source: XIAO GOU SHU *Broussonetia kazinoki* (branch). Ref: 4146.

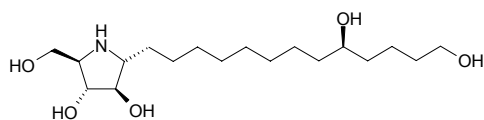


**2637 Broussonetine J<sub>2</sub>**

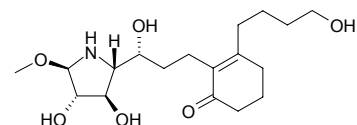
(2*R*,2-[(1*S*,2*S*)-1,2-Dihydroxy-8-[(2*R*,3*R*,4*R*,5*R*)-5-(2-hydroxymethyl-3,4-di-hydroxypyrrolidinyl)octyl]piperidine C<sub>18</sub>H<sub>36</sub>N<sub>2</sub>O<sub>5</sub> (380.50). Colorless oil, [ $\alpha$ ]<sub>D</sub> = +13.8° (*c* = 0.42, MeOH). Source: XIAO GOU SHU *Broussonetia kazinoki* (branch). Ref: 4146.

**2638 Broussonetine M<sub>1</sub>**

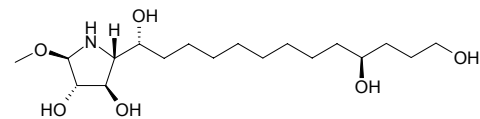
(2*R*,3*R*,4*R*,5*R*)-2-Hydroxymethyl-3,4-dihydroxy-5-[(9*R*)-9,13-dihydroxytridecyl]pyrrolidine C<sub>18</sub>H<sub>37</sub>NO<sub>5</sub> (347.50). Colorless powder, [ $\alpha$ ]<sub>D</sub> = +18.3° (*c* = 0.56, MeOH). Source: XIAO GOU SHU *Broussonetia kazinoki* (branch). Ref: 4146.

**2639 Broussonetine R**

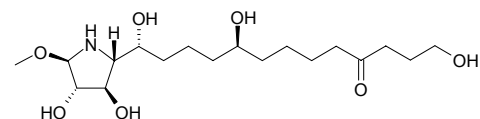
(2*R*,3*R*,4*R*,5*R*)-2-Hydroxymethyl-3,4-dihydroxy-5-[(1*R*)-1-hydroxy-3-[6-(4-hydroxybutyl)-cyclohexy-2-on-1(6)-enyl]propyl] pyrrolidine C<sub>18</sub>H<sub>31</sub>NO<sub>6</sub> (357.45). Colorless oil, [ $\alpha$ ]<sub>D</sub> = +21.8° (*c* = 0.27, MeOH). Source: XIAO GOU SHU *Broussonetia kazinoki* (branch). Ref: 3520.

**2640 Broussonetine S**

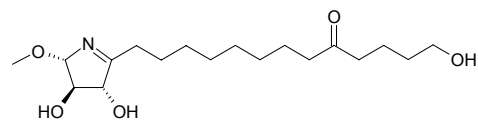
(2*R*,3*R*,4*R*,5*R*)-2-Hydroxymethyl-3,4-dihydroxy-5-[(1*R*,10*S*)-1,10,13-trihydroxytridecyl] pyrrolidine C<sub>18</sub>H<sub>37</sub>NO<sub>6</sub> (363.50). Colorless powder, [ $\alpha$ ]<sub>D</sub> = +25.1° (*c* = 0.18, MeOH). Source: XIAO GOU SHU *Broussonetia kazinoki* (branch). Ref: 3520.

**2641 Broussonetine T**

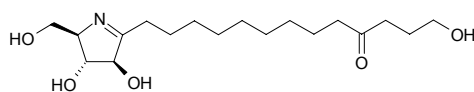
(2*R*,3*R*,4*R*,5*R*)-2-Hydroxymethyl-3,4-dihydroxy-5-[(1*R*,5*S*)-1,5,13-trihydroxy-10-oxo-tridecyl] pyrrolidine C<sub>18</sub>H<sub>35</sub>NO<sub>7</sub> (377.48). Colorless oil, [ $\alpha$ ]<sub>D</sub> = +11.0° (*c* = 0.49, MeOH). Source: XIAO GOU SHU *Broussonetia kazinoki* (branch). Ref: 3520.

**2642 Broussonetine U**

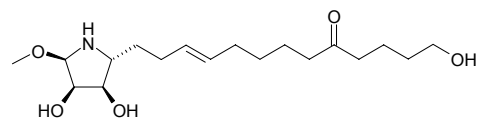
(2*S*,3*S*,4*S*)-2-Hydroxymethyl-3,4-dihydroxy-5-(9-oxo-13-hydroxytridecyl)-5-pyrrolidine C<sub>18</sub>H<sub>33</sub>NO<sub>5</sub> (343.47). Colorless oil, [ $\alpha$ ]<sub>D</sub> = -33.3° (*c* = 0.20, MeOH). Source: XIAO GOU SHU *Broussonetia kazinoki* (branch). Ref: 3520.

**2643 Broussonetine U<sub>1</sub>**

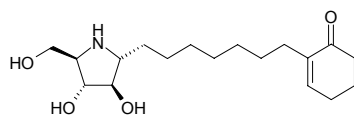
(2*S*,3*S*,4*S*)-2-Hydroxymethyl-3,4-dihydroxy-5-(10-oxo-13-hydroxytridecyl)-5-pyrrolidine C<sub>18</sub>H<sub>33</sub>NO<sub>5</sub> (343.47). Colorless powder, [ $\alpha$ ]<sub>D</sub> = -30.2° (*c* = 0.09, MeOH). Source: XIAO GOU SHU *Broussonetia kazinoki* (branch). Ref: 4146.

**2644 Broussonetine V**

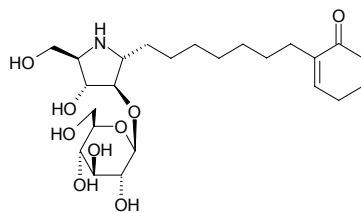
(2*R*,3*S*,4*R*,5*R*)-2-Hydroxymethyl-3,4-dihydroxy-5-[(*E*)-9-oxo-13-hydroxy-3-trideceny] pyrrolidine C<sub>18</sub>H<sub>33</sub>NO<sub>5</sub> (343.47). Colorless powder, [ $\alpha$ ]<sub>D</sub> = +10.9° (*c* = 0.09, MeOH). Source: XIAO GOU SHU *Broussonetia kazinoki* (branch). Ref: 3520.

**2645 Broussonetine W**

(2*R*,3*R*,4*R*,5*R*)-2-Hydroxymethyl-3,4-dihydroxy-5-[7-(cyclohexy-2-on-1(6)-enyl)heptyl]pyrrolidine C<sub>18</sub>H<sub>31</sub>NO<sub>4</sub> (325.45). Colorless oil, [ $\alpha$ ]<sub>D</sub> = +16.0° (*c* = 0.07, MeOH). Source: XIAO GOU SHU *Broussonetia kazinoki* (branch). Ref: 4146.

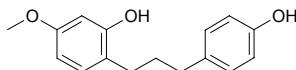
**2646 Broussonetine X**

(2*R*,3*S*,4*R*,5*R*)-2-Hydroxymethyl-3,4-dihydroxy-5-[7-(cyclohexy-2-on-1(6)-enyl)heptyl]pyrrolidine-4-*O*- $\beta$ -*D*-glucopyranoside C<sub>24</sub>H<sub>41</sub>NO<sub>9</sub> (487.60). Colorless oil, [ $\alpha$ ]<sub>D</sub> = +13.7° (*c* = 0.51, MeOH). Source: XIAO GOU SHU *Broussonetia kazinoki* (branch). Ref: 4146.

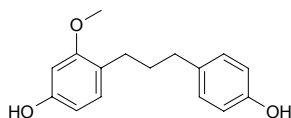


**2647 Broussonin A**

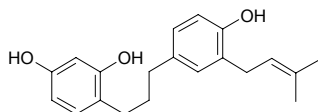
[73731-87-0] C<sub>16</sub>H<sub>18</sub>O<sub>3</sub> (258.32). mp 101.0~101.5°C (dichloromethane). **Pharm:** Cytotoxic (aromatase inhibitor)<sup>[5038]</sup>; aromatase inhibitor (*in vitro*, IC<sub>50</sub> = 30μmol/L; control Aminoglutethimide, IC<sub>50</sub> = 6.4μmol/L)<sup>[3090]</sup>; antifungal (*Fusarium*, *Sclerotinia*, MIC = 0.2~0.9mmol/L); antifungal. **Source:** GOU SHU GUO *Broussonetia papyrifera*. **Ref:** 658, 661, 3090, 5038.

**2648 Broussonin B**

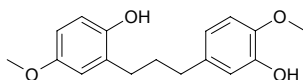
[73731-86-9] C<sub>16</sub>H<sub>18</sub>O<sub>3</sub> (258.32). mp 99.5~100°C (chloroform). **Pharm:** Cytotoxic (estrogen  $\alpha$  receptor-binding assay)<sup>[5038]</sup>; cytotoxic (estrogen  $\beta$  receptor-binding assay)<sup>[5038]</sup>; antifungal (*Fusarium*, *Sclerotinia*, MIC = 0.05~0.9mmol/L); aromatase inhibitor inactive (*in vitro*, IC<sub>50</sub> > 40μmol/L; control Aminoglutethimide, IC<sub>50</sub> = 6.4μmol/L)<sup>[3090]</sup>. **Source:** GOU SHU GUO *Broussonetia papyrifera*. **Ref:** 658, 661, 3090, 5038.

**2649 Broussonin C**

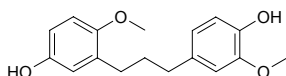
C<sub>20</sub>H<sub>24</sub>O<sub>3</sub> (312.41). **Pharm:** Antifungal. **Source:** GOU SHU GUO *Broussonetia papyrifera*. **Ref:** 658.

**2650 Broussonin E**

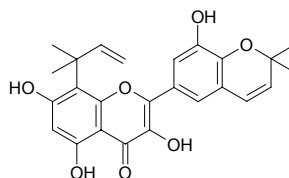
C<sub>17</sub>H<sub>20</sub>O<sub>4</sub> (288.35). **Pharm:** Aromatase inhibitor inactive (*in vitro*, IC<sub>50</sub> > 40μmol/L; control Aminoglutethimide, IC<sub>50</sub> = 6.4μmol/L). **Source:** GOU SHU *Broussonetia papyrifera*. **Ref:** 3090.

**2651 Broussonin F**

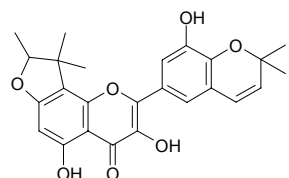
C<sub>17</sub>H<sub>20</sub>O<sub>4</sub> (288.35). **Pharm:** Aromatase inhibitor inactive (*in vitro*, IC<sub>50</sub> > 40μmol/L; control Aminoglutethimide, IC<sub>50</sub> = 6.4μmol/L)<sup>[3090]</sup>. **Source:** GOU SHU *Broussonetia papyrifera*. **Ref:** 3090.

**2652 Broussonol A**

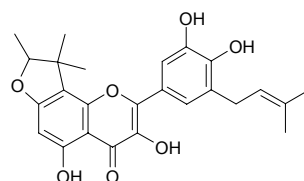
C<sub>25</sub>H<sub>24</sub>O<sub>7</sub> (436.47). Yellow powder, mp 162~164°C. **Pharm:** Cytotoxic (*in vitro*, MTT Method, A549, ED<sub>50</sub> = 8.74μg/mL; HCT8, ED<sub>50</sub> = 9.10μg/mL; KB, ED<sub>50</sub> > 10μg/mL). **Source:** XIAO GOU SHU *Broussonetia kazinoki* (leaf). **Ref:** 3085.

**2653 Broussonol B**

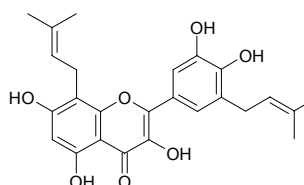
C<sub>25</sub>H<sub>24</sub>O<sub>7</sub> (436.47). Yellow powder, mp 210~212°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = 0° (c = 0.20, MeOH). **Pharm:** Cytotoxic (*in vitro*, MTT Method, A549, ED<sub>50</sub> = 5.52μg/mL; HCT8, ED<sub>50</sub> = 8.80μg/mL; KB, ED<sub>50</sub> > 10μg/mL). **Source:** XIAO GOU SHU *Broussonetia kazinoki* (leaf). **Ref:** 3085.

**2654 Broussonol C**

C<sub>25</sub>H<sub>26</sub>O<sub>7</sub> (438.48). Yellow powder, mp 174~176°C, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = 0° (c = 0.12, MeOH). **Pharm:** Cytotoxic (*in vitro*, MTT Method, A549, ED<sub>50</sub> = 7.77μg/mL; HCT8, ED<sub>50</sub> = 9.63μg/mL; KB, ED<sub>50</sub> > 10μg/mL). **Source:** XIAO GOU SHU *Broussonetia kazinoki* (leaf). **Ref:** 3085.

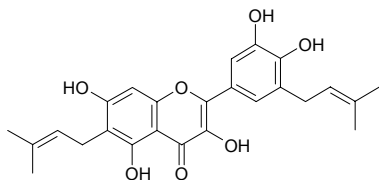
**2655 Broussonol D**

C<sub>25</sub>H<sub>26</sub>O<sub>7</sub> (438.48). Yellow powder, mp 187~189°C. **Pharm:** Cytotoxic (*in vitro*, MTT Method, A549, ED<sub>50</sub> > 10μg/mL; HCT8, ED<sub>50</sub> > 10μg/mL; KB, ED<sub>50</sub> = 4.15μg/mL). **Source:** XIAO GOU SHU *Broussonetia kazinoki* (leaf). **Ref:** 3085.

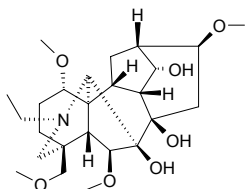


**2656 Broussonol E**

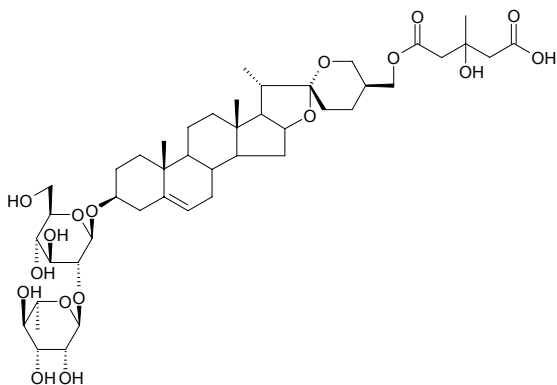
$C_{25}H_{26}O_7$  (438.48). Yellow powder, mp 192–193°C. **Pharm:** Cytotoxic (*in vitro*, MTT Method, A549,  $ED_{50} > 10\mu\text{g/mL}$ ; HCT8,  $ED_{50} > 10\mu\text{g/mL}$ ; KB,  $ED_{50} > 10\mu\text{g/mL}$ ). **Source:** XIAO GOU SHU *Broussonetia kazinoki* (leaf). **Ref:** 3085.

**2657 Browniine**

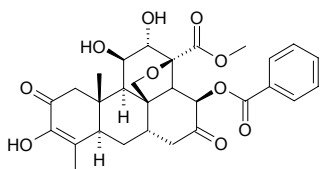
[5140-42-1]  $C_{25}H_{41}NO_7$  (467.61). **Pharm:** Antispasmodic (gpg, inhibits ileal contraction). **Source:** BAO SHI FEI YAN CAO *Delphinium brownii*. **Ref:** 658.

**2658 Brownioside**

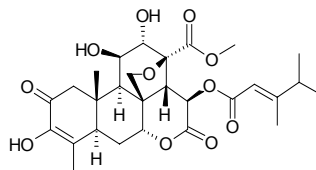
$C_{45}H_{70}O_{17}$  (883.05). **Source:** BAI HE *Lilium brownii* var. *viridulum* [Syn. *Lilium brownii* var. *colchesteri*]. **Ref:** 660.

**2659 Bruceantarin**

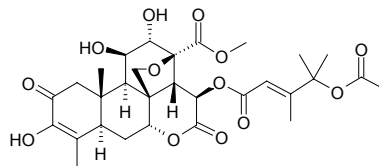
$C_{29}H_{32}O_{10}$  (540.57). **Source:** YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*] (root). **Ref:** 660.

**2660 Bruceantin**

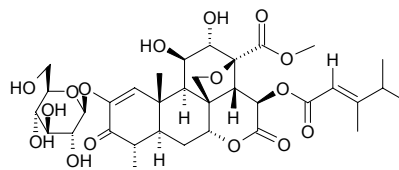
[41451-75-6]  $C_{28}H_{36}O_{11}$  (548.59).  $[\alpha]_D^{25} = -27.7^\circ$  ( $c = 3.0$ , pyridine). **Pharm:** Cytotoxic (leukemia, against a series of tumor cell lines but did not show significant effects in clinical studies against solid tumors, oil emulsion of fruits of *Brucea javanica* shows clinical efficacy)<sup>[5369]</sup>; antiamebic (*in vitro*); antineoplastic (P<sub>388</sub>, Lewis lung cancer, L<sub>1210</sub> and B16 melanoma, 0.5–1.0mg/(kg·d)); cytotoxic (KB,  $ED_{50} = 0.001\text{--}0.010\mu\text{g/mL}$ ); LD<sub>50</sub> (male mus, iv) = 1.95mg/kg, (female mus, iv) = 2.58mg/kg. **Source:** KANG LI YA DAN ZI *Brucea antidysenterica*, YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*]. **Ref:** 658, 661, 5369.

**2661 Bruceantanol**

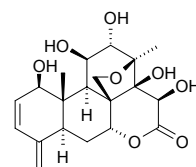
[53729-52-5]  $C_{30}H_{38}O_{13}$  (606.63).  $[\alpha]_D^{24} = -14.5^\circ$  ( $c = 0.44$ , pyridine). **Pharm:** Antineoplastic (P<sub>388</sub>, *in vivo*); cytotoxic (KB,  $ED_{50} = 0.001\text{--}0.010\mu\text{g/mL}$ ). **Source:** KANG LI YA DAN ZI *Brucea antidysenterica*, YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*]. **Ref:** 658, 661.

**2662 Bruceantinoside A**

[79439-85-3]  $C_{34}H_{46}O_{16}$  (710.74). Amorphous solid, mp 150°C (dec),  $[\alpha]_D^{25} = +7.8^\circ$  ( $c = 0.6$ , pyridine). **Pharm:** Antineoplastic (leukemia). **Source:** KANG LI YA DAN ZI *Brucea antidysenterica*, YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*] (seed: yield = 0.0025%dw)<sup>[4748]</sup>. **Ref:** 658, 661, 4748.

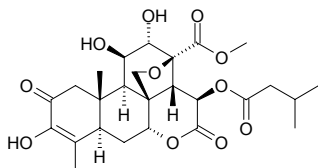
**2663 Bruceene**

$C_{20}H_{26}O_8$  (394.43). **Source:** YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*]. **Ref:** 660.

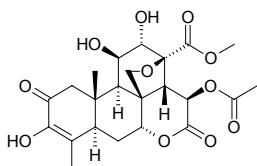


**2664 Bruceine A**

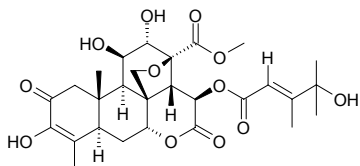
Brucein A [25514-31-2]  $C_{26}H_{34}O_{11}$  (522.55). mp 267~270°C. Pharm: Cytotoxic (mus, lymphocyte sarcoma,  $ID_{50} = 0.031\mu\text{mg/mL}$ , inhibits absorption of thymidine). Source: YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*], KU YA DAN ZI *Brucea amarissima*. Ref: 1, 2, 4, 6.

**2665 Bruceine B**

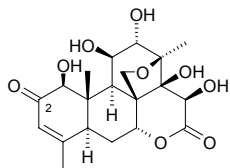
Brucein B [25514-29-8]  $C_{23}H_{28}O_{11}$  (480.47). mp 262~266°C. Pharm: Antiamebic. Source: YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*], KU YA DAN ZI *Brucea amarissima*. Ref: 1, 2, 4, 6.

**2666 Bruceine C**

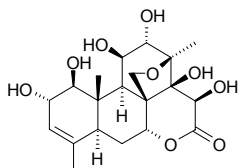
Brucein C [25514-30-1]  $C_{28}H_{36}O_{12}$  (564.59). mp 175~180°C. Pharm: Antiamebic; antineoplastic (mus,  $P_{388}$ ). Source: YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*]. Ref: 1, 2, 4, 6.

**2667 Bruceine D**

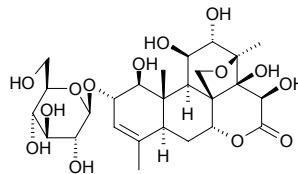
Brucein D [21499-66-1]  $C_{20}H_{26}O_9$  (410.42). mp 285~290°C. Pharm: Antiamebic; antineoplastic (mus,  $P_{388}$ ). Source: KU YA DAN ZI *Brucea amarissima*, YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*] (seed: yield = 0.0012%dw)<sup>[4748]</sup>. Ref: 1, 2, 4, 6, 4748.

**2668 Bruceine E**

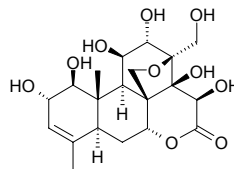
Brucein E [21586-90-3]  $C_{20}H_{28}O_9$  (412.44). mp 260~264°C. Pharm: Antiamebic. Source: YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*] (seed: yield = 0.0011%dw)<sup>[4748]</sup>. Ref: 1, 2, 4, 6, 4748.

**2669 Bruceine E 2-β-D-glucopyranoside**

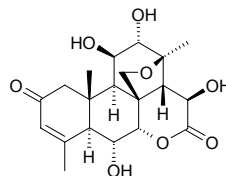
$C_{26}H_{38}O_{14}$  (574.58). Source: YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*]. Ref: 660.

**2670 Bruceine F**

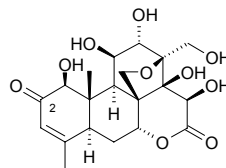
Brucein F [23112-07-4]  $C_{20}H_{28}O_{10}$  (428.44). mp 224~227°C. Pharm: Antiamebic. Source: YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*]. Ref: 1, 2, 4, 6.

**2671 Bruceine G**

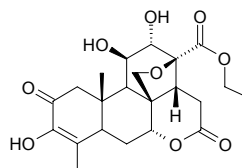
Brucein G [20797-65-3]  $C_{20}H_{26}O_8$  (394.43). Pharm: Antiamebic. Source: YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*]. Ref: 1, 2, 4.

**2672 Bruceine H**

Brucein H; Yadanzolide A [95258-14-3]  $C_{20}H_{26}O_{10}$  (426.42). Colorless rhombic crystals, mp 283~285°C (dec, methanol),  $[\alpha]_D^{28} = -10.5^\circ$  ( $c = 1.7$ , pyridine). Pharm: Antimalarial (inhibits *Plasmodium falciparum*, absorbing  $H^3$ -sarkin *in vitro*,  $IC_{50} = 0.031\mu\text{g/mL}$ ). Source: YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*]. Ref: 2, 935, 1038, 1061, 1132.

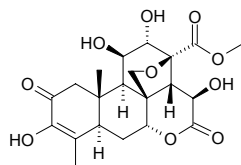
**2673 Bruceine I**

Brucein I  $C_{22}H_{28}O_9$  (436.46). Colorless prismatic crystals, mp 293~295°C. Source: YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*]. Ref: 2, 156.

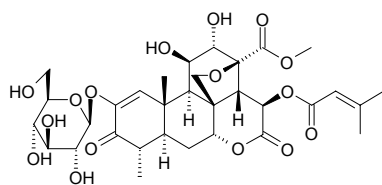


**2674 Bruceolide**

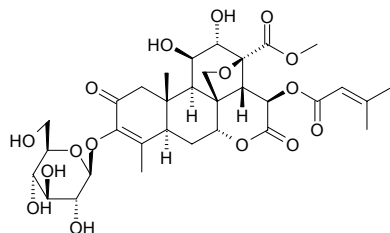
[25514-28-7] C<sub>21</sub>H<sub>26</sub>O<sub>10</sub> (438.44). **Pharm:** Antiamebic. **Source:** YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*]. **Ref:** 658.

**2675 Bruceoside A**

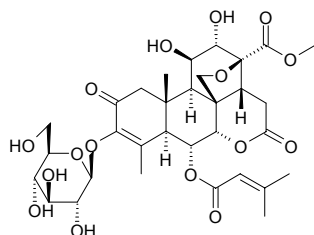
[63306-30-9] C<sub>32</sub>H<sub>42</sub>O<sub>16</sub> (682.66). **Pharm:** Antineoplastic (leukemia). **Source:** YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*] (seed: yield = 0.020%dw)<sup>[4748]</sup>. **Ref:** 2, 658, 4748.

**2676 Bruceoside B**

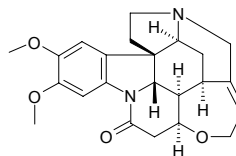
[69687-69-0] C<sub>32</sub>H<sub>42</sub>O<sub>16</sub> (682.66). White powder (methanol), mp 220.0–223.5°C (dec). **Pharm:** Antineoplastic (P<sub>388</sub> *in vivo*, 1.5mg/(kg·d), biotic prolonged rate = 132%); cytotoxic (differentiation of HL-60 cells)<sup>[5038]</sup>; antipyretic (reduces normal body temperature in mouse); pesticide; toxin (causes death to mus). **Source:** YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*] (seed: yield = 0.0025%dw)<sup>[4748]</sup>. **Ref:** 2, 900, 4748, 5038.

**2677 Bruceoside C**

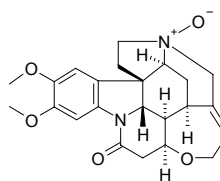
[141271-79-6] C<sub>32</sub>H<sub>42</sub>O<sub>16</sub> (682.66). **Pharm:** Cytotoxic (KB ED<sub>50</sub> < 0.1µg/mL; A549 ED<sub>50</sub> = 0.44µg/mL; HCT ED<sub>50</sub> = 4.51µg/mL; RPMI ED<sub>50</sub> < 0.1µg/mL; TE-671 ED<sub>50</sub> = 0.29µg/mL; P<sub>388</sub> ED<sub>50</sub> = 5.11µg/mL). **Source:** YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*] (seed: yield = 0.000042%dw)<sup>[4748]</sup>. **Ref:** 2, 1718, 4748.

**2678 Brucine**

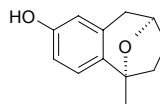
10,11-Dimethoxystrychnine; 2,3-Dimethoxystrychnidin-10-one [357-57-3] C<sub>23</sub>H<sub>26</sub>N<sub>2</sub>O<sub>4</sub> (394.47). Acicular crystals (acetone–water), mp 178°C, [α]<sub>D</sub> = –127° (chloroform), [α]<sub>D</sub> = –85° (absolute ethanol), easily soluble in methanol, ethanol, soluble in chloroform, slightly soluble in benzene, acetic ester, glycerol, very slightly soluble in ether, boiling water.<sup>[5507]</sup> **Pharm:** Antibacterial; antitussive (dispels phlegm); CNS stimulant; LD (hmn) = 200mg; LD<sub>50</sub> (dog, iv) = 8mg/kg. **Source:** CI MA QIAN ZI *Strychnos aculeata*, MA QIAN ZI *Strychnos nux-vomica* (dried ripe seed: content scope = 0.19%–2.12%<sup>[5501]</sup>, mean content = 1.20%<sup>[5508]</sup>), LV SONG GUO *Strychnos ignatii*. **Ref:** 1, 4, 543, 576, 5501, 5507, 5508.

**2679 Brucine N-oxide**

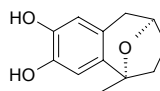
Brucineoxide [17301-81-4] C<sub>23</sub>H<sub>26</sub>N<sub>2</sub>O<sub>5</sub> (410.47). **Source:** MA QIAN ZI *Strychnos nux-vomica*. **Ref:** 2, 543, 1521.

**2680 Bruguerol A**

C<sub>12</sub>H<sub>14</sub>O<sub>2</sub> (190.24). White solid, [α]<sub>D</sub><sup>20</sup> = +14.4° (c = 0.30, MeOH). **Pharm:** Antibacterial (*Staphylococcus aureus* SG 511, MIC > 100µg/mL, Ciprofloxacin, MIC = 0.2µg/mL; *Micrococcus luteus* ATCC 10240, MIC > 100µg/mL, Ciprofloxacin, MIC = 12.5µg/mL; *Enterococcus faecalis* 1528(vanA), MIC > 100µg/mL, Ciprofloxacin, MIC = 1.6µg/mL; *Escherichia coli* SG 458, MIC > 100µg/mL, Ciprofloxacin, MIC < 0.05µg/mL; *Mycobacterium vaccae* IMET 10670 MIC = 25µg/mL, Ciprofloxacin, MIC = 0.4µg/mL); antifungal (*Candida albicans*, MIC = 50µg/mL; control Amphotericin B, MIC < 0.05µg/mL). **Source:** MU LAN<sup>(3)</sup> *Bruguiera gymnorrhiza* (stem). **Ref:** 5057.

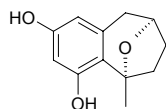
**2681 Bruguerol B**

C<sub>12</sub>H<sub>14</sub>O<sub>3</sub> (206.24). White solid, [α]<sub>D</sub><sup>20</sup> = +8.9° (c = 0.27, MeOH). **Pharm:** Antibacterial (*Staphylococcus aureus* SG 511, MIC > 100µg/mL, Ciprofloxacin, MIC = 0.2µg/mL; *Micrococcus luteus* ATCC 10240, MIC > 100µg/mL, Ciprofloxacin, MIC = 12.5µg/mL; *Enterococcus faecalis* 1528(vanA), MIC > 100µg/mL, Ciprofloxacin, MIC = 1.6µg/mL; *Escherichia coli* SG 458, MIC > 100µg/mL, Ciprofloxacin, MIC < 0.05µg/mL; *Mycobacterium vaccae* IMET 10670 MIC = 25µg/mL, Ciprofloxacin, MIC = 0.4µg/mL); antifungal (*Candida albicans*, MIC = 50µg/mL; control Amphotericin B, MIC < 0.05µg/mL). **Source:** MU LAN<sup>(3)</sup> *Bruguiera gymnorrhiza* (stem). **Ref:** 5057.

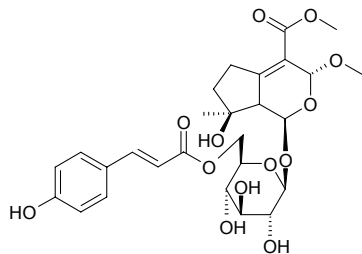


**2682 Bruguierol C**

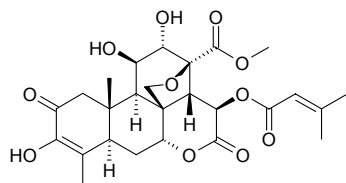
$C_{12}H_{14}O_3$  (206.24). White solid,  $[\alpha]_D^{20} = +4.0^\circ$  ( $c = 0.50$ , MeOH). **Pharm:** Antibacterial (*Staphylococcus aureus* SG 511, MIC = 12.5  $\mu\text{g/mL}$ , Ciprofloxacin, MIC = 0.2  $\mu\text{g/mL}$ ; *Micrococcus luteus* ATCC 10240, MIC = 12.5  $\mu\text{g/mL}$ , Ciprofloxacin, MIC = 12.5  $\mu\text{g/mL}$ ; *Enterococcus faecalis* 1528(vanA), MIC = 12.5  $\mu\text{g/mL}$ , Ciprofloxacin, MIC = 1.6  $\mu\text{g/mL}$ ; *Escherichia coli* SG 458, MIC = 12.5  $\mu\text{g/mL}$ , Ciprofloxacin, MIC < 0.05  $\mu\text{g/mL}$ ; *Mycobacterium vaccae* IMET 10670 MIC = 12.5  $\mu\text{g/mL}$ , Ciprofloxacin, MIC = 0.4  $\mu\text{g/mL}$ ); antifungal (*Candida albicans*, MIC = 50  $\mu\text{g/mL}$ ; control Amphotericin B, MIC < 0.05  $\mu\text{g/mL}$ ). **Source:** MU LAN<sup>(3)</sup> *Bruguiera gymnorhiza* (stem). **Ref:** 5057.

**2683 Brunneogaleatoside**

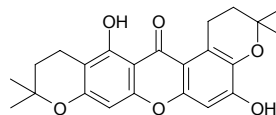
$C_{27}H_{34}O_{13}$  (566.56). Amorphous powder,  $[\alpha]_D^{20} = -75.9^\circ$  ( $c = 0.1$ , MeOH). **Pharm:** Antitrypanosomal (*Trypanosoma b. rhodesiense*,  $IC_{50} = 18.1 \mu\text{g/mL}$ , control Melarsoprol,  $IC_{50} = 0.00098 \mu\text{g/mL}$ ; *Trypanosoma cruzi*,  $IC_{50} > 90 \mu\text{g/mL}$ , control Benznidazole,  $IC_{50} = 1.06 \mu\text{g/mL}$ ); antileishmanial (*Leishmania donovani*,  $IC_{50} = 4.7 \mu\text{g/mL}$ , control Miltefosine,  $IC_{50} = 0.102 \mu\text{g/mL}$ ); antimalarial (*Plasmodium falciparum*,  $IC_{50} = 38.9 \mu\text{g/mL}$ , control Artemisinin,  $IC_{50} = 0.0022 \mu\text{g/mL}$ ); cytotoxic (L6,  $IC_{50} > 90 \mu\text{g/mL}$ , control Podophyllotoxin,  $IC_{50} = 0.008 \mu\text{g/mL}$ ). **Source:** ZONG KUI CAO SU *Phlomis brunneogaleata*. **Ref:** 5009.

**2684 Brusatol**

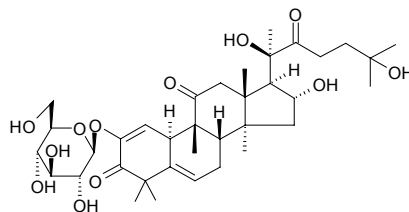
Yatansin [14907-98-3]  $C_{26}H_{32}O_{11}$  (520.54). mp 276–278°C. **Pharm:** cytotoxic (leukemia)<sup>[5369]</sup>; Antineoplastic ( $P_{388}$ , inhibits biosynthesis of RNA and protein); cytotoxic (differentiation of HL-60 cells)<sup>[5038]</sup>; antiamebic; hexokinase inhibitor (strong). **Source:** YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*] (seed: yield = 0.0085%dw)<sup>[4748]</sup>. **Ref:** 1, 2, 4, 4748, 5038, 5369, 5501.

**2685 BR-Xanthone A**

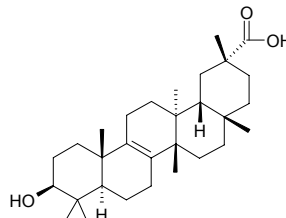
$C_{23}H_{24}O_6$  (396.44). **Pharm:** Antioxidant (DPPH scavenger, 10  $\mu\text{mol/L}$ , ScRt = 15%, control BHT, 10  $\mu\text{mol/L}$ , ScRt = 43%)<sup>[5319]</sup>; antibacterial (*Staphylococcus aureus* ATCC 25923, MIC > 128  $\mu\text{g/mL}$ , control Vancomycin, MIC = 2  $\mu\text{g/mL}$ ; *Staphylococcus aureus* MRSA SK1, MIC > 128  $\mu\text{g/mL}$ , Vancomycin, MIC = 2  $\mu\text{g/mL}$ )<sup>[5319]</sup>. **Source:** DAO NIAN ZI *Garcinia mangostana*, TIAN SHAN ZHU ZI *Garcinia dulcis* (fruit), TIAN SHAN ZHU ZI *Garcinia dulcis* (flower). **Ref:** 1521, 4422, 5319.

**2686 Bryoamaride**

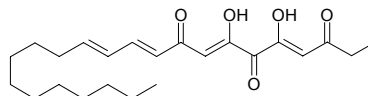
$C_{36}H_{54}O_{12}$  (678.82). Yellow amorphous solid,  $[\alpha]_D = -47.8^\circ$  ( $c = 1.2$ , EtOH). **Source:** FENG GUA *Gymnopetalum integrifolium* (fruit). **Ref:** 4189.

**2687 Bryonolic acid**

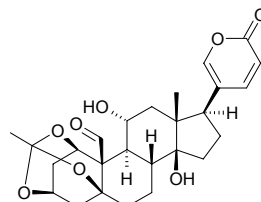
[24480-45-3]  $C_{30}H_{48}O_3$  (456.72). Colorless rhombic crystals (methanol), mp 299–302°C,  $[\alpha]_D^{20} = +25.0^\circ$  ( $c = 1.0$ , pyridine). **Pharm:** Antiallergic (mouse and rat); antineoplastic ( $L_{1210}$ ,  $IC_{50} = 0.024 \mu\text{g/mL}$ ); anti-inflammatory. **Source:** BAI LIAN *Ampelopsis japonica* [Syn. *Paullinia japonica*], GUA LOU *Trichosanthes kirilowii*, HU BEI GUA LOU *Trichosanthes hupehensis*, SI GUA *Luffa cylindrica*, TIAN HUA FEN *Trichosanthes kirilowii*. **Ref:** 2, 900.

**2688 Bryophollenone**

$C_{23}H_{34}O_5$  (390.52). **Source:** LUO DI SHENG GEN *Bryophyllum pinnatum*. **Ref:** 660.

**2689 Bryophyllin A**

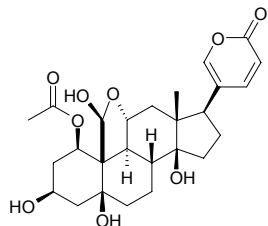
$C_{26}H_{32}O_8$  (472.54). **Source:** LUO DI SHENG GEN *Bryophyllum pinnatum*. **Ref:** 660.



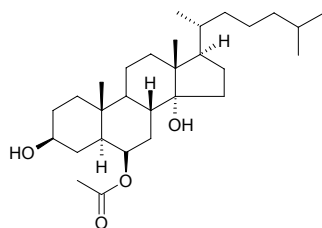


**2690 Bryophyllin B**

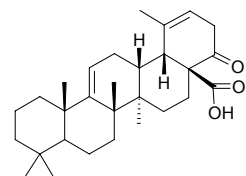
$C_{26}H_{34}O_9$  (490.56). Source: LUO DI SHENG GEN *Bryophyllum pinnatum*.  
Ref: 660.

**2691 Bryophyllol**

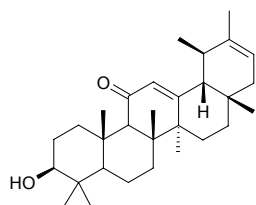
$C_{29}H_{50}O_4$  (462.72). Source: LUO DI SHENG GEN *Bryophyllum pinnatum*.  
Ref: 660.

**2692 Bryophyllone**

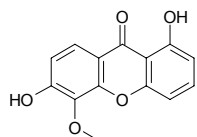
$C_{29}H_{42}O_3$  (438.66). Source: LUO DI SHENG GEN *Bryophyllum pinnatum*.  
Ref: 660.

**2693 Bryophynol**

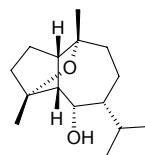
$C_{30}H_{46}O_2$  (438.70). Source: LUO DI SHENG GEN *Bryophyllum pinnatum*.  
Ref: 660.

**2694 Buchanaxanthone**

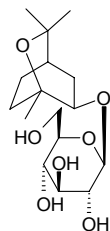
1,6-Dihydroxy-5-methoxyxanthone  $C_{14}H_{10}O_5$  (258.23). Pharm: Cytotoxic (P<sub>388</sub> ED<sub>50</sub> = 0.27 μg/mL, control Mithramycin ED<sub>50</sub> = 0.06 μg/mL, HT29 ED<sub>50</sub> = 0.84 μg/mL, Mithramycin ED<sub>50</sub> = 0.08 μg/mL)<sup>[4094]</sup>. Source: HAI TANG GUO *Calophyllum inophyllum*, TAI WAN LV DAO TENG HUANG *Garcinia linii*. Ref: 660, 4094.

**2695 Buchariol**

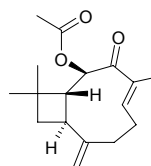
4,10-Epoxy-6 $\alpha$ -hydroxyguaiane  $C_{15}H_{26}O_2$  (238.37). Source: *Salvia bucharica*.  
Ref: 2391.

**2696 Bucharioside**

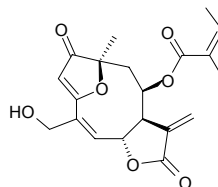
2-*exo*- $\beta$ -D-Glucopyranosyl-1,8-cineol  $C_{16}H_{28}O_7$  (332.40). [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -25.48° (c = 2.29, MeOH). Source: *Salvia bucharica*. Ref: 2391.

**2697 Buddlein A**

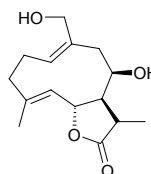
[62346-20-7]  $C_{17}H_{24}O_3$  (276.38). Pharm: Fish toxin. Source: DA YE ZUI YU CAO *Buddleja davidii*. Ref: 658.

**2698 Budlein A**

$C_{20}H_{22}O_7$  (374.39). Source: *Viguiera eriophora* ssp. *eriophora* (aerial parts).  
Ref: 5090.

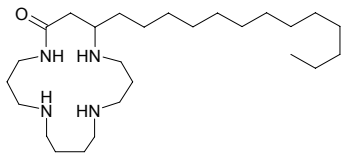
**2699 Budlein B**

$C_{15}H_{22}O_4$  (266.34). Source: HUA ZE LAN *Eupatorium chinense* (whole herb; yield = 0.00027%). Ref: 4739.

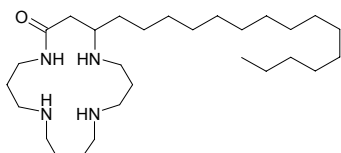


**2700 Budmunchiamine L<sub>4</sub>**

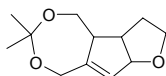
C<sub>26</sub>H<sub>54</sub>N<sub>4</sub>O (438.75). Colorless oil.  $[\alpha]_D = -13^\circ$  ( $c = 0.65$ , MeOH). Source: BA NA MA HE HUAN *Albizzia adinocephala*. Ref: 1950.

**2701 Budmunchiamine L<sub>5</sub>**

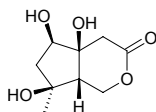
C<sub>28</sub>H<sub>58</sub>N<sub>4</sub>O (466.80). Colorless oil.  $[\alpha]_D = -20^\circ$  ( $c = 0.21$ , MeOH). Source: BA NA MA HE HUAN *Albizzia adinocephala*. Ref: 1950.

**2702 Buergerinin A**

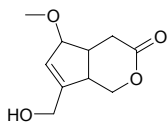
C<sub>9</sub>H<sub>14</sub>O<sub>6</sub> (210.28). Yellowish oil,  $[\alpha]_D^{23.5} = +5.65^\circ$  ( $c = 0.064$ , CHCl<sub>3</sub>). Source: BEI XUAN SHEN *Scrophularia buergeriana*, XUAN SHEN *Scrophularia ningpoensis*. Ref: 8.

**2703 Buergerinin B**

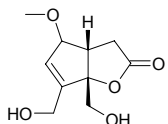
C<sub>9</sub>H<sub>14</sub>O<sub>5</sub> (202.21). Colorless needles, mp 159–160°C,  $[\alpha]_D^{23} = -23.14^\circ$  ( $c = 0.945$ , MeOH). Source: XUAN SHEN *Scrophularia ningpoensis*. Ref: 8.

**2704 Buergerinin C**

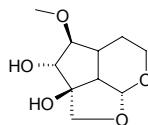
C<sub>10</sub>H<sub>14</sub>O<sub>4</sub> (198.22). Yellowish oil,  $[\alpha]_D^{23} = -6.78^\circ$  ( $c = 1.894$ , MeOH). Source: XUAN SHEN *Scrophularia ningpoensis*. Ref: 8.

**2705 Buergerinin D**

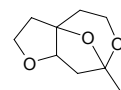
C<sub>10</sub>H<sub>14</sub>O<sub>5</sub> (214.22). Yellowish oil,  $[\alpha]_D^{17} = -28.13^\circ$  ( $c = 0.615$ , Me<sub>2</sub>CO). Source: XUAN SHEN *Scrophularia ningpoensis*. Ref: 8.

**2706 Buergerinin E**

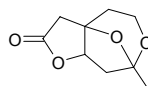
C<sub>10</sub>H<sub>16</sub>O<sub>5</sub> (216.24). Oil,  $[\alpha]_D^{17} = +21.21^\circ$  ( $c = 0.617$ , Me<sub>2</sub>CO). Source: XUAN SHEN *Scrophularia ningpoensis*. Ref: 8.

**2707 Buergerinin F**

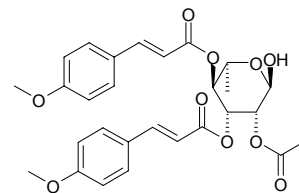
C<sub>9</sub>H<sub>14</sub>O<sub>3</sub> (170.21). Yellowish oil,  $[\alpha]_D^{18} = +40.67^\circ$  ( $c = 0.431$ , CHCl<sub>3</sub>). Source: XUAN SHEN *Scrophularia ningpoensis*. Ref: 8.

**2708 Buergerinin G**

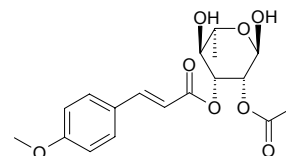
C<sub>9</sub>H<sub>12</sub>O<sub>4</sub> (184.19). Yellowish flake crystals, mp 152–154°C,  $[\alpha]_D^{18} = +47.71^\circ$  ( $c = 0.509$ , CHCl<sub>3</sub>). Source: XUAN SHEN *Scrophularia ningpoensis*. Ref: 8.

**2709 Buergeriside A<sub>1</sub>**

2-*O*-Acetyl-3,4-di-*O*-(*E*)-*p*-methoxycinnamoyl- $\alpha$ -*L*-rhamnopyranoside C<sub>28</sub>H<sub>30</sub>O<sub>10</sub> (526.55). Yellowish needle. Pharm: Neuroprotectant (primary cultures of rat cortical cells injured by glutamate, 0.1  $\mu$ mol/L, cell viability = (71.6 $\pm$ 3.9)%,  $p < 0.001$ , control MK-801, 0.1  $\mu$ mol/L, cell viability = (31.8 $\pm$ 7.1)%, APV, 0.1  $\mu$ mol/L, cell viability = (5.7 $\pm$ 1.9)%, XNQX, 0.1  $\mu$ mol/L, cell viability = (28.1 $\pm$ 5.6)%). Source: BEI XUAN SHEN *Scrophularia buergeriana* (root). Ref: 3967.

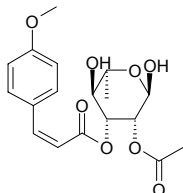
**2710 Buergeriside B<sub>1</sub>**

2-*O*-Acetyl-3-*O*-(*E*)-*p*-methoxycinnamoyl- $\alpha$ -*L*-rhamnopyranoside C<sub>18</sub>H<sub>22</sub>O<sub>8</sub> (366.37). White amorphous powder. Pharm: Neuroprotectant (primary cultures of rat cortical cells injured by glutamate, 0.1  $\mu$ mol/L, cell viability = (65.2 $\pm$ 2.9)%,  $p < 0.01$ , control MK-801, 0.1  $\mu$ mol/L, cell viability = (31.8 $\pm$ 7.1)%, APV, 0.1  $\mu$ mol/L, cell viability = (5.7 $\pm$ 1.9)%, XNQX, 0.1  $\mu$ mol/L, cell viability = (28.1 $\pm$ 5.6)%). Source: BEI XUAN SHEN *Scrophularia buergeriana* (root). Ref: 3967.

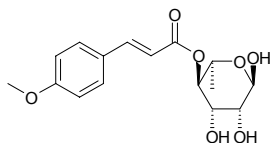


**2711 Buergeriside B<sub>2</sub>**

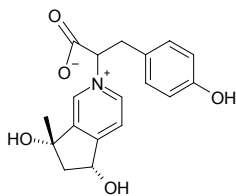
2-*O*-Acetyl-3-*O*-(*Z*)-*p*-methoxycinnamoyl- $\alpha$ -*L*-rhamnopyranoside C<sub>18</sub>H<sub>22</sub>O<sub>8</sub> (366.37). White amorphous powder. **Pharm:** Neuroprotectant (primary cultures of rat cortical cells injured by glutamate, 0.1  $\mu$ mol/L, cell viability = (35.9 $\pm$ 2.3)%,  $p$ <0.05, control MK-801, 0.1  $\mu$ mol/L, cell viability = (31.8 $\pm$ 7.1)%, APV, 0.1  $\mu$ mol/L, cell viability = (5.7 $\pm$ 1.9)%, XNQX, 0.1  $\mu$ mol/L, cell viability = (28.1 $\pm$ 5.6)%). **Source:** BEI XUAN SHEN *Scrophularia buergeriana* (root). **Ref:** 3967.

**2712 Buergeriside C<sub>1</sub>**

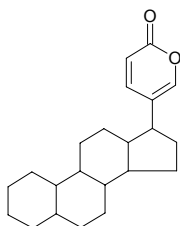
4-*O*-(*E*)-*p*-Methoxycinnamoyl- $\alpha$ -*L*-rhamnopyranoside C<sub>16</sub>H<sub>20</sub>O<sub>7</sub> (324.33). Pale yellow powder. **Pharm:** Neuroprotectant (primary cultures of rat cortical cells injured by glutamate, 0.1  $\mu$ mol/L, cell viability = (48.3 $\pm$ 3.3)%,  $p$ <0.01, control MK-801, 0.1  $\mu$ mol/L, cell viability = (31.8 $\pm$ 7.1)%, APV, 0.1  $\mu$ mol/L, cell viability = (5.7 $\pm$ 1.9)%, XNQX, 0.1  $\mu$ mol/L, cell viability = (28.1 $\pm$ 5.6)%). **Source:** BEI XUAN SHEN *Scrophularia buergeriana* (root). **Ref:** 3967.

**2713 Bueropyridinium A**

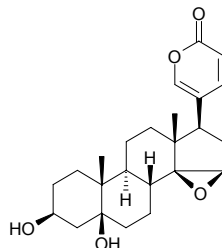
C<sub>18</sub>H<sub>19</sub>NO<sub>5</sub> (329.36). Colorless hyaloid oil. **Source:** XUAN SHEN *Scrophularia ningpoensis*. **Ref:** 8.

**2714 Bufadienolide**

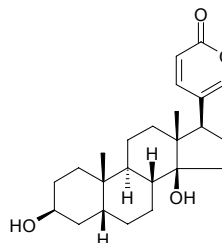
C<sub>22</sub>H<sub>30</sub>O<sub>2</sub> (326.48). **Source:** CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus*. **Ref:** 2.

**2715 Bufagin**

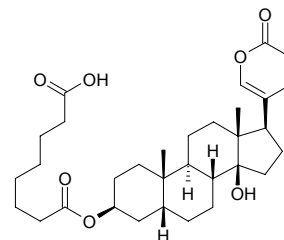
Morinobufagin [470-42-8] C<sub>24</sub>H<sub>32</sub>O<sub>5</sub> (400.52). Crystals (Me<sub>2</sub>CO-Et<sub>2</sub>O), mp 224–225°C, [ $\alpha$ ]<sub>D</sub><sup>16</sup> = +10° ( $c$  = 2.6, CHCl<sub>3</sub>). **Source:** CHAN CHU *Bufo bufo gargarizans*; *Bufo melanostictus*, CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus*. **Ref:** 6, 660, 1521.

**2716 Bufalin**

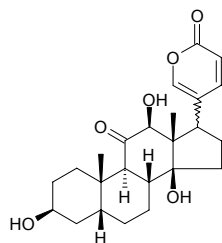
[465-21-4] C<sub>24</sub>H<sub>34</sub>O<sub>4</sub> (386.54). **Pharm:** Cytotoxic (*in vitro*, KB, IC<sub>50</sub> = 0.67  $\mu$ g/mL; HL-60, IC<sub>50</sub> < 0.01  $\mu$ g/mL; MH-60, IC<sub>50</sub> > 25  $\mu$ g/mL)<sup>[3082]</sup>, cardiotoxic (cardiac glycoside); respiratory stimulant (narcosis rbt, iv); increases blood pressure (narcosis rbt, iv); eclamptogenic (rat, iv, 0.8 mg/kg, tetanic convulsion); anesthetic; LD<sub>50</sub> (mus, iv) = 2.2 mg/kg. **Source:** CHAN CHU *Bufo bufo gargarizans*; *Bufo melanostictus*, CHAN SU *Bufo bufo gargarizans* (dried secretion: content = 0.34%)<sup>[5508]</sup>; *Bufo melanostictus* (dried secretion: content = 0.73%)<sup>[5508]</sup>. **Ref:** 2, 618, 658, 3082, 5501, 5508.

**2717 Bufalin-3-hydrogen suberate**

C<sub>32</sub>H<sub>46</sub>O<sub>7</sub> (542.72). **Source:** CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus*. **Ref:** 6, 660.

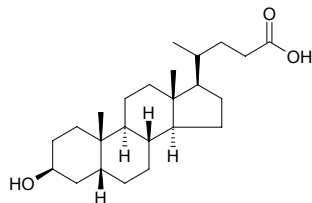
**2718 Bufarenogin**

Bufarenogin [17008-65-0] C<sub>24</sub>H<sub>32</sub>O<sub>6</sub> (416.52). mp 230–233°C. **Source:** CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus*. **Ref:** 6, 1521.

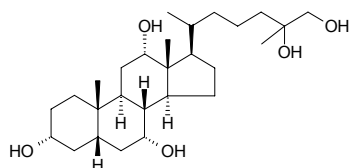


**2719 Bufodihydroxycholanolic acid**

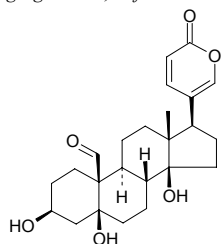
$C_{24}H_{40}O_3$  (376.58). mp 230°C. Source: CHAN CHU DAN *Bufo bufo gargarizans*; *Bufo melanostictus*. Ref: 6.

**2720 5β-Bufol sulfate**

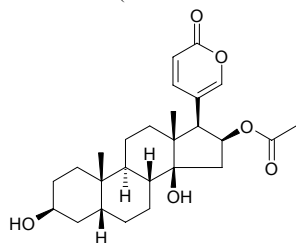
$C_{27}H_{48}O_5$  (452.68). Source: XIA MA DAN *Rana limnocharis*. Ref: 6.

**2721 Bufotalidin**

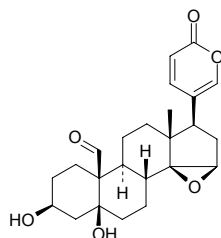
Hellebrigenin [465-90-7]  $C_{24}H_{32}O_6$  (416.52). Source: CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus*. Ref: 2.

**2722 Bufotalin**

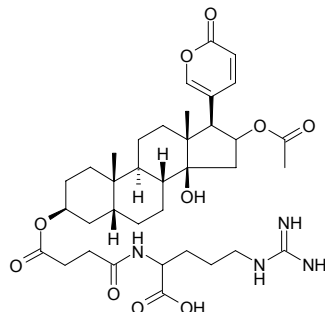
[471-95-4]  $C_{26}H_{36}O_6$  (444.57). Pharm: Cytotoxic (*in vitro*, KB,  $IC_{50}$  = 0.19 μg/mL; HL-60,  $IC_{50}$  < 0.01 μg/mL; MH-60,  $IC_{50}$  > 25 μg/mL)<sup>[3082]</sup>. Source: CHAN SU *Bufo bufo gargarizans* (dried secretion: content = 0.72%<sup>[5508]</sup>); *Bufo melanostictus* (dried secretion: content = 0.01%<sup>[5508]</sup>). Ref: 1521, 3082, 5508.

**2723 Bufotalinin**

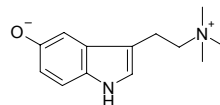
[562-21-0]  $C_{24}H_{30}O_6$  (414.50). Source: CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus*. Ref: 2.

**2724 Bufotalin 3-succinoylarginine ester**

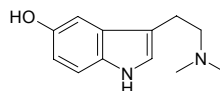
$C_{36}H_{52}N_4O_{10}$  (700.84). Colorless amorphous powder, mp 213–215°C. Source: CHAN PI *Bufo bufo gargarizans*; *Bufo melanostictus*. Ref: 241.

**2725 Bufotenidine**

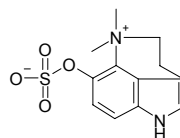
[487-91-2]  $C_{13}H_{18}N_2O$  (218.30). Pharm: Anticholinergic; uterine stimulant (gpg uterus *in vitro*). Source: LU ZHU GEN *Arundo donax*. Ref: 1, 2.

**2726 Bufotenine**

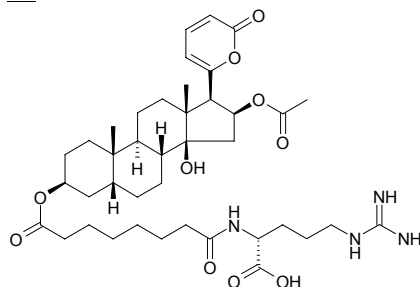
Cinobufotenine [487-93-4]  $C_{12}H_{16}N_2O$  (204.27). Pharm: Contracts blood vessels (local); hallucinogen; increases blood pressure; uterine stimulant. Source: CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus*, LU ZHU GEN *Arundo donax*, CHAN CHU *Bufo bufo gargarizans*; *Bufo melanostictus*. Ref: 2, 658.

**2727 Bufothionine**

$C_{12}H_{14}N_2O_4S$  (282.32). Source: CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus*. Ref: 1521.

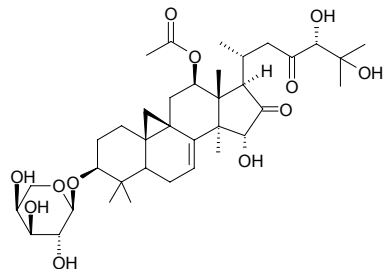
**2728 Bufotoxin**

[464-81-3]  $C_{40}H_{60}N_4O_{10}$  (756.95). Pharm: Cardiotonic;  $LD_{50}$  (cat, iv) = 0.27 mg/kg. Source: CHAN CHU *Bufo bufo gargarizans*; *Bufo melanostictus*. Ref: 658.

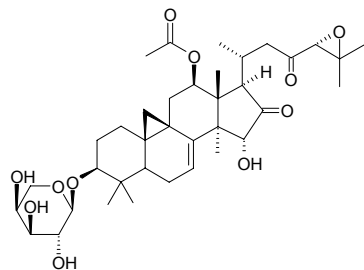


**2729 Bugbanoside C**

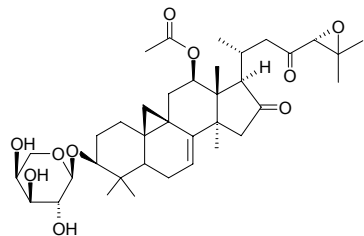
12 $\beta$ -Acetoxy-3 $\beta$ ,15 $\alpha$ ,-24R,25-tetrahydroxy-16,23-dione-cycloart-7-ene  
3-O- $\alpha$ -L-arabinopyranoside C<sub>37</sub>H<sub>56</sub>O<sub>12</sub> (692.85). Colorless powder  
(MeOH-isopropyl ether), mp 157~158°C, [ $\alpha$ ]<sub>D</sub> = -57.5° (c = 0.98, MeOH).  
Source: YE SHENG MA *Cimicifuga simplex* (underground part). Ref: 3516.

**2730 Bugbanoside D**

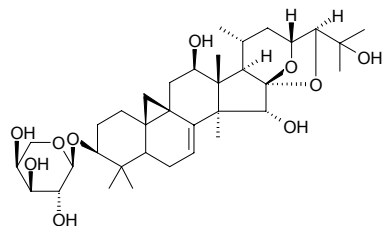
12 $\beta$ -Acetoxy-24R,25-epoxy-3 $\beta$ ,15 $\alpha$ -dihydroxy-16,23-dione-cycloart-7-ene  
3-O- $\alpha$ -L-arabinopyranoside C<sub>37</sub>H<sub>54</sub>O<sub>11</sub> (674.84). Colorless powder  
(MeOH-isopropyl ether), mp 171~172°C, [ $\alpha$ ]<sub>D</sub> = -58.1° (c = 0.33, MeOH).  
Source: YE SHENG MA *Cimicifuga simplex* (underground part). Ref: 3516.

**2731 Bugbanoside E**

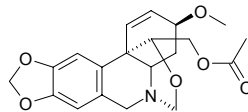
12 $\beta$ -Acetoxy-24R,25-epoxy-3 $\beta$ -hydroxy-16,23-dione-cycloart-7-ene  
3-O- $\alpha$ -L-arabinopyranoside C<sub>37</sub>H<sub>54</sub>O<sub>10</sub> (658.84). colorless powder  
(MeOH-isopropyl ether), mp 125~126°C, [ $\alpha$ ]<sub>D</sub> = -54.2° (c = 0.52, MeOH).  
Source: YE SHENG MA *Cimicifuga simplex* (underground part). Ref: 3516.

**2732 Bugbanoside F**

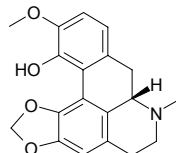
16,23R: 16,24S-Diepoxy-3 $\beta$ ,12 $\beta$ ,15 $\alpha$ ,25-tetrahydroxy-cycloart-7-ene  
3-O- $\alpha$ -L-arabinopyranoside C<sub>35</sub>H<sub>54</sub>O<sub>10</sub> (634.81). colorless powder  
(MeOH-isopropyl ether), mp 255~256°C, [ $\alpha$ ]<sub>D</sub> = -18.5° (c = 0.36, MeOH).  
Source: YE SHENG MA *Cimicifuga simplex* (underground part). Ref: 3516.

**2733 Bujeine**

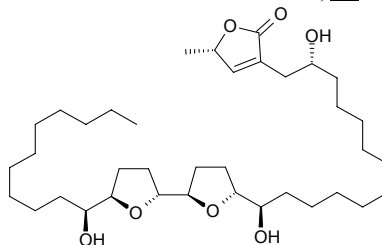
C<sub>20</sub>H<sub>23</sub>NO<sub>6</sub> (373.41). mp. 140~142°C, [ $\alpha$ ]<sub>D</sub><sup>22</sup> = 129.4° (c = 0.11, MeOH)  
Source: YI BI LI YA SHUI XIAN *Narcissus bujei*. Ref: 1887.

**2734 Bulbocapnine**

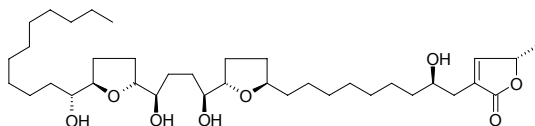
[298-45-3] C<sub>19</sub>H<sub>19</sub>NO<sub>4</sub> (325.37). Pharm: Anticholinergic; anti-gastrin; dopamine receptor antagonist (in CNS); causes tetanic coma; inhibits excitation of striatum adenylyl cyclase caused by dopamine; inhibits small intestinal movement (*in vitro*); sedative; uterine stimulant (gpg and rbt); hypnotic (synergist of hypnotics); vasodilator; LD<sub>50</sub> (mus, giving drug in rib) = 195mg/kg. Source: AO XIAN ZI JIN *Corydalis cava*, GAO JIA SUO ZI JIN *Corydalis caucasica*, HUANG HAI YING SU *Glauicum flavum*, JU HUA HUANG LIAN *Corydalis pallida*, MA CHANG LI ZI JIN *Corydalis marschalliana*, MEI LI HAI YING SU *Glauicum pulchrum*, SHAN YAN HU SUO *Corydalis bulbosa* [Syn. *Corydalis solida*], XIA TIAN WU *Corydalis decumbens* [Syn. *Corydalis amabilis*], YAO YONG QIU GUO ZI JIN *Fumaria officinalis*. Ref: 1, 6.

**2735 Bullatacin**

C<sub>37</sub>H<sub>66</sub>O<sub>7</sub> (622.93). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>24</sup> = +17.5° (c = 0.13, CHCl<sub>3</sub>). Pharm: Cytotoxic (hmn hepatoma cell lines HepG2, IC<sub>50</sub> = 0.063ng/mL, control Adriamycin, IC<sub>50</sub> = 0.241 $\mu$ g/mL; hmn hepatoma cells transfected with hepatitis B virus Hep2,2,15, IC<sub>50</sub> = 0.069ng/mL, Adriamycin, IC<sub>50</sub> = 0.450 $\mu$ g/mL)<sup>[5377]</sup>; cytotoxic (*in vitro*, 9PS ED<sub>50</sub> = 1 $\times$ 10<sup>-15</sup> $\mu$ g/mL, 9KB ED<sub>50</sub> = 6.2 $\times$ 10<sup>-14</sup> $\mu$ g/mL, A549 ED<sub>50</sub> = 1.3 $\times$ 10<sup>-13</sup> $\mu$ g/mL, HT29 ED<sub>50</sub> = 1 $\times$ 10<sup>-12</sup> $\mu$ g/mL, MCF7 ED<sub>50</sub> < 1 $\times$ 10<sup>-12</sup> $\mu$ g/mL)<sup>[2167]</sup>; antineoplastic (*in vivo*: rat, L<sub>1210</sub>, 0.05mg/kg, T/C = 138%; hmn, A2780, 0.1mg/kg, InRt = 68%)<sup>[2167]</sup>. Source: FAN LI ZHI *Annona squamosa*, PAO ZHUANG FAN LI ZHI *Annona bullata*, CI GUO FAN LI ZHI *Annona muricata*, Ref: 2167, 5377.

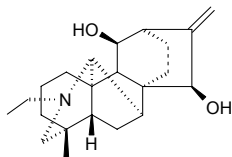
**2736 Bullatanocin**

Squamosatin C C<sub>37</sub>H<sub>66</sub>O<sub>8</sub> (638.93). White powder (hexane-chloroform) or white wax (chloroform), [ $\alpha$ ]<sub>D</sub><sup>22</sup> = +14.4° (c = 0.55, chloroform). Pharm: Cytotoxic (BST, LC<sub>50</sub> = 0.43 $\mu$ g/mL, A549 *in vitro*, ED<sub>50</sub> = 5.15 $\times$ 10<sup>-10</sup> $\mu$ g/mL, MCF7 *in vitro*, ED<sub>50</sub> = 0.0242 $\mu$ g/mL, HT29 *in vitro*, ED<sub>50</sub> = 1.66 $\times$ 10<sup>-11</sup> $\mu$ g/mL)<sup>[1077]</sup>. Source: FAN LI ZHI *Annona squamosa*. Ref: 1018, 1077, 1171.

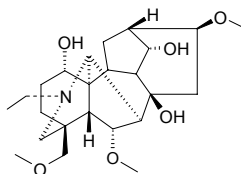


**2737 Bullatine A**

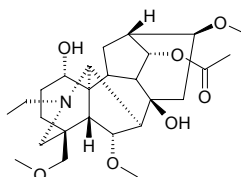
$C_{22}H_{33}NO_2$  (343.51). mp 251~253°C. **Pharm:** Analgesic (mus, chloride 1mg/kg); LD<sub>50</sub> (mus, sc, chloride) = 21.96mg/kg. **Source:** BAO SHAN WU TOU *Aconitum bullatifolium* var. *homotrichum* [Syn. *Aconitum nazarum*]. **Ref:** 1, 6.

**2738 Bullatine B**

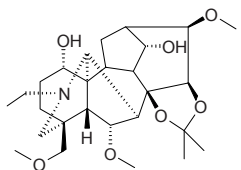
Neoline [466-26-2]  $C_{24}H_{39}NO_6$  (437.58). Colorless powder, mp 158~159°C,  $[\alpha]_D^{26} = +19.2^\circ$  ( $c = 0.826$ , EtOH). **Pharm:** Analgesic (mus, chloride 1mg/kg); LD<sub>50</sub> (mus, sc, chloride) = (2.99±0.08)mg/kg. **Source:** BAO SHAN WU TOU *Aconitum bullatifolium* var. *homotrichum* [Syn. *Aconitum nazarum*], GUA YE WU TOU *Aconitum hemsleyanum*, WU TOU *Aconitum carmichaeli*, FU ZI *Aconitum carmichaeli* (tuber). **Ref:** 1, 6, 239, 461, 2208, 4373.

**2739 Bullatine C**

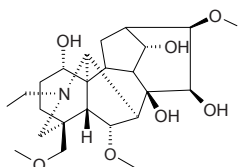
14-*O*-Acetylneoline [1354-86-5]  $C_{26}H_{41}NO_7$  (479.62). mp 220°C. **Pharm:** Analgesic (mus, chloride 1mg/kg). **Source:** BAO SHAN WU TOU *Aconitum bullatifolium* var. *homotrichum* [Syn. *Aconitum nazarum*], FU ZI *Aconitum carmichaeli* (tuber). **Ref:** 1, 6, 4373.

**2740 Bullatine E**

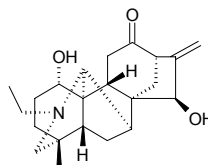
$C_{27}H_{43}NO_7$  (493.65). **Source:** BAO SHAN WU TOU *Aconitum bullatifolium* var. *homotrichum* [Syn. *Aconitum nazarum*]. **Ref:** 1, 6.

**2741 Bullatine F**

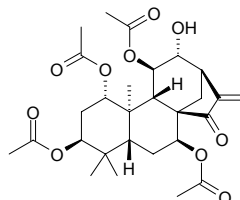
Nagarine [80665-73-2]  $C_{24}H_{39}NO_7$  (453.58). mp 186°C. **Source:** XUE SHANG YI ZHI HAO *Aconitum brachypodum*. **Ref:** 6.

**2742 Bullatine G**

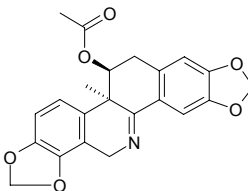
Napellonine [509-24-0]  $C_{22}H_{31}NO_3$  (357.50). mp 210~212°C. **Source:** WU TOU *Aconitum carmichaeli*, XUE SHANG YI ZHI HAO *Aconitum brachypodum*. **Ref:** 4, 6, 239, 461, 660.

**2743 Bulleyanin**

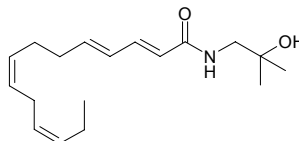
$C_{28}H_{38}O_{10}$  (534.61). mp 240~244°C. **Source:** CANG SHAN XIANG CHA CAI *Isodon bulleyana*. **Ref:** 4067.

**2744 Bungeanine**

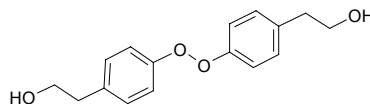
$C_{22}H_{19}NO_6$  (393.40). **Source:** KU DI DING *Corydalis bungeana*. **Ref:** 660.

**2745 Bungeanool**

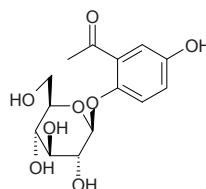
[117568-40-8]  $C_{18}H_{29}NO_2$  (291.44). **Source:** HUA JIAO *Zanthoxylum bungeanum*. **Ref:** 1521.

**2746 Bungein A**

$C_{16}H_{18}O_4$  (274.32). Colorless wax. **Source:** CHOU MU DAN *Clerodendrum bungei*. **Ref:** 897.

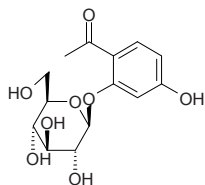
**2747 Bungeiside A**

$C_{14}H_{18}O_8$  (314.29). **Source:** BAI SHOU WU *Cynanchum bungei*. **Ref:** 660.

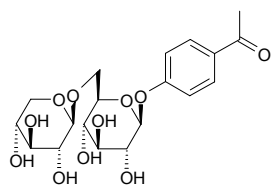


**2748 Bungeiside B**

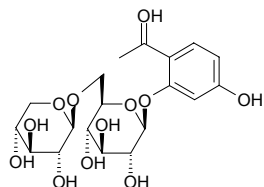
$C_{14}H_{18}O_8$  (314.29). Source: BAI SHOU WU *Cynanchum bungei*. Ref: 660.

**2749 Bungeiside C**

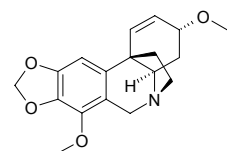
$C_{19}H_{26}O_{11}$  (430.41). Source: BAI SHOU WU *Cynanchum bungei*. Ref: 660.

**2750 Bungeiside D**

$C_{19}H_{26}O_{12}$  (446.41). Source: BAI SHOU WU *Cynanchum bungei*. Ref: 660.

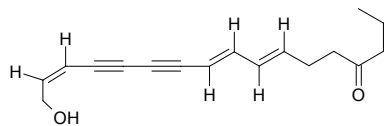
**2751 Buphanidrine**

$C_{18}H_{21}NO_4$  (315.37). Source: GUAN MU WEN SHU LAN *Crinum macowanii* (bulb). Ref: 4000.

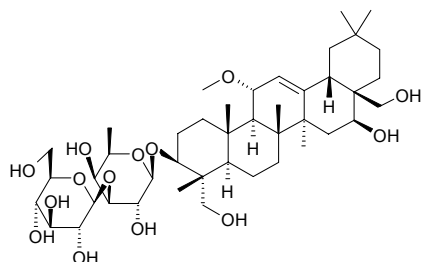
**2752 Bupleuronol**

[111128-28-0]  $C_{17}H_{20}O_2$  (256.35). Colorless lamellar crystals, mp 22°C.

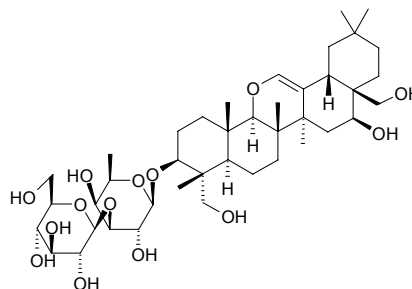
Source: DA YE CHAI HU *Bupleurum longiradiatum*. Ref: 81, 1521.

**2753 Bupleuroside III**

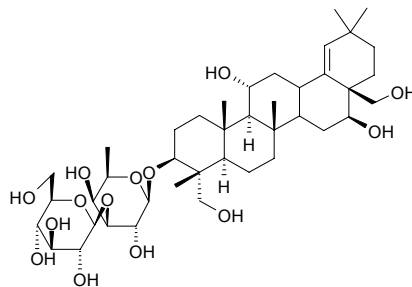
$C_{43}H_{72}O_{14}$  (813.04). Source: ZI HU *Bupleurum falcatum*. Ref: 2247.

**2754 Bupleuroside VI**

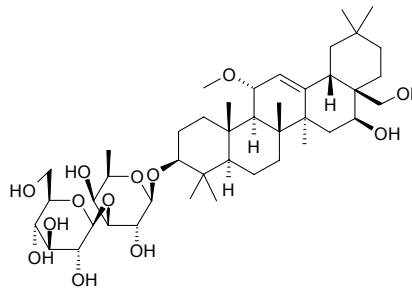
$C_{41}H_{68}O_{14}$  (789.99). Source: ZI HU *Bupleurum falcatum*. Ref: 2247.

**2755 Bupleuroside XIII**

$C_{41}H_{68}O_{14}$  (784.99). Source: ZI HU *Bupleurum falcatum*. Ref: 2247.

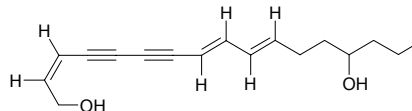
**2756 Bupleuroside IX**

$C_{43}H_{72}O_{13}$  (797.05). Source: ZI HU *Bupleurum falcatum*. Ref: 2247.

**2757 Bupleurotoxin**

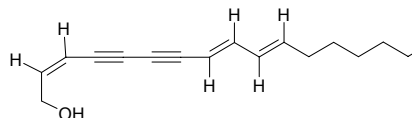
14-Hydroxy-bupleurynol [111128-27-9]  $C_{17}H_{22}O_2$  (258.36). Colorless lamellar crystals, mp 54°C (methanol),  $[\alpha]_D^{18} = +20^\circ$  ( $c = 0.021$ , methanol).

Pharm: LD<sub>50</sub> (mus, ip) = 3.03mg/kg. Source: DA YE CHAI HU *Bupleurum longiradiatum*. Ref: 81, 1521.

**2758 Bupleurynol**

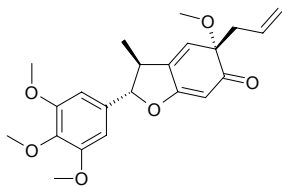
[111128-29-1]  $C_{17}H_{22}O$  (242.36). Colorless lamellar crystals, mp 36°C.

Source: DA YE CHAI HU *Bupleurum longiradiatum*. Ref: 81, 1521.

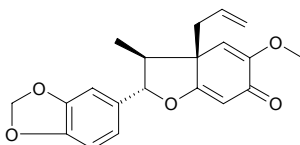


**2759 Burcellin**

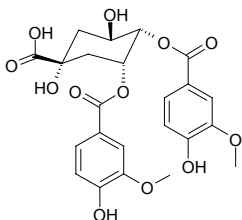
$C_{22}H_{26}O_6$  (386.45). Source: YU LAN *Magnolia denudata* [Syn. *Magnolia heptapata*]. Ref: 4439.

**2760 Burchellin**

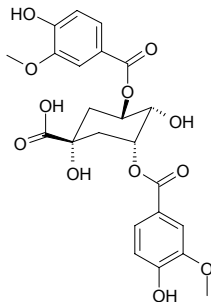
[38276-59-4]  $C_{20}H_{20}O_5$  (340.38). White amorphous powder,  $[\alpha]_D^{33} = +42.0^\circ$  ( $c = 0.006$ , chloroform). Source: SHAN JU *Piper hancei*. Ref: 75.

**2761 Burkinabin A**

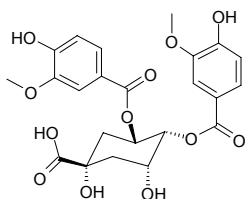
3,4-*O*-Divanillylquinic acid  $C_{23}H_{24}O_{12}$  (492.44). Source: *Fagara xanthoxyloides* (root cortex). Ref: 3804.

**2762 Burkinabin B**

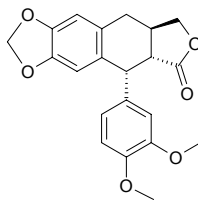
3,5-*O*-Divanillylquinic acid  $C_{23}H_{24}O_{12}$  (492.44). Source: *Fagara xanthoxyloides* (root cortex). Ref: 3804.

**2763 Burkinabin C**

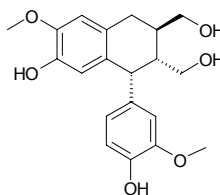
4,5-*O*-Divanillylquinic acid  $C_{23}H_{24}O_{12}$  (492.44). Source: *Fagara xanthoxyloides* (root cortex). Ref: 3804.

**2764 Bursehemim**

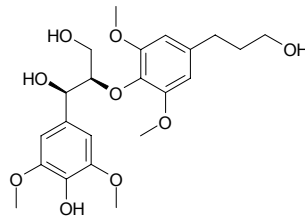
$C_{21}H_{20}O_6$  (368.39). Source: E SHEN *Anthriscus sylvestris*. Ref: 5499.

**2765 Burselignan**

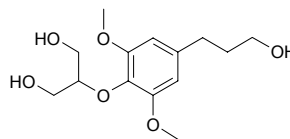
8 $\alpha$ -(4-Hydroxy-3-methoxy-phenyl)-6 $\beta$ ,7 $\alpha$ -bis-hydroxymethyl-3-methoxy-5,6,7,8-tetrahydro-naphthalen-2-ol  $C_{22}H_{24}O_6$  (360.41). White powder,  $[\alpha]_D^{20} = -64.2^\circ$  ( $c = 0.01$ , MeOH). Pharm: Cytotoxic inactive (100 $\mu$ g/mL: KB, LNCaP, and Col2 cells). Source: YUE NAN LIE LAN *Bursera tonkinensis* (root). Ref: 5336.

**2766 Burseneolignan**

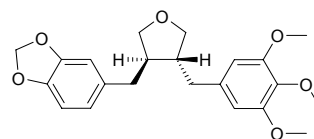
1*R*\*-(4-Hydroxy-3,5-dimethoxy-phenyl)-2*R*\*-[4-(3-hydroxy-propyl)-2,6-dimethoxy-phenoxy]-propane-1,3-diol  $C_{22}H_{30}O_9$  (438.48). Colorless syrup,  $[\alpha]_D^{20} = +14.0^\circ$  ( $c = 0.1$ , MeOH). Pharm: Cytotoxic inactive (100 $\mu$ g/mL: KB, LNCaP, and Col2 cells). Source: YUE NAN LIE LAN *Bursera tonkinensis* (root). Ref: 5336.

**2767 Bursephenylpropane**

2-[4-(3-Hydroxy-propyl)-2,6-dimethoxyphenoxy]-propane-1,3-diol  $C_{14}H_{22}O_6$  (286.33). Colorless syrup. Pharm: Cytotoxic inactive (100 $\mu$ g/mL: KB, LNCaP, and Col2 cells). Source: YUE NAN LIE LAN *Bursera tonkinensis* (root). Ref: 5336.

**2768 Burseran**

[23284-23-3]  $C_{22}H_{26}O_6$  (386.45). Oil,  $[\alpha]_D^{20} = +37.5^\circ$ . Pharm: Antineoplastic (hmn epidermoid nasopharyngeal carcinoma 9KB, EC = 0.026 $\mu$ g/mL). Source: XIAO YE LIE LAN *Bursera microphylla*. Ref: 658, 661.

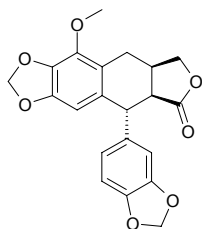




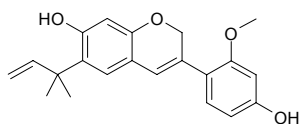
**2769 Burseranin**

$C_{21}H_{18}O_7$  (382.37). Colorless waxy solid,  $[\alpha]_D = +32^\circ$  ( $c = 0.27$ , MeOH).

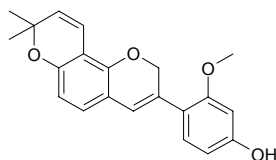
**Pharm:** Cytotoxic (hmn fibrosarcoma cells HT1080,  $ED_{50} = 5.5 \mu\text{g/mL}$ , control Adriamycin,  $ED_{50} = 0.1 \mu\text{g/mL}$ ). **Source:** LIE WEI LIE LAN *Bursera graveolens* (stem). **Ref:** 4437.

**2770 Burttinol A**

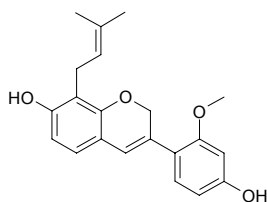
$C_{21}H_{22}O_4$  (338.41). Oil. **Source:** KEN NI YA CI TONG *Erythrina burtii*. **Ref:** 1986.

**2771 Burttinol B**

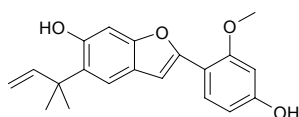
Erypoegin B  $C_{21}H_{20}O_4$  (336.39). Colorless oil. **Source:** KEN NI YA CI TONG *Erythrina burtii*, SHAN DI CI TONG *Erythrina poeppigiana*. **Ref:** 1972, 1986.

**2772 Burttinol C**

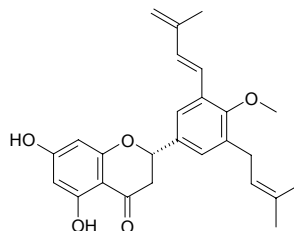
Erypoegin A  $C_{21}H_{22}O_4$  (338.41). Colorless oil. **Source:** KEN NI YA CI TONG *Erythrina burtii*, SHAN DI CI TONG *Erythrina poeppigiana*. **Ref:** 1972, 1986.

**2773 Burttinol D**

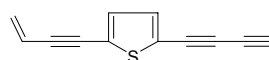
$C_{20}H_{20}O_4$  (324.38). Oil. **Source:** KEN NI YA CI TONG *Erythrina burtii*. **Ref:** 1986.

**2774 Burttinonedehydrate**

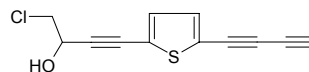
5,7-Dihydroxy-4'-methoxy-3'-(3-methylbutadienyl)-5'-(3-methylbut-2-enyl)-a vanone  $C_{26}H_{28}O_6$  (420.51). Oil,  $[\alpha]_D = -66^\circ$  ( $c = 0.01$ , MeOH). **Source:** KEN NI YA CI TONG *Erythrina burtii* (stem bark). **Ref:** 3387.

**2775 2-(Buta-1,3-diyynyl)-5-(but-3-en-1-ynyl) thiophene**

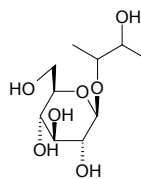
$C_{12}H_6S$  (182.25). **Source:** MO HAN LIAN *Eclipta prostrata* [Syn. *Eclipta alba*]. **Ref:** 6.

**2776 2-(Buta-1,3-diyynyl)-5-(4-chloro-3-hydroxybut-1-ynyl) thiophene**

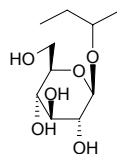
$C_{12}H_7ClOS$  (234.71). **Source:** MO HAN LIAN *Eclipta prostrata* [Syn. *Eclipta alba*]. **Ref:** 6.

**2777 Butane-2,3-diol 2-O-β-D-glucopyranoside**

$C_{10}H_{20}O_7$  (252.27). Amorphous powder,  $[\alpha]_D^{23} = -32^\circ$ . **Source:** BEI SHA SHEN *Glehnia littoralis* (fruit). **Ref:** 3525.

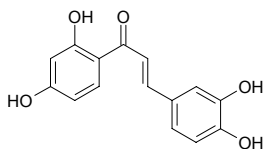
**2778 Butan-2-O-β-D-glucopyranoside**

$C_{10}H_{20}O_6$  (232.627). White gum;  $[\alpha]_D^{20} = -89.49^\circ$  ( $c = 0.3$ ,  $CHCl_3$ ). **Pharm:** Inhibitory activity against NFAT transcription ( $IC_{50} > 100 \mu\text{mol/L}$ , control Cyclosporin A,  $IC_{50} = (0.29 \pm 0.01) \mu\text{mol/L}$ )<sup>[2536]</sup>. **Source:** HUA CHA BIAO *Ribes fasciculatum* var. *chinense*. **Ref:** 2536.

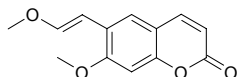


**2779 Butein**

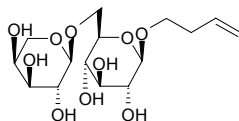
3,4,2',4'-Tetrahydroxychalcone [21849-70-7] C<sub>15</sub>H<sub>12</sub>O<sub>5</sub> (272.26). Yellow powder, mp 243–247°C; mp 213–215°C. **Pharm:** Reduced coenzyme I (NADH) oxidase inhibitor; succinic oxidase inhibitor; antifibrogenic (rats, 10mg/(kg·d) or 25mg/(kg·d), significant reduces concentrations of hydroxyproline and malondialdehyde). **Source:** CI HUI HUA *Robinia pseudoacacia*, LU CAO *Rhaponticum carthamoides*, MI HUA DOU *Spatholobus suberectus*, QI ZI *Rhus verniciflua* [Syn. *Toxicadendron verniciflum*]. **Ref:** 6, 658, 698, 2205, 5473.

**2780 6-(trans-1-Buten-3-oxy)-7-methoxycoumarin**

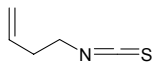
C<sub>13</sub>H<sub>12</sub>O<sub>4</sub> (232.24). mp 225°C. **Source:** YAN JIAO CAO *Boenninghausenia albiflora*. **Ref:** 2495.

**2781 3-Butenyl-6'-O-α-L-arabinopyranosyl-β-D-glucopyranoside**

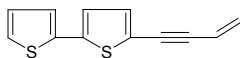
C<sub>15</sub>H<sub>26</sub>O<sub>10</sub> (366.37). Amorphous powder, [α]<sub>D</sub><sup>27</sup> = -31.5° (c = 0.677, MeOH). **Source:** RI BEN ZHANG YA CAI *Swertia japonica*. **Ref:** 2528.

**2782 3-Butenyl isothiocyanate**

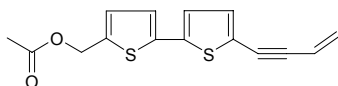
[3386-97-8] C<sub>3</sub>H<sub>7</sub>NS (113.18). bp 78.5°C/26mmHg. **Source:** GAN LAN *Brassica oleracea* var. *capitata*, JIE ZI *Brassica juncea*. **Ref:** 6.

**2783 5-(3-Buten-1-ynyl)-2,2'-bithienyl**

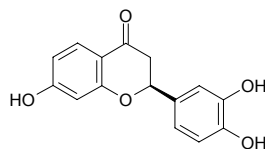
C<sub>12</sub>H<sub>8</sub>S<sub>2</sub> (216.33). **Pharm:** Antifungal; nematocide. **Source:** WAN SHOU JU *Tagetes erecta*, WEI XIAO WAN SHOU JU *Tagetes minuta*. **Ref:** 6, 658, 660.

**2784 5-(3-Buten-1-ynyl)-2,2'-bithienyl-5'-methylacetate**

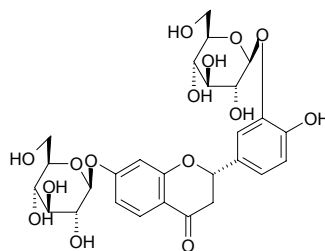
C<sub>15</sub>H<sub>12</sub>O<sub>2</sub>S<sub>2</sub> (288.39). **Source:** MO HAN LIAN *Eclipta prostrata* [Syn. *Eclipta alba*]. **Ref:** 6.

**2785 Butin**

7,3',4'-Trihydroxyflavanone [21913-99-5] C<sub>15</sub>H<sub>12</sub>O<sub>5</sub> (272.26). mp 224–226°C. **Source:** CI HUI HUA *Robinia pseudoacacia*. **Ref:** 6.

**2786 Butrin**

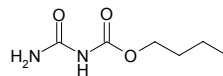
[492-13-7] C<sub>27</sub>H<sub>32</sub>O<sub>15</sub> (596.55). **Pharm:** Antihepatotoxin. **Source:** DAN ZI ZI MAO *Butea monosperma*. **Ref:** 658.

**2787 n-Butylaldehyde**

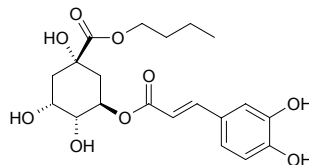
Propanecarbaldehyde [123-72-8] C<sub>4</sub>H<sub>8</sub>O (72.11). **Source:** SHENG JIANG *Zingiber officinale*, HUANG HAO *Artemisia scoparia* [Syn. *Artemisia capillaris* var. *scoparia*]. **Ref:** 2.

**2788 n-Butyl allophanate**

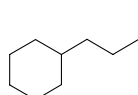
C<sub>6</sub>H<sub>12</sub>N<sub>2</sub>O<sub>3</sub> (160.17). **Source:** DANG SHEN *Codonopsis pilosula*. **Ref:** 2.

**2789 Butyl chlorogenate**

C<sub>20</sub>H<sub>26</sub>O<sub>9</sub> (410.42). **Source:** JI ZI MU *Sinoadina Racemosa* [Syn. *Adina racemosa*] (leaf, flower and twig: yield = 0.0072%dw)<sup>[4723]</sup>. **Ref:** 4723.

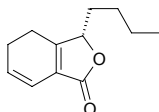
**2790 Butyl-cyclohexane**

[1678-93-9] C<sub>10</sub>H<sub>20</sub> (140.27). **Source:** SHAN ZHA *Crataegus pinnatifida*. **Ref:** 2.

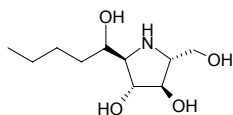


**2791 3(S)-3-Butyl-4,5-dihydrophthalide**

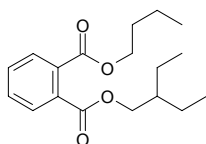
Senkyunolide A [63038-10-8] C<sub>12</sub>H<sub>16</sub>O<sub>2</sub> (192.26). **Pharm:** Anticonvulsant; central muscle relaxant; anti-arteriosclerosis (inhibits proliferation of cell in smooth muscle, 5μg/mL InRt = 76.8%); LD<sub>50</sub> (mus, orl) > 500mg/kg. **Source:** CHA XIONG *Ligusticum sinense* cv. *chaxiong*, CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*], DANG GUI *Angelica sinensis*, HAN QIN *Apium graveolens*, OU DANG GUI *Levisticum officinale*. **Ref:** 531, 660, 929, 1206, 1265, 1521.

**2792 6-C-Butyl-DMDP**

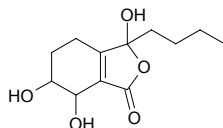
6-C-Butyl derivative of 2*R*,5*R*-bis(hydroxymethyl)-3*R*,4*R*-dihydroxypyrrolidine C<sub>10</sub>H<sub>21</sub>NO<sub>4</sub> (219.28). [α]<sub>D</sub> = +174.3° (c = 0.32, H<sub>2</sub>O). **Pharm:** Enzymes inhibitor (α-glucosidase: rice, IC<sub>50</sub> > 1000μmol/L, control DMDP, IC<sub>50</sub> = 300μmol/L; yeast, IC<sub>50</sub> > 1000μmol/L, control DMDP, IC<sub>50</sub> = 3.6μmol/L; rat intestinal maltase, IC<sub>50</sub> > 1000μmol/L, control DMDP, IC<sub>50</sub> = 290μmol/L; β-glucosidase, almond, IC<sub>50</sub> = 68μmol/L, control DMDP, IC<sub>50</sub> = 13μmol/L; β-galactosidase, bovine liver, IC<sub>50</sub> = 390μmol/L, control DMDP, IC<sub>50</sub> = 2.2μmol/L; Trehalase, porcine kidney, IC<sub>50</sub> > 1000μmol/L, control DMDP, IC<sub>50</sub> = 200μmol/L; amyloglucosidase, *Aspergillus niger*, IC<sub>50</sub> = 40μmol/L, control DMDP, IC<sub>50</sub> = 19μmol/L). **Source:** RI BEN SAN YE SHA SEN *Adenophora triphylla* var. *japonica* (fresh whole herbs). **Ref:** 3915.

**2793 n-Butyl-2-ethylbutylphthalate**

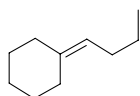
C<sub>18</sub>H<sub>26</sub>O<sub>4</sub> (306.41). **Source:** SHUI QIN *Oenanthe javanica*. **Ref:** 6.

**2794 3-n-Butyl-3-hydroxy-4,5,6,7-tetrahydro-6,7-dihydroxy phthalide**

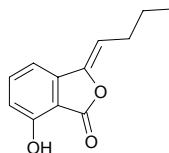
3,6,7-Trihydroxy-4,5,6,7-tetrahydro-3-butyl-phthalide C<sub>12</sub>H<sub>18</sub>O<sub>5</sub> (242.27). **Source:** CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*]. **Ref:** 2.

**2795 Butylidenecyclohexane**

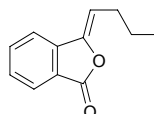
[2272-03-9] C<sub>10</sub>H<sub>18</sub> (138.25). **Source:** HOU PO *Magnolia officinalis*. **Ref:** 2.

**2796 3-Butylidene-7-hydroxyphthalide**

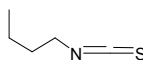
7-Hydroxy-3-butylidene-phthalide C<sub>12</sub>H<sub>12</sub>O<sub>3</sub> (204.23). **Pharm:** Coronary vasodilator (dog, enhances blood flow through coronary arteries). **Source:** CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*]. **Ref:** 2, 658.

**2797 3-Butylidene-phalide**

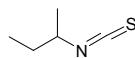
n-Butylidene-phthalide [551-08-6] C<sub>12</sub>H<sub>12</sub>O<sub>2</sub> (188.23). **Pharm:** Antiasthmatic; anticholinergic; uterine relaxant. **Source:** CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*], DANG GUI *Angelica sinensis*, DONG DANG GUI *Angelica acutiloba* [Syn. *Ligusticum acutilobum*], YAO YONG SHE CHUANG *Cnidium officinale* [Syn. *Ligusticum officinale*], ZHI GEN DANG GUI *Angelica radix*. **Ref:** 1, 2, 601.

**2798 Butyl isothiocyanate**

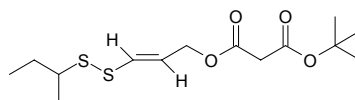
[592-82-5] C<sub>5</sub>H<sub>9</sub>NS (115.20). bp 167°C. **Source:** JIE ZI *Brassica juncea*. **Ref:** 6.

**2799 sec-Butyl isothiocyanate**

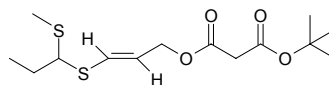
2-Isothiocyanato-butane [4426-79-3] C<sub>5</sub>H<sub>9</sub>NS (115.20). bp 159°C. **Source:** JIE ZI *Brassica juncea*. **Ref:** 6.

**2800 t-Butyl 3-[(1-methylpropyl)dithio]-2-propenyl malonate**

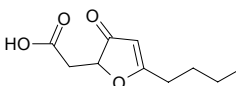
C<sub>14</sub>H<sub>24</sub>O<sub>4</sub>S<sub>2</sub> (320.47). Yellow oil, [α]<sub>D</sub><sup>25</sup> = -24.3° (c = 2.2, CHCl<sub>3</sub>). **Source:** BO SI A WEI BIAN ZHONG *Ferula persica* var. *latisecta*. **Ref:** 3430.

**2801 t-Butyl 3-[(1-methylthiopropyl)thio]-2-propenyl malonate**

C<sub>14</sub>H<sub>24</sub>O<sub>4</sub>S<sub>2</sub> (320.47). Yellow oil, [α]<sub>D</sub><sup>25</sup> = +27° (c = 1.3, CHCl<sub>3</sub>). **Source:** BO SI A WEI BIAN ZHONG *Ferula persica* var. *latisecta*. **Ref:** 3430.

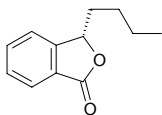
**2802 (5-Butyl-3-oxo-2,3-dihydrofuran-2-yl)-acetic acid**

C<sub>10</sub>H<sub>15</sub>O<sub>4</sub> (198.22). White oily gum, [α]<sub>D</sub><sup>25</sup> = +29° (c = 0.07, MeOH) **Pharm:** Inhibits germination (lettuce seed, IC<sub>50</sub> = (2.13±0.03)mmol/L, positive control 4-Hydroxybenzoic acid, IC<sub>50</sub> = (4.02±0.39)mmol/L). **Source:** YI NIAN PENG *Erigeron annuus*. **Ref:** 2028.

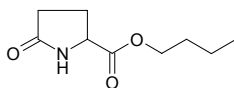


**2803 3-Butyl-phthalide**

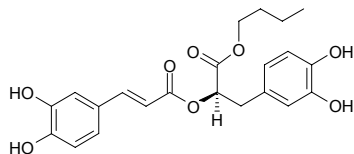
*n*-Butyl-phthalide [6066-49-5] C<sub>12</sub>H<sub>14</sub>O<sub>2</sub> (190.24). bp 140–141°C/2.4mmHg, 177–178°C/15mmHg. **Pharm:** Antispasmodic; uterine relaxant. **Source:** CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*] (root and rhizome: content = 1.78%<sup>[5508]</sup>), DONG DANG GUI *Angelica acutiloba* [Syn. *Ligusticum acutilobum*], DUAN PIAN GAO BEN *Ligusticum brachylobum* (root and rhizome: content = trace)<sup>[5508]</sup>, GAO BEN *Ligusticum sinense* (root and rhizome: content = trace)<sup>[5508]</sup>, HAN QIN BIAN ZHONG *Apium graveolens* var. *dulce*, LIAO GAO BEN *Ligusticum jeholense* (root and rhizome: content = trace)<sup>[5508]</sup>, XIN JIANG GAO BEN *Contioselinum vaginatum* (root and rhizome: content = trace)<sup>[5508]</sup>. **Ref:** 1, 2, 5508.

**2804 *n*-Butyl pyroglutamate**

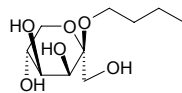
C<sub>9</sub>H<sub>15</sub>NO<sub>3</sub> (185.22). **Source:** SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. **Ref:** 2487.

**2805 Butyl rosmarinate**

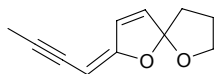
C<sub>22</sub>H<sub>24</sub>O<sub>8</sub> (416.43). **Pharm:** Antioxidant (DPPH scavenger, IC<sub>50</sub> = 0.2706mmol/L, control Propyl gallate, IC<sub>50</sub> = 0.03mol/L; superoxide radical inhibitor, inactive, Propyl gallate, IC<sub>50</sub> = 0.106mmol/L; iron chelating assay, inactive, Propyl gallate, IC<sub>50</sub> = 0.064mmol/L). **Source:** MING XIAN HUA ZHU CHANG ZHU LIU LI CAO *Lindelofia stylosa* (aerial parts). **Ref:** 4533.

**2806 β-*n*-Butyl-*D*-tagatopyranoside**

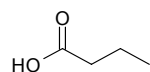
C<sub>10</sub>H<sub>20</sub>O<sub>6</sub> (236.27). Colorless needles, mp 145–147°C. **Source:** BAN LAN GEN *Isatis indigotica*. **Ref:** 4587.

**2807 2-(Butyn-2-ylidene)-Δ<sup>3</sup>-dihydrofuran[5-spiro-2']tetrahydrofuran**

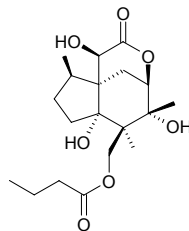
C<sub>11</sub>H<sub>12</sub>O<sub>2</sub> (176.22). **Source:** MU<sup>(3)</sup> JU *Matricaria chamomilla* [Syn. *Matricaria recutita*]. **Ref:** 6.

**2808 Butyric acid**

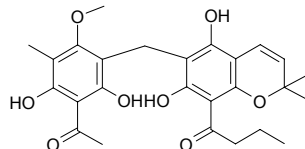
Butanoic acid [107-92-6] C<sub>4</sub>H<sub>8</sub>O<sub>2</sub> (88.11). **Pharm:** Flavorant. **Source:** PU<sup>(2)</sup> TAO *Vitis vinifera*. **Ref:** 2, 658, 660.

**2809 14-*O*-*n*-Butyrylfloridanolide**

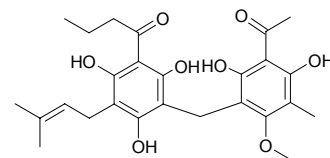
C<sub>19</sub>H<sub>30</sub>O<sub>7</sub> (370.45). Colorless amorphous, [α]<sub>D</sub><sup>20</sup> = -14° (c = 0.65, CHCl<sub>3</sub>). **Source:** *Illicium merrillianum* (pericarp). **Ref:** 5113.

**2810 Butyrylma iltochromene**

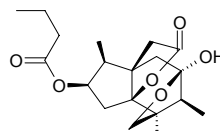
C<sub>26</sub>H<sub>30</sub>O<sub>8</sub> (470.52). **Pharm:** Cytotoxic (KB). **Source:** YE WU TONG *Mallotus japonicus*. **Ref:** 658.

**2811 Butyrylmallotojaponin**

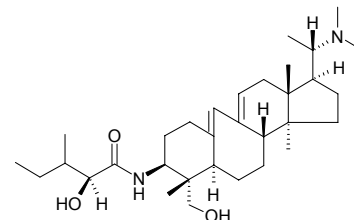
[96853-73-5] C<sub>26</sub>H<sub>32</sub>O<sub>8</sub> (472.54). Yellow acicular crystals, mp 170–171°C (methanol). **Pharm:** Cytotoxic (*in vitro*: HeLa, ID<sub>50</sub> = 362ng/mL; KB, ED<sub>50</sub> = 0.72μg/mL; Hep2, IC<sub>50</sub> = 0.41μg/mL; PC13, IC<sub>50</sub> = 0.91μg/mL; B16, IC<sub>50</sub> = 0.60μg/mL; L5178Y, IC<sub>50</sub> = 1.08μg/mL; P388, IC<sub>50</sub> = 2.85μg/mL); Antiviral (inhibits replication of HSV-1, ED<sub>50</sub> = 165ng/mL). **Source:** YE WU TONG *Mallotus japonicus*. **Ref:** 974, 1059, 1145, 1190.

**2812 2-*O*-*n*-Butyrylpseudomajucin**

C<sub>19</sub>H<sub>28</sub>O<sub>6</sub> (352.43). Colorless powder, [α]<sub>D</sub><sup>20</sup> = -61.9° (c = 0.65, CH<sub>3</sub>OH). **Source:** *Illicium merrillianum* (pericarp). **Ref:** 5113.

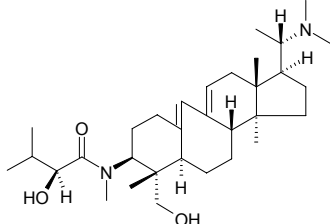
**2813 (-)-Buxahejramine**

(2*S*)-20-Dimethylamino-20-hydroxy-3β-methyl-3'-methyl-pentanoylamino-9,10-seco-buxa-9(11),10(19)-dien-31-ol C<sub>32</sub>H<sub>54</sub>N<sub>2</sub>O<sub>3</sub> (514.80). [α]<sub>D</sub><sup>25</sup> = -7° (c = 0.14, CHCl<sub>3</sub>). **Pharm:** AChE inhibitor (IC<sub>50</sub> = (162±5)μmol/L, control Physostigmine, IC<sub>50</sub> = (0.041±0.001)μmol/L). **Source:** DUO RU TOU HUANG YANG *Buxus papillosa* (leaf). **Ref:** 5216.

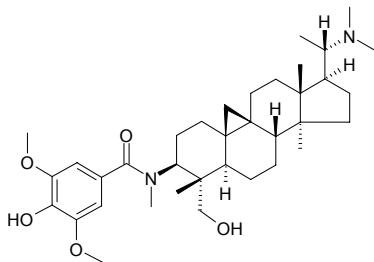


**2814 (-)-Buxakarachiamine**

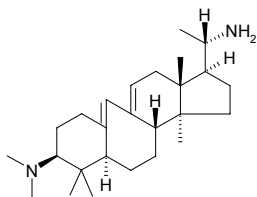
(20*S*)-20-Dimethylamino-2'-hydroxy-3 $\beta$ -methyl-3'-methyl-butanoylamino-9,10-seco-buxa-9(11),10(19)-dien-31-ol C<sub>32</sub>H<sub>54</sub>N<sub>2</sub>O<sub>3</sub> (514.80). [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -9° (*c* = 0.22, CHCl<sub>3</sub>). **Pharm:** AChE inhibitor (IC<sub>50</sub> = (143±1.3)μmol/L, control Physostigmine, IC<sub>50</sub> = (0.041±0.001)μmol/L). **Source:** DUO RU TOU HUANG YANG *Buxus papillosa* (leaf). **Ref:** 5216.

**2815 (-)-Buxakashmiramine**

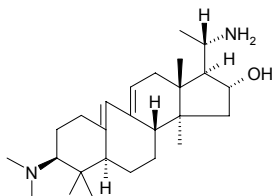
(20*S*)-20-Dimethylamino-4',6'-dimethoxy-5'-hydroxybenzoylamino-3 $\beta$ -methylbuxan-31-ol C<sub>36</sub>H<sub>56</sub>N<sub>2</sub>O<sub>5</sub> (596.86). [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -3° (*c* = 0.62, CHCl<sub>3</sub>). **Pharm:** AChE inhibitor (IC<sub>50</sub> = (25.4±1.1)μmol/L, control Physostigmine, IC<sub>50</sub> = (0.041±0.001)μmol/L); BChE inhibitor (IC<sub>50</sub> = (0.74±0.03)μmol/L, control Physostigmine, IC<sub>50</sub> = (0.875±0.008)μmol/L). **Source:** DUO RU TOU HUANG YANG *Buxus papillosa* (leaf). **Ref:** 5216.

**2816 Buxamine E**

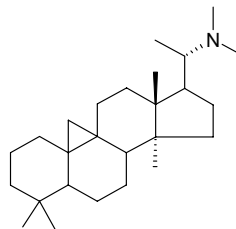
[14317-17-0] C<sub>26</sub>H<sub>44</sub>N<sub>2</sub> (384.65). **Pharm:** Laxative. **Source:** JIN SHU HUANG YANG *Buxus sempervirens* (the compound was separated from the plant by D. Stanfächer, et al. in 1964)<sup>[5505]</sup>. **Ref:** 6, 658, 5505.

**2817 Buxaminol E**

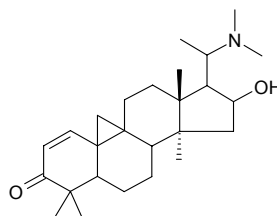
[14155-76-1] C<sub>26</sub>H<sub>44</sub>N<sub>2</sub>O (400.65). mp 199~200°C. **Source:** HUANG YANG MU YE *Buxus microphylla* var. *sinica*. **Ref:** 6.

**2818 Buxbodine A**

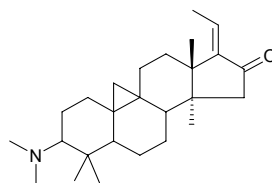
20 $\alpha$ -Dimethylamino-9 $\beta$ ,19-cyclo-4,4,14 $\alpha$ -trimethyl-5 $\alpha$ -pregnane C<sub>26</sub>H<sub>45</sub>N (371.66). Colorless crystals mp 191~193°C. **Source:** QUE SHE HUANG YANG *Buxus bodinieri*. **Ref:** 2138.

**2819 Buxbodine B**

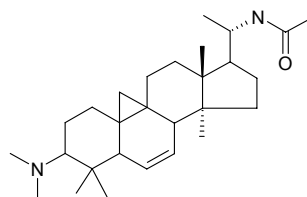
16 $\beta$ -Hydroxy-20 $\alpha$ -dimethylamino-9 $\beta$ ,19-cyclo-4,4,14 $\alpha$ -trimethyl-5 $\alpha$ -pregnane C<sub>26</sub>H<sub>41</sub>NO<sub>2</sub> (399.62). Colorless crystals mp 202~205°C. **Source:** QUE SHE HUANG YANG *Buxus bodinieri*. **Ref:** 2138.

**2820 Buxbodine C**

3 $\beta$ -Dimethylamino-9 $\beta$ ,19-cyclo-4,4,14 $\alpha$ -trimethyl-5 $\alpha$ -pregn-6(7),17(20)-dien-16-one C<sub>26</sub>H<sub>41</sub>NO (383.62). Colorless crystals mp 150~154°C. **Source:** QUE SHE HUANG YANG *Buxus bodinieri*. **Ref:** 2138.

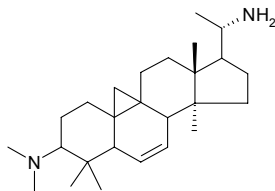
**2821 Buxbodine D**

3 $\beta$ -Dimethylamino-20 $\alpha$ -acetoxylamino-9 $\beta$ ,19-cyclo-4,4,14 $\alpha$ -trimethyl-5 $\alpha$ -pregn-6(7)-ene C<sub>28</sub>H<sub>46</sub>N<sub>2</sub>O (426.69). Colorless crystals mp 212~215°C. **Source:** QUE SHE HUANG YANG *Buxus bodinieri*. **Ref:** 2138.

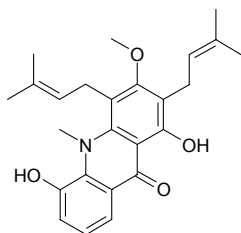


**2822 Buxbodine E**

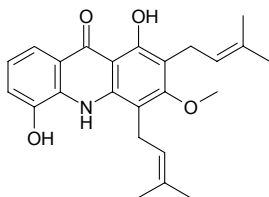
3-(Dimethylamino-20 $\alpha$ -amino-9 $\beta$ ,19-cyclo-4,4,14 $\alpha$ -trimethyl-5 $\alpha$ -pregn-6(7)-ene C<sub>26</sub>H<sub>44</sub>N<sub>2</sub> (384.65). Colorless crystals mp 194~197°C. Source: QUE SHE HUANG YANG *Buxus bodinieri*. Ref: 2138.

**2823 Buxifoliadine A**

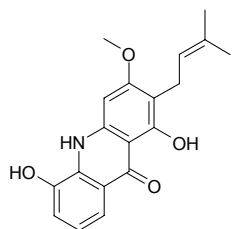
C<sub>25</sub>H<sub>29</sub>NO<sub>4</sub> (407.51). Source: DONG FENG JU GEN *Atalantia buxifolia* [Syn. *Severinia buxifolia*] (root cortex). Ref: 3075.

**2824 Buxifoliadine B**

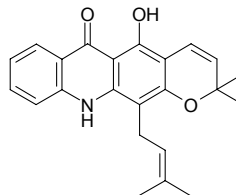
C<sub>24</sub>H<sub>27</sub>NO<sub>4</sub> (393.49). Pharm: Cytotoxic (*in vitro*: Colon205, ED<sub>50</sub> = 1.2 $\mu$ g/mL; hep-3B, ED<sub>50</sub> > 25 $\mu$ g/mL, inactive; KB, ED<sub>50</sub> > 25 $\mu$ g/mL, inactive)<sup>[3075]</sup>. Source: DONG FENG JU GEN *Atalantia buxifolia* [Syn. *Severinia buxifolia*] (root cortex). Ref: 3075.

**2825 Buxifoliadine C**

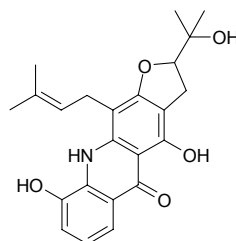
C<sub>19</sub>H<sub>19</sub>NO<sub>4</sub> (325.37). Source: DONG FENG JU GEN *Atalantia buxifolia* [Syn. *Severinia buxifolia*] (root cortex). Ref: 3075.

**2826 Buxifoliadine D**

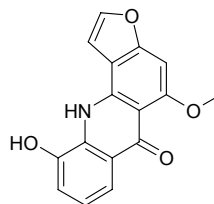
C<sub>23</sub>H<sub>23</sub>NO<sub>3</sub> (361.44). Pharm: Cytotoxic (*in vitro*: Colon205, ED<sub>50</sub> = 0.58 $\mu$ g/mL; hep-3B, ED<sub>50</sub> > 25 $\mu$ g/mL, inactive; KB, ED<sub>50</sub> > 25 $\mu$ g/mL, inactive)<sup>[3075]</sup>. Source: DONG FENG JU GEN *Atalantia buxifolia* [Syn. *Severinia buxifolia*] (root cortex). Ref: 3075.

**2827 Buxifoliadine E**

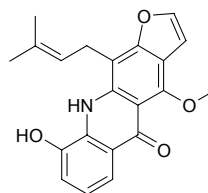
C<sub>23</sub>H<sub>25</sub>NO<sub>5</sub> (395.46). Source: DONG FENG JU GEN *Atalantia buxifolia* [Syn. *Severinia buxifolia*] (root cortex). Ref: 3075.

**2828 Buxifoliadine F**

C<sub>16</sub>H<sub>11</sub>NO<sub>4</sub> (281.27). Source: DONG FENG JU GEN *Atalantia buxifolia* [Syn. *Severinia buxifolia*] (root cortex). Ref: 3075.

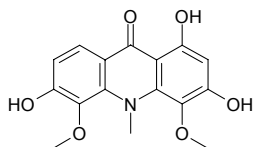
**2829 Buxifoliadine G**

C<sub>21</sub>H<sub>19</sub>NO<sub>4</sub> (349.39). Source: DONG FENG JU GEN *Atalantia buxifolia* [Syn. *Severinia buxifolia*] (root cortex). Ref: 3075.

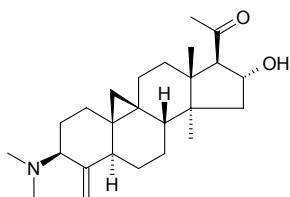


**2830 Buxifoliadine H**

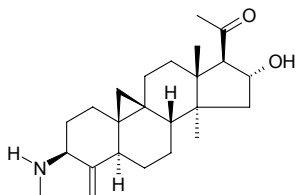
$C_{16}H_{15}NO_6$  (317.3). **Pharm:** Cytotoxic (*in vitro*: Colon205,  $ED_{50} > 25\mu\text{g/mL}$ , inactive; hep-3B,  $ED_{50} = 5.3\mu\text{g/mL}$ ; KB,  $ED_{50} = 0.22\mu\text{g/mL}$ )<sup>[3075]</sup>. **Source:** DONG FENG JU GEN *Atalantia buxifolia* [Syn. *Severinia buxifolia*] (root cortex). **Ref:** 3075.

**2831 Buxpiine**

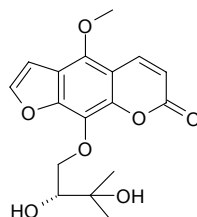
Buxpiine K [3296-11-5]  $C_{25}H_{39}NO_2$  (385.60). mp 178–180°C, mp 173°C. **Source:** HUANG YANG MU YE *Buxus microphylla* var. *sinica*. **Ref:** 6.

**2832 Buxtauine**

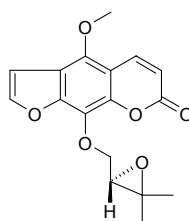
Buxtauine M [4236-73-1]  $C_{24}H_{37}NO_2$  (371.57). mp 178–181°C. **Source:** HUANG YANG MU YE *Buxus microphylla* var. *sinica*. **Ref:** 6, 660.

**2833 Byakangelicin**

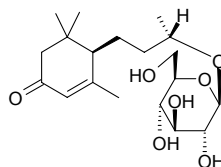
[482-25-7]  $C_{17}H_{18}O_7$  (334.33). Yellow amorphous powder,  $[\alpha]_D = -13.3^\circ$  ( $c = 0.1$ , MeOH). **Pharm:** Cytotoxic (HeLa,  $ID_{50} = 100\mu\text{g/mL}$ ); inhibits chorionic gonadotrophin (hmn); antileishmanial (*Leishmania major* promastigote, 10  $\mu\text{mol/L}$ , survival =  $(90.7 \pm 1.4)\%$ , 1  $\mu\text{mol/L}$ , survival =  $(98.8 \pm 4.6)\%$ , control Amphotericin B, 10  $\mu\text{mol/L}$ , survival =  $(0.2 \pm 0.04)\%$ , 1  $\mu\text{mol/L}$ , survival =  $(71.9 \pm 4.4)\%$ )<sup>[3797]</sup>; antifungal inactive (silica gel TLC, *Cladosporium cucumerinum*; control Nystatin, MIA =  $0.2\mu\text{g}$ )<sup>[3797]</sup>. **Source:** BAI ZHI *Angelica dahurica* [Syn. *Angelica porphyrocaulis*], CHOU CAO *Ruta graveolens*, DA QIAN HU *Peucedanum grande*, GUANG HUA DANG GUI *Angelica glabra*, HONG DU HUO *Heracleum granatense*, OU ZHOU DU HUO *Heracleum pyrenaicum*, XIA GUO QIAN HU *Peucedanum stenocarpum*, YU ZHUANG YUN XIANG *Ruta pinnata*, *Thamnosma rhodesica* (root), *Citrus* sp. **Ref:** 2, 5, 658, 3797, 5392.

**2834 Byakangelicol**

[55173-98-3]  $C_{17}H_{16}O_6$  (316.31). **Source:** HANG BAI ZHI *Angelica taiwaniana*. **Ref:** 2, 660.

**2835 Byzantionoside B**

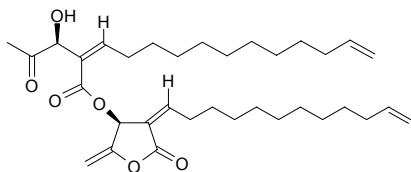
$C_{19}H_{32}O_7$  (372.46). Syrup,  $[\alpha]_D^{19} = +21.1^\circ$  ( $c = 0.7$ , MeOH). **Source:** CHANG HU JIAO *Piper elongatum* (aerial parts). **Ref:** 4239.



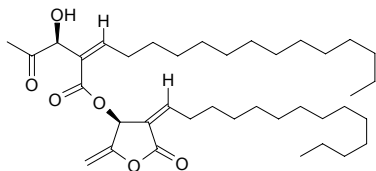
## C

**2836 C<sub>17</sub>-Obtusilactone dimer**

C<sub>34</sub>H<sub>52</sub>O<sub>6</sub> (556.79). Source: SAN ZUAN FENG *Lindera obtusiloba*. Ref: 2881.

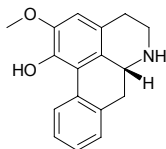
**2837 C<sub>19</sub>-Obtusilactone dimer**

C<sub>38</sub>H<sub>64</sub>O<sub>6</sub> (616.93). Source: SAN ZUAN FENG *Lindera obtusiloba*. Ref: 2890.

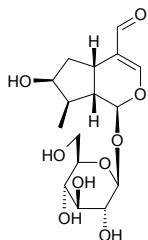
**2838 (-)-Caaverine**

1-Hydroxy-2-methoxy noraporphine [6899-64-5] C<sub>17</sub>H<sub>17</sub>NO<sub>2</sub> (267.33). Pharm:

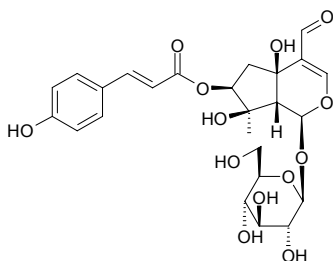
Toxin (animal model). Source: BEI MEI E ZHANG QIU *Liriodendron tulipifera*, SUAN ZAO REN *Ziziphus jujuba* var. *spinosa*. Ref: 658, 660.

**2839 Cachinaside I**

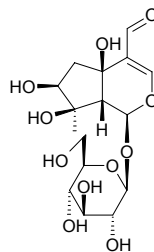
C<sub>16</sub>H<sub>24</sub>O<sub>9</sub> (360.36). Source: ZI WEI JING YE *Campsis grandiflora*. Ref: 660.

**2840 Cachinaside III**

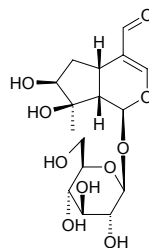
C<sub>25</sub>H<sub>30</sub>O<sub>13</sub> (538.51). Source: ZI WEI JING YE *Campsis grandiflora*. Ref: 660.

**2841 Cachinaside IV**

C<sub>16</sub>H<sub>24</sub>O<sub>11</sub> (392.36). Source: ZI WEI JING YE *Campsis grandiflora*. Ref: 660.

**2842 Cachinaside V**

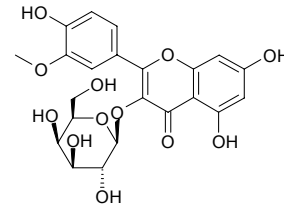
C<sub>16</sub>H<sub>24</sub>O<sub>10</sub> (376.36). Source: ZI WEI JING YE *Campsis grandiflora*. Ref: 660.

**2843 Cacticin**

Isorhamnetin-3-*O*-β-*D*-galactopyranoside C<sub>22</sub>H<sub>22</sub>O<sub>12</sub> (478.41). mp 267–269°C.

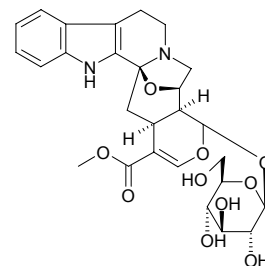
Source: DA LI HUA *Dahlia pinnata* [Syn. *Dahlia variabilis*], GUI JIAN JIN JI ER *Caragana jubata*, JU HUA *Chrysanthemum morifolium* [Syn.

*Dendranthema morifolium*], SHA ZAO *Elaeagnus angustifolia*, TIAN CONG *Philydrum lanuginosum*, YIN CHEN HAO *Artemisia capillaris*. Ref: 6, 660.

**2844 Cadambine**

[54422-49-0] C<sub>27</sub>H<sub>32</sub>N<sub>2</sub>O<sub>10</sub> (544.56). Pharm: Antibacterial (*in vitro*):

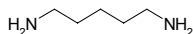
*Staphylococcus aureus*, *Bacillus subtilis*, *Bacillus coli*, *Bacillus diphtheriae*, *Streptococcus* sp., *Salmonella* sp., *Bacillus proteus*, *Aspergillus niger*, *Bacillus lactis*, *Klebsiella* sp.); antileishmanial. Source: GOU TENG *Uncaria rhynchophylla* [Syn. *Nauclea rhynchophylla*]. Ref: 2, 2178.



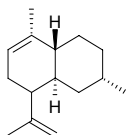


**2845 Cadaverine**

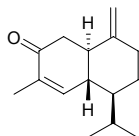
1,5-Diaminopentane [462-94-2] C<sub>5</sub>H<sub>14</sub>N<sub>2</sub> (102.18). bp 178~180°C. **Pharm:** Irritant (to skin); plant growth stimulant (low concentration). **Source:** CAO XIANG WAN DOU *Lathyrus sativus*, CHONG CHUN YU *Hemibarbus labeo*, DI XIA CHE ZHOU CAO *Trifolium subterraneum*, HEI DA DOU *Glycine max*, JIANG *Glycine max*, TAI JING TIAN *Sedum acre*, WAN DOU *Pisum sativum*. **Ref:** 6, 658.

**2846 Cadina-9,11(12)-diene**

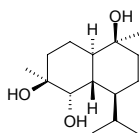
C<sub>15</sub>H<sub>24</sub> (204.36). bp 94°C/2mmHg. **Source:** ZHANG MU *Cinnamomum camphora*. **Ref:** 6.

**2847 Cadina-4,10(15)-dien-3-one**

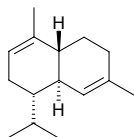
C<sub>15</sub>H<sub>22</sub>O (218.34). **Pharm:** Phytogrowth inhibitor (*Raphanus sativus* seeds, IC<sub>50</sub> = 0.10µg/mL, control Colchicine, IC<sub>50</sub> = 0.40µg/mL); insecticidal (adult *Cylas formicarius elegantulus*, 0.18mg/insect, 24h, mortality = 55%, 48h, mortality = 85%, control Farnesyl methyl ether, 0.18mg/insect, 24h, mortality = 65%, 48h mortality = 95%). **Source:** LUN SHENG SHAN XIANG *Hyptis verticillata*, BAI JIANG JUN *Beauveria bassiana*. **Ref:** 3949.

**2848 Cadinane-4β,5α,10β-triol**

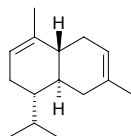
C<sub>15</sub>H<sub>28</sub>O<sub>3</sub> (256.39). mp 186~188°C, [α]<sub>D</sub><sup>27</sup> = -6.0° (c = 0.26, CHCl<sub>3</sub>). **Source:** TAI WAN SHAN *Taiwania cryptomerioides* (root). **Ref:** 4371.

**2849 α-Cadinene**

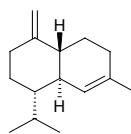
[24406-05-1] C<sub>15</sub>H<sub>24</sub> (204.36). **Source:** PI PA YE *Eriobotrya japonica*, REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], SHI JI NING *Mosla scabra* [Syn. *Mosla punctata*]. **Ref:** 6, 660.

**2850 β-Cadinene**

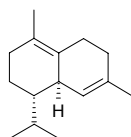
C<sub>15</sub>H<sub>24</sub> (204.36). **Pharm:** Flavorant. **Source:** AI YE *Artemisia argyi*, DUAN YE LUO HAN SONG SHI *Podocarpus macrophyllus* var. *maki*, GAO LIANG JIANG *Alpinia officinarum*, HUANG HUA HAO *Artemisia annua*, JU JIANG YE *Piper betle*, LUO HAN SONG SHI *Podocarpus macrophyllus*, OU ZHOU CI BAI *Juniperus communis*, SHUI CAI *Menyanthes trifoliata*, TIAN MING JING *Carpesium abrotanoides*, XIE CAO *Valeriana officinalis*, YIN CHEN HAO *Artemisia capillaris*, ZHANG MU *Cinnamomum camphora*. **Ref:** 6, 658.

**2851 γ-Cadinene**

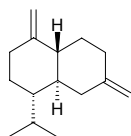
[1460-97-5] C<sub>15</sub>H<sub>24</sub> (204.36). **Source:** HUO XIANG *Agastache rugosus*, HUANG HUA HAO *Artemisia annua*, REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. **Ref:** 2, 660.

**2852 δ-Cadinene**

[483-76-1] C<sub>15</sub>H<sub>24</sub> (204.36). mp (+) 133~134°C/10mmHg, (±) 133°C/10mmHg. **Source:** HUANG HUA HAO *Artemisia annua*, REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*], WU WEI ZI *Schisandra chinensis*, XI XIAN *Siegesbeckia orientalis*. **Ref:** 2, 6, 660.

**2853 ε-Cadinene**

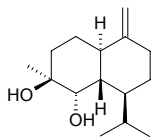
[25548-04-3] C<sub>15</sub>H<sub>24</sub> (204.36). **Source:** MU HAO *Artemisia japonica*, HUANG HUA HAO *Artemisia annua*. **Ref:** 6, 660.



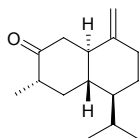
**2854 Cadin-10(14)-ene-4 $\beta$ ,5 $\alpha$ -diol**

$C_{15}H_{26}O_2$  (238.37). Amorphous solid,  $[\alpha]_D^{27} = -5.9^\circ$  ( $c = 0.26$ ,  $CHCl_3$ ).

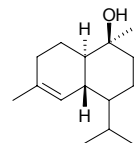
Source: TAI WAN SHAN *Taiwania cryptomerioides* (root). Ref: 4371.

**2855 (4S)-Cadin-10(15)-en-3-one**

$C_{15}H_{24}O$  (220.36). Pale brown oil. Pharm: Phytogrowth inhibitor (*Raphanus sativus* seeds,  $IC_{50} = 22.00\mu g/mL$ , control Colchicine,  $IC_{50} = 0.40\mu g/mL$ ); insecticidal (adult *Cylas formicarius elegantulus*, 0.27mg/insect, 24h, mortality = 90%, 48h mortality = 100%, control Farnesyl methyl ether, 0.27mg/insect, 24h, mortality = 85%, 48h mortality = 100%). Source: BAI JIANG JUN *Beauveria bassiana*. Ref: 3949.

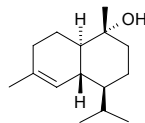
**2856 T-Cadinol**

$C_{15}H_{26}O$  (222.37). Colorless gum. Pharm: Cytotoxic (A549,  $ED_{50} = 5.4\mu mol/L$ ,  $ED_{50} = 24.5\mu g/mL$ , control Adriamycin,  $ED_{50} = 0.01\mu mol/L$ ,  $ED_{50} = 0.02\mu g/mL$ ; MCF7,  $ED_{50} = 2.5\mu mol/L$ ,  $ED_{50} = 11.2\mu g/mL$ , Adriamycin,  $ED_{50} = 0.1\mu mol/L$ ,  $ED_{50} = 0.2\mu g/mL$ ; HT29,  $ED_{50} = 7.9\mu mol/L$ ,  $ED_{50} = 35.7\mu g/mL$ , Adriamycin,  $ED_{50} = 0.1\mu mol/L$ ,  $ED_{50} = 0.2\mu g/mL$ )<sup>[5088]</sup>. Source: GAO SHAN HUO RONG CAO *Leontopodium alpinum* (root), TAI WAN SHAN *Taiwania cryptomerioides* (root, heartwood). Ref: 4371, 5037, 5088.

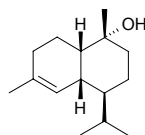
**2857  $\alpha$ -Cadinol**

[481-34-5]  $C_{15}H_{26}O$  (222.37). mp 74.8~75.4°C. Pharm: Cytotoxic (*in vitro*, Hepa1c1c7 mouse hepatoma cells,  $IC_{50} > 5\mu g/mL$ ,  $CD = 2.3\mu g/mL$ ,  $CI > 2.2$ ; control Sulforaphane,  $IC_{50} = 2.1\mu g/mL$ ,  $CD = 0.087\mu g/mL$ ,  $CI = 24.1$ )<sup>[4721]</sup>, cytotoxic (A549,  $ED_{50} = 3.1\mu mol/L$ ,  $ED_{50} = 14.4\mu g/mL$ , control Adriamycin,  $ED_{50} = 0.01\mu mol/L$ ,  $ED_{50} = 0.02\mu g/mL$ ; MCF7,  $ED_{50} = 2.5\mu mol/L$ ,  $ED_{50} = 11.1\mu g/mL$ , Adriamycin,  $ED_{50} = 0.1\mu mol/L$ ,  $ED_{50} = 0.1\mu g/mL$ ; HT29,  $ED_{50} = 0.7\mu mol/L$ ,  $ED_{50} = 3.0\mu g/mL$ , Adriamycin,  $ED_{50} = 0.1\mu mol/L$ ,  $ED_{50} = 0.1\mu g/mL$ )<sup>[5088]</sup>, cytotoxic (quinone reductase induction assay in cultured

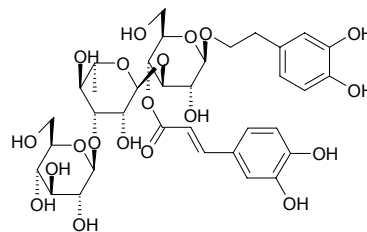
Hepa1c1c7 mouse hepatoma cells)<sup>[5038]</sup>. Source: PI PA YE *Eriobotrya japonica*, SHUI LIU DOU *Pongamia pinnata* (stem cortex: yield = 0.0023%)<sup>[4721]</sup>, TAI WAN SHAN *Taiwania cryptomerioides* (root), TAI WAN SHAN *Taiwania cryptomerioides* (heartwood). Ref: 6, 4371, 4721, 5038, 5088.

**2858  $\delta$ -Cadinol**

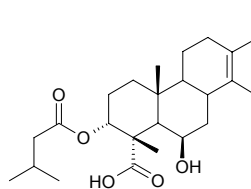
Torreyol [36564-42-8]  $C_{15}H_{26}O$  (222.37). mp (+) 137~138°C, (–) 139~140°C. Source: DONG BEI CI REN SHEN *Oplopanax elatus*, GOU GU SHU PI *Ilex cornuta*, TAI WAN SHAN *Taiwania cryptomerioides* (root), WANG CHUN YU LAN *Magnolia biondii* [Syn. *Magnolia Fargesii*], WU DANG MU LAN *Magnolia sprengeri*. Ref: 6, 660, 4371.

**2859 Caerulescenside**

$C_{35}H_{46}O_{20}$  (786.74). Amorphous powder,  $[\alpha]_D^{26} = -98^\circ$  ( $c = 0.49$ , MeOH). Pharm: Antioxidant (relative potency = 4.4, compared with resveratrol, relative potency = 1). Source: LIE DANG *Orobanche coerulescens* (whole herb). Ref: 4920.

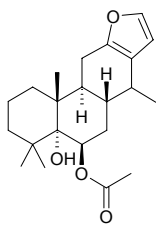
**2860 Caesaldecane**

$C_{25}H_{38}O_5$  (418.58). White crystals, mp 150~153°C,  $[\alpha]_D^{25} = +75^\circ$  ( $c = 1.0$ ,  $CHCl_3$ ). Source: YUN SHI *Caesalpinia decapetala* (leaf). Ref: 4456.

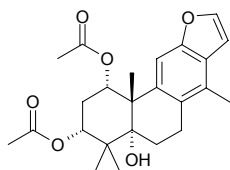


**2861 Caesaldekarin A**

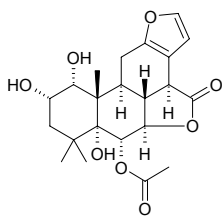
$C_{22}H_{32}O_4$  (360.50). Colorless gum. Source: JI MEI YUN SHI *Caesalpinia pulcherrima* (leaf). Ref: 4394.

**2862 Caesaldekarin E**

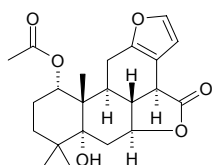
$C_{24}H_{30}O_6$  (414.50). Source: CI GUO SU MU *Caesalpinia crista* (seed kernel), DA YUN SHI *Caesalpinia major*. Ref: 1521, 4434.

**2863 Caesalmin A**

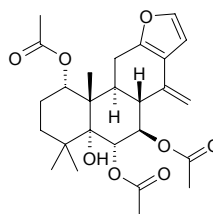
$C_{22}H_{28}O_8$  (420.46). Colorless block-like crystals (methanol), mp 179~180°C,  $[\alpha]_D^{20} = -6.5^\circ$  ( $c = 0.1$ , MeOH). Source: KU SHI LIAN *Caesalpinia minax*. Ref: 734.

**2864 Caesalmin B**

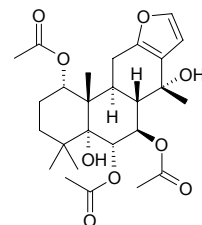
$C_{22}H_{28}O_6$  (388.46). Colorless crystals (hexane-acetone), mp 148~149°C,  $[\alpha]_D^{20} = -52.5^\circ$  ( $c = 0.4$ , MeOH). Source: KU SHI LIAN *Caesalpinia minax*. Ref: 734.

**2865 Caesalmin C**

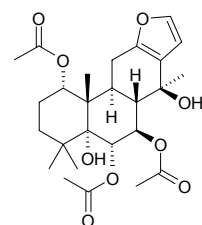
$C_{26}H_{34}O_8$  (474.56). Colorless crystals, mp 129~130°C (anhydrous), 121~122°C (monohydrate),  $[\alpha]_D^{20} = +51.2^\circ$  ( $c = 0.25$ , MeOH). Pharm: Antiviral (*in vitro*, Para3 Virus,  $IC_{50} = 8.2\mu\text{g/mL}$ ,  $TC_{50} = 196.3\mu\text{g/mL}$ ,  $TI = 23.9$ ; control Ribavirin,  $IC_{50} = 2.6\mu\text{g/mL}$ ,  $TC_{50} = 62.5\mu\text{g/mL}$ ,  $TI = 24.0$ )<sup>[3089]</sup>. Source: CI GUO SU MU *Caesalpinia crista* (seed kernel), KU SHI LIAN *Caesalpinia minax* (seed). Ref: 3089, 4434.

**2866 Caesalmin D**

$C_{26}H_{36}O_9$  (492.57). Colorless crystals, mp 192~193°C (methanol), 178~180°C ( $H_2O$ ),  $[\alpha]_D^{20} = +65.9^\circ$  ( $c = 0.2$ ,  $CH_3OH$ ). Pharm: Antiviral (*in vitro*, Para3 Virus,  $IC_{50} = 9.6\mu\text{g/mL}$ ,  $TC_{50} = 182.4\mu\text{g/mL}$ ,  $TI = 19.1$ ; control Ribavirin,  $IC_{50} = 2.6\mu\text{g/mL}$ ,  $TC_{50} = 62.5\mu\text{g/mL}$ ,  $TI = 24.0$ ). Source: KU SHI LIAN *Caesalpinia minax* (seed). Ref: 3089.

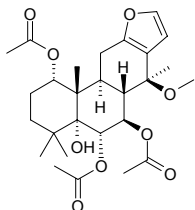
**2867 Caesalmin E**

$C_{26}H_{36}O_9$  (492.57). Colorless crystals, mp 135~136°C,  $[\alpha]_D^{20} = +22.3^\circ$  ( $c = 0.2$ , MeOH). Pharm: Antiviral (*in vitro*, Para3 Virus,  $IC_{50} = 10.3\mu\text{g/mL}$ ,  $TC_{50} = 165\mu\text{g/mL}$ ,  $TI = 16.0$ ; control Ribavirin,  $IC_{50} = 2.6\mu\text{g/mL}$ ,  $TC_{50} = 62.5\mu\text{g/mL}$ ,  $TI = 24.0$ ). Source: KU SHI LIAN *Caesalpinia minax* (seed). Ref: 3089.

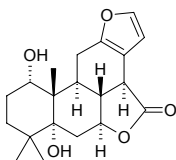


**2868 Caesalmin F**

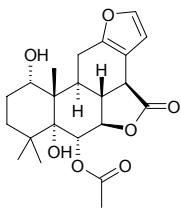
$C_{27}H_{38}O_9$  (506.6). Colorless crystals, mp 173–174°C,  $[\alpha]_D^{20} = +27.6^\circ$  ( $c = 0.25$ , MeOH). **Pharm:** Antiviral (*in vitro*, Para3 Virus,  $IC_{50} = 10.3\mu\text{g/mL}$ ,  $TC_{50} = 165\mu\text{g/mL}$ ,  $TI = 17.5$ ; control Ribavirin,  $IC_{50} = 2.6\mu\text{g/mL}$ ,  $TC_{50} = 62.5\mu\text{g/mL}$ ,  $TI = 24.0$ ). **Source:** KU SHI LIAN *Caesalpinia minax* (seed). **Ref:** 3089.

**2869 Caesalmin G**

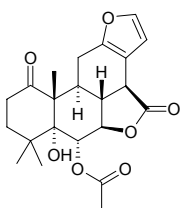
$C_{20}H_{26}O_5$  (346.43). Colorless needlelike crystals, mp 168–170°C,  $[\alpha]_D^{20} = +50.5^\circ$  ( $c = 0.2$ ,  $CH_3OH$ ). **Pharm:** Antiviral (*in vitro*, Para3 Virus,  $IC_{50} = 10.3\mu\text{g/mL}$ ,  $TC_{50} = 165\mu\text{g/mL}$ ,  $TI = 3.0$ ; control Ribavirin,  $IC_{50} = 2.6\mu\text{g/mL}$ ,  $TC_{50} = 62.5\mu\text{g/mL}$ ,  $TI = 24.0$ ). **Source:** KU SHI LIAN *Caesalpinia minax* (seed). **Ref:** 3089.

**2870 Caesalpinin H**

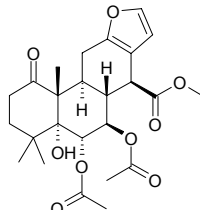
$C_{22}H_{28}O_7$  (404.46). Colorless amorphous solid,  $[\alpha]_D^{25} = +67.5^\circ$  ( $c = 0.057$ ,  $CHCl_3$ ). **Pharm:** Antimalarial (antiplasmodial *Plasmodium falciparum* FCR-3/A2 clone,  $IC_{50} = 5.2\mu\text{mol/L}$ ). **Source:** CI GUO SU MU *Caesalpinia crista* (seed kernel: yield = 0.0017%dw). **Ref:** 1126.

**2871 Caesalpinin I**

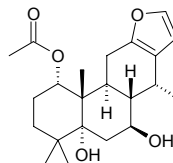
$C_{22}H_{26}O_7$  (402.45). Colorless amorphous solid,  $[\alpha]_D^{22} = +59.7^\circ$  ( $c = 0.053$ ,  $CHCl_3$ ). **Pharm:** Antimalarial (antiplasmodial *Plasmodium falciparum* FCR-3/A2 clone,  $IC_{50} > 10\mu\text{mol/L}$ ). **Source:** CI GUO SU MU *Caesalpinia crista* (seed kernel: yield = 0.0017%dw). **Ref:** 1126.

**2872 Caesalpinin J**

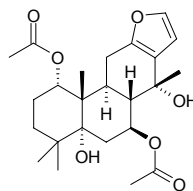
$C_{23}H_{32}O_9$  (476.53). Colorless amorphous solid,  $[\alpha]_D^{22} = +42.0^\circ$  ( $c = 0.088$ ,  $CHCl_3$ ). **Pharm:** Antimalarial (antiplasmodial *Plasmodium falciparum* FCR-3/A2 clone,  $IC_{50} = 1.0\mu\text{mol/L}$ ). **Source:** CI GUO SU MU *Caesalpinia crista* (seed kernel: yield = 0.0029%dw). **Ref:** 1126.

**2873 Caesalpinin K**

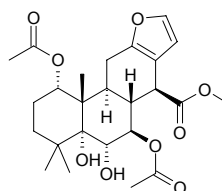
$C_{22}H_{32}O_5$  (376.50). Colorless amorphous solid,  $[\alpha]_D^{22} = +51.5^\circ$  ( $c = 0.151$ ,  $CHCl_3$ ). **Pharm:** Antimalarial (antiplasmodial *Plasmodium falciparum* FCR-3/A2 clone,  $IC_{50} = 0.4\mu\text{mol/L}$ ). **Source:** CI GUO SU MU *Caesalpinia crista* (seed kernel: yield = 0.0077%dw). **Ref:** 1126.

**2874 Caesalpinin L**

$C_{24}H_{34}O_7$  (434.53). Colorless amorphous solid,  $[\alpha]_D^{22} = +37.8^\circ$  ( $c = 0.171$ ,  $CHCl_3$ ). **Source:** CI GUO SU MU *Caesalpinia crista* (seed kernel: yield = 0.0025%dw). **Ref:** 1126.

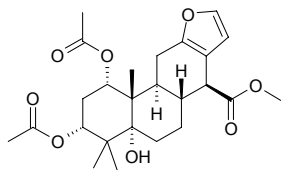
**2875 Caesalpinin M**

$C_{25}H_{34}O_9$  (478.54). Colorless amorphous solid,  $[\alpha]_D^{22} = +47.1^\circ$  ( $c = 0.074$ ,  $CHCl_3$ ). **Pharm:** Antimalarial (antiplasmodial *Plasmodium falciparum* FCR-3/A2 clone,  $IC_{50} > 10\mu\text{mol/L}$ ). **Source:** CI GUO SU MU *Caesalpinia crista* (seed kernel: yield = 0.0021%dw). **Ref:** 1126.

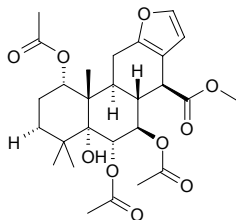


**2876 Caesalpinin MF**

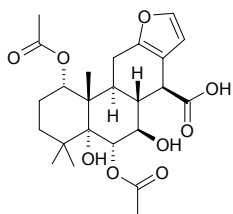
$C_{25}H_{34}O_8$  (462.54). Colorless amorphous solid,  $[\alpha]_D^{25} = +22.4^\circ$  ( $c = 0.15$ ,  $CHCl_3$ ). Source: CI GUO SU MU *Caesalpinia crista* (seed kernel). Ref: 4434.

**2877 Caesalpinin MG**

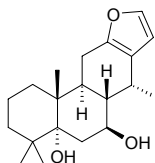
$C_{27}H_{36}O_{10}$  (520.58). Colorless amorphous solid,  $[\alpha]_D^{25} = +78.4^\circ$  ( $c = 0.039$ ,  $CHCl_3$ ). Source: CI GUO SU MU *Caesalpinia crista* (seed kernel). Ref: 4434.

**2878 Caesalpinin MH**

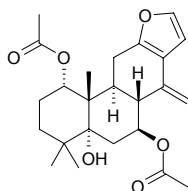
$C_{24}H_{32}O_9$  (464.52). Colorless amorphous solid,  $[\alpha]_D^{25} = +11.3^\circ$  ( $c = 0.3$ ,  $CHCl_3$ ). Source: CI GUO SU MU *Caesalpinia crista* (seed kernel). Ref: 4434.

**2879 Caesalpinin MI**

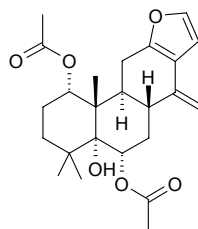
$C_{20}H_{30}O_3$  (318.46). Colorless amorphous solid,  $[\alpha]_D^{25} = +214.3^\circ$  ( $c = 0.2$ ,  $CHCl_3$ ). Source: CI GUO SU MU *Caesalpinia crista* (seed kernel). Ref: 4434.

**2880 Caesalpinin MJ**

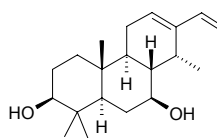
$C_{24}H_{32}O_6$  (416.52). Colorless amorphous solid,  $[\alpha]_D^{25} = +164.9^\circ$  ( $c = 0.25$ ,  $CHCl_3$ ). Source: CI GUO SU MU *Caesalpinia crista* (seed kernel). Ref: 4434.

**2881 Caesalpinin MK**

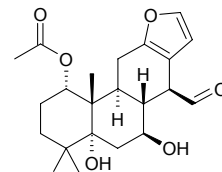
$C_{24}H_{32}O_6$  (416.52). Colorless amorphous solid,  $[\alpha]_D^{25} = +99.1^\circ$  ( $c = 0.1$ ,  $CHCl_3$ ). Source: CI GUO SU MU *Caesalpinia crista* (seed kernel). Ref: 4434.

**2882 Caesalpinin ML**

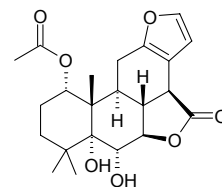
$C_{20}H_{32}O_2$  (304.48). Colorless amorphous solid,  $[\alpha]_D^{25} = +114.4^\circ$  ( $c = 0.1$ ,  $CHCl_3$ ). Source: CI GUO SU MU *Caesalpinia crista* (seed kernel). Ref: 4434.

**2883 Caesalpinin N**

$C_{22}H_{30}O_6$  (390.48). Colorless amorphous solid,  $[\alpha]_D^{22} = +28.8^\circ$  ( $c = 0.195$ ,  $CHCl_3$ ). Pharm: Antimalarial (antiplasmodial *Plasmodium falciparum* FCR-3/A2 clone,  $IC_{50} = 0.12 \mu\text{mol/L}$ ). Source: CI GUO SU MU *Caesalpinia crista* (seed kernel: yield = 0.0022%dw). Ref: 1126.

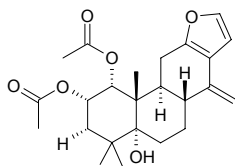
**2884 Caesalpinin O**

$C_{22}H_{28}O_7$  (404.46). Colorless amorphous solid,  $[\alpha]_D^{22} = +56.8^\circ$  ( $c = 0.078$ ,  $CHCl_3$ ). Pharm: Antimalarial (antiplasmodial *Plasmodium falciparum* FCR-3/A2 clone,  $IC_{50} > 10 \mu\text{mol/L}$ ). Source: CI GUO SU MU *Caesalpinia crista* (seed kernel: yield = 0.0006%dw). Ref: 1126.

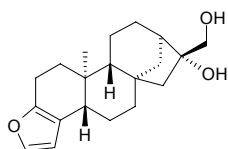


**2885 Caesalpinin P**

$C_{24}H_{32}O_6$  (416.52). Colorless amorphous solid,  $[\alpha]_D^{22} = +11.6^\circ$  ( $c = 0.074$ ,  $CHCl_3$ ). **Pharm:** Antimalarial (antiplasmodial *Plasmodium falciparum* FCR-3/A2 clone,  $IC_{50} = 1.7\mu\text{mol/L}$ ). **Source:** CI GUO SU MU *Caesalpinia crista* (seed kernel: yield = 0.0010%dw). **Ref:** 1126.

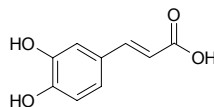
**2886 Cafestol**

[469-83-0]  $C_{20}H_{28}O_3$  (316.44). **Pharm:** Anti-inflammatory. **Source:** *Coffea* sp. **Ref:** 658.

**2887 Caffeic acid**

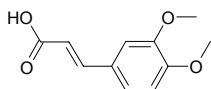
trans-3,4-Dihydroxycinnamic acid [501-16-6]  $C_9H_8O_4$  (180.16). **Pharm:** Analgesic; antibacterial; antifungal; antihepatotoxin; anti-inflammatory (COX-2 inhibitor,  $100\mu\text{mol/L}$ ,  $\text{InRt} = (32\pm 16)\%$ ); antioxidant (inhibits free-radical induced lysis of rat red blood cells and exhibits strong and dose-dependent protection of cell membrane)<sup>[5341]</sup>; antioxidant (rat plasma, protects against RBC lysis)<sup>[5341]</sup>; antioxidant (Chemiluminescence Method,  $IC_{50} = (0.66\pm 0.07)\mu\text{mol/L}$ )<sup>[3764]</sup>; antioxidant (DPPH scavenger,  $EC_{50} = 1.4\mu\text{g/mL} = 7.8\mu\text{mol/L}$ , control Ascorbic acid,  $EC_{50} = 1.6\mu\text{g/mL} = 9.1\mu\text{mol/L}$ )<sup>[4154]</sup>; antioxidant (DPPH scavenger,  $IC_{50} = (0.39\pm 0.01)\mu\text{mol/L}$ )<sup>[3764]</sup>,  $IC_{50} = (1.78\pm 0.03)\mu\text{g/mL}$ <sup>[5307]</sup>,  $IC_{50} = 25.5\mu\text{mol/L}$ )<sup>[5407]</sup>; antiulcerative; anti-venom; antiviral; hemostatic; choleric (rat, bile secretion promotor); gastric secretion promotor; leukopoietic; CNS stimulant (rat); elastase inhibitor (hmn leukocyte *in vitro*,  $IC_{50} = 86\mu\text{g/mL} = 475\mu\text{mol/L}$ )<sup>[5458]</sup>; neuroprotectant (primary cultures of rat cortical cells injured by glutamate,  $10.0\mu\text{mol/L}$ , cell viability =  $(33.1\pm 0.5)\%$ ,  $p < 0.05$ , control MK-801,  $10.0\mu\text{mol/L}$ , cell viability =  $(83.6\pm 4.2)\%$ , APV,  $10.0\mu\text{mol/L}$ , cell viability =  $(43.6\pm 3.2)\%$ , XNQX,  $10.0\mu\text{mol/L}$ , cell viability =  $(61.6\pm 2.7)\%$ )<sup>[3967]</sup>;  $LD_{50}$  (mus, ip) = 1583mg/kg. **Source:** BEI SHA SHEN *Glehnia littoralis* (underground part), BEI XUAN SHEN *Scrophularia buergeriana* (root), BIAN XU *Polygonum aviculare*, BO HE *Mentha haplocalyx* [Syn. *Mentha canadensis*; *Mentha arvensis* var. *haplocalyx*; *Mentha arvensis*], CHE SANG ZI YE *Dodonaea viscosa*, CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*], DAN SHEN *Salvia miltiorrhiza* (dried root: content = 0.027%)<sup>[5508]</sup>, DU SHEN *Conium maculatum*, DU ZHONG *Eucommia ulmoides*, GAO GUI CHUN HUANG JU *Anthemis nobilis*, GE YE MI HOU TAO *Actinidia rubricaulis* var. *coriacea* (ripe fruit: content = 0.17%)<sup>[5508]</sup>, HUA GOU TENG *Uncaria sinensis*, HUA NAN MI

HOU TAO *Actinidia glaucophylla* (ripe fruit: content = 0.31%)<sup>[5508]</sup>, HUANG HE MAO REN DONG *Lonicera fulvotomentosa*, JIAN ZI SU YE *Perilla frutescens* var. *acuta* [Syn. *Perilla frutescens* var. *purpurascens*], JIN HUA MI HOU TAO *Actinidia chrysantha* (ripe fruit: content = 0.08%)<sup>[5508]</sup>, JIN MAO GOU *Cibotium barometz* [Syn. *Polypodium barometz*] (rhizome: mean content of 4 origins = 0.0346%)<sup>[5508]</sup>, JIN YIN HUA *Lonicera japonica* (flower bud: mean content = 0.0088%)<sup>[5508]</sup>, JING LI MI HOU TAO *Actinidia callosa* var. *henryi* (ripe fruit: content = 0.13%)<sup>[5508]</sup>, KU HAO *Conyza blinii*, KUAI JING CAO SU *Phlomis tuberosa*, KUO YE MI HOU TAO *Actinidia latifolia* (ripe fruit: content = 0.27%)<sup>[5508]</sup>, LU SHAN SHI WEI *Pyrrhosia sheareri*, LUO YE SONG YE JIN SI TAO *Hypericum laricifolium* (aerial parts), MAO DI HUANG *Digitalis purpurea*, MAO HUA MI HOU TAO *Actinidia eriantha* (ripe fruit: content = 0.29%)<sup>[5508]</sup>, MAO MAN TUO LUO YE *Datura innoxia*, MEI WEI MI HOU TAO *Actinidia deliciosa* (ripe fruit: content = 0.27%)<sup>[5508]</sup>, MI HOU LI *Actinidia arguta* (ripe fruit: content = 0.23%)<sup>[5508]</sup>, MI HOU TAO *Actinidia chinensis* (ripe fruit: content = 0.21%)<sup>[5508]</sup>, MU TIAN LIAO *Actinidia polygama* (ripe fruit: content = 0.22%)<sup>[5508]</sup>, MU ZEI *Equisetum hiemale*, NAN FANG TU SI ZI *Cuscuta australis*, NAN FEI GOU MA *Harpagophytum procumbens*, NING MENG *Citrus limon*, NING MENG PI *Citrus limon*, PU GONG YING *Taraxacum mongolicum* (dried whole herb: content = 0.0345%)<sup>[5508]</sup>, RI BEN HUANG BAI *Phellodendron japonicum* (leaf), SANG HUANG *Phellinus igniarius* (sporocarp: yield = 0.0013%dw)<sup>[4747]</sup>, SHAN ZHA *Crataegus pinnatifida*, SHE XIANG CAO *Thymus vulgaris*, SHENG DI HONG JING TIAN *Rhodiola sacra*, SHENG MA *Cimicifuga foetida*, SI JI QING *Ilex chinensis* [Syn. *Ilex purpurea*], TAI WAN FU RONG *Hibiscus taiwanensis*, TAI WAN PU GONG YING *Taraxacum formosanum* (dried whole herb: content = 0.0126%)<sup>[5508]</sup>, TONG SE JI NA SHU *Cinchona cuprea*, XI ZHAN MAO REN DONG *Lonicera similis* (flower bud: mean content = 0.039%)<sup>[5508]</sup>, XIAN HE CAO *Agrimonia pilosa* var. *japonica*, XIAO GUO KA FEI *Coffea arabica*, XIE CAO *Valeriana officinalis*, XING AN SHENG MA *Cimicifuga dahurica*, XUAN FU HUA *Inula britannica*, YANG SHI CAO *Achillea millefolium*, YAO YONG PU GONG YING *Taraxacum officinale* (dried whole herb: content = 0.0392%)<sup>[5508]</sup>, YI ZHI HUANG HUA *Solidago virgaurea* var. *leiocarpa* [Syn. *Solidago decurrens*], YI ZHU QIAN MA *Urtica dioica*, YIN CHEN HAO *Artemisia capillaris*, YING SU *Papaver somniferum*, ZHI ZHU XIANG *Valeriana jatamansii* [Syn. *Valeriana wallichii*], ZI CAO *Lithospermum erythrorhizon*, occurs in many plants (widespread in plants as free and glycosides. found by Bate-Smith in 66% of investigated dicotyledonous plants and 50% of investigated monocotyledonous plants). **Ref:** 1, 2, 4, 527, 589, 602, 604, 660, 2529, 3967, 4154, 4413, 4502, 4747, 5341, 5501, 3764, 5307, 5407, 5458, 5508.

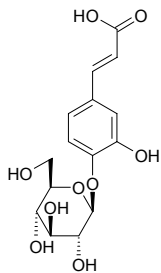


**2888 Caffeic acid dimethyl ether**

3,4-Dimethoxy-cinnamic acid [2316-26-9] C<sub>11</sub>H<sub>12</sub>O<sub>4</sub> (208.22). mp 179.5~180.5°C. Source: YE SHENG MA *Cimicifuga simplex*. Ref: 6.

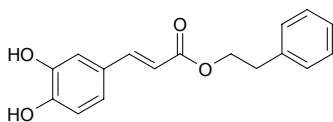
**2889 Caffeic acid-4-O-β-D-glucopyranoside**

C<sub>15</sub>H<sub>18</sub>O<sub>9</sub> (342.31). Source: HAI ZHOU GU SUI BU *Davallia mariesii*. Ref: 660.

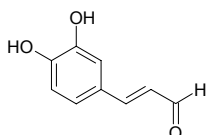
**2890 Caffeic acid phenethyl ester**

Phenethyl caffeate [104594-70-9] C<sub>17</sub>H<sub>16</sub>O<sub>4</sub> (284.31). Pharm:

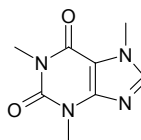
Anti-inflammatory (COX-1 inhibitor, IC<sub>50</sub> = 58 μmol/L, COX-2 inhibitor)<sup>[4415]</sup>; anti-inflammatory (NF-κB pathway)<sup>[4415]</sup>; anti-carcinogenic<sup>[4415]</sup>; antimutagenic<sup>[4415]</sup>; immunomodulant<sup>[4415]</sup>; allergenic; dermatitic (causes contact dermatitis). Source: FENG JIAO *Apis mellifera ligustica*, *Populus* spp. Ref: 658, 4415.

**2891 trans-Caffeic aldehyde**

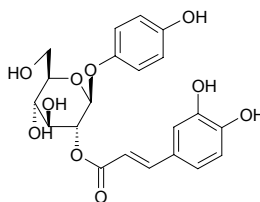
C<sub>9</sub>H<sub>8</sub>O<sub>3</sub> (164.16). Pharm: Platelet aggregation inhibitor (rbt platelets induced by thrombin, 100 μg/mL, add thrombin 0.1 u/mL, AggRt = (92.5±0.7)%, control AggRt = (92.6±0.4)%); add AA, 100 μmol/L, 100 μg/mL, AggRt = (0.0±0.0)%, 10 μg/mL, AggRt = (78.8±1.2)%, control AggRt = (87.8±0.3)%, Aspirin 50 μg/mL, AggRt = (11.7±10.1)%; add collagen 10 μg/mL, 100 μg/mL, AggRt = (51.4±1.0)%, 10 μg/mL, AggRt = (83.1±0.4)%, control AggRt = (89.3±0.5)%, Aspirin 100 μg/mL, AggRt = (81.3±0.5)%; add PAF 2 ng/mL, 100 μg/mL, AggRt = (92.0±0.2)%, control AggRt = (93.0±0.6)%). Source: TAI WAN HU JIAO *Piper taiwanense* (stem). Ref: 4938.

**2892 Caffeine**

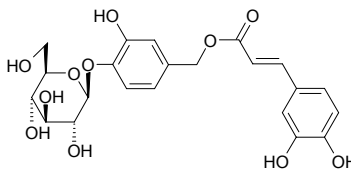
Coffeine; 1,3,7-Trimethyl-2,6-dioxopurine; Methyltheobromine [58-08-2] C<sub>8</sub>H<sub>10</sub>N<sub>4</sub>O<sub>2</sub> (194.19). mp 235~238°C; soluble in acetic ester, chloroform, acetone, ethanol, water, insoluble in petroleum ether.<sup>[5507]</sup> Pharm: Antineoplastic (mus pulmonary adenoma caused by nitroso compound, lung cancer, essential or caused by urethan); antiviral; CNS stimulant; inhibits cancer cell invasion inactive (MM1 cells, *in vitro*, 10 μg/mL)<sup>[4329]</sup>. Source: BA LA GUI *Ilex paraguariensis*, BA XI XIANG WU HUAN ZI *Paullinia cupana*, CHA SHU GEN *Camellia sinensis* [Syn. *Thea sinensis*], CHA YE *Camellia sinensis* [Syn. *Thea sinensis*] (content = 1%~5%<sup>[5507]</sup>), DA GUO KA FEI *Coffea liberica*, GAO KA FEI *Coffea excelsa*, GOU GU SHU PI *Ilex cornuta*, HEI ZI LI GUO JI SHENG *Scurrula atropurpurea*, SU DAN KE LE GUO *Cola acuminata*, WU TONG ZI *Firmiana simplex*, XIAO GUO KA FEI *Coffea arabica*. Ref: 1, 4, 6, 660, 4329, 5507.

**2893 2-O-Caffeoyl arbutin**

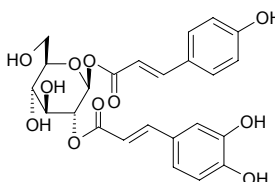
[14477-53-5] C<sub>21</sub>H<sub>22</sub>O<sub>10</sub> (434.40). mp 165°C. Source: YUE JU YE *Vaccinium vitis-idaea*. Ref: 6.

**2894 Caffeoyl calleryanin**

C<sub>22</sub>H<sub>24</sub>O<sub>11</sub> (464.43). Source: YE LI ZHI YE *Pyrus calleryana*. Ref: 6.

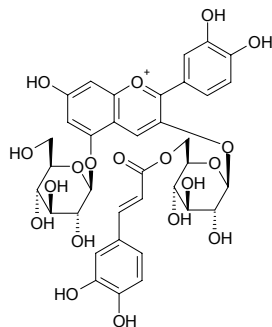
**2895 2-O-(E)-Caffeoyl-1-O-p-(E)-coumaroyl-β-D-glucopyranose**

C<sub>24</sub>H<sub>24</sub>O<sub>11</sub> (488.45). Yellow amorphous powder, [α]<sub>D</sub><sup>15</sup> = -268.6° (c = 0.8, MeOH). Source: GE XUN *Balanophora japonica* (underground part: yield = 0.0032%). Ref: 4101.

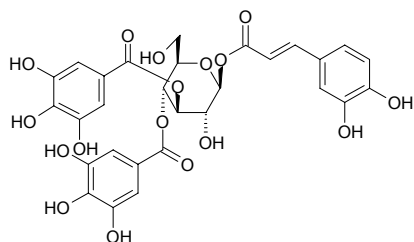


**2896 Caffeoylcyanin**

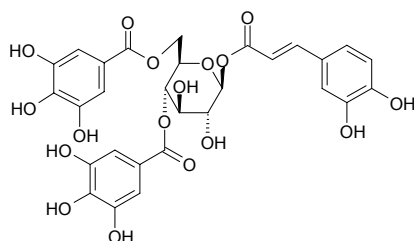
$C_{36}H_{37}O_{19}^+$  (773.68). Source: HUI HUI SU GENG *Perilla frutescens* var. *crispa*. Ref: 660.

**2897 1-O-(E)-Caffeoyl-3,4-di-O-galloyl-β-D-glucopyranose**

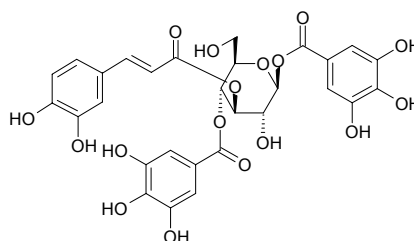
$C_{29}H_{26}O_{17}$  (646.52). Yellow amorphous powder,  $[\alpha]_D^{15} = -74.9^\circ$  ( $c = 0.4$ , MeOH). Source: GE XUN *Balanophora japonica* (aerial parts: yield = 0.0035%). Ref: 4101.

**2898 1-O-(E)-Caffeoyl-4,6-di-O-galloyl-β-D-glucopyranose**

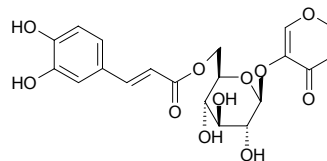
$C_{29}H_{26}O_{17}$  (646.52). Yellow amorphous powder,  $[\alpha]_D^{15} = -177.8^\circ$  ( $c = 0.2$ , MeOH). Source: GE XUN *Balanophora japonica* (aerial parts: yield = 0.0421%). Ref: 4101.

**2899 3-O-(E)-Caffeoyl-1,4-di-O-galloyl-β-D-glucopyranose**

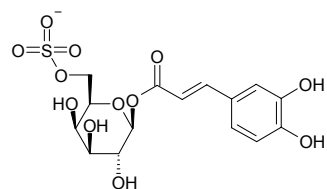
$C_{29}H_{26}O_{17}$  (646.52). Yellow amorphous powder,  $[\alpha]_D^{15} = -123.7^\circ$  ( $c = 0.7$ , MeOH). Source: GE XUN *Balanophora japonica* (aerial parts: yield = 0.0294%). Ref: 4101.

**2900 6'-O-Caffeoylerigeroside**

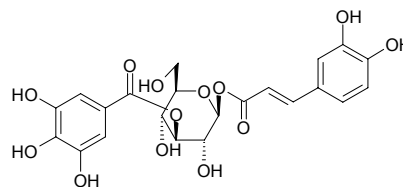
$C_{20}H_{20}O_{11}$  (436.38). Yellowish amorphous, mp 154–156°C. Source: DUO SHE FEI PENG *Erigeron multiradiatus*. Ref: 415.

**2901 1-Caffeoyl galactose-6-sulphate**

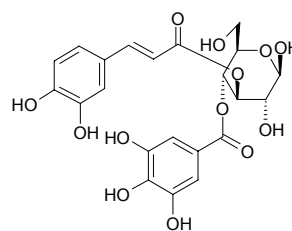
$C_{15}H_{17}O_{12}S^-$  (421.36). Source: ZHU ZONG CAO *Adiantum capillus-veneris*. Ref: 660.

**2902 1-O-(E)-Caffeoyl-3-O-galloyl-β-D-glucopyranose**

$C_{22}H_{22}O_{13}$  (494.41). Yellow amorphous powder,  $[\alpha]_D^{15} = -48.9^\circ$  ( $c = 0.8$ , MeOH). Source: GE XUN *Balanophora japonica* (aerial parts: yield = 0.0304%). Ref: 4101.

**2903 3-O-(E)-Caffeoyl-4-O-galloyl-β-D-glucopyranose**

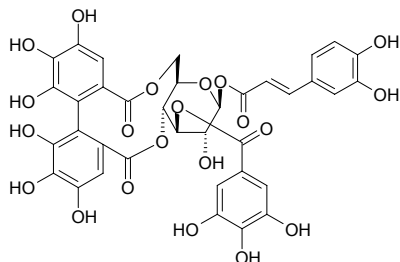
$C_{22}H_{22}O_{13}$  (494.41). Yellow amorphous powder,  $[\alpha]_D^{15} = -144.2^\circ$  ( $c = 0.7$ , MeOH). Source: GE XUN *Balanophora japonica* (aerial parts: yield = 0.0039%). Ref: 4101.



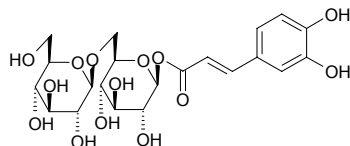


**2904 1-O-(E)-Caffeoyl-3-O-galloyl-4,6-(S)-HHDP-β-D-glucopyranose**

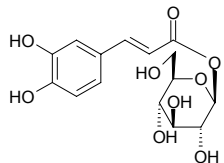
C<sub>36</sub>H<sub>28</sub>O<sub>21</sub> (796.61). Yellow amorphous powder,  $[\alpha]_D^{15} = -5.5^\circ$  ( $c = 0.6$ , MeOH). Source: GE XUN *Balanophora japonica* (aerial parts: yield = 0.1245%). Ref: 4101.

**2905 1-O-(E)-Caffeoyl-β-gentiobiose**

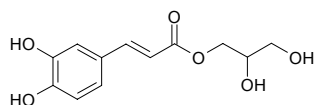
C<sub>21</sub>H<sub>28</sub>O<sub>14</sub> (504.45). Yellow amorphous powder,  $[\alpha]_D^{15} = -26.0^\circ$  ( $c = 0.3$ , MeOH). Source: GE XUN *Balanophora japonica* (underground part: yield = 0.0012%)<sup>[4101]</sup>, OU ZHOU YOU CAI *Brassica napus* (seed). Ref: 4101, 5289.

**2906 1-Caffeoylglucose**

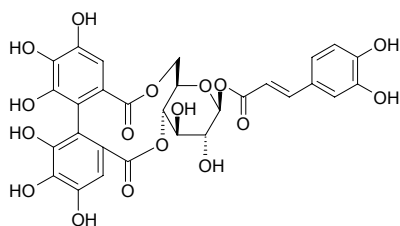
[143640-08-0] C<sub>15</sub>H<sub>18</sub>O<sub>9</sub> (342.31). mp > 300°C. Source: NAN FANG TU SI *Zi Cuscuta australis*, KUAI JING CAO SU *Phlomis tuberosa*. Ref: 589, 660.

**2907 1-O-Caffeoyllycerol**

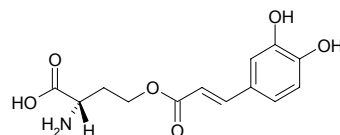
C<sub>12</sub>H<sub>14</sub>O<sub>6</sub> (254.24). Colorless acicular crystals, mp 144~146°C. Source: JIA BAI HE *Notholirion hyacinthinum* [Syn. *Notholirion bulbiferum*]. Ref: 663.

**2908 1-O-(E)-Caffeoyl-4,6-(S)-HHDP-β-D-glucopyranose**

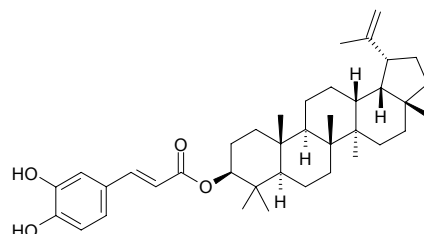
C<sub>29</sub>H<sub>24</sub>O<sub>17</sub> (644.50). Yellow amorphous powder,  $[\alpha]_D^{15} = -19.0^\circ$  ( $c = 0.3$ , MeOH). Source: GE XUN *Balanophora japonica* (aerial parts: yield = 0.2231%). Ref: 4101.

**2909 L-O-Caffeoylhomoserine**

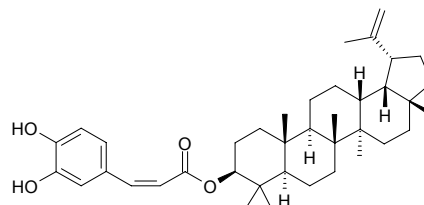
C<sub>13</sub>H<sub>15</sub>NO<sub>6</sub> (281.27). Colorless prisms, mp 224.0~225.0°C,  $[\alpha]_D^{20} = -38.24^\circ$  ( $c = 0.09$ , 80%MeOH). Pharm: Antioxidant (Chemiluminescence Method, IC<sub>50</sub> = (0.45±0.05)μmol/L, control Rutin, IC<sub>50</sub> = (0.11±0.01)μmol/L, Quercetin, IC<sub>50</sub> = (0.53±0.01)μmol/L, Caffeic acid, IC<sub>50</sub> = (0.66±0.07)μmol/L, Gallic acid, IC<sub>50</sub> = (0.74±0.06)μmol/L); Antioxidant (DPPH scavenger, IC<sub>50</sub> = (0.30±0.00)μmol/L, Rutin, IC<sub>50</sub> = (0.15±0.00)μmol/L, Quercetin, IC<sub>50</sub> = (0.26±0.02)μmol/L, Caffeic acid, IC<sub>50</sub> = (0.39±0.01)μmol/L, Gallic acid, IC<sub>50</sub> = (0.36±0.02)μmol/L). Source: XIAO YE GUAN ZHONG *Matteuccia struthiopteris*. Ref: 3764.

**2910 3-(E)-Caffeoyllupeol**

Lupeol caffeate C<sub>39</sub>H<sub>56</sub>O<sub>4</sub> (588.88). Pharm: Antimalarial inactive (*Plasmodium falciparum*, K1, multidrug resistant strain). Source: XIAO HUA MU LAN GUO *Bruguiera parviflora*. Ref: 2532.

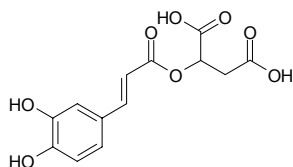
**2911 3-(Z)-Caffeoyllupeol**

C<sub>39</sub>H<sub>56</sub>O<sub>4</sub> (588.88). Yellow amorphous powder,  $[\alpha]_D^{25} = +10^\circ$  ( $c = 0.014$ , CHCl<sub>3</sub>). Pharm: Antimalarial (*Plasmodium falciparum*, K1, multidrug resistant strain, EC<sub>50</sub> = 8.6μg/mL, control Artemisinin, EC<sub>50</sub> = 1~3ng/mL). Source: XIAO HUA MU LAN GUO *Bruguiera parviflora*. Ref: 2532.

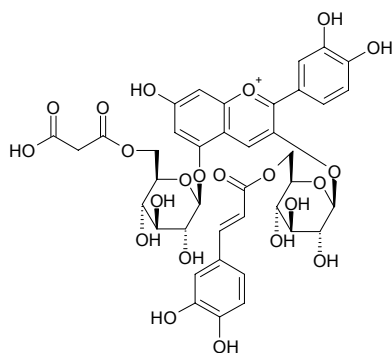


**2912 Caffeoyl malic acid**

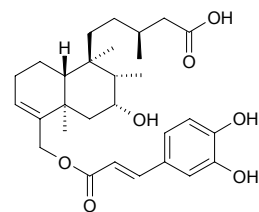
$C_{13}H_{12}O_8$  (296.24). **Pharm:** Antioxidant (*in vitro* inhibits LDL peroxidation,  $Cu^{2+}$ -induced and AAPH-induced)<sup>[5370]</sup>; inhibits minimally oxidized LDL-induced cellular toxicity (cultured bovine aortic endothelial cells, BAEC)<sup>[5370]</sup>. **Source:** OU XIA ZHI CAO *Marrubium vulgare* (aerial parts), YI ZHU QIAN MA *Urtica dioica*. **Ref:** 660, 5370.

**2913 Caffeoyl malonyl cyanin**

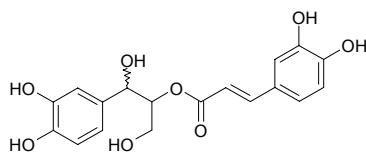
$C_{39}H_{39}O_{22}^+$  (859.73). **Source:** HUI HUI SU GENG *Perilla frutescens* var. *crispa*. **Ref:** 660.

**2914 ent-18-(E)-Caffeoyloxy-7β-hydroxy-3-cleroden-15-oic acid**

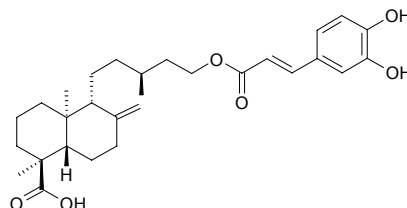
$C_{29}H_{40}O_7$  (500.64). Colorless oil,  $[\alpha]_D^{20} = -29^\circ$  ( $c = 0.165$ , MeOH). **Pharm:** Antimalarial (*Plasmodium falciparum* FcB1,  $IC_{50} = (7.3 \pm 0.8) \mu\text{g/mL}$ , control Chloroquine,  $IC_{50} = (0.05 \pm 0.002) \mu\text{g/mL}$ ). **Source:** *Nuxia sphaerocephala* (leaf). **Ref:** 4419.

**2915 2-Caffeoyloxy-3-hydroxy-3-(3,4-dihydroxyphenyl)propyl alcohol**

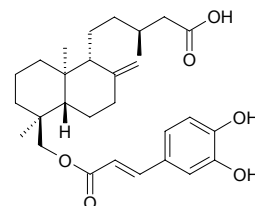
$C_{18}H_{18}O_8$  (362.34). colorless amorphous powder,  $[\alpha]_D^{25} = +35^\circ$  ( $c = 1.0$ , MeOH). **Source:** YUAN BAO CAO *Hypericum sampsonii* (whole herb). **Ref:** 4055.

**2916 ent-15-(E)-Caffeoyloxy-8(17)-labden-18-oic acid**

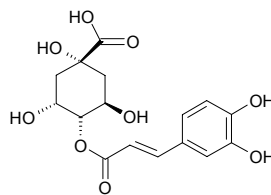
$C_{29}H_{40}O_6$  (484.64). Colorless oil,  $[\alpha]_D^{20} = -21^\circ$  ( $c = 0.21$ , MeOH). **Pharm:** Antimalarial (*Plasmodium falciparum* FcB1,  $IC_{50} = (16.0 \pm 0.87) \mu\text{g/mL}$ , control Chloroquine,  $IC_{50} = (0.05 \pm 0.002) \mu\text{g/mL}$ ). **Source:** *Nuxia sphaerocephala* (leaf). **Ref:** 4419.

**2917 ent-18-(E)-Caffeoyloxy-8(17)-labden-15-oic acid**

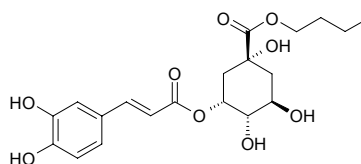
$C_{29}H_{40}O_6$  (484.64). Colorless oil,  $[\alpha]_D^{20} = -8.9^\circ$  ( $c = 0.373$ , MeOH). **Pharm:** Antimalarial (*Plasmodium falciparum* FcB1,  $IC_{50} = (21.0 \pm 1.9) \mu\text{g/mL}$ , control Chloroquine,  $IC_{50} = (0.05 \pm 0.002) \mu\text{g/mL}$ ). **Source:** *Nuxia sphaerocephala* (leaf). **Ref:** 4419.

**2918 4-O-Caffeoylquinic acid**

[905-99-7]  $C_{16}H_{18}O_9$  (354.32). **Source:** GUANG YE SHUI SU *Stachys palustris*, XIANG RI KUI YE *Helianthus annuus*, XIANG RI KUI JING SUI *Helianthus annuus*, KUAI JING CAO SU *Phlomis tuberosa*. **Ref:** 6.

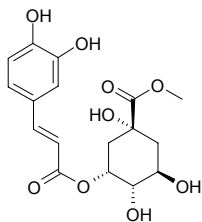
**2919 5-O-Caffeoyl quinic acid butyl ester**

$C_{20}H_{26}O_9$  (410.42). Yellowish amorphous powder mp 121~122°C. **Source:** DENG ZHAN XI XIN *Erigeron breviscapus*. **Ref:** 875.

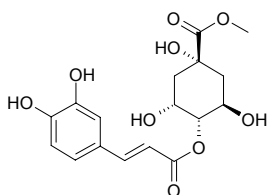


**2920 3-O-Caffeoylquinic acid methyl ester**

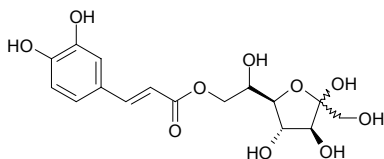
$C_{17}H_{20}O_9$  (368.34). **Pharm:** Aldose reductase inhibitor ( $IC_{50} = 13\mu\text{mol/L}$ , control Epalrestat,  $IC_{50} = 0.072\mu\text{mol/L}$ )<sup>[4530]</sup>; antitrypanosomal (*Trypanosoma b. rhodesiense*,  $IC_{50} = 16.8\mu\text{g/mL}$ , control Melarsoprol,  $IC_{50} = 0.00098\mu\text{g/mL}$ ; *Trypanosoma cruzi*,  $IC_{50} > 90\mu\text{g/mL}$ , control Benznidazole,  $IC_{50} = 1.06\mu\text{g/mL}$ )<sup>[5009]</sup>; antileishmanial (*Leishmania donovani*,  $IC_{50} = 8.8\mu\text{g/mL}$ , control Miltefosine,  $IC_{50} = 0.102\mu\text{g/mL}$ )<sup>[5009]</sup>; antimalarial (*Plasmodium falciparum*,  $IC_{50} = 42.8\mu\text{g/mL}$ , control Artemisinin,  $IC_{50} = 0.0022\mu\text{g/mL}$ )<sup>[5009]</sup>; cytotoxic (L6,  $IC_{50} = 84.1\mu\text{g/mL}$ , control Podophyllotoxin,  $IC_{50} = 0.008\mu\text{g/mL}$ )<sup>[5009]</sup>. **Source:** SHUI MU XUE LIAN HUA *Saussurea medusa* (whole herb), ZONG KUI CAO SU *Phlomis brunneogaleata*. **Ref:** 4530, 5009.

**2921 4-O-Caffeoylquinic acid methyl ester**

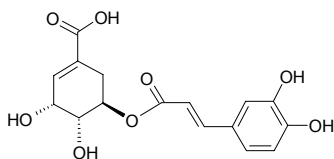
$C_{17}H_{20}O_9$  (368.34). **Pharm:** Aldose reductase inhibitor ( $IC_{50} = 16\mu\text{mol/L}$ , control Epalrestat,  $IC_{50} = 0.072\mu\text{mol/L}$ ). **Source:** SHUI MU XUE LIAN HUA *Saussurea medusa* (whole herb). **Ref:** 4530.

**2922 7-Caffeoylsedoheptulose**

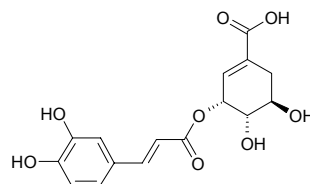
$C_{16}H_{20}O_{10}$  (372.33). White powder,  $[\alpha]_D^{25} = +13.9^\circ$  ( $c = 0.42$ , MeOH). **Source:** DUO HUA LAN GUO SHU *Nyssa sylvatica* (wood). **Ref:** 3939.

**2923 3-O-Caffeoylshikimic acid**

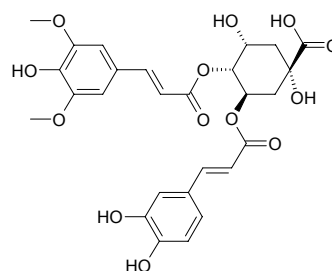
[6082-44-6]  $C_{16}H_{16}O_8$  (336.30). mp 224–225°C (dec). **Source:** WU LOU ZI *Phoenix dactylifera*. **Ref:** 6.

**2924 5-O-Caffeoylshikimic acid**

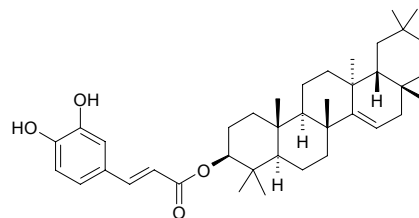
$C_{16}H_{16}O_8$  (336.3). **Pharm:** Antitrypanosomal (*Trypanosoma b. rhodesiense*,  $IC_{50} = 21.4\mu\text{g/mL}$ , control Melarsoprol,  $IC_{50} = 0.00098\mu\text{g/mL}$ ; *Trypanosoma cruzi*,  $IC_{50} > 90\mu\text{g/mL}$ , control Benznidazole,  $IC_{50} = 1.06\mu\text{g/mL}$ )<sup>[5009]</sup>; antileishmanial (*Leishmania donovani*,  $IC_{50} = 7.3\mu\text{g/mL}$ , control Miltefosine,  $IC_{50} = 0.102\mu\text{g/mL}$ )<sup>[5009]</sup>; antimalarial (*Plasmodium falciparum*,  $IC_{50} > 50\mu\text{g/mL}$ , control Artemisinin,  $IC_{50} = 0.0022\mu\text{g/mL}$ )<sup>[5009]</sup>; cytotoxic (L6,  $IC_{50} > 90\mu\text{g/mL}$ , control Podophyllotoxin,  $IC_{50} = 0.008\mu\text{g/mL}$ )<sup>[5009]</sup>. **Source:** TU FU LING *Smilax glabra*, ZONG KUI CAO SU *Phlomis brunneogaleata*. **Ref:** 714, 5009.

**2925 3-O-Caffeoyl-4-O-sinapoylquinic acid**

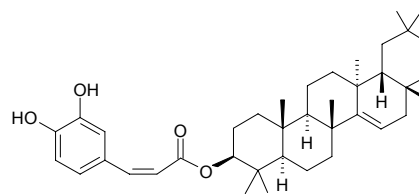
[110241-35-5]  $C_{27}H_{28}O_{13}$  (560.52). **Source:** ZHI ZI *Gardenia jasminoides* [Syn. *Gardenia florida*]. **Ref:** 2, 626.

**2926 3β-(E)-Caffeoyltaraxerol**

$C_{39}H_{56}O_4$  (588.88). White solid, mp 246–248°C,  $[\alpha]_D^{27} = +28.84^\circ$  ( $c = 0.052$ ,  $\text{CHCl}_3$ ). **Source:** HONG QIE DONG GUO *Rhizophora mucronata* (fruit). **Ref:** 4058.

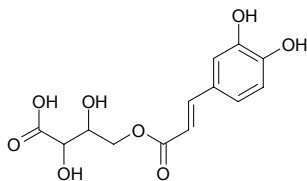
**2927 3β-(Z)-Caffeoyltaraxerol**

$C_{39}H_{56}O_4$  (588.88). White solid, mp 246°C,  $[\alpha]_D^{27} = -100^\circ$  ( $c = 0.04$ ,  $\text{CHCl}_3$ ). **Source:** HONG QIE DONG GUO *Rhizophora mucronata* (fruit). **Ref:** 4058.

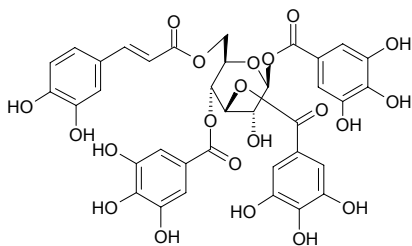


**2928 (-)-4-(E)-Caffeoyl-L-threonic acid**

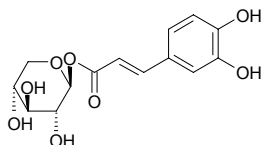
$C_{13}H_{14}O_8$  (298.25). Bright yellow amorphous powder, mp 195~198°C,  $[\alpha]_D^{20} = -17^\circ$  ( $c = 0.05$ , MeOH),  $[\alpha]_D^{20} = -23^\circ$  ( $c = 1.27$ , H<sub>2</sub>O). Source: DENG TAI SHU *Cornus controversa* [Syn. *Bothrocaryum controversum*] (leaf). Ref: 3918.

**2929 6-O-(E)-Caffeoyl-1,3,4-tri-O-galloyl-β-D-glucopyranose**

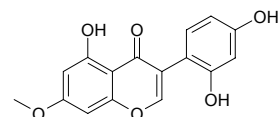
$C_{36}H_{30}O_{21}$  (798.63). Yellow amorphous powder,  $[\alpha]_D^{15} = +14.9^\circ$  ( $c = 0.6$ , MeOH). Source: GE XUN *Balanophora japonica* (aerial parts: yield = 0.0283%). Ref: 4101.

**2930 1-O-Caffeoyl-β-xylose**

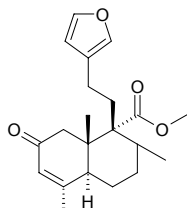
$C_{14}H_{16}O_8$  (312.28). Source: SHEN SHENG XUAN GOU ZI *Rubus sanctus*. Ref: 3421.

**2931 Cajinin**

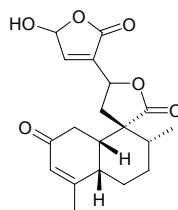
$C_{16}H_{12}O_6$  (300.27). Colorless needles, mp 254~256°C. Source: MI HUA DOU *Spatholobus suberectus*. Ref: 2205.

**2932 t-Cajucarin B**

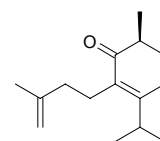
$C_{21}H_{28}O_4$  (344.45). Source: KA ZHU BA DOU *Croton cajucara*. Ref: 4552.

**2933 Cajucarinolide**

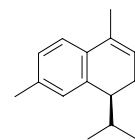
$C_{19}H_{22}O_6$  (346.38). Source: ZAN BI XI BA DOU *Croton zambesicus*. Ref: 4552.

**2934 Calacone**

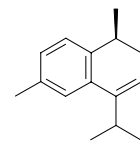
$C_{15}H_{24}O$  (220.36). Source: BAI CHANG *Acorus calamus*. Ref: 6.

**2935 α-Calacorene**

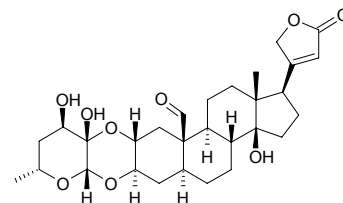
[21391-99-1]  $C_{15}H_{20}$  (200.33). Source: DU SONG SHI *Juniperus rigida*, ZHANG MU *Cinnamomum camphora*. Ref: 6.

**2936 γ-Calacorene**

[24048-45-1]  $C_{15}H_{20}$  (200.33). Source: DU SONG SHI *Juniperus rigida*, PI JIU HUA *Humulus lupulus*. Ref: 6.

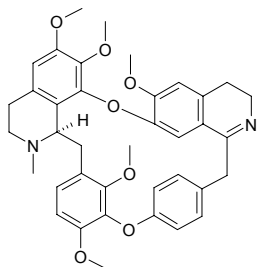
**2937 Calactin**

Calotropin [20304-47-6]  $C_{29}H_{40}O_9$  (532.64). mp 221°C (dec). Pharm: Toxin (vertebrate); LD<sub>50</sub> (cat, iv) = 0.11 mg/kg, (mus, ip) = 9.8 mg/kg. Source: LIAN SHENG GUI ZI HUA *Asclepias curassavica*. Ref: 1, 5, 6, 658.

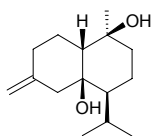


**2938 Calafatimine**

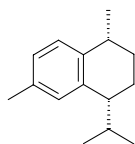
[77793-42-1] C<sub>38</sub>H<sub>40</sub>N<sub>2</sub>O<sub>7</sub> (636.75). Pharm: Antineoplastic (weak). Source: HUANG YANG XIAO BO *Berberis buxifolia*. Ref: 658.

**2939 Calamendiol**

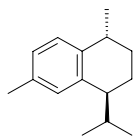
[30167-28-3] C<sub>15</sub>H<sub>26</sub>O<sub>2</sub> (238.37). mp 168°C. Source: BAI CHANG *Acorus calamus*. Ref: 6.

**2940 cis-Calamenene**

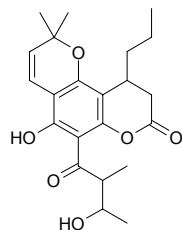
[22339-23-7] C<sub>15</sub>H<sub>22</sub> (202.34). Source: HUO XIANG *Agastache rugosus*, ZHANG MU *Cinnamomum camphora*. Ref: 2, 6.

**2941 trans-Calamenene**

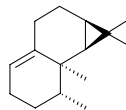
C<sub>15</sub>H<sub>22</sub> (202.34). Source: HUO XIANG *Agastache rugosus*, ZHANG MU *Cinnamomum camphora*. Ref: 2, 6.

**2942 Calanolide E<sub>2</sub>**

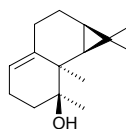
C<sub>22</sub>H<sub>28</sub>O<sub>6</sub> (388.46). Pale yellow oil, [α]<sub>D</sub><sup>20</sup> = -77.6° (c = 0.248, CHCl<sub>3</sub>). Source: DIAN NAN HONG HOU KE *Calophyllum polyanthum* (seed: yield = 0.0053%dw). Ref: 4767.

**2943 Calarene**

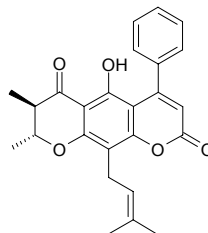
β-Guriunene; 1(10)-Aristolene [17334-55-3] C<sub>15</sub>H<sub>24</sub> (204.36). bp 120~123°C/13mmHg. Source: GAN SONG *Nardostachys chinensis*, GUANG HUO XIANG *Pogostemon cablin* [Syn. *Mentha cablin*], HUO XIANG *Agastache rugosus*, REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], XI YANG SHEN *Panax quinquefolium*. Ref: 2, 6, 660.

**2944 Calarenol**

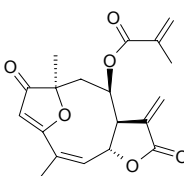
C<sub>15</sub>H<sub>24</sub>O (220.36). bp 120~125°C/0.1mmHg. Source: GAN SONG *Nardostachys chinensis*. Ref: 6.

**2945 Calaustralin**

C<sub>25</sub>H<sub>24</sub>O<sub>5</sub> (404.47). White crystals (*n*-hexane-EtOAc), mp 193~195°C. Pharm: Cytotoxic inactive (KB, IC<sub>50</sub> = 42.0μg/mL); antibacterial (*Staphylococcus aureus*, 20μg/disk, DIZ = 11.0mm; *Escherichia coli*, 20μg/disk, inactive; *Vibrio anguillarum*, 20μg/disk, inactive); antifungal inactive (*Candida tropicalis*, 20μg/disk). Source: HAI TANG GUO *Calophyllum inophyllum* (root cortex and nut). Ref: 3866.

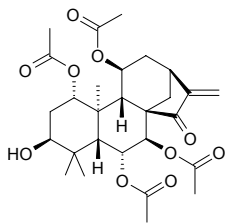
**2946 Calaxin**

[30412-86-3] C<sub>19</sub>H<sub>20</sub>O<sub>6</sub> (344.37). Pharm: Antineoplastic; cytotoxic. Source: YUAN MAO XIANG RI KUI *Helianthus ciliaris*, *Viguiera eriophora* ssp. *eriophora* (aerial parts). Ref: 658, 5090.



**2947 Calcicolin A**

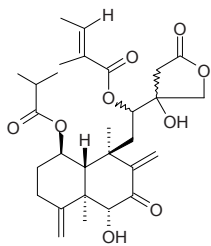
$C_{28}H_{38}O_{10}$  (534.61). mp 265~268°C,  $[\alpha]_D^{23} = -59.3^\circ$  ( $c = 0.53$ , MeOH). Source: JIN WU MAO HUI YAN XIANG CHA CAI *Isodon calcicola* Ref: 650, 4067.

**2948 Calcicolin A†**

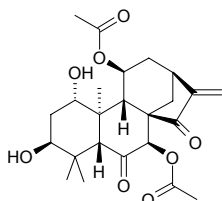
*rel*-10 $\beta$ H-*trans*-12 $\zeta$ -(2-methylbut-2(*E*)-enoyl)-1 $\beta$ -(isobutanoyl)-6 $\alpha$ ,13 $\zeta$ -dihydroxycyclorodan-4(20),8(18)-dien-7,15-dione-15,16-oxide  $C_{29}H_{40}O_9$  (532.64).

Amorphous solid,  $[\alpha]_D^{24} = +4.3^\circ$  ( $c = 0.01$ , MeOH). Pharm: Cytotoxic (D.mel-II,  $IC_{50} = (2.06 \pm 0.20) \mu\text{g/mL}$ ; HepG2,  $IC_{50} = (9.04 \pm 0.13) \mu\text{g/mL}$ ).

Source: *Glossocarya calcicola* (leaf). Ref: 5340.

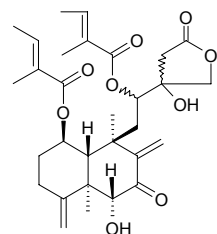
**2949 Calcicolin B**

$C_{24}H_{32}O_8$  (448.52). mp 114~116°C,  $[\alpha]_D^{20.8} = -34.36^\circ$  ( $c = 0.29$ , MeOH). Source: JIN WU MAO HUI YAN XIANG CHA CAI *Isodon calcicola*, XIAN HUA XIANG CHA CAI *Rabdosia adenantha* (leaf: yield = 0.00058%<sub>dw</sub>)<sup>[4640]</sup>. Ref: 4067, 4640.

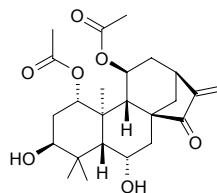
**2950 Calcicolin B†**

*rel*-10 $\beta$ H-*trans*-1 $\beta$ ,12 $\zeta$ -Di(2-methylbut-2(*E*)-enoyl)-6 $\alpha$ ,13 $\zeta$ -dihydroxycyclorodan-4(20),8(18)-dien-7,15-dione-15,16-oxide  $C_{30}H_{40}O_9$  (544.65). Amorphous solid,  $[\alpha]_D^{24} =$

$-8.98^\circ$  ( $c = 0.01$ , MeOH). Pharm: Cytotoxic (D.mel-II,  $IC_{50} = (3.09 \pm 0.24) \mu\text{g/mL}$ ; HepG2,  $IC_{50} = (16.16 \pm 0.27) \mu\text{g/mL}$ ). Source: *Glossocarya calcicola* (leaf). Ref: 5340.

**2951 Calcicolin C**

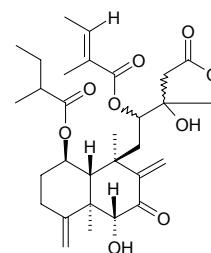
$C_{24}H_{34}O_7$  (434.53). mp 248.5~250.0°C,  $[\alpha]_D^{21.9} = -39.94^\circ$  ( $c = 0.31$ , MeOH). Source: JIN WU MAO HUI YAN XIANG CHA CAI *Isodon calcicola* Ref: 4067.

**2952 Calcicolin C†**

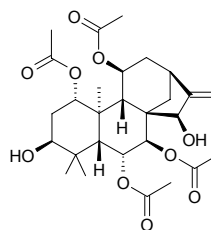
*rel*-10 $\beta$ H-*trans*-12 $\zeta$ -(2-Methylbut-2(*E*)-enoyl)-1 $\beta$ -(2-methylbutanoyl)-6 $\alpha$ ,13 $\zeta$ -dihydroxycyclorodan-4(20),8(18)-dien-7,15-dione-15,16-oxide  $C_{30}H_{42}O_9$

(546.66). Amorphous solid,  $[\alpha]_D^{24} = +2.31^\circ$  ( $c = 0.01$ , MeOH). Pharm: Cytotoxic (D.mel-II,  $IC_{50} = (2.10 \pm 0.26) \mu\text{g/mL}$ ; HepG2,  $IC_{50} =$

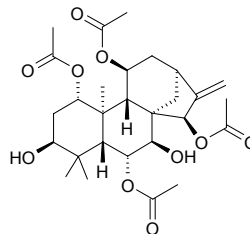
$(8.30 \pm 0.12) \mu\text{g/mL}$ ). *Glossocarya calcicola* (leaf). Ref: 5340.

**2953 Calcicolin D**

$C_{28}H_{40}O_{10}$  (536.63). mp 196~197.5°C,  $[\alpha]_D^{20.6} = -43.62^\circ$  ( $c = 0.30$ , MeOH). Source: JIN WU MAO HUI YAN XIANG CHA CAI *Isodon calcicola* Ref: 4067.

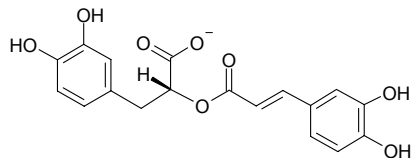
**2954 Calcicolin E**

$C_{28}H_{40}O_{10}$  (536.63). mp 117~119.5°C,  $[\alpha]_D^{22.6} = -46.25^\circ$  ( $c = 0.40$ , MeOH). Source: JIN WU MAO HUI YAN XIANG CHA CAI *Isodon calcicola* Ref: 4067.



**2955 Calcium rosmarinate**

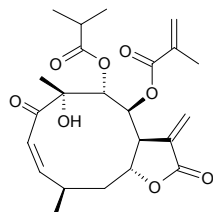
$C_{18}H_{15}O_8^-$  (359.32). Source: YOU CI PO BU MU *Cordia spinescens*. Ref: 2268.

**2956 Calealactone A**

$C_{23}H_{30}O_8$  (434.49). Colorless needles, mp 98~100°C,  $[\alpha]_D^{20} = +195.4^\circ$  ( $c =$

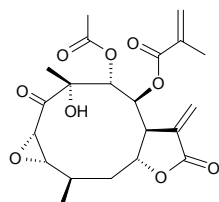
0.001,  $CHCl_3$ ). Pharm: Cytotoxic (U937,  $IC_{50} = 3.5\mu mol/L$ ; control

Parthenolide,  $IC_{50} = 1.9\mu mol/L$ ). Source: YOU KA MEI JU *Calea urticifolia* (leaf). Ref: 3887.

**2957 Calealactone B**

$C_{21}H_{26}O_9$  (422.44). White powder,  $[\alpha]_D^{20} = +184.2^\circ$  ( $c = 0.001$ ,  $CHCl_3$ ).

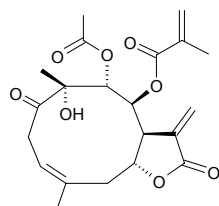
Pharm: Cytotoxic (U937,  $IC_{50} > 5\mu mol/L$ ; control Parthenolide,  $IC_{50} =$  1.9 $\mu mol/L$ ). Source: YOU KA MEI JU *Calea urticifolia* (leaf). Ref: 3887.

**2958 Calealactone C**

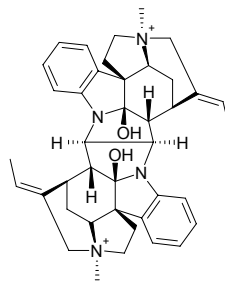
$C_{21}H_{26}O_8$  (406.44). Colorless needles, mp 170~172°C,  $[\alpha]_D^{20} = +92.1^\circ$  ( $c =$

0.001,  $CHCl_3$ ). Pharm: Cytotoxic (U937,  $IC_{50} = 1.0\mu mol/L$ ; control

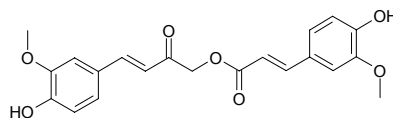
Parthenolide,  $IC_{50} = 1.9\mu mol/L$ ). Source: YOU KA MEI JU *Calea urticifolia* (leaf). Ref: 3887.

**2959 Calebassine**

[7257-29-6]  $C_{40}H_{48}N_4O_2^{2+}$  (616.85). Pharm: Neuromuscular blocker (curare component in cucurbit); toxin. Source: SAN YE MAI MA QIAN *Strychnos trinervis*, MI SHI MA QIAN ZI *Strychnos mitschlichii*, FEN CHA MA QIAN ZI *Strychnos divaricans*. Ref: 658.

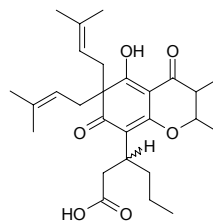
**2960 Calebin A**

4''-(3'''-Methoxy-4'''-hydroxyphenyl)-2''-oxo-3''-enebutanyl 3-(3'-methoxy-4'-hydroxyphenyl)propenoate  $C_{21}H_{20}O_7$  (384.39). Light yellow powder, mp 138~139°C. Pharm: Neuroprotective (*in vitro* protects PC12 cells from  $\beta$ -Amyloid insult: anti- $\beta A(25-35)$ ,  $ED_{50} = (1.0\pm 0.3)\mu g/mL$ ; anti- $\beta A(1-41)$ ,  $ED_{50} = (2.0\pm 0.4)\mu g/mL$ ; control Congo red: anti- $\beta A(25-35)$ ,  $ED_{50} = (37.5\pm 5.4)\mu g/mL$ ; anti- $\beta A(1-41)$ ,  $ED_{50} = (39.2\pm 5.2)\mu g/mL$ ). Source: JIANG HUANG *Curcuma longa* (turmeric powder: yield = 0.0010%dw). Ref: 4643.

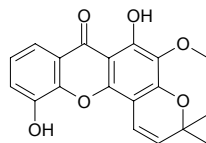
**2961 Caledonic acid**

$C_{27}H_{38}O_6$  (458.60). Amorphous solid,  $[\alpha]_D^{25} = -15.0^\circ$  ( $c = 0.13$ ,  $CHCl_3$ ).

Pharm: Antifungal (*Aspergillus fumigatus*,  $MIC_{80} = 16\mu g/mL$ , control Amphotericin B,  $MIC_{80} = 8\mu g/mL$ ). Source: SU GE LAN HU TONG *Calophyllum caledonicum* (seed). Ref: 5489.

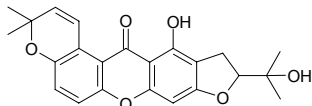
**2962 Caledonixanthone E**

$C_{19}H_{16}O_6$  (340.34). Pharm: Antifungal (*Aspergillus fumigatus* CBS113.26,  $MIC_{80} = 8\mu g/mL$ , control Amphotericin B,  $MIC_{80} = 8\mu g/mL$ ; *Aspergillus flavus* IHEM37.19,  $MIC_{80} = 16\mu g/mL$ , Amphotericin B,  $MIC_{80} = 8\mu g/mL$ ; *Aspergillus niger* IHEM2951,  $MIC_{80} > 250\mu g/mL$ , Amphotericin B,  $MIC_{80} = 16\mu g/mL$ ; *Aspergillus terreus* 5029.2000,  $MIC_{80} > 250\mu g/mL$ ; Amphotericin B,  $MIC_{80} = 16\mu g/mL$ ; *Candida albicans* ATCC663.90,  $MIC_{80} > 250\mu g/mL$ ; Amphotericin B,  $MIC_{80} = 1\mu g/mL$ ). Source: SU GE LAN HU TONG *Calophyllum caledonicum* (stem cortex). Ref: 4995.



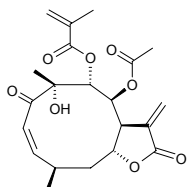
**2963 Caledonixanthone M**

$C_{23}H_{22}O_6$  (394.43). Amorphous solid,  $[\alpha]_D^{25} = -33.3^\circ$  ( $c = 0.06$ ,  $CHCl_3$ ). Source: SU GE LAN HU TONG *Calophyllum caledonicum* (seed). Ref: 5489.

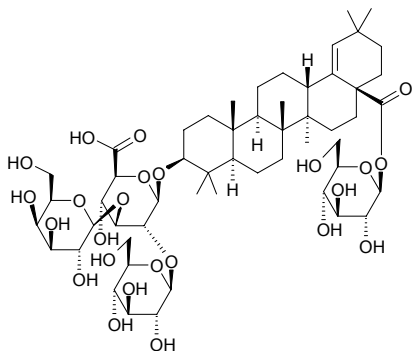
**2964 Calcine D**

$C_{21}H_{26}O_8$  (406.44). White powder,  $[\alpha]_D^{20} = +192.2^\circ$  ( $c = 0.001$ ,  $CHCl_3$ ).

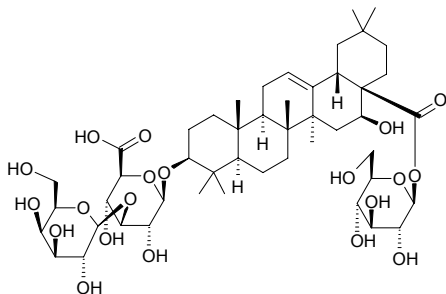
Pharm: Cytotoxic (U937,  $IC_{50} > 5 \mu\text{mol/L}$ ; control Parthenolide,  $IC_{50} = 1.9 \mu\text{mol/L}$ ). Source: YOU KA MEI JU *Calea urticifolia* (leaf). Ref: 3887.

**2965 Calendasaponin A**

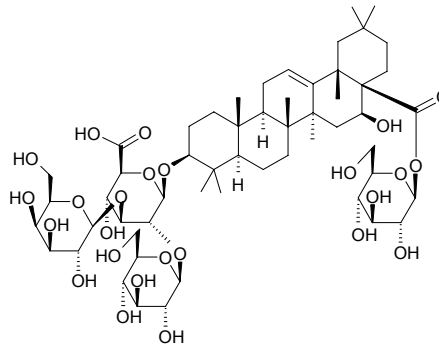
28-*O*- $\beta$ -*D*-Glucopyranosyl moronic acid 3-*O*- $\beta$ -*D*-glucopyranosyl(1 $\rightarrow$ 2)- $\beta$ -*D*-galactopyranosyl(1 $\rightarrow$ 3)]- $\beta$ -*D*-glucopyranosiduronic acid  $C_{54}H_{86}O_{24}$  (1119.27). Colorless fine crystals (MeOH-H<sub>2</sub>O), mp 226.5~228.6°C,  $[\alpha]_D^{27} = +8.6^\circ$  ( $c = 0.1$ , MeOH). Source: JIN ZHAN JU *Calendula officinalis* (flower). Ref: 3551.

**2966 Calendasaponin B**

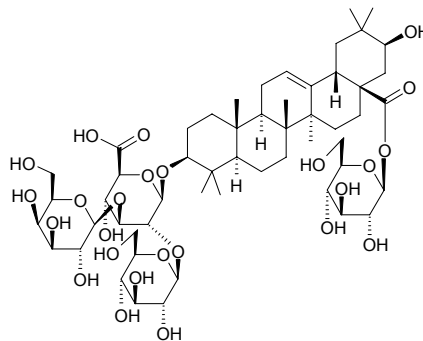
28-*O*- $\beta$ -*D*-Glucopyranosyl cochalic acid 3-*O*- $\beta$ -*D*-galactopyranosyl(1 $\rightarrow$ 3)- $\beta$ -*D*-glucopyranosiduronic acid  $C_{48}H_{76}O_{20}$  (973.13). Colorless fine crystals (MeOH-H<sub>2</sub>O), mp 245.6~247.0°C,  $[\alpha]_D^{27} = +6.4^\circ$  ( $c = 0.1$ , MeOH). Source: JIN ZHAN JU *Calendula officinalis* (flower). Ref: 3551.

**2967 Calendasaponin C**

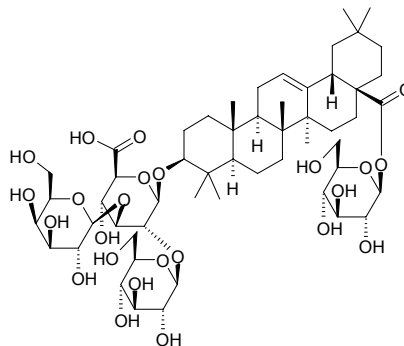
28-*O*- $\beta$ -*D*-Glucopyranosyl cochalic acid 3-*O*- $\beta$ -*D*-glucopyranosyl(1 $\rightarrow$ 2)- $\beta$ -*D*-galactopyranosyl(1 $\rightarrow$ 3)]- $\beta$ -*D*-glucopyranosiduronic acid  $C_{55}H_{88}O_{25}$  (1149.30). Colorless fine crystals (MeOH-H<sub>2</sub>O), mp 228.5~230.2°C,  $[\alpha]_D^{27} = +8.1^\circ$  ( $c = 1.0$ , MeOH). Source: JIN ZHAN JU *Calendula officinalis* (flower). Ref: 3551.

**2968 Calendasaponin D**

28-*O*- $\beta$ -*D*-Glucopyranosyl machaerinic acid 3-*O*- $\beta$ -*D*-glucopyranosyl(1 $\rightarrow$ 2)- $\beta$ -*D*-galactopyranosyl(1 $\rightarrow$ 3)]- $\beta$ -*D*-glucopyranosiduronic acid  $C_{54}H_{86}O_{25}$  (1135.27). Colorless fine crystals (MeOH-H<sub>2</sub>O), mp 226.9~229.0°C,  $[\alpha]_D^{27} = +33.0^\circ$  ( $c = 1.1$ , MeOH). Source: JIN ZHAN JU *Calendula officinalis* (flower). Ref: 3551.

**2969 Calendula officinalis Glycoside A**

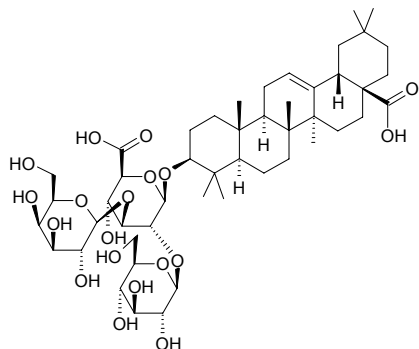
$C_{54}H_{86}O_{24}$  (1119.27). Pharm: Hypoglycemic (inhibits the increase in serum glucose levels in glucose-loaded rats); gastroprotective (mouse, inhibits gastric emptying; rats, inhibits ethanol- and indomethacin-induced gastric lesions). Source: JIN ZHAN JU *Calendula officinalis* (flower). Ref: 3551.



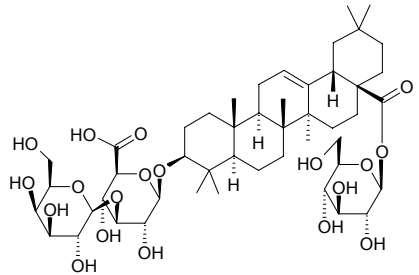


**2970 *Calendula officinalis* Glycoside B**

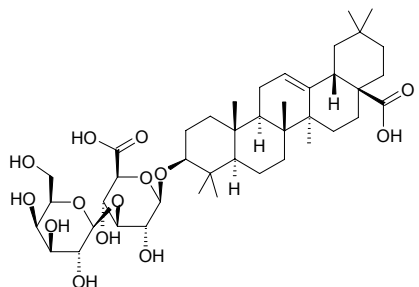
$C_{48}H_{76}O_{19}$  (957.13). **Pharm:** Hypoglycemic (inhibits the increase in serum glucose levels in glucose-loaded rats); gastroprotective (mouse, inhibits gastric emptying; rats, inhibits ethanol- and indomethacin-induced gastric lesions). **Source:** JIN ZHAN JU *Calendula officinalis* (flower). **Ref:** 3551.

**2971 *Calendula officinalis* Glycoside C**

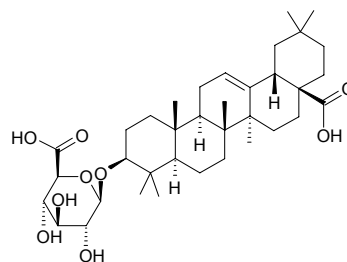
$C_{48}H_{76}O_{19}$  (957.13). **Pharm:** Hypoglycemic (inhibits the increase in serum glucose levels in glucose-loaded rats); gastroprotective (mouse, inhibits gastric emptying; rats, inhibits ethanol- and indomethacin-induced gastric lesions). **Source:** JIN ZHAN JU *Calendula officinalis* (flower). **Ref:** 3551.

**2972 *Calendula officinalis* Glycoside D**

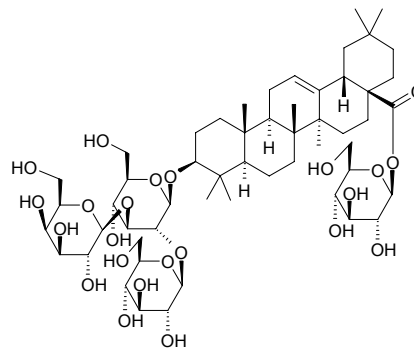
$C_{42}H_{66}O_{14}$  (794.99). **Pharm:** Hypoglycemic (inhibits the increase in serum glucose levels in glucose-loaded rats); gastroprotective (mouse, inhibits gastric emptying; rats, inhibits ethanol- and indomethacin-induced gastric lesions). **Source:** JIN ZHAN JU *Calendula officinalis* (flower). **Ref:** 3551.

**2973 *Calendula officinalis* Glycoside F**

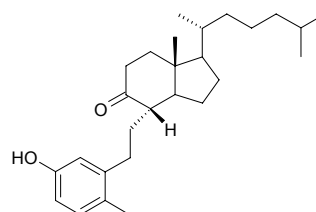
Hollow alternanthera saponin B; Oleanolic acid 3-*O*-glucuronide [26020-14-4]  $C_{36}H_{56}O_9$  (632.84). White amorphous powder, mp 226–228°C. **Pharm:** Hypoglycemic (inhibits the increase in serum glucose levels in glucose-loaded rats)<sup>[3551]</sup>; gastroprotective (mouse, inhibits gastric emptying; rats, inhibits ethanol- and indomethacin-induced gastric lesions)<sup>[3551]</sup>; molluscicide (*Oncomelania*); molluscicide (*Biomphalaria glabrata*, LD<sub>100</sub> = 2mg/L). **Source:** HEI REN DONG *Lonicera nigra*, HU CI CONG MU *Aralia armata*, JIN ZHAN JU *Calendula officinalis* (flower), KONG XIN XIAN *Alternanthera philoxeroides*, MU BIE GEN *Momordica cochinchinensis*, CHANG CHUN TENG *Hedera nepalensis* var. *sinensis*, TIAN CAI *Beta vulgaris*. **Ref:** 658, 700, 1521, 3551.

**2974 Calendulose D**

$C_{54}H_{88}O_{23}$  (1105.29). **Source:** JIN ZHAN JU *Calendula officinalis* (flower). **Ref:** 3551.

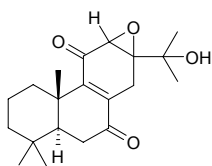
**2975 Calicoferol E**

$C_{27}H_{42}O_2$  (398.63). White powder,  $[\alpha]_D^{25} = +21^\circ$  ( $c = 0.22$ ,  $CHCl_3$ ). **Pharm:** PTP1B inhibitor (IC<sub>50</sub> = 27.28 μmol/L). **Source:** ZHONG HUA XIAO JIAN LIU SHAN HU *Muricella sinensis*. **Ref:** 4563.

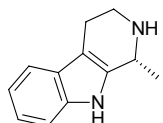


**2976 Callicarpone**

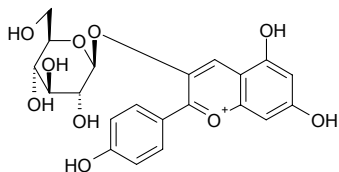
[5938-11-4]  $C_{20}H_{28}O_4$  (332.44). Pharm: Fish toxin. Source: BAI MAO ZI ZHU *Callicarpa candicans*. Ref: 658.

**2977 Calligonine**

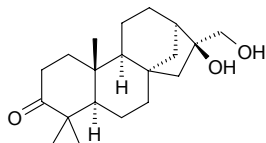
[2254-36-6]  $C_{12}H_{14}N_2$  (186.26). Pharm: Antihypertensive. Source: SHA ZAO *Elaeagnus angustifolia*. Ref: 658.

**2978 Callistephin**

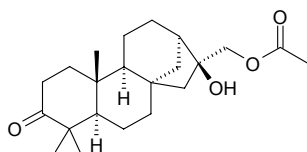
[18466-51-8]  $C_{21}H_{21}O_{10}^+$  (433.40). Source: NAN TIAN ZHU ZI *Nandina domestica*, QIU MU GUA *Chaenomeles lagenaria* [Syn. *Chaenomeles speciosa*]. Ref: 6.

**2979 Calliterpenone**

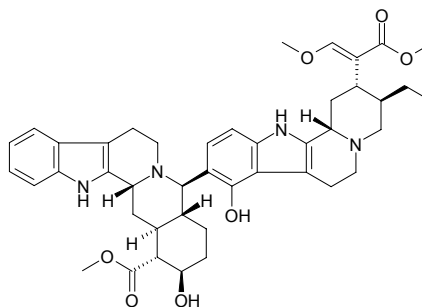
[38602-53-8]  $C_{20}H_{32}O_3$  (320.48). mp 153~155°C. Source: DA YE ZI ZHU *Callicarpa macrophylla*. Ref: 6.

**2980 Calliterpenone monoacetate**

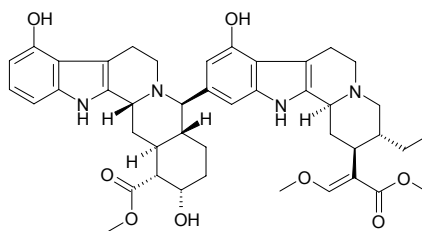
$C_{22}H_{34}O_4$  (362.51). mp 124°C. Source: DA YE ZI ZHU *Callicarpa macrophylla*. Ref: 6.

**2981 Callophylline A**

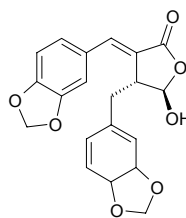
$C_{43}H_{52}N_4O_7$  (736.92). Source: HOU YE GOU TENG *Uncaria callophylla*. Ref: 5341.

**2982 Callophylline B**

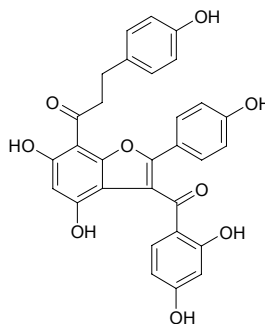
$C_{43}H_{52}N_4O_8$  (752.92). Source: HOU YE GOU TENG *Uncaria callophylla*. Ref: 5341.

**2983 Calocedrin**

$C_{20}H_{18}O_7$  (370.36). Pharm: Anti-inflammatory (modulator of cytokine network: inhibits LPS-activated production of TNF- $\alpha$  in RAW264.7 cells,  $IC_{50} > 150 \mu\text{mol/L}$ ). Source: SI ZI TAN *Pterocarpus santalinus* (heartwood). Ref: 4416.

**2984 Calodenin A**

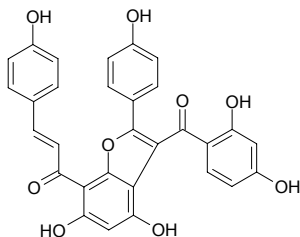
$C_{30}H_{22}O_9$  (526.50). Source: *Ochna afzeli*. Ref: 3449.



**2985 Calodenin B**

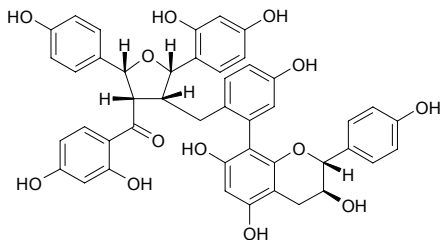
$C_{30}H_{20}O_9$  (524.49). **Pharm:** Antibacterial (MDR *Staphylococcus aureus*: RN4220 strain, MIC = 64 $\mu$ g/mL, control Erythromycin, MIC = 128 $\mu$ g/mL; XU212 strain, MIC = 8 $\mu$ g/mL, control Tetracycline, MIC = 128 $\mu$ g/mL; SA-1199-B strain, MIC = 16 $\mu$ g/mL, control Norfloxacin, MIC = 32 $\mu$ g/mL)<sup>[5372]</sup>; cytotoxic (MCF7 breast cancer cells, MTT method, IC<sub>50</sub> = (7 $\pm$ 0.5) $\mu$ mol/L, control Doxorubicin, IC<sub>50</sub> = (0.1 $\pm$ 0.001) $\mu$ mol/L)<sup>[5372]</sup>.

**Source:** CHANG E JIN LIAN MU PI *Ochna macrocalyx*, SANG DAO BU SHI MU *Brackenridgea zanguebarica*, *Ochna afzelii*. **Ref:** 3449, 5372.

**2986 Caloflavan A**

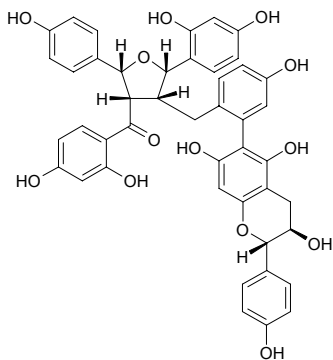
$C_{45}H_{38}O_{13}$  (786.80). Amorphous solid,  $[\alpha]_D^{28} = +31^\circ$  ( $c = 0.015$ , MeOH).

**Source:** KA MAI LONG JIN LIAN MU *Ochna calodendron*. **Ref:** 1996.

**2987 Caloflavan B**

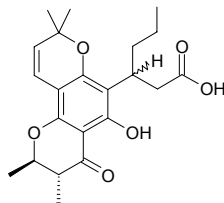
$C_{45}H_{38}O_{13}$  (786.80). Amorphous solid,  $[\alpha]_D^{28} = +28^\circ$  ( $c = 0.037$ , MeOH).

**Source:** KA MAI LONG JIN LIAN MU *Ochna calodendron*. **Ref:** 1996.

**2988 Calolongic acid**

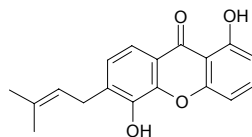
$C_{22}H_{28}O_6$  (388.46). Amorphous solid,  $[\alpha]_D^{25} = -13.1^\circ$  ( $c = 0.15$ ,  $CHCl_3$ ).

**Pharm:** Antifungal (*Aspergillus fumigatus*, MIC<sub>80</sub> = 4 $\mu$ g/mL, control Amphotericin B, MIC<sub>80</sub> = 8 $\mu$ g/mL)<sup>[5489]</sup>. **Source:** SU GE LAN HU TONG *Calophyllum caledonicum* (seed). **Ref:** 5489.

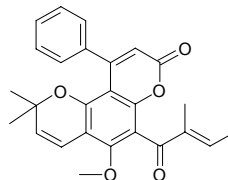
**2989 Calophyllin B**

Guanandin; 6-(3-Methyl-2-butenyl)-1,5-dihydroxyxanthone [17623-60-8]

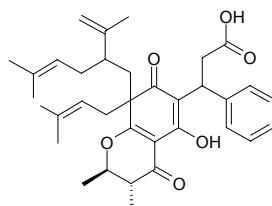
$C_{18}H_{16}O_4$  (296.33). **Pharm:** Anti-inflammatory; anti-hypotension (PAF-induced, ID<sub>50</sub> = (15.1 $\pm$ 3.3) $\mu$ mol/kg, control Ginkgolide B, ID<sub>50</sub> = (38.5 $\pm$ 2.7) $\mu$ mol/kg, CV-3988, ID<sub>50</sub> = (2.4 $\pm$ 1.2) $\mu$ mol/kg)<sup>[5050]</sup>. **Source:** HAI TANG GUO *Calophyllum inophyllum*, *Calophyllum austroindium* (stem wood). **Ref:** 658, 1319, 5050.

**2990 Calophyllolide**

[548-27-6]  $C_{26}H_{24}O_5$  (416.48). mp 160°C. **Pharm:** Antiarthritic; anti-inflammatory (rat, ip, swollen foot model caused by carrageenan, 40mg/kg, InRt = 60.7%, rat, orl, swell-foot model caused by carrageenan, ED<sub>50</sub> = 140mg/kg); cytotoxic (KB, IC<sub>50</sub> = 3.5 $\mu$ g/mL)<sup>[3866]</sup>; antibacterial (*Staphylococcus aureus*, 20 $\mu$ g/disk, DIZ = 16.0mm; *Escherichia coli*, 20 $\mu$ g/disk, inactive; *Vibrio anguillarum*, 20 $\mu$ g/disk, inactive)<sup>[3866]</sup>; antifungal inactive (*Candida tropicalis*, 20 $\mu$ g/disk)<sup>[3866]</sup>. **Source:** HAI TANG GUO *Calophyllum inophyllum* (root cortex and nut). **Ref:** 658, 661, 3866.

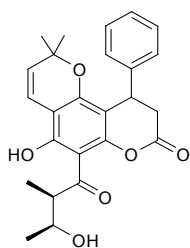
**2991 Calophynic acid**

Inocalophyllin A  $C_{35}H_{44}O_6$  (560.74). Amorphous solid,  $[\alpha]_D^{25} = -169^\circ$  ( $c = 0.05$ ,  $CH_2Cl_2$ ). **Pharm:** Cytotoxic (KB, IC<sub>50</sub> = 10.5 $\mu$ g/mL)<sup>[3866]</sup>; antibacterial (*Staphylococcus aureus*, 20 $\mu$ g/disk, DIZ = 10.0mm; *Escherichia coli*, 20 $\mu$ g/disk, inactive; *Vibrio anguillarum*, 20 $\mu$ g/disk, inactive)<sup>[3866]</sup>; antifungal inactive (*Candida tropicalis*, 20 $\mu$ g/disk)<sup>[3866]</sup>. **Source:** HAI TANG GUO *Calophyllum inophyllum* (root cortex and nut). **Ref:** 3866, 4354.

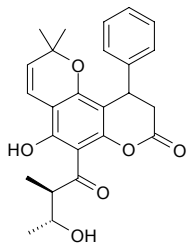


**2992 Calopolyanolid A**

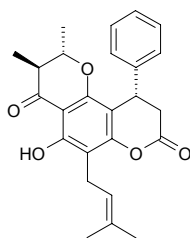
6,6-Dimethyl-12 $\alpha$ -(2 $\alpha$ ,3 $\alpha$ -H)-12 $\alpha$ -(2-methyl-3-hydroxybutanoyl)-8b-hydroxy-4-phenyl-pyranodihydrocoumarin C<sub>25</sub>H<sub>26</sub>O<sub>6</sub> (422.48). Yellow oil,  $[\alpha]_D^{26} = -176.54^\circ$  ( $c = 0.21$ , CHCl<sub>3</sub>);  $[\alpha]_D^{20} = -170.2^\circ$  ( $c = 0.213$ , CHCl<sub>3</sub>). Source: DIAN NAN HONG HOU KE *Calophyllum polyanthum* (seed: yield =0.0044%dw)<sup>[4767]</sup>. Ref: 2145, 4767.

**2993 Calopolyanolid B**

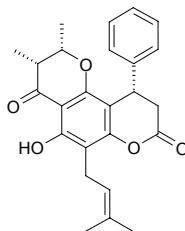
6,6-Dimethyl-12 $\alpha$ -(2 $\alpha$ ,3 $\beta$ -H)-12 $\alpha$ -(2-methyl-3-hydroxybutanoyl)-8b-hydroxy-4-phenyl-pyranodihydrocoumarin C<sub>25</sub>H<sub>26</sub>O<sub>6</sub> (422.48). Yellow oil,  $[\alpha]_D^{26} = -9.960^\circ$  ( $c = 0.23$ , CHCl<sub>3</sub>);  $[\alpha]_D^{20} = -105.5^\circ$  ( $c = 0.241$ , CHCl<sub>3</sub>). Source: DIAN NAN HONG HOU KE *Calophyllum polyanthum* (seed: yield =0.0040%dw)<sup>[4767]</sup>. Ref: 2145, 4767.

**2994 Calopolyanolid C**

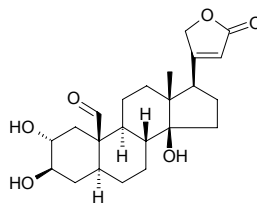
C<sub>25</sub>H<sub>26</sub>O<sub>5</sub> (406.48). Pale yellow needles (CHCl<sub>3</sub>), mp 127~128°C,  $[\alpha]_D^{20} = -193.2^\circ$  ( $c = 0.132$ , CHCl<sub>3</sub>). Pharm: Antiviral inactive (*in vitro*, vero cell line, HSV-2 virus, GI<sub>50</sub> > 250µg/mL; control Acyclovir)<sup>[4767]</sup>. Source: DIAN NAN HONG HOU KE *Calophyllum polyanthum* (seed: yield =0.0062%dw). Ref: 4767.

**2995 Calopolyanolid D**

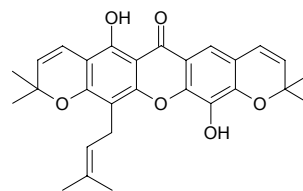
C<sub>25</sub>H<sub>26</sub>O<sub>5</sub> (406.48). Pale yellow needles (CHCl<sub>3</sub>), mp 157~158°C,  $[\alpha]_D^{20} = -34.1^\circ$  ( $c = 0.132$ , CHCl<sub>3</sub>). Pharm: Antiviral inactive (*in vitro*, vero cell line, HSV-2 virus, GI<sub>50</sub> > 250µg/mL; control Acyclovir)<sup>[4767]</sup>. Source: DIAN NAN HONG HOU KE *Calophyllum polyanthum* (seed: yield =0.0056%dw). Ref: 4767.

**2996 Calotropagenin**

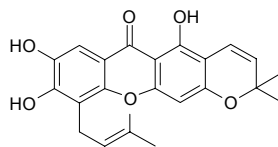
[24211-64-1] C<sub>23</sub>H<sub>32</sub>O<sub>6</sub> (404.51). mp 238~250°C. Source: LIAN SHENG GUI ZI HUA *Asclepias curassavica*. Ref: 6.

**2997 Caloxanthone**

C<sub>28</sub>H<sub>28</sub>O<sub>6</sub> (460.53). Source: *Calophyllum blancoi* (root). Ref: 4441.

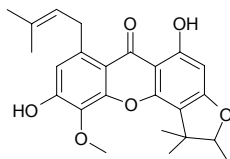
**2998 Caloxanthone A**

C<sub>23</sub>H<sub>22</sub>O<sub>6</sub> (394.43). Pharm: Cytotoxic (KB, IC<sub>50</sub> = 7.4µg/mL)<sup>[3866]</sup>; antibacterial (*Staphylococcus aureus*, 20µg/disk, DIZ = 9.0mm; *Escherichia coli*, 20µg/disk, inactive; *Vibrio anguillarum*, 20µg/disk, inactive)<sup>[3866]</sup>; antifungal inactive (*Candida tropicalis*, 20µg/disk)<sup>[3866]</sup>. Source: HAI TANG GUO *Calophyllum inophyllum* (root cortex and nut). Ref: 3866.

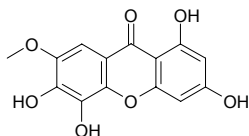


**2999 Caloxanthone B**

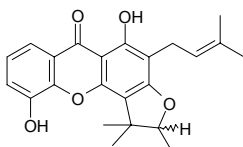
$C_{24}H_{26}O_6$  (410.47). Source: HAI TANG GUO *Calophyllum inophyllum* (root cortex and nut). Ref: 3866.

**3000 Caloxanthone E**

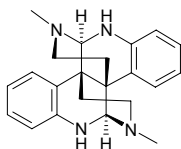
$C_{14}H_{10}O_7$  (290.23). Pharm: Anti-hypotension (PAF-induced,  $ID_{50}$  =  $(26.4 \pm 9.0) \mu\text{mol/kg}$ , control Ginkgolide B,  $ID_{50}$  =  $(38.5 \pm 2.7) \mu\text{mol/kg}$ , CV-3988,  $ID_{50}$  =  $(2.4 \pm 1.2) \mu\text{mol/kg}$ ). Source: HAI TANG GUO *Calophyllum inophyllum* (root). Ref: 5050.

**3001 Caloxanthone L**

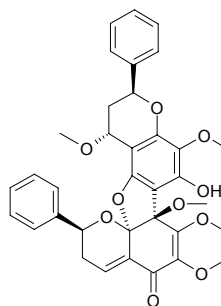
$C_{23}H_{24}O_5$  (380.44). Amorphous solid,  $[\alpha]_D^{25}$  =  $+6.6^\circ$  ( $c$  = 0.15, MeOH). Source: SU GE LAN HU TONG *Calophyllum caledonicum* (seed). Ref: 5489.

**3002 Calycanthine**

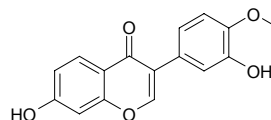
[595-05-1]  $C_{22}H_{26}N_4$  (346.48). mp (+) 250~251°C, ( $\pm$ ) 253~258°C. Pharm: Causes strong convulsion (mammal); inhibits heart (anesthetic cat and dog); antihypertensive (narcosis cat and dog); uterine and intestinal smooth muscle stimulant (rbt, *in vitro*);  $LD_{50}$  (mus, iv) =  $(43.79 \pm 1.89) \text{mg/kg}$ , (rat, iv) =  $(17.16 \pm 0.82) \text{mg/kg}$ . Source: MEI GUO XIA LA MEI *Calycanthus floridus*, LA MEI HUA *Chimonanthus fragrans* [Syn. *Chimonanthus praecox*], JIA ZHOU XIA LA MEI *Calycanthus occidentalis*. Ref: 1, 6.

**3003 Calycopterone**

$C_{35}H_{34}O_{10}$  (614.66). Colorless prisms, mp 117°C. Source: E CHI TENG *Calycopteris floribunda* (green part). Ref: 3779.

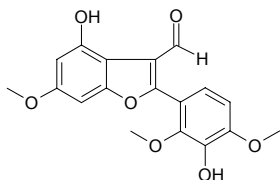
**3004 Calycosin**

7,3'-Dihydroxy-4'-methoxyisoflavone [20575-57-9]  $C_{16}H_{12}O_5$  (284.27). Colorless needles, mp 245~247°C. Pharm: Antibacterial (*Escherichia coli*, inactive, control Chloramphenicol, MIA = 0.001  $\mu\text{g}$ ; *Bacillus subtilis*, inactive, Chloramphenicol, MIA = 0.001  $\mu\text{g}$ ; *Staphylococcus aureus*, inactive, Chloramphenicol, MIA = 0.001  $\mu\text{g}$ ); antifungal (*Candida mycoderma*, MIA = 0.1  $\mu\text{g}$ , Miconazole = MIA = 0.0001  $\mu\text{g}$ )<sup>[3785]</sup>; antioxidant (DPPH free radical scavenger, TLC detection limit = 0.5  $\mu\text{g}$ ,  $IC_{50}$  = 150  $\mu\text{g/mL}$ ; control Quercetin, TLC detection limit < 0.05  $\mu\text{g}$ ,  $IC_{50}$  = 7  $\mu\text{g/mL}$ ; Gallic acid, TLC detection limit < 0.05  $\mu\text{g}$ ,  $IC_{50}$  = 4  $\mu\text{g/mL}$ ; Ascorbic acid, TLC detection limit < 0.10  $\mu\text{g}$ ,  $IC_{50}$  = 18  $\mu\text{g/mL}$ )<sup>[3785]</sup>; antimalarial (*Plasmodium falciparum* PoW,  $IC_{50}$  =  $(4.3 \pm 0.9) \mu\text{g/mL}$ , control Chloroquine diphosphate,  $IC_{50}$  =  $(0.006 \pm 0.002) \mu\text{g/mL}$ ; Dd2,  $IC_{50}$  =  $(9.9 \pm 1.5) \mu\text{g/mL}$ , Chloroquine diphosphate,  $IC_{50}$  =  $(0.063 \pm 0.01) \mu\text{g/mL}$ )<sup>[5208]</sup>; antibacterial (*Staphylococcus aureus*, MIA = 50.0  $\mu\text{g}$ , Chloramphenicol, MIA = 0.0001  $\mu\text{g}$ ; *Bacillus subtilis*, MIA = 50.0  $\mu\text{g}$ , Chloramphenicol, MIA = 0.0001  $\mu\text{g}$ )<sup>[5247]</sup>; antifungal (*Candida mycoderma*, MIA = 0.05  $\mu\text{g}$ , control Miconazole, MIA = 0.0001  $\mu\text{g}$ )<sup>[5247]</sup>; hepatoprotective (mus primary cultured hepatocytes, antihepatotoxin induced by *D*-galactosamine (GalN), 100  $\mu\text{mol/L}$ , InRt =  $(6.3 \pm 1.1)\%$ , inactive, control Silybin, 100  $\mu\text{mol/L}$ , InRt =  $(77.0 \pm 5.5)\%$ )<sup>[4095]</sup>. Source: GUANG BU DING GONG TENG *Erycibe expansa*, HUANG QI *Astragalus membranaceus* (dried root: mean content of 2 origins = 0.0061%)<sup>[5508]</sup>, JI KUAN CI TONG *Erythrina latissima* (stem wood), KUN MING JI XUE TENG *Milletia dielsiana*, MENG GU HUANG QI *Astragalus mongholicus* (dried root: mean content of 4 origins = 0.0153%)<sup>[5508]</sup>, WU CI KE YA SHU *Andira inermis* (leaf), *Bolusanthus speciosus* (root wood), *Baptisia* spp., *Bowdichia* spp., *Cadia* spp., *Cladrastis* spp., *Dalbergia* spp., *Pterocarpus* spp., *Sophora* spp., *Thermopsis* spp., *Trifolium* spp., *Myroxylon* spp., *Cyclobium* spp., *Machaerium* spp., occurs in many plants. Ref: 2205, 1521, 3785, 4095, 5208, 5247, 5508.

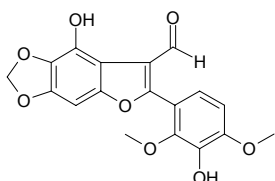


**3005 Calycosin A**

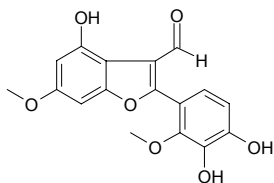
2-[2',4'-Dimethoxy-3'-hydroxyphenyl]-4-hydroxy-6-methoxy-benzofuran-3-carbaldehyde C<sub>18</sub>H<sub>16</sub>O<sub>7</sub> (344.32). **Pharm:** Antimalarial (*Plasmodium falciparum* PoW, IC<sub>50</sub> = (2.3±0.4)μg/mL, control Chloroquine diphosphate, IC<sub>50</sub> = (0.006±0.002)μg/mL; Dd2, IC<sub>50</sub> = (3.9±0.2)μg/mL, Chloroquine diphosphate, IC<sub>50</sub> = (0.063±0.010)μg/mL). **Source:** WU CI KE YA SHU *Andira inermis* (leaf). **Ref:** 5208.

**3006 Calycosin B**

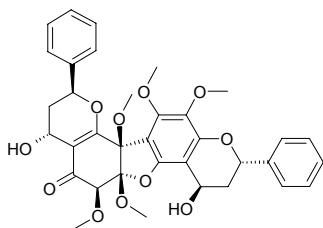
2-[2',4'-Dimethoxy-3'-hydroxyphenyl]-4-hydroxy-5,6-methylenedioxybenzofuran-3-carbaldehyde C<sub>18</sub>H<sub>14</sub>O<sub>8</sub> (358.31). **Source:** WU CI KE YA SHU *Andira inermis* (leaf). **Ref:** 5208.

**3007 Calycosin C**

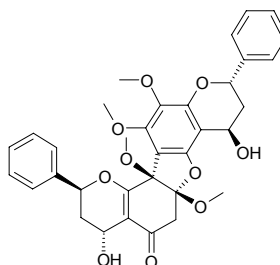
2-[3',4'-Dihydroxy-2'-methoxyphenyl]-4-hydroxy-6-methoxy-benzofuran-3-carbaldehyde C<sub>17</sub>H<sub>14</sub>O<sub>7</sub> (330.30). **Pharm:** Antimalarial (*Plasmodium falciparum* PoW, IC<sub>50</sub> = (5.9±0.5)μg/mL, control Chloroquine diphosphate, IC<sub>50</sub> = (0.006±0.002)μg/mL; Dd2, IC<sub>50</sub> = (6.3±1.0)μg/mL, Chloroquine diphosphate, IC<sub>50</sub> = (0.063±0.010)μg/mL). **Source:** WU CI KE YA SHU *Andira inermis* (leaf). **Ref:** 5208.

**3008 Calyflorenone C**

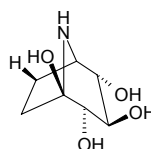
C<sub>35</sub>H<sub>36</sub>O<sub>11</sub> (632.67). Pale amorphous solid, mp 185°C (Et<sub>2</sub>O-petrol), [α]<sub>D</sub><sup>20</sup> = -17.09° (c = 0.158). **Source:** E CHI TENG *Calycopteris floribunda* (green part). **Ref:** 3779.

**3009 Calyflorenone D**

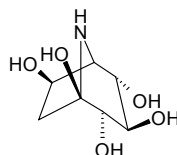
C<sub>34</sub>H<sub>34</sub>O<sub>10</sub> (602.64). Pale amorphous solid, mp 108-114°C (Et<sub>2</sub>O-petrol), [α]<sub>D</sub><sup>20</sup> = -27.47° (c = 0.142). **Source:** E CHI TENG *Calycopteris floribunda* (green part). **Ref:** 3779.

**3010 Calystegine B<sub>2</sub>**

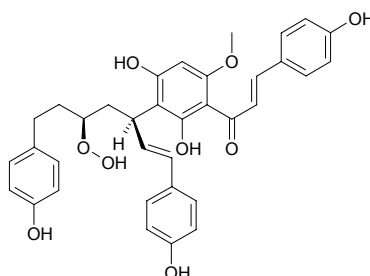
Nortropanoline C<sub>7</sub>H<sub>13</sub>NO<sub>4</sub> (175.19). **Pharm:** Lactase inhibitor (trehalase inhibitor)<sup>[2513]</sup>. **Source:** SANG ZHI *Morus alba*, *Morus* sp. **Ref:** 2170, 2513.

**3011 Calystegine C<sub>1</sub>**

C<sub>7</sub>H<sub>13</sub>NO<sub>5</sub> (191.19). **Pharm:** Lactase inhibitor (trehalase inhibitor)<sup>[2513]</sup>. **Source:** *Morus* sp. **Ref:** 2513.

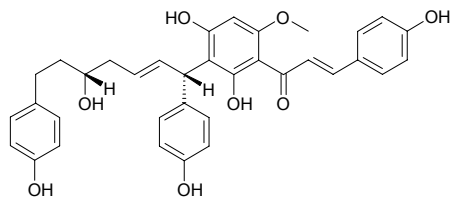
**3012 Calyxin A**

C<sub>35</sub>H<sub>34</sub>O<sub>9</sub> (598.66). **Pharm:** Cytotoxic (Colon26-L5, ED<sub>50</sub> = 13.1 μmol/L; HT1080, ED<sub>50</sub> = 10.7 μmol/L; control Curcumin, Colon26-L5, ED<sub>50</sub> = 23.2 μmol/L; HT1080, ED<sub>50</sub> = 23.4 μmol/L). **Source:** YUN NAN CAO KOU *Alpinia blepharocalyx* (seed: yield = 0.00033%). **Ref:** 3035.

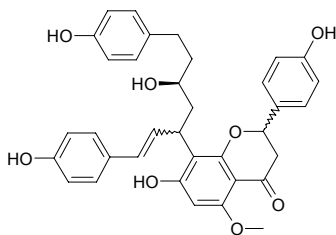


**3013 Calyxin B**

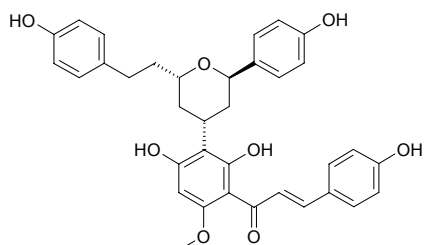
$C_{35}H_{34}O_8$  (582.66). Source: ZHU SUI SHAN JIANG *Alpinia pinnanensis* (rhizome). Ref: 4522.

**3014 Calyxin E**

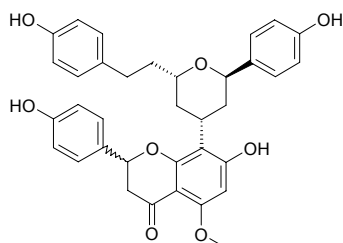
$C_{35}H_{34}O_8$  (582.66). Pharm: Cytotoxic (Colon26-L5,  $ED_{50} = 98.1 \mu\text{mol/L}$ ; HT1080,  $ED_{50} = 21.7 \mu\text{mol/L}$ ; control Curcumin, Colon26-L5,  $ED_{50} = 23.2 \mu\text{mol/L}$ ; HT1080,  $ED_{50} = 23.4 \mu\text{mol/L}$ ). Source: YUN NAN CAO KOU *Alpinia blepharocalyx* (seed: yield = 0.00019%). Ref: 3035.

**3015 Calyxin F**

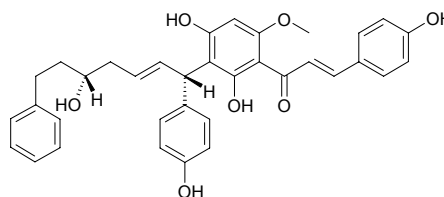
$C_{35}H_{34}O_8$  (582.66). Pharm: Cytotoxic (Colon26-L5,  $ED_{50} = 10.4 \mu\text{mol/L}$ ; HT1080,  $ED_{50} = 10.4 \mu\text{mol/L}$ ; control Curcumin, Colon26-L5,  $ED_{50} = 23.2 \mu\text{mol/L}$ ; HT1080,  $ED_{50} = 23.4 \mu\text{mol/L}$ ). Source: YUN NAN CAO KOU *Alpinia blepharocalyx* (seed: yield = 0.000024%). Ref: 3035.

**3016 Calyxin G**

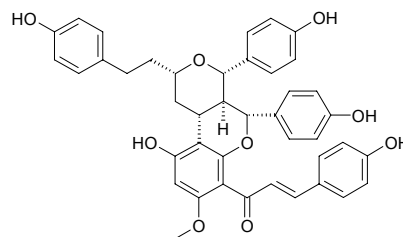
$C_{35}H_{34}O_8$  (582.66). Pharm: Cytotoxic (Colon26-L5,  $ED_{50} = 42.2 \mu\text{mol/L}$ ; HT1080,  $ED_{50} = 25.9 \mu\text{mol/L}$ ; control Curcumin, Colon26-L5,  $ED_{50} = 23.2 \mu\text{mol/L}$ ; HT1080,  $ED_{50} = 23.4 \mu\text{mol/L}$ ). Source: YUN NAN CAO KOU *Alpinia blepharocalyx* (seed: yield = 0.000012%). Ref: 3035.

**3017 Calyxin H**

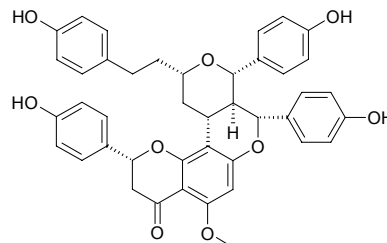
$C_{33}H_{34}O_7$  (566.66). Source: ZHU SUI SHAN JIANG *Alpinia pinnanensis* (rhizome). Ref: 4522.

**3018 Calyxin I**

$C_{42}H_{38}O_9$  (686.77). Light yellow amorphous solid,  $[\alpha]_D^{25} = -16.4^\circ$  ( $c = 0.05$ , MeOH). Pharm: Cytotoxic (Colon26-L5,  $ED_{50} = 8.39 \mu\text{mol/L}$ ; HT1080,  $ED_{50} = 9.08 \mu\text{mol/L}$ ; control Curcumin, Colon26-L5,  $ED_{50} = 23.2 \mu\text{mol/L}$ ; HT1080,  $ED_{50} = 23.4 \mu\text{mol/L}$ )<sup>[3035]</sup>. Source: YUN NAN CAO KOU *Alpinia blepharocalyx* (seed: yield = 0.00026%<sup>[3035]</sup>; yield = 0.00021%<sup>[3042]</sup>; yield = 0.00019%<sup>[3048]</sup>). Ref: 3035, 3042, 3048.

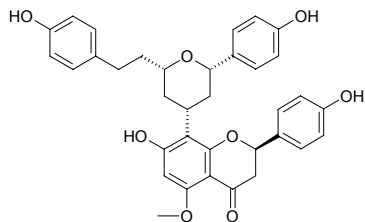
**3019 Calyxin J**

$C_{42}H_{38}O_9$  (686.77). Light yellow amorphous solid,  $[\alpha]_D^{25} = +99.2^\circ$  ( $c = 0.185$ , MeOH). Pharm: Cytotoxic (Colon26-L5,  $ED_{50} = 23.2 \mu\text{mol/L}$ ; HT1080,  $ED_{50} = 8.19 \mu\text{mol/L}$ ; control Curcumin, Colon26-L5,  $ED_{50} = 23.2 \mu\text{mol/L}$ ; HT1080,  $ED_{50} = 23.4 \mu\text{mol/L}$ )<sup>[3035]</sup>. Source: YUN NAN CAO KOU *Alpinia blepharocalyx* (seed: yield = 0.00018%<sup>[3035]</sup>; yield = 0.00085%<sup>[3042]</sup>; yield = 0.00018%<sup>[3048]</sup>). Ref: 3035, 3042, 3048.

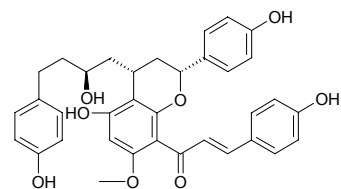


**3020 Calyxin K**

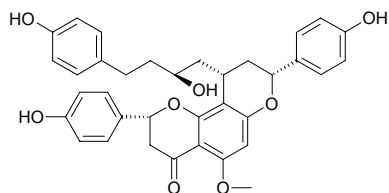
$C_{35}H_{34}O_8$  (582.66). Pale yellow amorphous solid,  $[\alpha]_D^{25} = +35.5^\circ$  ( $c = 0.06$ , MeOH). **Pharm:** Cytotoxic (Colon26-L5,  $ED_{50} = 7.73\mu\text{mol/L}$ ; HT1080,  $ED_{50} = 5.09\mu\text{mol/L}$ ; control Curcumin, Colon26-L5,  $ED_{50} = 23.2\mu\text{mol/L}$ ; HT1080,  $ED_{50} = 23.4\mu\text{mol/L}$ ). **Source:** YUN NAN CAO KOU *Alpinia blepharocalyx* (seed: yield = 0.000012%). **Ref:** 3035.

**3021 Calyxin L**

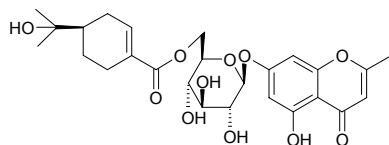
$C_{35}H_{34}O_8$  (582.66). Light yellow amorphous solid,  $[\alpha]_D^{25} = +77.1^\circ$  ( $c = 0.05$ , MeOH). **Pharm:** Cytotoxic (Colon26-L5,  $ED_{50} = 28.2\mu\text{mol/L}$ ; HT1080,  $ED_{50} = 44.3\mu\text{mol/L}$ ; control Curcumin, Colon26-L5,  $ED_{50} = 23.2\mu\text{mol/L}$ ; HT1080,  $ED_{50} = 23.4\mu\text{mol/L}$ )<sup>[3035]</sup>. **Source:** YUN NAN CAO KOU *Alpinia blepharocalyx* (seed: yield = 0.00011%<sup>[3035]</sup>; yield = 0.00029%<sup>[3042]</sup>; yield = 0.00011%dw<sup>[3048]</sup>). **Ref:** 3035, 3042, 3048.

**3022 Calyxin M**

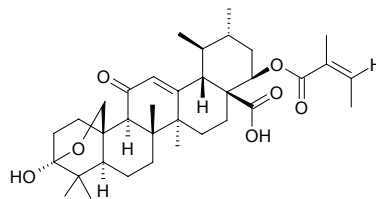
$C_{35}H_{34}O_8$  (582.66). Yellow amorphous solid (An epimeric mixture of calyxin M and epicalyxin M). **Pharm:** Cytotoxic (mixture of calyxin M and epicalyxin M (3:2): Colon26-L5,  $ED_{50} = 42.1\mu\text{mol/L}$ ; HT1080,  $ED_{50} = 10.1\mu\text{mol/L}$ ; control Curcumin, Colon26-L5,  $ED_{50} = 23.2\mu\text{mol/L}$ ; HT1080,  $ED_{50} = 23.4\mu\text{mol/L}$ ). **Source:** YUN NAN CAO KOU *Alpinia blepharocalyx* (seed). **Ref:** 3035.

**3023 Camaldulenside**

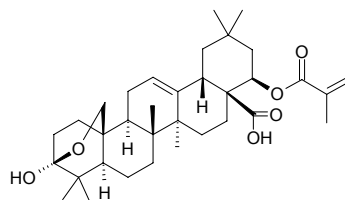
$C_{26}H_{32}O_{11}$  (520.54). White acicular crystals mp 208–209.5°C. **Source:** CHUI ZHI CHIAN YE *Eucalyptus camaldulensis* var. *pendula*. **Ref:** 856.

**3024 Camangeloyl acid**

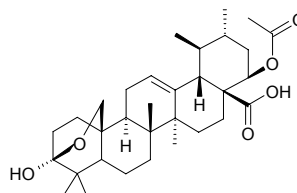
3,25-epoxy-3 $\alpha$ -hydroxy-22 $\beta$ -[(Z)-29-methyl-29-butenoyloxy]-11-oxoolean-12-en-28-oic acid  $C_{35}H_{50}O_7$  (582.78). Amorphous powder,  $[\alpha]_D = +165^\circ$  ( $c = 0.15$ ,  $CHCl_3$ ). **Source:** WU SE MEI *Lantana camara* (aerial parts). **Ref:** 4309.

**3025 Camaric acid**

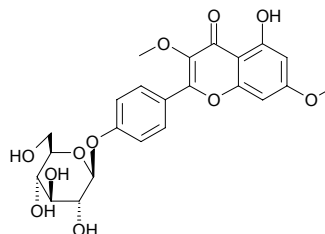
$C_{35}H_{52}O_6$  (568.80). **Source:** WU SE MEI *Lantana camara* (aerial parts). **Ref:** 4309.

**3026 Camarinic acid**

22 $\beta$ -Acetoxylantic acid [163565-67-1]  $C_{32}H_{48}O_6$  (528.74). Crystals, mp 204–205°C (methanol). **Pharm:** Antibacterial (*Staphylococcus aureus* and *Salmonella typhimurium*); antimutagenic. **Source:** WU SE MEI *Lantana camara*. **Ref:** 1084, 1100.

**3027 Camaroside**

4',5-Dihydroxy-3,7-dimethoxyflavone-4'-O- $\beta$ -D-glucopyranoside  $C_{23}H_{24}O_{11}$  (476.44). Yellowish rabdiod crystals, mp 252–254°C. **Source:** WU SE MEI *Lantana camara*. **Ref:** 253.

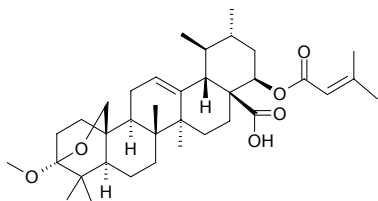




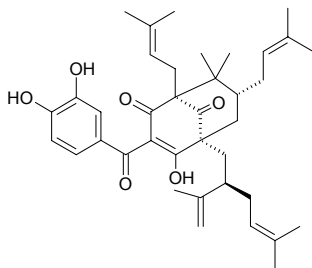
**3028 Camaryolic acid**

3,25-Epoxy-3 $\alpha$ -methoxy-22 $\beta$ -[ $\beta$ , $\beta$ -dimethylacryloyloxy]-urs-12-en-28-oic acid C<sub>36</sub>H<sub>54</sub>O<sub>6</sub> (582.83). Amorphous powder, [ $\alpha$ ]<sub>D</sub> = +169° (*c* = 0.1, CHCl<sub>3</sub>).

Source: WU SE MEI *Lantana camara* (aerial parts). Ref: 4309.

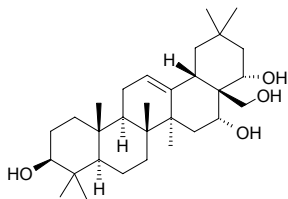
**3029 Cambogin**

C<sub>38</sub>H<sub>50</sub>O<sub>6</sub> (606.82). Pharm: Antioxidant (DPPH scavenger, 10 $\mu$ mol/L, ScRt = 69%, control BHT, 10 $\mu$ mol/L, ScRt = 43%); antibacterial (*Staphylococcus aureus* ATCC 25923, MIC = 128 $\mu$ g/mL, control Vancomycin, MIC = 2 $\mu$ g/mL; *Staphylococcus aureus* MRSA SK1, MIC = 64 $\mu$ g/mL, Vancomycin, MIC = 2 $\mu$ g/mL). Source: TIAN SHAN ZHU ZI *Garcinia dulcis* (fruit). Ref: 5319.

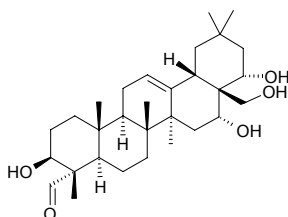
**3030 Camelliagenin A**

Theasapogenol D [53227-91-1] C<sub>30</sub>H<sub>50</sub>O<sub>4</sub> (474.73). mp 282–283°C, 290–293°C. Source: CHA ZI XIN *Camellia oleifera*, ZHEN ZHU CAI

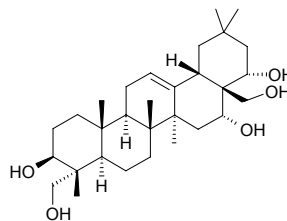
*Lysimachia clethroides*. Ref: 6.

**3031 Camelliagenin B**

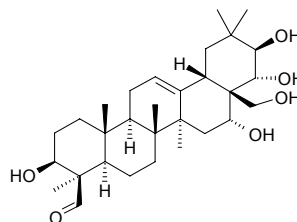
[14511-74-1] C<sub>30</sub>H<sub>48</sub>O<sub>5</sub> (488.71). mp 200–205°C, 195–204°C. Source: CHA ZI XIN *Camellia oleifera*. Ref: 6.

**3032 Camelliagenin C**

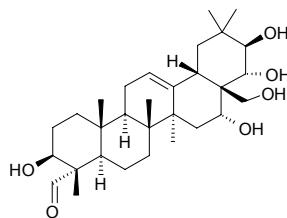
Theasapogenol C [14440-27-8] C<sub>30</sub>H<sub>50</sub>O<sub>5</sub> (490.73). mp 262–263°C, 280–283°C. Source: CHA ZI XIN *Camellia oleifera*, ZHEN ZHU CAI *Lysimachia clethroides*. Ref: 6.

**3033 Camelliagenin D**

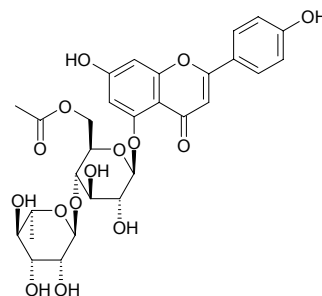
[25122-87-6] C<sub>30</sub>H<sub>48</sub>O<sub>6</sub> (504.71). mp 250–258°C. Source: CHA ZI XIN *Camellia oleifera*, ZHEN ZHU CAI *Lysimachia clethroides*. Ref: 6.

**3034 Camelliagenin E**

Theasapogenol E [15399-41-4] C<sub>30</sub>H<sub>48</sub>O<sub>6</sub> (504.71). mp 237.5–239°C. Source: CHA ZI XIN *Camellia oleifera*, ZHEN ZHU CAI *Lysimachia clethroides*. Ref: 6.

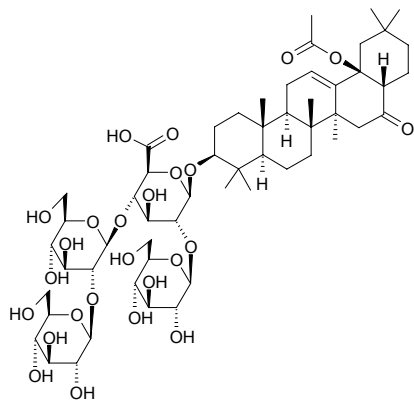
**3035 Camellianin A**

Apigenin-5-*O*- $\alpha$ -L-rhamnosyl-(1 $\rightarrow$ 4)-6''-acetyl- $\beta$ -D-glucoside C<sub>29</sub>H<sub>32</sub>O<sub>15</sub> (620.57). Colorless acicular crystals (methanol), mp 196–197°C. Source: CHA YE *Camellia sinensis* [Syn. *Thea sinensis*]. Ref: 636.

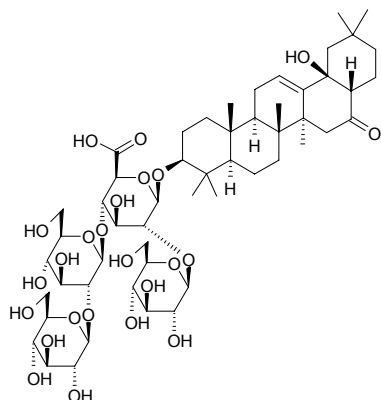


**3036 Camellidin I**

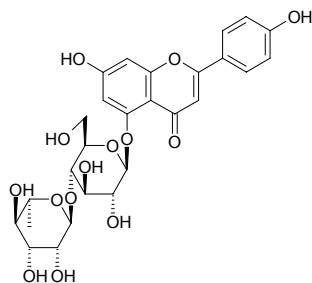
[96827-22-4] C<sub>55</sub>H<sub>86</sub>O<sub>25</sub> (1147.28). **Pharm:** Antifungal. **Source:** SHAN CHA *Camellia japonica*. **Ref:** 658.

**3037 Camellidin II**

[96827-23-5] C<sub>53</sub>H<sub>84</sub>O<sub>24</sub> (1105.25). **Pharm:** Antifungal; insect antifeedant (larva of *Eurema hecabe manarina*). **Source:** SHAN CHA *Camellia japonica*. **Ref:** 658.

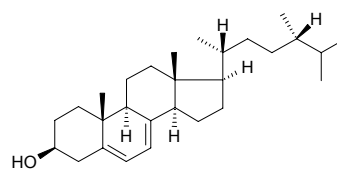
**3038 Camellinanin B**

C<sub>27</sub>H<sub>30</sub>O<sub>14</sub> (578.53). **Source:** CHA YE *Camellia sinensis* [Syn. *Thea sinensis*]. **Ref:** 660, 1521.

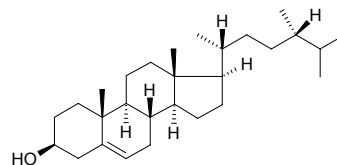
**3039 4<sup>7</sup>-Campesterol‡**

22,23-Dihydroergosterol [516-79-0] C<sub>28</sub>H<sub>46</sub>O (398.68). mp 152–153°C.

**Source:** CHA YE *Camellia sinensis* [Syn. *Thea sinensis*], GUA LOU *Trichosanthes kirilowii*, MU ER *Auricularia auricula*. **Ref:** 2, 6. ‡Note: See compound 14229.

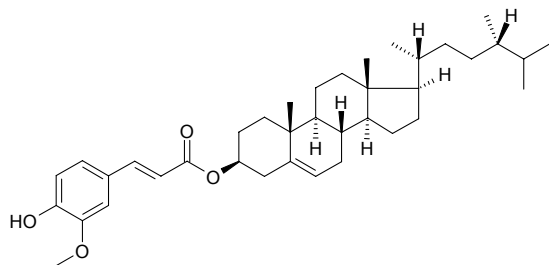
**3040 Campesterol**

(24*S*)-Methylcholest-5-en-3β-ol [474-62-4] C<sub>28</sub>H<sub>48</sub>O (400.69). Needles (Me<sub>2</sub>CO), mp 157–158°C, [α]<sub>D</sub><sup>24</sup> = –46.3° (c = 1.2, CHCl<sub>3</sub>). **Pharm:** One of components of plant epicyte. **Source:** BAI FAN DOU *Phaseolus vulgaris*, BAI XIAN PI *Dictamnus dasycarpus*, CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus*, CU LIU GUO *Hippophae rhamnoides*, DA CHE QIAN *Plantago major*, DONG FANG GOU JI *Woodwardia orientalis*, GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *Huechingensis*], GAN ZHE *Saccharum sinensis*, GOU QI ZI *Lycium chinense*, GU SUI BU *Drynaria fortunei*, GUA LOU *Trichosanthes kirilowii*, HEI DA DOU *Glycine max*, HUANG BAI *Phellodendron amurense*, HUANG QIN *Scutellaria baicalensis*, JIAN ZI SU YE *Perilla frutescens* var. *acuta* [Syn. *Perilla frutescens* var. *purpurascens*], JING MI *Oryza sativa*, LU HUI *Aloe vera* [Syn. *Aloe barbadensis*], LU ZHU GEN *Arundo donax*, LUO HUA SHENG *Arachis hypogaea*, MU MA HUANG *Casuarina equisetifolia*, PU DI WU GONG *Lycopodium cernuum*, REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], SAN ZUAN FENG *Lindera obtusiloba*, SANG YE *Morus alba*, SHAN YAO *Dioscorea batatas* [Syn. *Dioscorea opposita*], WU GENG WU JIA PI *Acanthopanax sessiliflorus*, XIANG PI MU *Alstonia scholaris*, XIANG SI ZI *Abrus precatorius*, YUN TAI ZI *Brassica campestris* [Syn. *Brassica campestris* var. *oleifera*], OU ZHOU YOU CAI *Brassica napus*, ZHU YE LAN *Arundina chinensis*, occurs in many plants. **Ref:** 2, 658, 660, 1399, 1419.

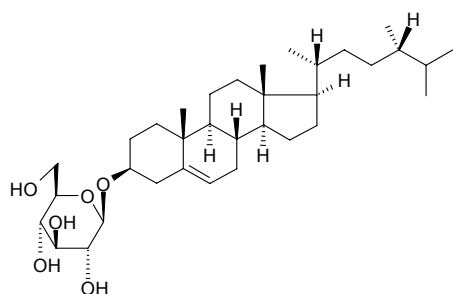


**3041 Campesteryl ferulate**

$C_{38}H_{56}O_4$  (576.87). Source: MI PI KANG *Oryza sativa*. Ref: 6.

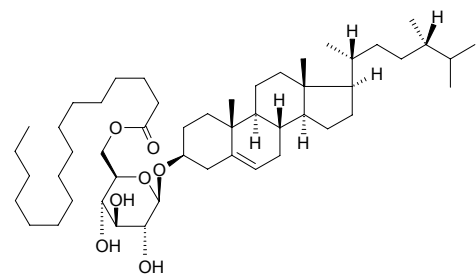
**3042 Campesteryl-D-glucoside**

$C_{34}H_{58}O_6$  (562.84). Source: DONG FANG GOU JI *Woodwardia orientalis*, HUANG HUA BAI JIANG *Patrinia scabiosaefolia*. Ref: 6, 660.

**3043 Campesteryl-D-glucoside-6'-palmitate**

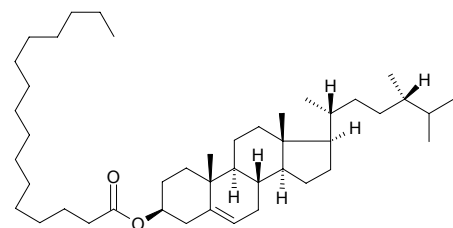
$C_{50}H_{88}O_7$  (801.25). Source: DONG FANG GOU JI *Woodwardia orientalis*.

Ref: 6.

**3044 Campesteryl palmitate**

$C_{44}H_{78}O_2$  (639.11). Source: DONG FANG GOU JI *Woodwardia orientalis*.

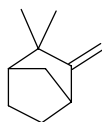
Ref: 6.

**3045 Camphene**

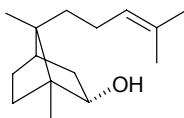
2,2-Dimethyl-3-methylenebicyclo[2,2,1]heptane [79-92-5]  $C_{10}H_{16}$  (136.24).

mp (+) 51°C, bp (+) 160~162°C, mp (-) 51~52°C, bp (-) 158~160°C.

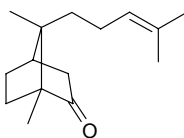
Pharm: Antihypercholesterolemic (reduces saturation indices of cholesterol in curing calculus). Source: BO HE *Mentha haplocalyx* [Syn. *Mentha canadaensis*; *Mentha arvensis* var. *haplocalyx*; *Mentha arvensis*], DAN YE MAN JING ZI *Vitex rotundifolia* [Syn. *Vitex trifolia* var. *simplicifolia*], DANG GUI *Angelica sinensis*, GAN JIANG *Zingiber officinale*, HONG CHAI HU *Bupleurum scorzonerifolium*, HUANG HUA HAO *Artemisia annua*, HUI HUI SU GENG *Perilla frutescens* var. *crispa*, JIAN ZI SU YE *Perilla frutescens* var. *acuta* [Syn. *Perilla frutescens* var. *purpurascens*], JING JIE *Schizonepeta tenuifolia* [Syn. *Nepeta tenuifolia*], KUAN YE QIANG HUO *Notopterygium forbesii* [Syn. *Notopterygium franchetii*], KUO YE XIE CAO *Valeriana officinalis* var. *latifolia*, LIAN QIAO *Forsythia suspensa*, LIAO XI XIN *Asarum heterotropoides* var. *mandshuricum*, MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*], NAN HE SHI *Daucus carota*, PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*], SHENG JIANG *Zingiber officinale*, WU WEI ZI *Schisandra chinensis*, XI XIN *Asarum sieboldii*, XIE CAO *Valeriana officinalis* (the compound was isolated from the plant by Bertram, et al. in 1890)<sup>[5505]</sup>, YU JIN *Curcuma aromatica*, YU XING CAO *Houttuynia cordata*, ZI SU YE *Perilla frutescens* var. *arguta*, occurs in many plants. Ref: 2, 6, 658, 660, 5505.

**3046 Camphenol**

$C_{15}H_{26}O$  (222.37). Source: LU HUI *Aloe vera* [Syn. *Aloe barbadensis*]. Ref: 2.

**3047 Camphenone**

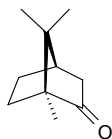
$C_{15}H_{24}O$  (220.36). Source: ZHANG MU *Cinnamomum camphora*. Ref: 6.



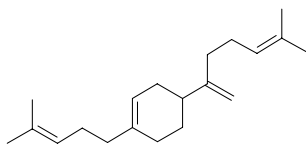
**3048 Camphor**

2-Bornanone [76-22-2] C<sub>10</sub>H<sub>16</sub>O (152.24). Rhomboid crystals (ethanol), mp (+) 179.75°C, (-) 178.6°C, bp (+) 204°C, (-) 204°C, [α]<sub>D</sub><sup>25</sup> = 41–43° (ethanol).

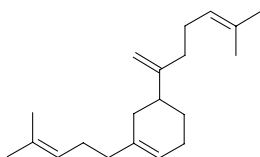
**Pharm:** Cardiotonic; irritant (local); antifungal (*Aspergillus niger* KCCM11239, MFC = 0.78mg/mL; *Aspergillus flavus* KCCM11453, MFC = 1.56mg/mL; *Candida albicans* KCCM11282, MFC > 6.25mg/mL; *Candida utilis* KCCM11356, MFC > 6.25mg/mL; *Cryptococcus neoformans* KCCM0564, MFC = 1.56mg/mL; *Trichosporon mucoides* KCCM50570, MFC = 1.56mg/mL; *Trichophyton rubrum* ATCC6345, MFC = 0.39mg/mL; *Blastoschyzomyces capitatus* KCCM50270, MFC = 0.78mg/mL)<sup>[4079]</sup>. **Source:** AI JU *Chrysanthemum vulgare*, BAI CHANG *Acorus calamus*, BING PIAN *Dryobalanops aromatica* (2.09%–2.70%), CHAO XIAN DA BAI LI XIANG *Thymus magnus*, DA LIANG JIANG *Alpinia galanga*, HU SUI ZI *Coriandrum sativum*, HUANG HUA HAO *Artemisia annua*, LIAN QIAO *Forsythia suspensa*, PI PA *Eriobotrya japonica*, SHA REN *Amomum villosum* (dried ripe fruit: content scope = 0.51%–0.59%<sup>[5501]</sup>, mean content = 0.047%<sup>[5524]</sup>), SHENG JIANG *Zingiber officinale*, TU SHA REN *Alpinia japonica*, WU MAI BAI LI XIANG *Thymus quinquecostatus*, YI ZHI HAO *Achillea alpina* [Syn. *Achillea sibirica*], YU JIN *Curcuma aromatica*, YUN XIANG YE HAO *Artemisia sativum*, ZHANG MU *Cinnamomum camphora* (content = 0.25%<sup>[5501]</sup>). **Ref:** 1, 2, 658, 660, 4079, 5501, 5524.

**3049 α-Camphorene**

[532-87-6] C<sub>20</sub>H<sub>32</sub> (272.48). bp 190–192°C/12mmHg. **Source:** ZHANG MU *Cinnamomum camphora*. **Ref:** 6.

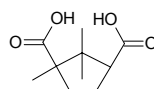
**3050 γ-Camphorene**

C<sub>20</sub>H<sub>32</sub> (272.48). bp 176–178°C/4.5mmHg. **Source:** ZHANG MU *Cinnamomum camphora*. **Ref:** 6.

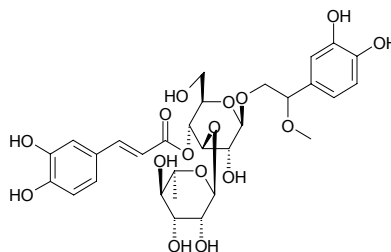
**3051 Camphoric acid**

*cis*-1,2,2-Trimethyl-1,3-cyclopentanedicarboxylic acid C<sub>10</sub>H<sub>16</sub>O<sub>4</sub> (200.24).

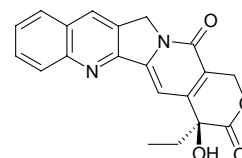
**Source:** DANG GUI *Angelica sinensis*. **Ref:** 2.

**3052 Campneoside I**

[95519-12-3] C<sub>30</sub>H<sub>38</sub>O<sub>16</sub> (654.63). Amorphous powder, [α]<sub>D</sub> = –68.2° (*c* = 0.43, methanol). **Pharm:** Antibacterial (*Streptococcus* sp. and *Staphylococcus* sp., MIC = 150μg/mL). **Source:** BAI ZHI MA *Sesamum indicum* (white seed) [Syn. *Sesamum orientale* (white seed)], HEI ZHI MA *Sesamum indicum* (black seed) [Syn. *Sesamum orientale* (black seed)], HU MA YE *Sesamum indicum*, MAO PAO TONG *Paulownia tomentosa*, PING CHE QIAN *Plantago depressa*. **Ref:** 949, 1116, 1122, 1130, 1137, 1193.

**3053 Camptothecin**

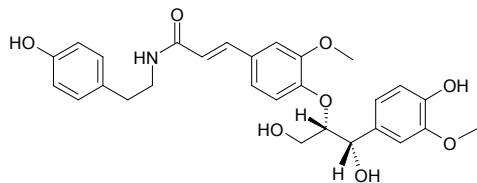
Camptothecin [7689-03-4] C<sub>20</sub>H<sub>16</sub>N<sub>2</sub>O<sub>4</sub> (348.36). mp 264–267°C (dec), [α]<sub>D</sub><sup>25</sup> = +31.3° (CHCl<sub>3</sub>-MeOH, 8:2), insoluble in water, soluble in chloroform, ethanol.<sup>[5507]</sup> **Pharm:** Cytotoxic (HeLa, IC<sub>50</sub> = 0.5μmol/mL; HL-60, IC<sub>50</sub> = 0.1μmol/mL; WI-38, IC<sub>50</sub> = 0.6μmol/mL)<sup>[3807]</sup>; cytotoxic (Bel7402, ED<sub>50</sub> = 0.06μg/mL; BGC823, ED<sub>50</sub> = 0.09μg/mL; HCT8, ED<sub>50</sub> = 0.14μg/mL; A549, ED<sub>50</sub> = 0.09μg/mL; MCF7, ED<sub>50</sub> = 0.01μg/mL)<sup>[5338]</sup>; cytotoxic (Selective DNA-damaging activity, yeast assay: RS321NpRAD52(gal), IC<sub>50</sub> = 100μg/mL; RS321NpRAD52(glu), IC<sub>50</sub> = 0.6μg/mL)<sup>[5457]</sup>; antineoplastic (mechanism-based yeast bioassay for DNA-modifying agents, mutant yeast *Saccharomyces cerevisiae* RS52YK(rad52Y), IC<sub>12</sub> = 0.6μg/mL)<sup>[5159]</sup>; antineoplastic (animal model). **Source:** LIU QIU SHE GEN CAO *Ophiorrhiza liukuensis* (whole herb), MA BI MU *Nothapodytes pittosporoides*<sup>[5507]</sup>, SHE GEN CAO *Ophiorrhiza mungos*, XI SHU *Camptotheca acuminata* (fruit: mean content collected from Sep. to Dec. = 0.137%<sup>[5508]</sup>; leaf: mean content of 5 origins = 0.072%<sup>[5508]</sup>). **Ref:** 1, 5, 6, 3807, 4527, 5159, 5338, 5457, 5507, 5508.



**3054 erythro-Canabisine H**

erythro-1-(4-Hydroxy-3-methoxyphenyl)-2-[4-{2-[N-(2-(4-hydroxyphenyl)ethyl)carbamoyl]ethenyl-2-methoxyphenoxy}] -1,3-propanodiol C<sub>28</sub>H<sub>31</sub>NO<sub>8</sub> (509.56).

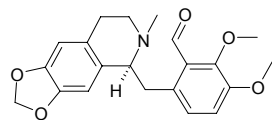
Yellowish oil. Source: DA MA JIN *Hibiscus cannabinus* (bark). Ref: 5233.

**3055 Canadoline**

C<sub>21</sub>H<sub>23</sub>NO<sub>5</sub> (369.42). mp 117~118°C, [α]<sub>D</sub><sup>20</sup> = +45.0° (c = 0.1, CHCl<sub>3</sub>). Pharm:

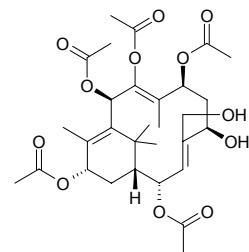
Antibacterial (oral pathogens: *Streptococcus mutans*, MIC > 250 μg/mL, control Chlorhexidine gluconate, MIC = 1.25 μg/mL; *Fusobacterium nucleatum*, MIC > 250 μg/mL, Chlorhexidine gluconate, MIC = 2.5 μg/mL).

Source: BAI MAO GEN<sup>(4)</sup> *Hydrastis canadensis* (root). Ref: 5418.

**3056 Canadensene**

[163597-19-1] C<sub>30</sub>H<sub>42</sub>O<sub>12</sub> (594.66). Source: JIA NA DA HONG DOU SHAN

*Taxus canadensis*. Ref: 662.

**3057 Canadine**

[522-97-4] C<sub>20</sub>H<sub>21</sub>NO<sub>4</sub> (339.39). mp (+) 132°C, (-) 134°C; mp 135~136°C,

[α]<sub>D</sub><sup>20</sup> = -290.0° (c = 0.2, CHCl<sub>3</sub>). Pharm: Antibacterial (oral pathogens:

*Streptococcus mutans*, MIC > 500 μg/mL, control Chlorhexidine gluconate, MIC = 1.25 μg/mL; *Fusobacterium nucleatum*, MIC > 500 μg/mL,

Chlorhexidine gluconate, MIC = 2.5 μg/mL)<sup>[5418]</sup>; antihypertensive. Source:

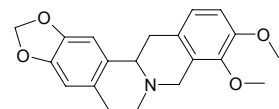
AO XIAN ZI JIN *Corydalis cava*, BAI MAO GEN<sup>(4)</sup> *Hydrastis canadensis*,

DU HUA JIAO *Zanthoxylum veneficium*, DUAN CI HUA JIAO *Zanthoxylum*

*brachyacanthum*, HUA ZI JIN *Corydalis cheilanthifolia*, YAN HU SUO

*Corydalis yanhusuo* [Syn. *Corydalis turtschaninovii* f. *Yanhusuo*], YUAN YE

SHAN WU GUI *Corydalis rotundatour*. Ref: 1, 6, 5418.

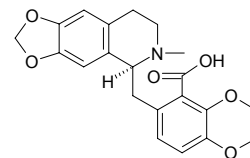
**3058 Canadinic acid**

C<sub>21</sub>H<sub>23</sub>NO<sub>6</sub> (385.42). mp 134~135°C, [α]<sub>D</sub><sup>20</sup> = -150.0° (c = 0.1, CHCl<sub>3</sub>).

Pharm: Antibacterial (oral pathogens: *Streptococcus mutans*, MIC > 300 μg/mL, control Chlorhexidine gluconate, MIC = 1.25 μg/mL;

*Fusobacterium nucleatum*, MIC > 300 μg/mL, Chlorhexidine gluconate, MIC = 2.5 μg/mL). Source: BAI MAO GEN<sup>(4)</sup> *Hydrastis canadensis* (root).

Ref: 5418.

**3059 Canaline**

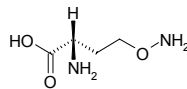
[496-93-5] C<sub>4</sub>H<sub>10</sub>N<sub>2</sub>O<sub>3</sub> (134.14). mp 214°C. Pharm: Anti-metabolism;

influences CNS in insects; pyridoxal phosphate enzyme inhibitor. Source: CI

HUAI HUA *Robinia pseudoacacia*, DAO DOU *Canavalia gladiata*, DI

YANG QUE *Lotus corniculatus*, MU XU *Medicago sativa*, YANG DAO

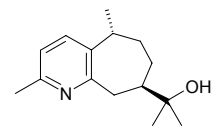
DOU *Canavalia ensiformis*. Ref: 6, 658.

**3060 Cananodine**

C<sub>15</sub>H<sub>23</sub>NO (233.36). Yellow oil, [α]<sub>D</sub><sup>25</sup> = -76.2° (c = 0.06, CHCl<sub>3</sub>). Pharm:

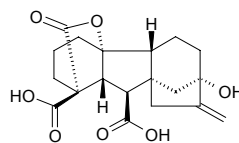
Cytotoxic (*in vitro*, HepG<sub>2</sub>, IC<sub>50</sub> = 0.22 μg/mL, Hep2,2,15, IC<sub>50</sub> = 3.8 μg/mL).

Source: YI LAN *Cananga odorata* (fruit). Ref: 3055.

**3061 Canavalia gibberellin I**

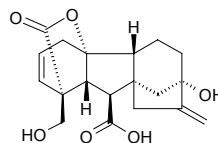
[18450-93-6] C<sub>19</sub>H<sub>22</sub>O<sub>7</sub> (362.38). mp 244~246°C. Source: DAO DOU

*Canavalia gladiata*. Ref: 6.

**3062 Canavalia gibberellin II**

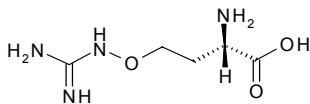
[18450-94-7] C<sub>19</sub>H<sub>22</sub>O<sub>6</sub> (346.38). mp 213~214°C. Source: DAO DOU

*Canavalia gladiata*. Ref: 6.

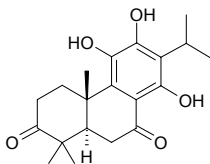


**3063 Canavanine**

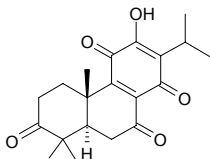
[543-38-4]  $C_5H_{12}N_4O_3$  (176.18). **Pharm:** Cytotoxic (hmn and animal, tissular culture cells); plant growth and germination inhibitor; alkaline phosphatase inhibitor (hmn placenta); supertoxic agent. **Source:** HUANG QI *Astragalus membranaceus*, YANG DAO DOU *Canavalia ensiformis*, ZI YUN YING *Astragalus sinicus*. **Ref:** 2, 658, 660.

**3064 Candelabrone**

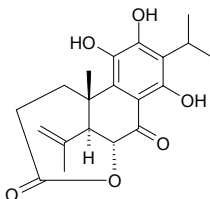
$C_{20}H_{26}O_5$  (346.43). Yellow solid,  $[\alpha]_D^{24.5} = +120^\circ$  ( $c = 0.2$ ,  $CHCl_3$ ). **Pharm:** Antioxidant (enzyme-independent lipid peroxidation,  $IC_{50} = 1.56\mu\text{mol/L}$ , Rosmarinic acid,  $IC_{50} = 4.40\mu\text{mol/L}$ ; enzyme-dependent lipid peroxidation,  $IC_{50} = 5.22\mu\text{mol/L}$ , Rosmarinic acid,  $IC_{50} = 0.39\mu\text{mol/L}$ )<sup>[5494]</sup>. **Source:** ZHU TAI SHU WEI CAO *Salvia candelabrum* (aerial parts). **Ref:** 5376, 5494.

**3065 Candelabroquinone**

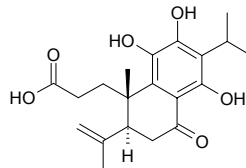
$C_{20}H_{24}O_5$  (344.41). Orange solid,  $[\alpha]_D^{24.5} = +28^\circ$  ( $c = 0.2$ ,  $CHCl_3$ ). **Pharm:** Antioxidant (enzyme-independent lipid peroxidation,  $IC_{50} = 3.49\mu\text{mol/L}$ , Rosmarinic acid,  $IC_{50} = 4.40\mu\text{mol/L}$ ; enzyme-dependent lipid peroxidation,  $IC_{50} = 3.49\mu\text{mol/L}$ , Rosmarinic acid,  $IC_{50} = 0.39\mu\text{mol/L}$ )<sup>[5494]</sup>. **Source:** ZHU TAI SHU WEI CAO *Salvia candelabrum* (aerial parts). **Ref:** 5376, 5494.

**3066 Candesalvolactone**

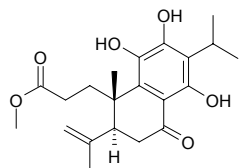
$C_{20}H_{24}O_6$  (360.41). Yellow amorphous solid,  $[\alpha]_D^{38} = +85^\circ$  ( $c = 0.1$ , MeOH). **Pharm:** Antioxidant (enzyme-independent lipid peroxidation,  $IC_{50} = 4.64\mu\text{mol/L}$ , Rosmarinic acid,  $IC_{50} = 4.40\mu\text{mol/L}$ ; enzyme-dependent lipid peroxidation,  $IC_{50} = 5.91\mu\text{mol/L}$ , Rosmarinic acid,  $IC_{50} = 0.39\mu\text{mol/L}$ ). **Source:** ZHU TAI SHU WEI CAO *Salvia candelabrum* (aerial parts). **Ref:** 5494.

**3067 Candesalvone B**

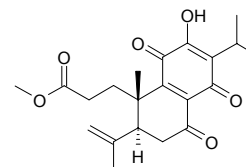
$C_{20}H_{26}O_6$  (362.43). Yellow amorphous solid,  $[\alpha]_D^{38} = +130^\circ$  ( $c = 0.1$ , MeOH). **Pharm:** Antioxidant (enzyme-independent lipid peroxidation,  $IC_{50} = 4.76\mu\text{mol/L}$ , Rosmarinic acid,  $IC_{50} = 4.40\mu\text{mol/L}$ ; enzyme-dependent lipid peroxidation,  $IC_{50} = 4.55\mu\text{mol/L}$ , Rosmarinic acid,  $IC_{50} = 0.39\mu\text{mol/L}$ ). **Source:** ZHU TAI SHU WEI CAO *Salvia candelabrum* (aerial parts). **Ref:** 5494.

**3068 Candesalvone B methyl ester**

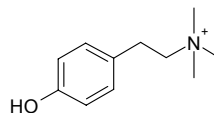
$C_{21}H_{28}O_6$  (376.45). Yellow solid,  $[\alpha]_D^{24.5} = +47^\circ$  ( $c = 0.2$ ,  $CHCl_3$ ). **Pharm:** Antioxidant (enzyme-independent lipid peroxidation,  $IC_{50} = 1.40\mu\text{mol/L}$ , Rosmarinic acid,  $IC_{50} = 4.40\mu\text{mol/L}$ ; enzyme-dependent lipid peroxidation,  $IC_{50} = 6.17\mu\text{mol/L}$ , Rosmarinic acid,  $IC_{50} = 0.39\mu\text{mol/L}$ )<sup>[5494]</sup>. **Source:** ZHU TAI SHU WEI CAO *Salvia candelabrum* (aerial parts). **Ref:** 5376, 5494.

**3069 Candesalvoquinone**

$C_{21}H_{26}O_6$  (374.44). Brownish oil,  $[\alpha]_D^{24.5} = -2^\circ$  ( $c = 0.05$ ,  $CHCl_3$ ). **Pharm:** Antioxidant (enzyme-independent lipid peroxidation,  $IC_{50} = 3.66\mu\text{mol/L}$ , Rosmarinic acid,  $IC_{50} = 4.40\mu\text{mol/L}$ ; enzyme-dependent lipid peroxidation,  $IC_{50} = 3.52\mu\text{mol/L}$ , Rosmarinic acid,  $IC_{50} = 0.39\mu\text{mol/L}$ )<sup>[5494]</sup>. **Source:** ZHU TAI SHU WEI CAO *Salvia candelabrum* (aerial parts). **Ref:** 5376, 5494.

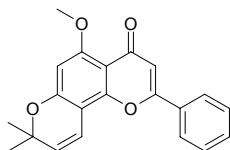
**3070 N-Candicine**

[6656-13-9]  $C_{11}H_{18}NO^+$  (180.27). mp 279~280°C. **Pharm:** Increases blood pressure (animal model); ganglionic stimulant (similar action with nicotine). **Source:** HUANG BAI *Phellodendron amurense*, HOU PI HUA JIAO *Zanthoxylum elephantiasis*, MAI YA *Hordeum vulgare*. **Ref:** 1, 2.

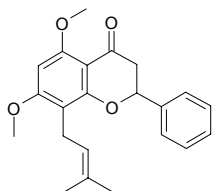


**3071 Candidin**

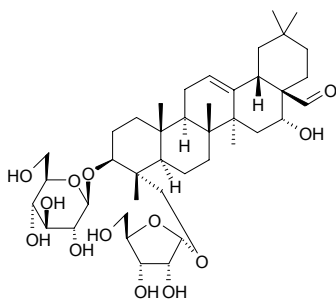
Anticancer Flavonoid PMV70P691-81  $C_{21}H_{18}O_4$  (334.38). **Pharm:** Cytotoxic (*in vitro*, Hepa 1c1c7 mouse hepatoma cells,  $IC_{50} = 4.5\mu\text{g/mL}$ ,  $CD = 4.5\mu\text{g/mL}$ ,  $CI = 1$ ; control Sulforaphane,  $IC_{50} = 2.1\mu\text{g/mL}$ ,  $CD = 0.087\mu\text{g/mL}$ ,  $CI = 24.1$ )<sup>[4721, 5038]</sup>. **Source:** SHUI LIU DOU *Pongamia pinnata* (stem cortex: yield = 0.0012%)<sup>[4721]</sup>. **Ref:** 4721, 5038.

**3072 Candidone**

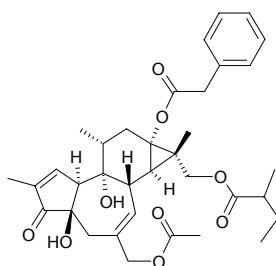
$C_{22}H_{24}O_4$  (352.43). **Pharm:** Cytotoxic (*in vitro*, Hepa 1c1c7 mouse hepatoma cells,  $IC_{50} = 4.1\mu\text{g/mL}$ ,  $CD = 4.7\mu\text{g/mL}$ ,  $CI = 0.9$ ; control Sulforaphane,  $IC_{50} = 2.1\mu\text{g/mL}$ ,  $CD = 0.087\mu\text{g/mL}$ ,  $CI = 24.1$ ). **Source:** SHUI LIU DOU *Pongamia pinnata* (stem cortex: yield = 0.0020%). **Ref:** 4721.

**3073 Candidoside A**

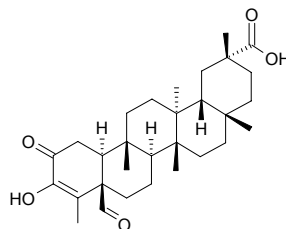
$3\beta,16\alpha$ -Dihydroxy-olean-12-en-28-al-3-*O*- $\beta$ -*D*-glucopyranosyl-23-*O*- $\alpha$ -*D*-ribofuranoside  $C_{41}H_{66}O_{13}$  (766.98). Amorphous powder. **Source:** DAN TIAO CAO *Lysimachia candida*. **Ref:** 2171.

**3074 Candletoxin A**

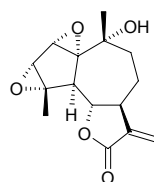
[64854-99-5]  $C_{35}H_{44}O_9$  (608.74). **Source:** PO SEN DA JI *Euphorbia poissonii*. **Ref:** 658.

**3075 Cangoronine**

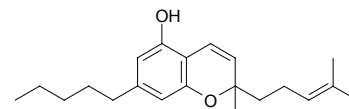
3-Hydroxy-2,24-dioxo-3-friedelen-29-oic acid  $C_{30}H_{44}O_5$  (484.68). Colorless acicular crystals, mp 270°C (MeOH). **Pharm:** Supertoxic agent. **Source:** LEI GONG TENG *Tripterygium wilfordii*. **Ref:** 670.

**3076 Canin**

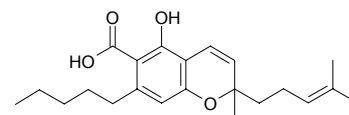
Chrysartemin A [24959-84-0]  $C_{15}H_{18}O_5$  (278.31). **Pharm:** Antineoplastic; cytotoxic; insect antifeedant; plant growth regulator. **Source:** CHU AI JU *Tanacetum parthenium*, TIAN SHAN SHI *Handelia trichophylla*, *Artemisia* sp. **Ref:** 658.

**3077 Cannabichromene**

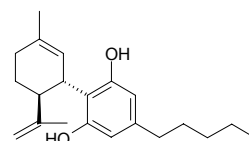
[20675-51-8]  $C_{21}H_{30}O_2$  (314.47). **Pharm:** Anti-inflammatory; protects red blood cells from decomposition due to low osmotic pressure. **Source:** HUO MA REN *Cannabis sativa*. **Ref:** 658.

**3078 Cannabichromenic acid**

[20408-52-0]  $C_{22}H_{30}O_4$  (358.48). **Source:** MA YE *Cannabis sativa*. **Ref:** 6.

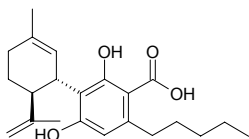
**3079 Cannabidiol**

[13956-29-1]  $C_{21}H_{30}O_2$  (314.47). mp 66–67°C. **Pharm:** Anesthetic antagonist; anticonvulsant; antimicrobial. **Source:** HUO MA REN *Cannabis sativa* (seed oil: content = 0.0015%<sup>[5508]</sup>), YIN DU DA MA *Cannabis sativa* var. *indica*, MA HUA *Cannabis sativa*. **Ref:** 1, 6, 661, 5508.

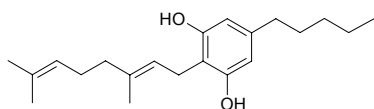


**3080 Cannabidiolic acid**

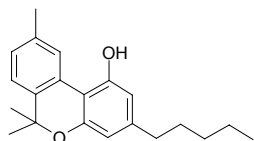
[1244-58-2]  $C_{22}H_{30}O_4$  (358.48). mp 43~47°C (dec). **Pharm:** Sedative. **Source:** YIN DU DA MA *Cannabis sativa* var. *indica*, MA YE *Cannabis sativa*, MA HUA *Cannabis sativa*. **Ref:** 6, 658.

**3081 Cannabigerol**

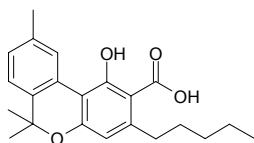
[25654-31-3]  $C_{21}H_{32}O_2$  (316.49). mp 51~53°C. **Source:** MA HUA *Cannabis sativa*. **Ref:** 6.

**3082 Cannabinol**

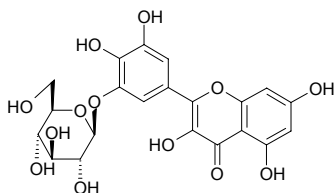
[521-35-7]  $C_{21}H_{26}O_2$  (310.44). Leaflike crystals (petroleum ether), mp 76~77°C, sublimation temperature 180~190°C (bath). **Pharm:** Antineoplastic (mus, Lewis lung cancer, orl). **Source:** HUO MA REN *Cannabis sativa* (seed oil: content = 0.0018%<sup>[5508]</sup>), MA HUA *Cannabis sativa*. **Ref:** 1, 5, 6, 661, 5508.

**3083 Cannabinolic acid**

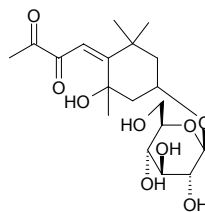
[2808-39-1]  $C_{22}H_{26}O_4$  (354.45). **Source:** MA YE *Cannabis sativa*. **Ref:** 6.

**3084 Cannabicitrin**

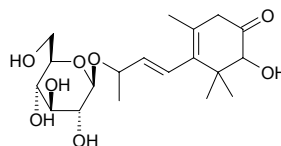
[520-14-9]  $C_{21}H_{20}O_{13}$  (480.39). mp 220°C (210°C soften). **Source:** YANG MEI SHU PI *Myrica rubra*. **Ref:** 6.

**3085 Cannabiside D**

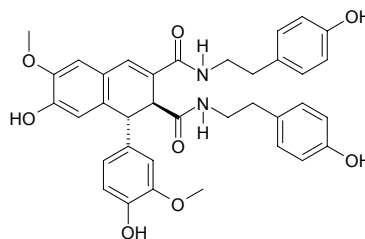
1-(2-Hydroxy-2,6,6-trimethyl-4-β-D-glucosyloxycyclohexylidene)-butane-2,3-dione  $C_{19}H_{30}O_9$  (402.45). Yellow liquid. **Source:** MA YE QIAN LI GUANG *Senecio cannabifolius* (whole herb). **Ref:** 4898.

**3086 Cannabiside E**

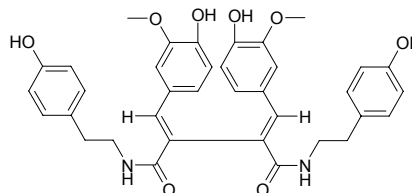
6-Hydroxy-3-(3-O-β-D-glucopyranosyl-but-1-enyl)-2,4,4-trimethyl-cyclohex-2-enone  $C_{19}H_{30}O_8$  (386.45). Yellowish oil. **Source:** MA YE QIAN LI GUANG *Senecio cannabifolius* (whole herb). **Ref:** 4898.

**3087 Cannabisin D**

$C_{36}H_{36}N_2O_8$  (624.70). **Pharm:** Cytotoxic (*in vitro*, LNCaP,  $IC_{50} = 81\mu\text{mol/L}$ ); feeding deterrent. **Source:** LANG DANG ZI *Hyoscyamus niger* (seed: yield = 0.00008%dw). **Ref:** 4607.

**3088 Cannabisin G**

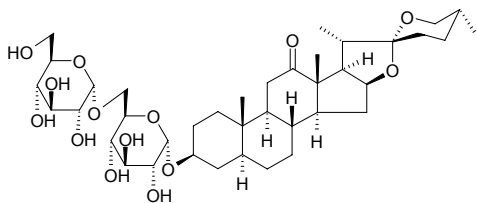
$C_{36}H_{36}N_2O_8$  (624.7). **Pharm:** Cytotoxic (*in vitro*, LNCaP,  $IC_{50} = 76\mu\text{mol/L}$ ). **Source:** LANG DANG ZI *Hyoscyamus niger* (seed: yield = 0.0007%dw). **Ref:** 4607.



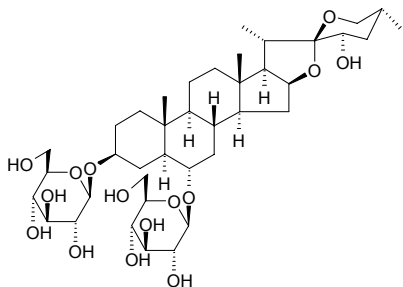


**3089 Cantalanin A**

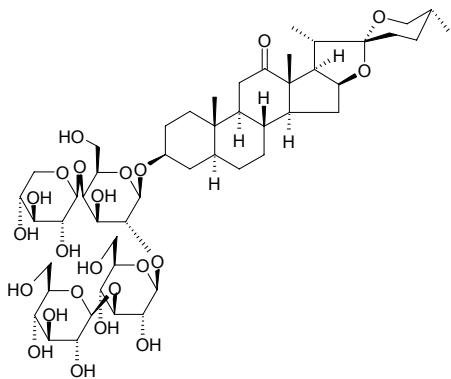
$C_{39}H_{62}O_{14}$  (754.92). mp 210–213°C,  $[\alpha]_D = +75.2^\circ$ . Source: XIA YE LONG SHE LAN *Agave cantala*. Ref: 2503.

**3090 Cantalasaponin 1**

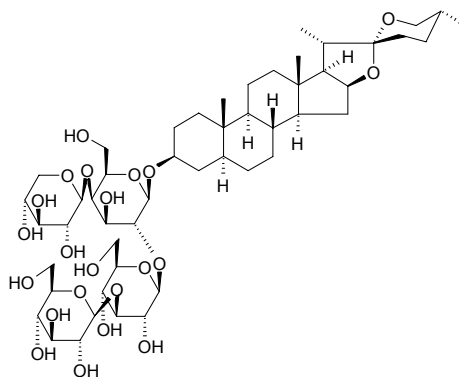
$C_{39}H_{64}O_{15}$  (772.94). mp 243–245°C,  $[\alpha]_D = -51.5^\circ$ . Source: XIA YE LONG SHE LAN *Agave cantala*. Ref: 2503.

**3091 Cantalasaponin 2**

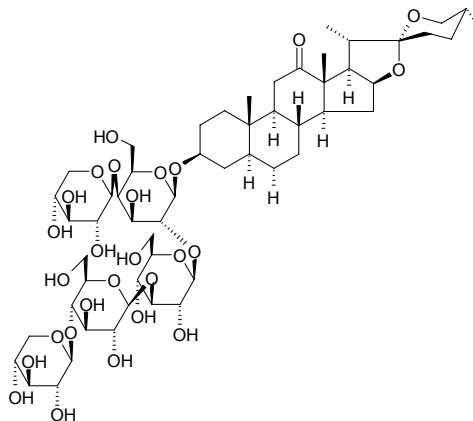
$C_{50}H_{80}O_{23}$  (1049.18). mp 287–293°C,  $[\alpha]_D = -30^\circ$ . Source: XIA YE LONG SHE LAN *Agave cantala*. Ref: 2503.

**3092 Cantalasaponin 3**

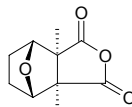
$C_{50}H_{82}O_{22}$  (1035.20). mp 298–302°C,  $[\alpha]_D = -54.8^\circ$ . Source: XIA YE LONG SHE LAN *Agave cantala*. Ref: 2503.

**3093 Cantalasaponin 4**

$C_{53}H_{88}O_{27}$  (1181.30). mp 268–271°C,  $[\alpha]_D = -31.7^\circ$ . Source: XIA YE LONG SHE LAN *Agave cantala*. Ref: 2503.

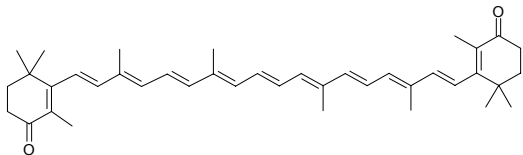
**3094 Cantharidin**

Cantharides camphor; Hexahydro-3 $\alpha$ ,7 $\alpha$ -dimethyl-4,7-epoxyisobenzofuran-1,3-dione [56-25-7]  $C_{10}H_{12}O_4$  (196.20). mp 218°C, insoluble in water, very slightly soluble in acetone, chloroform, slightly soluble in ether, ethanol, soluble in acetic acid.<sup>[5507]</sup> Pharm: Antibacterial; antineoplastic; antiprotozoal; antiviral; leukopoietic; local stimulant; LD (hmn) = 30mg; LD<sub>50</sub> (mus, acute toxicity test) = 1.71mg/kg. Source: BAN MAO *Mylabris phalerata* (dried body: content = 0.97%<sup>[5508]</sup>); *Mylabris cichorii* (dried body: content = 1.42%<sup>[5508]</sup>), GE SHANG TING CHANG *Epicauta gorhami*, HONG NIANG *Zi Huechys sanguinea*, QING NIANG *Zi Lytta caraganae*. Ref: 4, 6, 658, 5507, 5508.

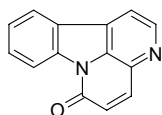


**3095 Canthaxanthin**

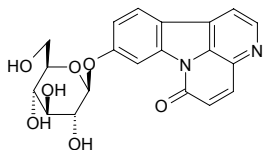
$\beta$ , $\beta$ -Carotene-4,4'-dione [514-78-3] C<sub>40</sub>H<sub>52</sub>O<sub>2</sub> (564.86). mp 218°C. **Pharm:** Antineoplastic (skin cancer, mammary cancer and colon cancer induced by chemical carcinogen). **Source:** HAI XIA *Penaeus orientalis*, JIN YU *Carassius auratus*. **Ref:** 6, 1582.

**3096 Canthin-6-one**

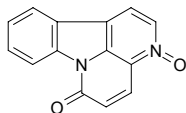
[479-43-6] C<sub>14</sub>H<sub>8</sub>N<sub>2</sub>O (220.23). mp 159–160°C. **Pharm:** Antibacterial (*Staphylococcus aureus* and other two bacteria, MIC = 12.5–100.0µg/kg); cytotoxic (gpg horn cells); cytotoxic (*in vitro*, A549, ED<sub>50</sub> = 3.6µg/mL; MCF7, ED<sub>50</sub> = 7.3µg/mL; HIV, no significant effect)<sup>[4728]</sup>; antimalarial (*Plasmodium falciparum* clone W2, IC<sub>50</sub> = 2.2µg/mL)<sup>[4728]</sup>. **Source:** BO LI ZI HUA JIAO *Zanthoxylum belizense*, CHANG YE KUAN MU *Eurycoma longifolia* (root: yield = 0.0017%dw)<sup>[4728]</sup>, CHU BAI PI *Ailanthus altissima*, ER DUN ZHUANG HUA JIAO *Zanthoxylum dipetalum*, HOU PI HUA JIAO *Zanthoxylum elephantiasis*, KU MU *Picrasma quassioides* [Syn. *Picrasma ailanthoides*] (total powder: content = 0.008%)<sup>[5508]</sup>, KU SHU PI *Picrasma quassioides* [Syn. *Picrasma ailanthoides*], TUO YUAN YE HUA JIAO *Zanthoxylum ovalifolium*, YUAN CHI KU MU *Picrasma crenata*. **Ref:** 1, 12, 4728, 5508.

**3097 Canthin-6-one 9-O-β-glucopyranoside**

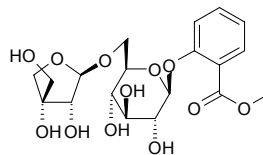
C<sub>20</sub>H<sub>18</sub>N<sub>2</sub>O<sub>7</sub> (398.38). Yellow amorphous powder. **Pharm:** Cytotoxic (*in vitro*, A549, ED<sub>50</sub> = 4.2µg/mL; MCF7, ED<sub>50</sub> = 16.1µg/mL; HIV, no significant effect)<sup>[4728]</sup>; antimalarial inactive (*Plasmodium falciparum* clones W2, D6, and TM91C235)<sup>[4728]</sup>. **Source:** CHANG YE KUAN MU *Eurycoma longifolia* (root: yield = 0.0002%dw), *Eurycoma harmandiana* (root). **Ref:** 4728, 5137.

**3098 Canthin-6-one 3-N-oxide**

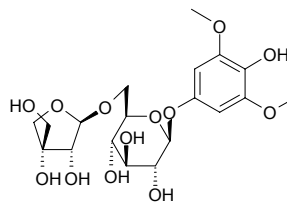
C<sub>14</sub>H<sub>8</sub>N<sub>2</sub>O<sub>2</sub> (236.23). **Source:** CHANG YE KUAN MU *Eurycoma longifolia* (root: yield = 0.000011%dw), *Eurycoma harmandiana* (root). **Ref:** 4728, 5137.

**3099 Canthoside A**

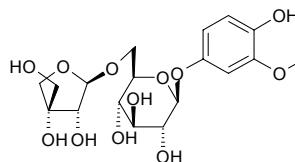
C<sub>19</sub>H<sub>26</sub>O<sub>12</sub> (446.41). Amorphous powder, [α]<sub>D</sub> = -61.1° (c = 0.18, MeOH). **Source:** SI XIAO BO SHUANG YE YU GU MU *Canthium berberidifolium*. **Ref:** 1925.

**3100 Canthoside B**

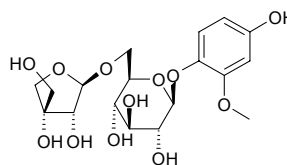
C<sub>19</sub>H<sub>28</sub>O<sub>13</sub> (464.43). Amorphous powder, [α]<sub>D</sub> = -72.4° (c = 3.13, MeOH). **Source:** SI XIAO BO SHUANG YE YU GU MU *Canthium berberidifolium*. **Ref:** 1925.

**3101 Canthoside C**

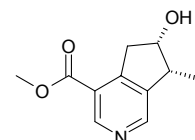
C<sub>18</sub>H<sub>26</sub>O<sub>12</sub> (434.40). Amorphous powder, [α]<sub>D</sub> = -84.1° (c = 3.18, MeOH). **Source:** SI XIAO BO SHUANG YE YU GU MU *Canthium berberidifolium*. **Ref:** 1925.

**3102 Canthoside D**

C<sub>18</sub>H<sub>26</sub>O<sub>12</sub> (434.40). Amorphous powder, [α]<sub>D</sub> = -73.7° (c = 1.53, MeOH). **Source:** SI XIAO BO SHUANG YE YU GU MU *Canthium berberidifolium*. **Ref:** 1925.

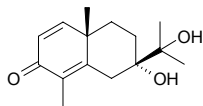
**3103 Cantleyine**

[30333-81-4] C<sub>11</sub>H<sub>13</sub>NO<sub>3</sub> (207.23). **Source:** MAO ZHU MA QIAN *Strychnos nitida*. **Ref:** 576.

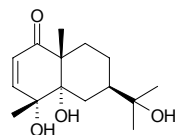


**3104 Canusesnol A**

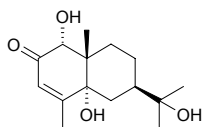
$C_{15}H_{22}O_3$  (250.34). Colorless oil,  $[\alpha]_D = -37.5^\circ$  ( $c = 0.1$ , MeOH). Pharm: Cytotoxic inactive (negligible activity to inhibits hmn tumor cell replication); anti-HIV inactive (negligible activity). Source: HONG HAI JIAO *Capsicum annuum* (stem and root: yield = 0.00016%dw). Ref: 4779.

**3105 Canusesnol B**

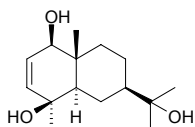
$C_{15}H_{24}O_4$  (268.36). Colorless needles, mp  $>160^\circ C$ ,  $[\alpha]_D = +3.6^\circ$  ( $c = 0.9$ , MeOH). Pharm: Cytotoxic inactive (negligible activity to inhibits hmn tumor cell replication); anti-HIV inactive (negligible activity). Source: HONG HAI JIAO *Capsicum annuum* (stem and root: yield = 0.00054%dw). Ref: 4779.

**3106 Canusesnol C**

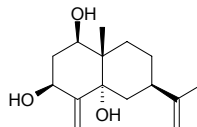
$C_{15}H_{24}O_4$  (268.36). Colorless oil,  $[\alpha]_D = +33.6^\circ$  ( $c = 1.0$ , MeOH). Pharm: Cytotoxic inactive (negligible activity to inhibits hmn tumor cell replication); anti-HIV inactive (negligible activity). Source: HONG HAI JIAO *Capsicum annuum* (stem and root: yield = 0.00048%dw). Ref: 4779.

**3107 Canusesnol D**

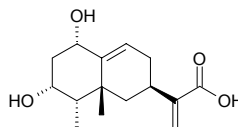
$C_{15}H_{26}O_3$  (254.37). Colorless oil,  $[\alpha]_D = +165.0^\circ$  ( $c = 0.5$ , MeOH). Pharm: Cytotoxic inactive (negligible activity to inhibits hmn tumor cell replication); anti-HIV inactive (negligible activity). Source: HONG HAI JIAO *Capsicum annuum* (stem and root: yield = 0.00028%dw). Ref: 4779.

**3108 Canusesnol E**

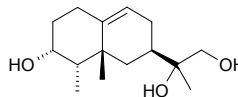
$C_{15}H_{24}O_3$  (252.36). Colorless needles, mp  $143\sim 146^\circ C$ ,  $[\alpha]_D = +62.7^\circ$  ( $c = 0.5$ , MeOH). Pharm: Cytotoxic inactive (negligible activity to inhibits hmn tumor cell replication); anti-HIV inactive (negligible activity). Source: HONG HAI JIAO *Capsicum annuum* (stem and root: yield = 0.00065%dw). Ref: 4779.

**3109 Canusesnol F**

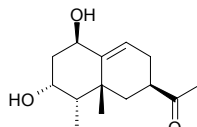
$C_{15}H_{22}O_4$  (266.34). Colorless oil,  $[\alpha]_D = +35.6^\circ$  ( $c = 1.1$ , MeOH). Pharm: Cytotoxic inactive (negligible activity to inhibits hmn tumor cell replication); anti-HIV inactive (negligible activity). Source: HONG HAI JIAO *Capsicum annuum* (stem and root: yield = 0.00013%dw). Ref: 4779.

**3110 Canusesnol G**

$C_{15}H_{26}O_3$  (254.37). Colorless oil,  $[\alpha]_D = +6.2^\circ$  ( $c = 0.3$ , MeOH). Pharm: Cytotoxic inactive (negligible activity to inhibits hmn tumor cell replication); anti-HIV inactive (negligible activity). Source: HONG HAI JIAO *Capsicum annuum* (stem and root: yield = 0.00021%dw). Ref: 4779.

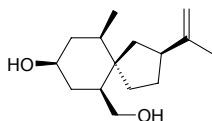
**3111 Canusesnol H**

$C_{14}H_{22}O_3$  (238.33). Colorless needles, mp  $>160^\circ C$ ,  $[\alpha]_D = +1.4^\circ$  ( $c = 0.3$ , MeOH). Pharm: Cytotoxic inactive (negligible activity to inhibits hmn tumor cell replication); anti-HIV inactive (negligible activity). Source: HONG HAI JIAO *Capsicum annuum* (stem and root: yield = 0.00015%dw). Ref: 4779.

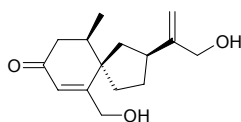


**3112 Canusesnol I**

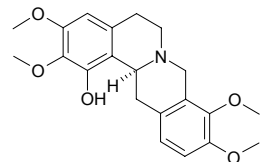
$C_{15}H_{26}O_2$  (238.37). Colorless needles, mp 119–121°C,  $[\alpha]_D = +43.4^\circ$  ( $c = 0.4$ , MeOH). **Pharm:** Cytotoxic inactive (negligible activity to inhibits hmn tumor cell replication); anti-HIV inactive (negligible activity). **Source:** HONG HAI JIAO *Capsicum annuum* (stem and root: yield = 0.00026%dw). **Ref:** 4779.

**3113 Canusesnol J**

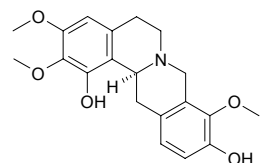
$C_{15}H_{22}O_3$  (250.34). Colorless oil,  $[\alpha]_D = -25.3^\circ$  ( $c = 0.4$ , MeOH). **Pharm:** Cytotoxic inactive (negligible activity to inhibits hmn tumor cell replication); anti-HIV inactive (negligible activity). **Source:** HONG HAI JIAO *Capsicum annuum* (stem and root: yield = 0.00022%dw). **Ref:** 4779.

**3114 Capauridine**

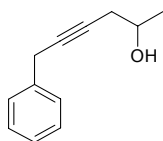
Capaurine [478-14-8]  $C_{21}H_{25}NO_5$  (371.44). mp ( $\pm$ ) 208°C, mp (S) 164°C. **Pharm:** Uterine stimulant. **Source:** JU HUA HUANG LIAN *Corydalis pallida*, XI SHEN SHAN ZI JIN *Corydalis pallida* var. *tenuis*, JIN HUANG JIN *Corydalis aurea*, MENG DA NA ZI JIN *Corydalis montana*, XIAO HUA ZI JIN *Corydalis micrantha*. **Ref:** 1, 6, 658.

**3115 Capaurimine**

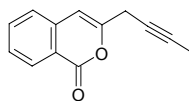
[30758-81-7]  $C_{20}H_{23}NO_5$  (357.41). mp 212°C. **Source:** JU HUA HUANG LIAN *Corydalis pallida*. **Ref:** 6.

**3116 Capillanol**

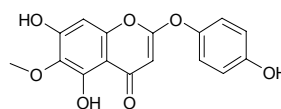
[57576-57-5]  $C_{12}H_{14}O$  (174.24). **Source:** YIN CHEN HAO *Artemisia capillaris*. **Ref:** 2.

**3117 Capillarin**

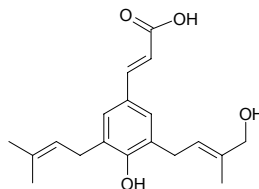
[3570-28-3]  $C_{13}H_{10}O_2$  (198.22). **Source:** YIN CHEN HAO *Artemisia capillaris*, HUANG HAO *Artemisia scoparia* [Syn. *Artemisia capillaris* var. *scoparia*]. **Ref:** 2, 660.

**3118 Capillarisin**

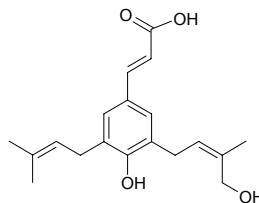
[56365-38-9]  $C_{16}H_{12}O_7$  (316.27). mp 226–228°C. **Pharm:** Choleric; antagonizes antibacterial action of paraxin. **Source:** YIN CHEN HAO *Artemisia capillaris*. **Ref:** 1, 2, 5501.

**3119 Capillartemisin A**

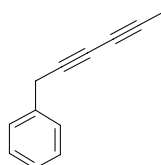
[85819-52-9]  $C_{19}H_{24}O_4$  (316.40). **Source:** YIN CHEN HAO *Artemisia capillaris*. **Ref:** 1521.

**3120 Capillartemisin B**

[85819-51-8]  $C_{19}H_{24}O_4$  (316.40). White needles, mp 146–148°C. **Source:** HUANG HAO *Artemisia scoparia* [Syn. *Artemisia capillaris* var. *scoparia*] (bud), YIN CHEN HAO *Artemisia capillaris*. **Ref:** 1521, 4815.

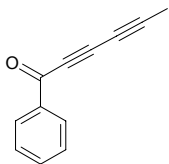
**3121 Capillene**

[520-74-1]  $C_{12}H_{10}$  (154.21). bp 124°C/4mmHg. **Source:** YIN CHEN HAO *Artemisia capillaris*, HUANG HAO *Artemisia scoparia* [Syn. *Artemisia capillaris* var. *scoparia*]. **Ref:** 2, 6, 660.

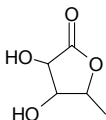


**3122 Capillin**

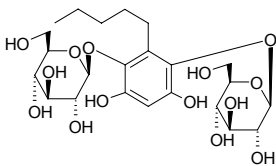
[495-74-9] C<sub>12</sub>H<sub>8</sub>O (168.20). mp 81°C. Pharm: Antibacterial (original hyphomycete of skin diseases, blood red trichophyta, CIC = 0.25µg/mL). Source: MU TONG HAON *Chrysanthemum frutescens*, YIN CHEN HAO *Artemisia capillaris* (the compound was isolated from the plant by Junzô Arima, et al. in 1930)<sup>[5505]</sup>, HUANG HAO *Artemisia scoparia* [Syn. *Artemisia capillaris* var. *scoparia*]. Ref: 1, 2, 4, 660, 5505.

**3123 Capilliplactone**

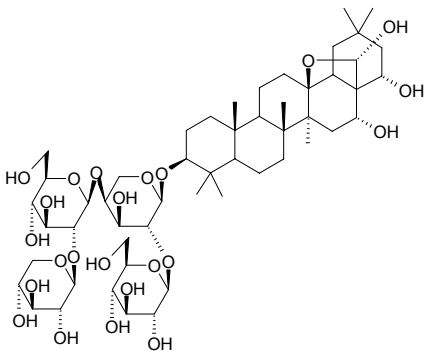
C<sub>5</sub>H<sub>8</sub>O<sub>4</sub> (132.12). Acicular crystals, mp 110–112°C. Source: XI GENG XIANG CAO *Lysimachia capillipes*. Ref: 778.

**3124 Capillipnin**

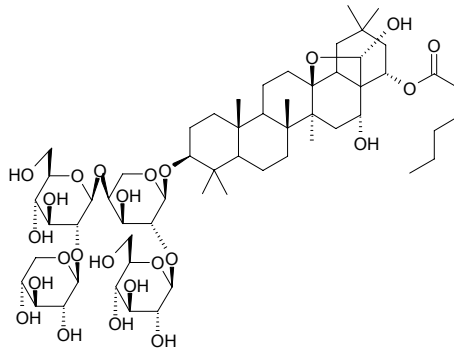
C<sub>23</sub>H<sub>36</sub>O<sub>14</sub> (536.53). White crystals, mp 128–130°C. Source: XI GENG XIANG CAO *Lysimachia capillipes*. Ref: 778.

**3125 Capillipside A**

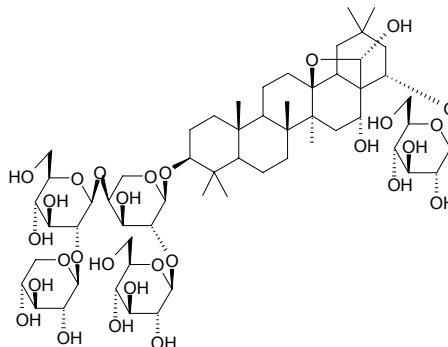
C<sub>52</sub>H<sub>86</sub>O<sub>23</sub> (1079.25). White amorphous powder, [α]<sub>D</sub><sup>20</sup> = –26.7° (c = 0.50, MeOH). Pharm: Cytotoxic inactive (hmn A-2780, IC<sub>50</sub> > 10µg/mL). Source: XI GENG XIANG CAO *Lysimachia capillipes* (whole herb: yield = 0.00023%dw). Ref: 2175.

**3126 Capillipside B**

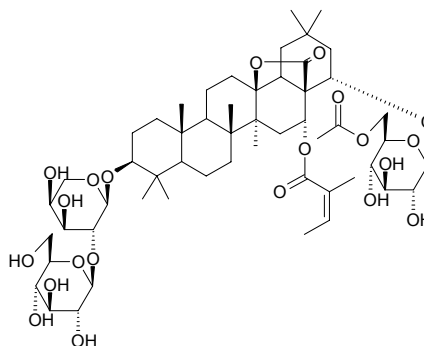
C<sub>58</sub>H<sub>96</sub>O<sub>24</sub> (1177.40). White amorphous powder, [α]<sub>D</sub><sup>20</sup> = –23.4° (c = 0.55, MeOH). Pharm: Cytotoxic (hmn A-2780, IC<sub>50</sub> = 0.1µg/mL). Source: XI GENG XIANG CAO *Lysimachia capillipes* (whole herb: yield = 0.00060%dw). Ref: 2175.

**3127 Capillipside C**

C<sub>58</sub>H<sub>96</sub>O<sub>28</sub> (1241.40). White amorphous powder, [α]<sub>D</sub><sup>20</sup> = –5.0° (c = 0.50, MeOH). Pharm: Cytotoxic inactive (hmn A-2780, IC<sub>50</sub> > 10µg/mL). Source: XI GENG XIANG CAO *Lysimachia capillipes* (whole herb: yield = 0.00038%dw). Ref: 2175.

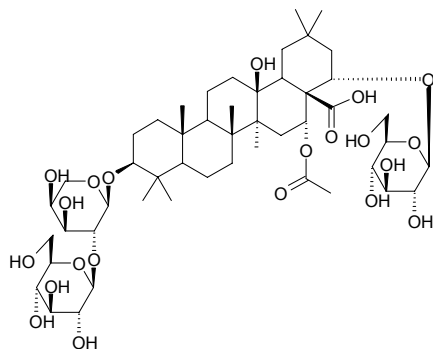
**3128 Capillipside I**

3β,22α-Dihydroxy-16α-angeloyloxy-28→13-lactone-oleanane-3-O-[β-D-glucopyranosyl-(1→2)-α-L-Arabinopyraosyl]-22-O-(6-acetyl)-β-D-glucopyranoside C<sub>54</sub>H<sub>84</sub>O<sub>21</sub> (1069.26). White amorphous powder, mp 216–218°C (MeOH), [α]<sub>D</sub><sup>20</sup> = –25.5° (c = 0.010, pyridine). Source: XI GENG XIANG CAO *Lysimachia capillipes* (whole herb). Ref: 4851.

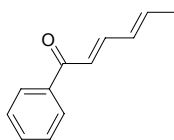


**3129 Capilliposide J**

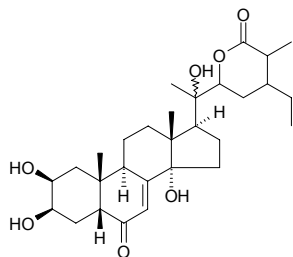
3β,13β,22α-Trihydroxy-16α-acetyloxy-oleanane-28-oic acid  
3-*O*-[β-*D*-glucopyranosyl-(1→2)-α-*L*-arabinopyraosyl]-22-*O*-β-*D*-glucopyranoside C<sub>49</sub>H<sub>79</sub>O<sub>21</sub> (1004.16). White amorphous powder, mp 240~242°C (MeOH:H<sub>2</sub>O = 9:1), [α]<sub>D</sub><sup>20</sup> = -22.8° (*c* = 0.050, pyridine). Source: XI GENG XIANG CAO *Lysimachia capillipes* (whole herb). Ref: 4851.

**3130 Capillon**

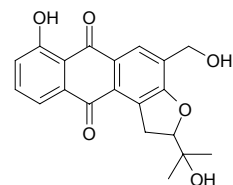
C<sub>12</sub>H<sub>12</sub>O (172.23). mp 69~70°C. Source: YIN CHEN HAO *Artemisia capillaris*. Ref: 2, 6.

**3131 Capitasterone**

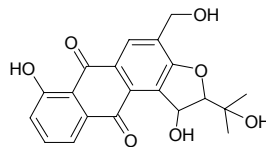
[20835-65-8] C<sub>29</sub>H<sub>44</sub>O<sub>7</sub> (504.67). mp 234~235°C. Source: MA NIU XI *Cyathula capitata*. Ref: 6, 660.

**3132 Capitellataquinone A**

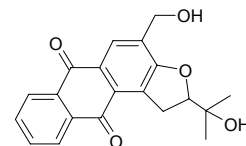
2-Hydroxymethyl-3,4-[2'-(1-hydroxy-1-methylethyl)-dihydrofurano]-8-hydroxyanthraquinone C<sub>20</sub>H<sub>18</sub>O<sub>6</sub> (354.36). Orange amorphous solid (CHCl<sub>3</sub>), mp 203~204°C, [α]<sub>D</sub><sup>25</sup> = -277° (*c* = 1.3, MeOH). Source: XIAO TOU LIANG HOU CHA *Hedyotis capitellata* (stem). Ref: 5280.

**3133 Capitellataquinone B**

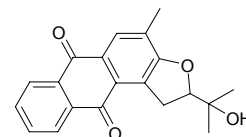
2-Hydroxymethyl-3,4-[1'-hydroxy-2'-(1-hydroxy-1-methylethyl)-dihydrofuran o]-8-hydroxyanthraquinone C<sub>20</sub>H<sub>18</sub>O<sub>7</sub> (370.36). Yellow amorphous solid (CHCl<sub>3</sub>), mp 165~166°C, [α]<sub>D</sub><sup>25</sup> = +77.7° (*c* = 1.8, MeOH). Source: XIAO TOU LIANG HOU CHA *Hedyotis capitellata* (stem). Ref: 5280.

**3134 Capitellataquinone C**

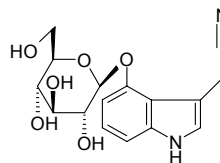
2-Hydroxymethyl-3,4-[2'-(1-hydroxy-1-methylethyl)-dihydrofurano]anthraquinone C<sub>20</sub>H<sub>18</sub>O<sub>5</sub> (338.36). Yellow oil, [α]<sub>D</sub><sup>25</sup> = -91.8° (*c* = 1.6, MeOH). Source: XIAO TOU LIANG HOU CHA *Hedyotis capitellata* (stem). Ref: 5280.

**3135 Capitellataquinone D**

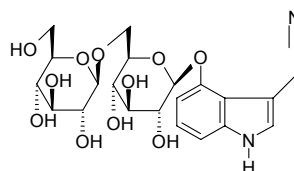
2-Methyl-3,4-[2'-(1-hydroxy-1-methylethyl)-dihydrofurano]anthraquinone C<sub>20</sub>H<sub>18</sub>O<sub>4</sub> (322.36). Yellow oil, [α]<sub>D</sub><sup>25</sup> = +128.6° (*c* = 1.4, MeOH). Source: XIAO TOU LIANG HOU CHA *Hedyotis capitellata* (stem). Ref: 5280.

**3136 Cappariloside A**

1*H*-Indole-3-acetonitrile 4-*O*-β-glucopyranoside C<sub>16</sub>H<sub>18</sub>N<sub>2</sub>O<sub>6</sub> (334.33). Amorphous solid, [α]<sub>D</sub><sup>20</sup> = -58.8° (*c* = 0.4, MeOH). Source: LAO SHU GUA *Capparis spinosa*. Ref: 1865.

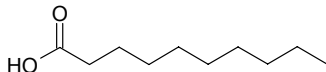
**3137 Cappariloside B**

1*H*-Indole-3-acetonitrile 4-*O*-β-(6'-*O*-β-glucopyranosyl)-glucopyranoside C<sub>22</sub>H<sub>28</sub>N<sub>2</sub>O<sub>11</sub> (496.48). Amorphous solid, [α]<sub>D</sub><sup>20</sup> = -23.7° (*c* = 0.3, MeOH). Source: LAO SHU GUA *Capparis spinosa*. Ref: 1865.

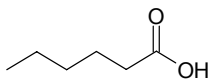


**3138 Capric acid**

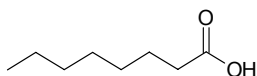
Decanoic acid [334-48-5]  $C_{10}H_{20}O_2$  (172.27). **Pharm:** Raw material for synthesis. **Source:** BING LANG *Areca catechu*, CU LIU GUO *Hippophae rhamnoides*, GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *Huechingensis*], GUA LOU *Trichosanthes kirilowii*, LU HUI *Aloe vera* [Syn. *Aloe barbadensis*], SHUANG BIAN GUA LOU *Trichosanthes rosthornii* [Syn. *Trichosanthes uniflora*], YE ZI RANG *Cocos nucifera*, YIN CHEN HAO *Artemisia capillaris*, YU XING CAO *Houttuynia cordata*, *Cuphea* sp. **Ref:** 2, 658, 660.

**3139 Caproic acid**

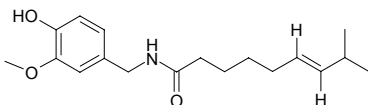
*n*-Hexanoic acid [142-62-1]  $C_6H_{12}O_2$  (116.16). **Pharm:** Food additive. **Source:** CHAI HU *Bupleurum chinense*, CU LIU GUO *Hippophae rhamnoides*, DANG SHEN *Codonopsis pilosula*, XI YANG SHEN *Panax quinquefolium*, YE ZI RANG *Cocos nucifera*, YIN CHEN HAO *Artemisia capillaris*. **Ref:** 2, 660.

**3140 Caprylic acid**

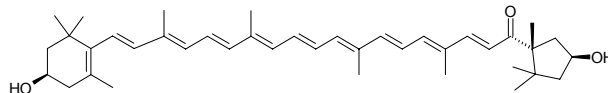
Octanoic acid [124-07-2]  $C_8H_{16}O_2$  (144.22). **Pharm:** Antifungal (dermophytosis, candidiasis). **Source:** BAI GUO *Ginkgo biloba*, CHAI HU *Bupleurum chinense*, CU LIU GUO *Hippophae rhamnoides*, DANG SHEN *Codonopsis pilosula*, FU LING *Poria cocos*, GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *huechingensis*], XI YANG SHEN *Panax quinquefolium*, YE ZI RANG *Cocos nucifera*. **Ref:** 2, 658.

**3141 Capsaicin**

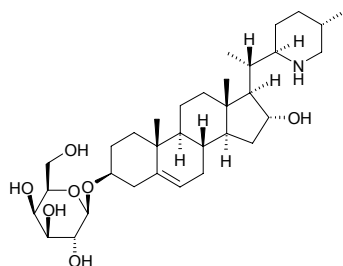
Styptysat; Mioton; Zostrix [404-86-4]  $C_{18}H_{27}NO_3$  (305.42). mp 64~65°C, insoluble in cold water, easily soluble in ethanol, ether, benzene, chloroform.<sup>[5507]</sup> **Pharm:** Anti-inflammatory (NF-κB pathway)<sup>[4415]</sup>; antioxidant (ADP/Fe<sup>2+</sup>-induced liposomal lipid peroxidation, IC<sub>50</sub> = 10μmol/L)<sup>[4710]</sup>; analgesic (has both stimulatory and desensitizing effects on sensory nerves)<sup>[5394]</sup>. **Source:** LA JIAO *Capsicum frutescens*, HONG HAI JIAO *Capsicum annuum* (fruit: content = 2%; the compound was isolated from the plant in 1961)<sup>[5505]</sup>. **Ref:** 4, 15, 4415, 4710, 5394, 5505, 5507.

**3142 Capsanthin**

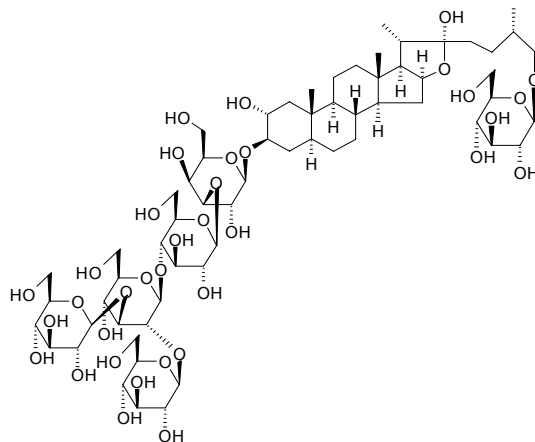
[465-42-9]  $C_{40}H_{56}O_3$  (584.89). mp 175~176°C. **Pharm:** Food additive. **Source:** HONG HAI JIAO *Capsicum annuum*, JUAN DAN *Lilium tigrinum* [Syn. *Lilium lancifolium*], LA JIAO *Capsicum frutescens*, XI YE BAI HE *Lilium pumilum* [Syn. *Lilium tenuifolium*], XIAO BAI BU *Asparagus officinalis*, *Berberis* sp. **Ref:** 15.

**3143 Capsicastrine**

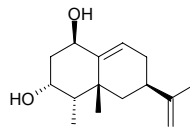
[107585-56-8]  $C_{33}H_{55}NO_7$  (577.80). Colorless acicular crystals (acetone), mp 220~221°C,  $[\alpha]_D^{21} = -25.5^\circ$  (c = 0.1, chloroform). **Pharm:** Cytotoxic (liver-cancer PLC/PRF/5 *in vitro*, ED<sub>50</sub> = 1.78μg/mL); antihepatotoxin (mus, liver damage caused by CCl<sub>4</sub>, 0.1~3.0mg/kg). **Source:** YE HAI JIAO *Solanum capsicastrum*. **Ref:** 1056, 1088, 1136.

**3144 Capsicosin**

$C_{63}H_{106}O_{35}$  (1423.53). **Source:** LA JIAO *Capsicum frutescens*. **Ref:** 15.

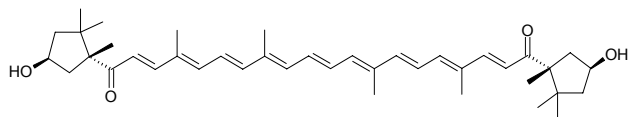
**3145 Capsidiol**

[37208-05-2]  $C_{15}H_{24}O_2$  (236.36). **Pharm:** Antifungal. **Source:** HONG HAI JIAO *Capsicum annuum* (stem and root: yield = 0.00068%dw)<sup>[4779]</sup>, LA JIAO *Capsicum frutescens*, YAN CAO *Nicotiana tabacum*. **Ref:** 658, 4779.

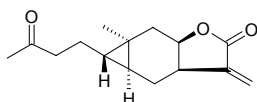


**3146 Capsorubin**

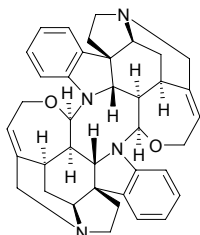
[470-38-2] C<sub>40</sub>H<sub>56</sub>O<sub>4</sub> (600.89). Pharm: Pigment. Source: HONG HAI JIAO *Capsicum annuum*, XI YE BAI HE *Lilium pumilum* [Syn. *Lilium tenuifolium*]. Ref: 658.

**3147 Carabrone**

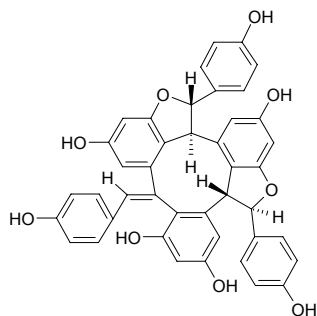
[1748-81-8] C<sub>15</sub>H<sub>20</sub>O<sub>3</sub> (248.32). mp (+) 90–91°C, (±) 89–91°C. Pharm: CNS activity (causes convulsion and death in mus in large dose). Source: DA HUA JIN WA ER *Carpesium eximum*, TIAN MING JING *Carpesium abrotanoides*, TIAN MING JING GUO *Carpesium abrotanoides*. Ref: 1, 6, 660.

**3148 Caracurine V**

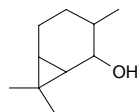
[630-87-5] C<sub>38</sub>H<sub>40</sub>N<sub>4</sub>O<sub>2</sub> (584.77). Hydrochloride crystals, mp > 300°C (dec). Pharm: Antibacterial (*Bacillus coli* and *Bacillus pyocyaneus*); muscle relaxant; neuromuscular blocker; toxin. Source: CHANG HUA XU MA QIAN ZI *Strychnos dolichothyrsa*, A FU ZE ER MA QIAN ZI *Strychnos afzelii*. Ref: 661.

**3149 Caragaphenol A**

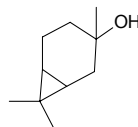
C<sub>42</sub>H<sub>30</sub>O<sub>9</sub> (678.70). Reddish amorphous powder, [α]<sub>D</sub><sup>20</sup> = +786.54° (c = 0.104, MeOH). Source: XIA YE JIN JI ER *Caragana stenophylla*. (root). Ref: 2557.

**3150 2-Caraneol**

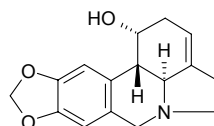
C<sub>10</sub>H<sub>18</sub>O (154.25). Source: SHENG JIANG *Zingiber officinale*. Ref: 2.

**3151 3-Caraneol**

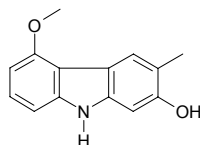
C<sub>10</sub>H<sub>18</sub>O (154.25). Source: SHENG JIANG *Zingiber officinale*. Ref: 2.

**3152 Caranine**

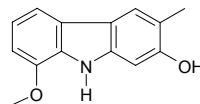
[477-12-3] C<sub>16</sub>H<sub>17</sub>NO<sub>3</sub> (271.32). Pharm: Analgesic; toxin (animal model). Source: GU TING HUA *Amaryllis belladonna*. Ref: 658.

**3153 Carbalexin A**

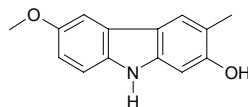
2-Hydroxy-5-methoxy-3-methylcarbazole C<sub>14</sub>H<sub>13</sub>NO<sub>2</sub> (227.27). Colorless crystals (CHCl<sub>3</sub>), mp 178–180°C. Pharm: Antibacterial (*Staphylococcus aureus*, TCL assay, 3μg, strong activity)<sup>[5179]</sup>; cytotoxic (BST, LC<sub>50</sub> = 36mg/L, LC<sub>90</sub> = 108mg/L)<sup>[5179]</sup>. Source: SHAN XIAO JU *Glycosmis citrifolia* (leaf), JIU BING YE *Glycosmis pentaphylla*. Ref: 5179.

**3154 Carbalexin B**

2-Hydroxy-8-methoxy-3-methylcarbazole C<sub>14</sub>H<sub>13</sub>NO<sub>2</sub> (227.27). Colorless crystals (CHCl<sub>3</sub>), mp 196–198°C. Source: SHAN XIAO JU *Glycosmis citrifolia* (leaf), JIU BING YE *Glycosmis pentaphylla*. Ref: 5179.

**3155 Carbalexin C**

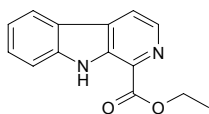
2-Hydroxy-6-methoxy-3-methylcarbazole C<sub>14</sub>H<sub>13</sub>NO<sub>2</sub> (227.27). Colorless oil. Source: SHAN XIAO JU *Glycosmis citrifolia* (leaf), JIU BING YE *Glycosmis pentaphylla*. Ref: 5179.



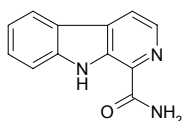


**3156 1-Carboethoxy- $\beta$ -carboline**

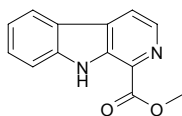
Kumujian A C<sub>14</sub>H<sub>12</sub>N<sub>2</sub>O<sub>2</sub> (240.26). mp 123°C. Source: KU MU *Picrasma quassioides* [Syn. *Picrasma ailanthoides*] (total powder: content = 0.011%<sup>[5508]</sup>), KU SHU PI *Picrasma quassioides* [Syn. *Picrasma ailanthoides*], YUAN ZHI *Polygala tenuifolia*. Ref: 12, 538, 5508.

**3157 Carboline-1-carboxylic acid, amide**

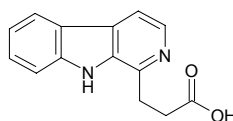
[38940-60-2] C<sub>12</sub>H<sub>9</sub>N<sub>3</sub>O (211.23). Pharm: Antibacterial (*in vitro*: *Staphylococcus aureus*, *Bacillus subtilis*, *Bacillus coli*, *Bacillus diphtheriae*, *Streptococcus* sp., *Streptobacillus* sp., *Salmonella* sp., *Bacillus proteus*, *Bacillus lactis*, *Klebsiella pneumoniae*); antileishmanial; antifungal (*Aspergillus niger*). Source: DI SHI WU TAN *Nauclea diderrichii*. Ref: 2178.

**3158  $\beta$ -Carboline-1-carboxylic acid, methyl ester**

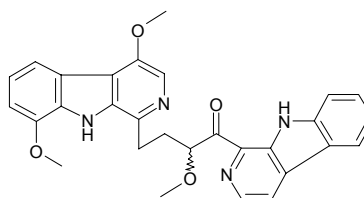
Kumujian B C<sub>13</sub>H<sub>10</sub>N<sub>2</sub>O<sub>2</sub> (226.24). White acicular crystals (0.05mmHg, 130°C sublimation), mp 166°C; yellow acicular crystals (methanol), mp 168–169°C. Pharm: Antibacterial (*in vitro*: *Staphylococcus aureus* 209P, *Bacillus subtilis* 6633, *Bacillus coli*, *Bacillus diphtheriae*, *Streptococcus* sp., *Streptobacillus* sp., *Salmonella* sp., *Bacillus proteus*, *Bacillus lactis*, *Klebsiella pneumoniae*, *Diplococcus pneumoniae*, hemolytic  $\beta$ -*Streptococcus*); antileishmanial; antifungal (*Aspergillus niger*). Source: CHANG YE KUAN MU *Eurycoma longifolia* (root: yield = 0.000019%dw), KU SHU PI *Picrasma quassioides* [Syn. *Picrasma ailanthoides*], YUAN ZHI *Polygala tenuifolia*, KU MU *Picrasma quassioides* [Syn. *Picrasma ailanthoides*] (powder: content scope of 5 origins = 0.002%–0.234%, mean content = 0.080%<sup>[5508]</sup>), YUAN CHI KU MU *Picrasma crenata*, MA LA BA CHU *Ailanthus malabarica*, DI SHI WU TAN *Nauclea diderrichii*. Ref: 12, 538, 661, 2178, 4728, 5501, 5508.

**3159  $\beta$ -Carboline-1-propionic acid**

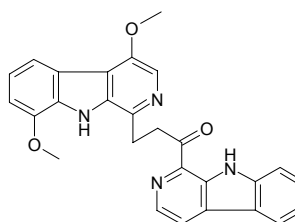
[89915-39-9] C<sub>14</sub>H<sub>12</sub>N<sub>2</sub>O<sub>2</sub> (240.26). Pharm: Cytotoxic (*in vitro*, MCF7, ED<sub>50</sub> > 20 $\mu$ g/mL; HIV, no significant effect)<sup>[4728]</sup>; antimalarial inactive (*Plasmodium falciparum* clones W2, D6, and TM91C235)<sup>[4728]</sup>. Source: CHANG YE KUAN MU *Eurycoma longifolia* (root: yield = 0.0001%dw), KU SHU PI *Picrasma quassioides* [Syn. *Picrasma ailanthoides*]. Ref: 12, 4728.

**3160 1-( $\beta$ -Carbolin-1-yl)-4-(4,8-dimethoxy- $\beta$ -carbolin-1-yl)-2-methoxybutan-1-one**

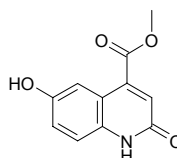
Picrasidine C [88142-61-4] C<sub>29</sub>H<sub>26</sub>N<sub>4</sub>O<sub>4</sub> (494.55). Yellowish granular crystals (methanol). Pharm: cAMP phosphodiesterase inhibitor (*in vitro*, IC<sub>50</sub> = 51 $\mu$ mol/L). Source: KU SHU PI *Picrasma quassioides* [Syn. *Picrasma ailanthoides*]. Ref: 12, 1008, 1025, 1198, 1521.

**3161 1-( $\beta$ -Carbolin-1-yl)-3-(4,8-dimethoxy- $\beta$ -carbolin-1-yl)propan-1-one**

C<sub>27</sub>H<sub>22</sub>N<sub>4</sub>O<sub>3</sub> (450.50). Source: KU SHU PI *Picrasma quassioides* [Syn. *Picrasma ailanthoides*]. Ref: 12.

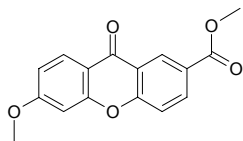
**3162 4-Carbomethoxy-6-hydroxy-2-quinolone**

C<sub>11</sub>H<sub>9</sub>NO<sub>4</sub> (219.2). Pale yellow needles (MeOH), mp >320°C. Pharm: Antioxidant (*in vitro*, DPPH radical scavenger, IC<sub>50</sub> = 28.9 $\mu$ g/mL, moderate activity). Source: DAO CAO *Oryza sativa* (aleurone layer). Ref: 3098.

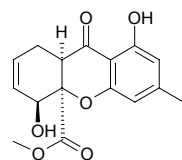


**3163 2-Carbomethoxy-6-methoxyxanthone**

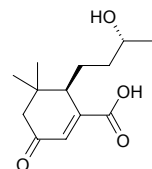
$C_{16}H_{12}O_5$  (284.27). Colorless crystals, mp 154–156°C. Source: TE SI MAN NI HU TONG BIAN ZHONG *Calophyllum teysmannii* var. *inophylloide* (wood). Ref: 5112.

**3164 (4S,4aR,9aR)-4a-Carbomethoxy-1,4,4a,9a-tetrahydro-4,8-dihydroxy-6-methylxanthone**

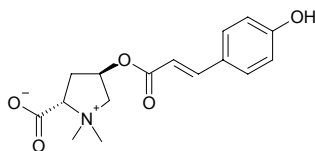
EQ-7  $C_{16}H_{16}O_6$  (304.30). White powder,  $[\alpha]_D^{25} = +31.4^\circ$  ( $c = 0.087$ , MeOH). Source: *Gelasinospora santi-florii*. Ref: 2103.

**3165 13-Carboxy-blumenol C**

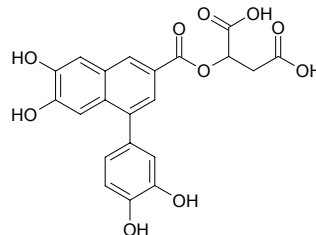
$C_{13}H_{20}O_4$  (240.30). Colorless gum,  $[\alpha]_D^{25} = +57.76^\circ$  ( $c = 0.29$ , MeOH). Source: BAI YE XIANG CHA CAI *Isodon leucophyllus*. Ref: 2489.

**3166 (2S,4R)-2-Carboxy-4-(E)-p-coumaroyloxy-1,1-dimethylpyrrolidinium inner salt**

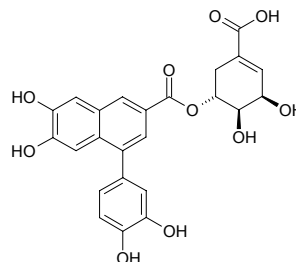
$C_{16}H_{19}NO_5$  (305.33). Colorless plates (MeOH:MeCN = 1:2), mp 239–241°C,  $[\alpha]_D^{20} = +3.9^\circ$  ( $c = 0.1$ , MeOH). Pharm: Antitrypanosomal (*Trypanosoma b. rhodesiense*,  $IC_{50} = 64.4\mu\text{g/mL}$ , control Melarsoprol,  $IC_{50} = 0.00098\mu\text{g/mL}$ ; *Trypanosoma cruzi*,  $IC_{50} > 90\mu\text{g/mL}$ , control Benznidazole,  $IC_{50} = 1.06\mu\text{g/mL}$ ); antileishmanial (*Leishmania donovani*,  $IC_{50} = 9.1\mu\text{g/mL}$ , control Miltefosine,  $IC_{50} = 0.102\mu\text{g/mL}$ ); antimalarial (*Plasmodium falciparum*,  $IC_{50} > 50\mu\text{g/mL}$ , control Artemisinin,  $IC_{50} = 0.0022\mu\text{g/mL}$ ); cytotoxic (L6,  $IC_{50} > 90\mu\text{g/mL}$ , control Podophyllotoxin,  $IC_{50} = 0.008\mu\text{g/mL}$ ). Source: ZONG KUI CAO SU *Phlomis brunneogaleata*. Ref: 5009.

**3167 3-Carboxy-6,7-dihydroxy-1-(3',4'-dihydroxyphenyl)-naphthalene-9,2''-O-malic acid ester**

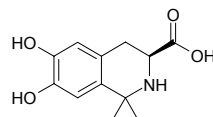
$C_{21}H_{16}O_{10}$  (428.36).  $[\alpha]_D^{20} = -7.5^\circ$  ( $c = 0.28$ ). Source: LIE E TAI *Chiloscyphus polyanthus*, WAN QU ZHI YE TAI *Lepidozia incurvata*, XIN XING SHEN YE YE TAI *Jungermannia exsertifolia* ssp. *cordifolia*. Ref: 2420.

**3168 3-Carboxy-6,7-dihydroxy-1-(3',4'-dihydroxyphenyl)-naphthalene-9,5''-O-shikimic acid ester**

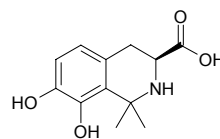
$C_{24}H_{20}O_{10}$  (468.36).  $[\alpha]_D^{20} = -14.0^\circ$  ( $c = 0.88$ ). Source: LIE E TAI *Chiloscyphus polyanthus*, WAN QU ZHI YE TAI *Lepidozia incurvata*, XIN XING SHEN YE YE TAI *Jungermannia exsertifolia* ssp. *cordifolia*. Ref: 2420.

**3169 (-)-3-Carboxy-1,1-dimethyl-6,7-dihydroxy-1,2,3,4-tetrahydroisoquinoline**

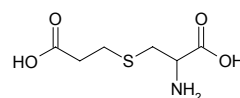
$C_{12}H_{15}NO_4$  (237.26). Viscous mass,  $[\alpha]_D^{35} = -155.3^\circ$  ( $c = 0.07$ , MeOH). Source: CI YANG LI DOU *Mucuna pruriens* (seed). Ref: 3857.

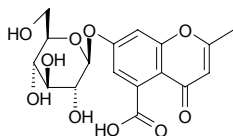
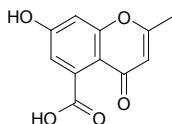
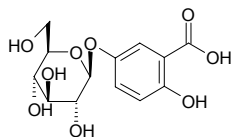
**3170 (-)-3-Carboxy-1,1-dimethyl-7,8-dihydroxy-1,2,3,4-tetrahydroisoquinoline**

$C_{12}H_{15}NO_4$  (237.26). Viscous mass,  $[\alpha]_D^{35} = -144.2^\circ$  ( $c = 0.01$ , MeOH). Source: CI YANG LI DOU *Mucuna pruriens* (seed). Ref: 3857.

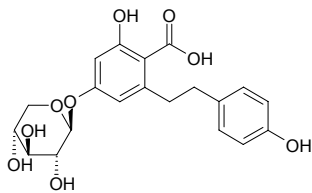
**3171 S-(2-Carboxyethyl)-L-cysteine**

$C_6H_{11}NO_4S$  (193.22). mp 218°C. Source: HE HUAN PI *Albizia julibrissin*. Ref: 6.

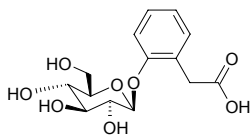


**3172 5-Carboxy-7-glucosyloxy-2-methyl-benzopyran- $\gamma$ -one**C<sub>17</sub>H<sub>18</sub>O<sub>10</sub> (382.33). Source: DA HUANG *Rheum officinale*. Ref: 2.**3173 5-Carboxy-7-hydroxy-2-methyl-benzopyran- $\gamma$ -one**C<sub>11</sub>H<sub>8</sub>O<sub>5</sub> (220.18). Source: DA HUANG *Rheum officinale*. Ref: 2.**3174 3-Carboxy-4-hydroxy-phenoxy glucoside**C<sub>13</sub>H<sub>16</sub>O<sub>9</sub> (316.27). Source: HUANG LIAN *Coptis chinensis*. Ref: 2.**3175 2-Carboxyl-3,4'-dihydroxy-5- $\beta$ -D-xylopyranosyloxybibenzyl**

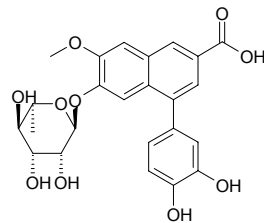
C<sub>20</sub>H<sub>22</sub>O<sub>9</sub> (406.39). Amorphous yellowish color, >205°C (glass transition),  $[\alpha]_D^{20} = -22^\circ$  ( $c = 1.32$ , MeOH). Pharm: Antioxidant inactive (DPPH scavenger, IC<sub>50</sub> > 200 $\mu$ g/mL; control Ascorbic acid, IC<sub>50</sub> = (2.49 $\pm$ 0.32) $\mu$ g/mL; Caffeic acid, IC<sub>50</sub> = (1.78 $\pm$ 0.03) $\mu$ g/mL; Chlorogenic acid, IC<sub>50</sub> = (1.28 $\pm$ 0.38) $\mu$ g/mL). Source: SUAN YE PO LUO MEN SHEN *Tragopogon porrifolius* (subaerial parts). Ref: 5307.

**3176 2-Carboxymethylphenol 1-O- $\beta$ -D-glucopyranoside**

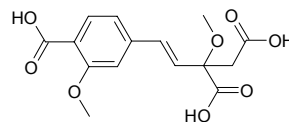
C<sub>14</sub>H<sub>18</sub>O<sub>8</sub> (314.29). Tan amorphous powder,  $[\alpha]_D^{20} = -30.5^\circ$  ( $c = 0.7$ , MeOH). Source: AN MO LE *Phyllanthus emblica* (root). Ref: 3065.

**3177 3-Carboxy-6-methoxy-1-(3',4'-dihydroxyphenyl)-naphthalene-7-O- $\alpha$ -L-rhamnopyranoside**

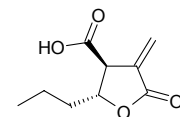
C<sub>24</sub>H<sub>24</sub>O<sub>10</sub> (472.45).  $[\alpha]_D^{20} = -72.0^\circ$  ( $c = 0.18$ ). Source: LIE E TAI *Chiloscyphus polyanthus*, WAN QU ZHI YE TAI *Lepidozia incurvata*, XIN XING SHEN YE YE TAI *Jungermannia exsertifolia* ssp. *cordifolia*. Ref: 2420.

**3178 2-(4-Carboxy-3-methoxystyryl)-2-methoxysuccinic acid**

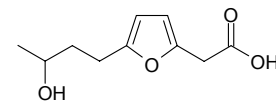
5-(4-Carboxy-3-methoxyphenyl)-3-methoxy-3-carboxy-4-pentenoic acid  
C<sub>15</sub>H<sub>16</sub>O<sub>8</sub> (324.29). Source: XIAO DI YU *Sanguisorba minor*. Ref: 3385.

**3179 (3S,4R)-3-Carboxy-2-methylene-heptan-4-olide**

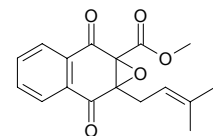
C<sub>9</sub>H<sub>12</sub>O<sub>4</sub> (184.19). mp 77–80°C,  $[\alpha]_D^{25} = +18.2^\circ$  ( $c = 0.22$ , CHCl<sub>3</sub>). Source: *Lasiodiplodia theobromae* (fruit). Ref: 3867.

**3180 2-Carboxymethyl-4-(3'-hydroxybutyl)furan**

C<sub>10</sub>H<sub>14</sub>O<sub>4</sub> (198.22). Source: YONG CHONG CAO *Cordyceps militaris*. Ref: 4784.

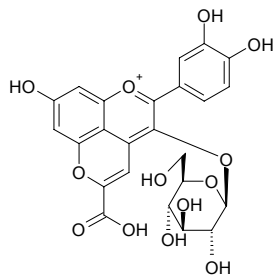
**3181 2-Carboxymethyl-3-phenyl-2,3-epoxy-1,4-naphthoquinone**

[133361-29-2] C<sub>17</sub>H<sub>16</sub>O<sub>5</sub> (300.31). Oil,  $[\alpha]_D = 0^\circ$  ( $c = 0.3$ , methanol). Pharm: Antineoplastic (S<sub>180</sub> *in vivo*, EC = 5mg/(kg·d)); cytotoxic (mus, V-79 *in vitro* and *in vivo*, IC<sub>50</sub> = 1.7 $\mu$ g/mL, P<sub>388</sub> *in vitro* and *in vivo*, IC<sub>50</sub> = 0.12 $\mu$ g/mL, KB *in vitro* and *in vivo*, IC<sub>50</sub> = 0.7 $\mu$ g/mL). Source: QIAN CAO GEN *Rubia cordifolia*. Ref: 958, 1094.

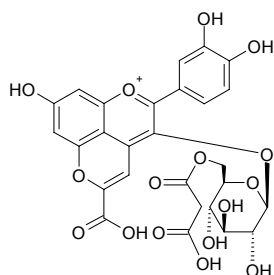


**3182 5-Carboxypyranocyanidin-3-O- $\beta$ -glucopyranoside**

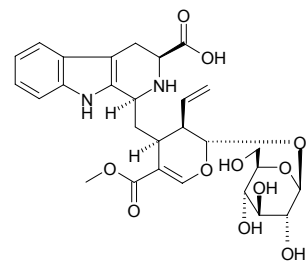
$C_{24}H_{21}O_{13}$  (517.43). Source: YANG CONG *Allium cepa*. Ref: 2042.

**3183 5-Carboxypyranocyanidin-3-O-(6''-O-malonyl- $\beta$ -glucopyranoside)**

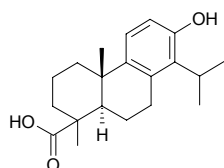
$C_{27}H_{23}O_{16}$  (603.47). Source: YANG CONG *Allium cepa*. Ref: 2042.

**3184 (5S)-5-Carboxystrictosidine**

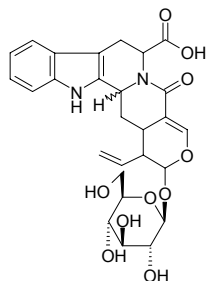
Tetrahydrodesoxycordifoline  $C_{28}H_{34}N_2O_{11}$  (574.59). Source: JI ZI MU *Sinoadina Racemosa* [Syn. *Adina racemosa*] (dried leaf, flower and twig: yield = 0.0085%dw), KUAN YE WU TAN *Nauclea latifolia* (bark and wood: yield = 0.004%). Ref: 3014, 4303.

**3185 16-Carboxytotarol**

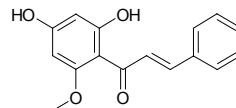
$C_{20}H_{28}O_3$  (316.44). Source: LUO HAN SONG YE *Podocarpus macrophyllus*. Ref: 6.

**3186 3 $\alpha$ ,3 $\beta$ -Carboxyvincoside lactam**

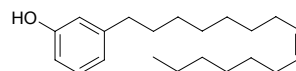
$C_{27}H_{30}N_2O_{10}$  (542.55). Pharm: Antibacterial (*in vitro*: *Staphylococcus aureus*, *Bacillus subtilis*, *Bacillus coli*, *Bacillus diphtheriae*, *Streptococcus* sp., *Streptobacillus* sp., *Salmonella* sp., *Bacillus proteus*, *Bacillus lactis*, *Klebsiella pneumoniae*); antileishmanial; antifungal (*Aspergillus niger*). Source: DONG FANG WU TAN *Nauclea orientalis*. Ref: 2178.

**3187 Cardamonin**

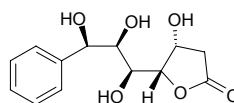
[19309-14-9]  $C_{16}H_{14}O_4$  (270.29). mp 207°C. Source: CAO DOU KOU *Alpinia katsumadai* (dried closing-ripe seed: mean content = 0.48%<sup>[5508]</sup>), DA CAO KOU *Alpinia speciosa*. Ref: 6, 5508.

**3188 Cardanol**

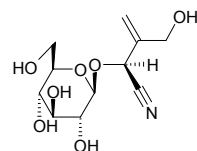
Anacanol [501-26-8]  $C_{21}H_{34}O$  (302.50). Pharm: Antineoplastic (S<sub>180</sub>); 5-lipoxygenase inhibitor; cyclooxygenase inhibitor; irritant. Source: BAI GUO *Ginkgo biloba*, XIAO RU XIANG *Schinus terebinthifolius*, DU XIAN ZI *Anacardium occidentale*. Ref: 6, 658.

**3189 Cardiobutanolide**

$C_{13}H_{16}O_6$  (268.27). White crystals (acetone), mp 189–190°C,  $[\alpha]_D^{24} = +6.4^\circ$  (c = 0.28, MeOH). Source: XIN XING BAN GE NA XIANG *Goniothalamus cardiopetalus*. Ref: 2056.

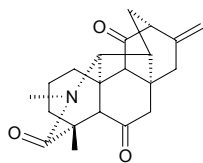
**3190 Cardiospermin**

[54525-10-9]  $C_{11}H_{17}NO_7$  (275.26). Pharm: Toxin. Source: DA HUA DAO DI LING *Cardiospermum grandiflorum*, MAO DAO DI LING *Cardiospermum hirsutum*. Ref: 658.

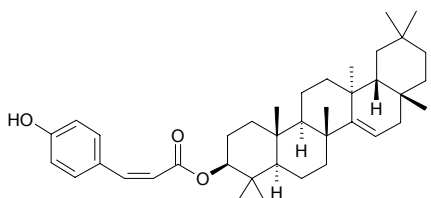


**3191 Carduchorone**

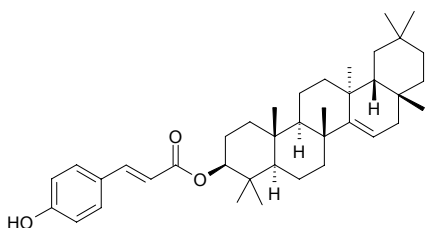
$C_{21}H_{25}NO_3$  (339.44). Source: *Delphinium carduchorum*. Ref: 2288.

**3192 cis-Careaborin**

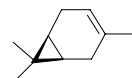
$C_{39}H_{56}O_3$  (572.88). White amorphous powder. Source: HONG HAI LAN  
*Rhizophora stylosa* (twig), HONG SHU *Rhizophora apiculata*. Ref: 1521, 4425.

**3193 trans-Careaborin**

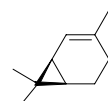
$C_{39}H_{56}O_3$  (572.88). White amorphous powder. Source: HONG HAI LAN  
*Rhizophora stylosa* (twig), KA LI YU RUI *Careya arborea*. Ref: 1521, 4425.

**3194 Carene-3**

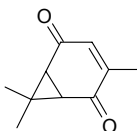
[13466-78-9]  $C_{10}H_{16}$  (136.24). bp (+) 170°C, (-) 166~167°C/685mmHg.  
Pharm: irritant (local). Source: DU SONG SHI *Juniperus rigida*, FENG DOU  
CAI *Petasites japonicus*, GAN SONG *Nardostachys chinensis*, HAI SONG  
ZI *Pinus koraiensis*, HOU PO *Magnolia officinalis*, JIU LI XIANG *Murraya  
paniculata* [Syn. *Chalcas paniculata*], LIAN QIAO *Forsythia suspensa*, LUO  
LE *Ocimum basilicum*, SHAN NAI *Kaempferia galanga*, SHENG JIANG  
*Zingiber officinale*, *Picea* sp., *Abies* sp. Ref: 2, 11, 658.

**3195 Carene-4**

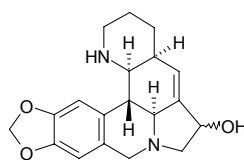
[554-61-0]  $C_{10}H_{16}$  (136.24). Source: JU PI *Citrus reticulata*, KUAN YE  
QIANG HUO *Notopterygium forbesii* [Syn. *Notopterygium franchetii*],  
HUANG HUA HAO *Artemisia annua*. Ref: 2, 660.

**3196 (±)-Car-3-ene-2,5-dione**

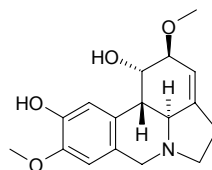
$C_{10}H_{12}O_2$  (164.21). Source: XI XIN *Asarum sieboldii*. Ref: 2.

**3197 Caribine**

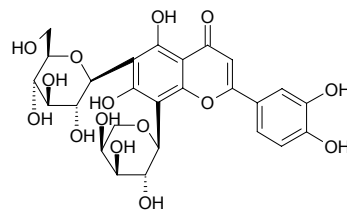
$C_{19}H_{22}N_2O_3$  (326.40). Pharm: Antineoplastic; antiviral. Source: SHA SHENG  
SHUI GUI JIAO *Hymenocallis arenicola*. Ref: 658.

**3198 Carinatine**

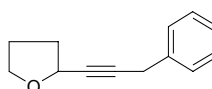
[64937-89-9]  $C_{17}H_{21}NO_4$  (303.36). Pharm: Antineoplastic; antiviral. Source:  
FENG YU HUA *Zephyranthes grandiflora* [Syn. *Zephyranthes carinata*]. Ref:  
658.

**3199 Carlinoside**

[59952-97-5]  $C_{26}H_{28}O_{15}$  (580.50). Pharm: Phagostimulant (order Hemiptera  
insect). Source: JING MI *Oryza sativa*. Ref: 658.

**3200 Carlinoxide**

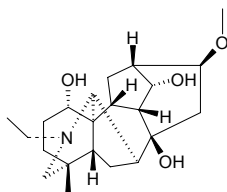
$C_{13}H_{14}O$  (186.26). Source: CHAO XIAN JI *Carlina acaulis* (the compound  
was isolated from the plant by Semmer Ascher in 1909)<sup>[5505]</sup>. Ref: 5505.



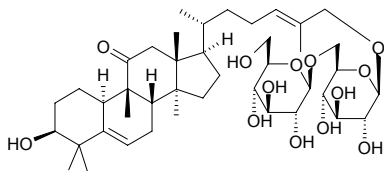
**3201 Carmichaeline**

Chuan-Wu-base B [39089-30-0]  $C_{22}H_{35}NO_4$  (377.53). **Pharm:**

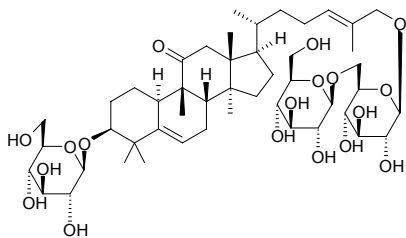
Antihypertensive (cat or dog, iv, action lasting 10–20min); similar action with talatizamine; toxin. **Source:** DUO GEN WU TOU *Aconitum karakolicum*, WU TOU *Aconitum carmichaeli*, WU ZHU FEI YAN CAO *Delphinium pentagynum*, FU ZI *Aconitum carmichaeli*. **Ref:** 2, 658.

**3202 Carnosifloside I**

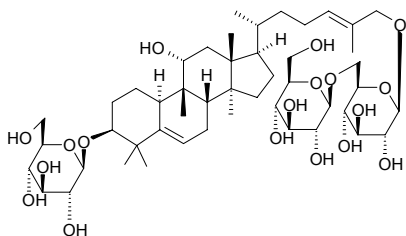
[109985-90-2]  $C_{42}H_{68}O_{13}$  (781.00). **Pharm:** Anti-infective (treatment of gastrois, ulcer, upper-respiratory tract infection, urethral infection, bronchitis, pneumonia, enteritis, bacillary dysentery and sepsis). **Source:** ROU HUA XUE DAN *Hemsleya carnosiflora*. **Ref:** 658.

**3203 Carnosifloside III**

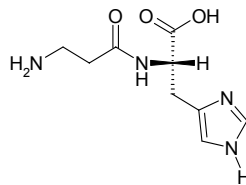
[109985-92-4]  $C_{48}H_{78}O_{18}$  (943.15). **Pharm:** Anti-infective (treatment of bacillary dysentery, duodenal ulcer, enteritis, gastrois and trachitis). **Source:** ROU HUA XUE DAN *Hemsleya carnosiflora*. **Ref:** 658.

**3204 Carnosifloside VI**

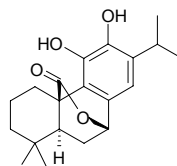
[109985-95-7]  $C_{48}H_{80}O_{18}$  (945.16). **Pharm:** Analgesic. **Source:** ROU HUA XUE DAN *Hemsleya carnosiflora*. **Ref:** 658.

**3205 Carnosine**

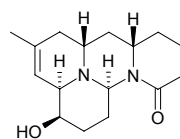
$\beta$ -Alanyl-L-histidine [305-84-0]  $C_9H_{14}N_4O_3$  (226.24). mp *L* (+) 246–250°C, *D* (–) 260°C (dec). **Source:** GOU ROU *Canis familiaris*, XIA TIAN GAO *Bos taurus domesticus*, MO GU *Agaricus campestris*, MAN LI YU *Anguilla japonica*, QING WA *Rana nigromaculata*; *Rana plancyi*, XIA TIAN GAO *Bos taurus domesticus*. **Ref:** 6.

**3206 Carnosol**

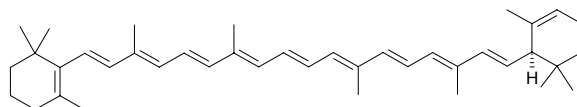
[5957-80-2]  $C_{20}H_{26}O_4$  (330.43). mp 221–226°C. **Pharm:** Bitter principle. **Source:** GAN XI SHU WEI CAO *Salvia przewalskii*, MI DIE XIANG *Rosmarinus officinalis*. **Ref:** 6, 4538.

**3207 Carolinianine**

$C_{16}H_{24}N_2O_2$  (276.38). **Pharm:** Toxin. **Source:** SI KA LUO LAI NA SHI SONG *Lycopodium carolinianum* var. *affine*. **Ref:** 658.

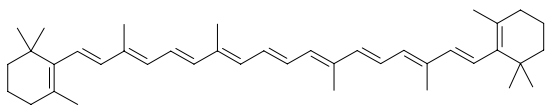
**3208  $\alpha$ -Carotene**

[7488-99-5]  $C_{40}H_{56}$  (536.89). mp 187.5°C.<sup>[5507]</sup> **Pharm:** Precursor of biosynthesis of vitamin A. **Source:** HU LUO BO *Daucus carota* var. *sativa*, NAN HE SHI *Daucus carota*, YU SHU SHU *Zea mays*, YOU ZONG *Elaeis guineensis*, FAN QIE *Lycopersicon esculentum*, SHI DI *Diospyros kaki*, HONG TOU CAO *Blumea lacera*, BIAN DOU *Dolichos lablab*. **Ref:** 6, 658, 5507.

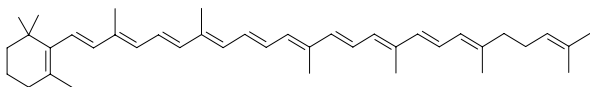


**3209  $\beta$ -Carotene**

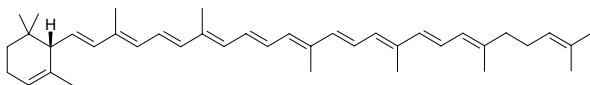
*trans*- $\beta$ -Carotene [7235-40-7] C<sub>40</sub>H<sub>56</sub> (536.89). mp 184°C.<sup>[5507]</sup> **Pharm:** EBV-EA activation inhibitor (Raji cells *in vitro*, TPA-induced, IC<sub>50</sub> = 400mol ratio/32pmol TPA)<sup>[3483, 4737, 5048, 5255]</sup>; anti-tumor promotor (*in vivo*, mouse skin tumor, inhibits TPA-induced EBV-EA activation, 100mol ratio/32pmol TPA, EBV-EA positive cells = 82.7% viability)<sup>[4982]</sup>; ultraviolet screen; precursor in the biosynthesis to vitamin A); pigment; food additive. **Source:** BAI GUO *Ginkgo biloba* (dried ripe seed: content = 0.0002%)<sup>[5508]</sup>, BAN WEN LU HUI *Aloe vera* var. *chinensis*, FAN MU GUA *Carica papaya*, GAN SHU *Ipomoea batatas* [Syn. *Convolvulus batatas*], GOU QI ZI *Lycium chinense*, HONG HAI JIAO *Capsicum annuum*, LA JIAO *Capsicum frutescens*, MU XU *Medicago sativa*, NAN HE SHI *Daucus carota*, YI ZHU QIAN MA *Urtica dioica*, *Ulex* sp., *Dioscorea* sp., *Rosa* sp. **Ref:** 2, 15, 658, 660, 3483, 4737, 4982, 5048, 5255, 5507, 5508.

**3210  $\gamma$ -Carotene**

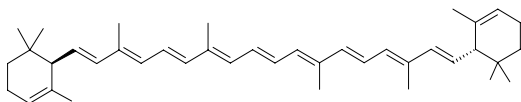
[472-93-5] C<sub>40</sub>H<sub>56</sub> (536.89). mp 178°C.<sup>[5507]</sup> **Pharm:** Precursor of biosynthesis of vitamin A); yellow pigment. **Source:** FAN MU GUA *Carica papaya*, FAN QIE *Lycopersicon esculentum*, HONG HAI JIAO *Capsicum annuum*, NAN HE SHI *Daucus carota*, SHI DI *Diospyros kaki*, YU SHU SHU *Zea mays*, *Cuscuta* sp. **Ref:** 6, 658, 5507.

**3211  $\delta$ -Carotene**

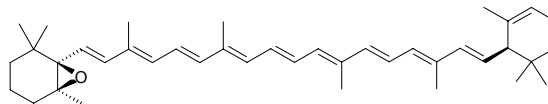
[472-92-4] C<sub>40</sub>H<sub>56</sub> (536.89). **Source:** CU LIU GUO *Hippophae rhamnoides*, XIAO JIN ZHAN HUA *Calendula arvensis*, HAN LIAN HUA *Tropaeolum majus*, NAN HE SHI *Daucus carota*. **Ref:** 658.

**3212  $\epsilon$ -Carotene**

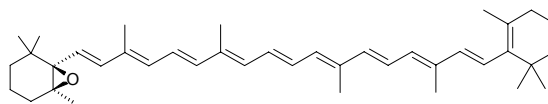
[472-89-9] C<sub>40</sub>H<sub>56</sub> (536.89). mp 199~201°C. **Source:** HU LUO BO *Daucus carota* var. *sativa*. **Ref:** 6.

**3213  $\alpha$ -Carotene-5,6-epoxide**

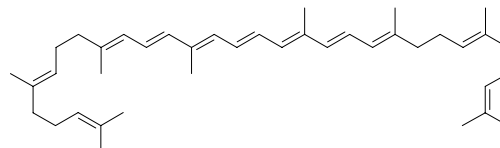
[37721-41-8] C<sub>40</sub>H<sub>56</sub>O (552.89). **Source:** NAN FANG TU SI ZI *Cuscuta australis*. **Ref:** 6, 660.

**3214  $\beta$ -Carotene-5,6-epoxide**

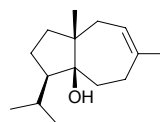
[1923-89-3] C<sub>40</sub>H<sub>56</sub>O (552.89). **Pharm:** Precursor to biosynthesis of vitamin A. **Source:** FAN MU GUA *Carica papaya*, TIAN CHENG *Citrus sinensis*, KUAN DONG HUA *Tussilago farfara*, MANG GUO *Mangifera indica*, *Malus* sp., *Forsythia* sp. **Ref:** 658.

**3215  $\zeta$ -Carotene**

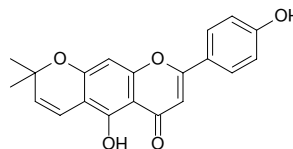
[13587-06-9] C<sub>40</sub>H<sub>60</sub> (540.92). mp 38~42°C. **Pharm:** Yellow pigment. **Source:** FAN MU GUA *Carica papaya*, FAN QIE *Lycopersicon esculentum*, HU LUO BO *Daucus carota* var. *sativa*, JIN QUE ER *Cytisus scoparius* [Syn. *Spartium scoparium*], MEI ZHOU SUAN GUO LUO *Vaccinium macrocarpon*, YU SHU SHU *Zea mays*. **Ref:** 6.

**3216 Carotol**

[465-28-1] C<sub>15</sub>H<sub>26</sub>O (222.37). bp (+) 126°C/2.5mmHg. **Source:** HU LUO BO *Zi Daucus carota* var. *sativa*, HE SHI FENG *Daucus carota*, NAN HE SHI *Daucus carota*. **Ref:** 6, 660.

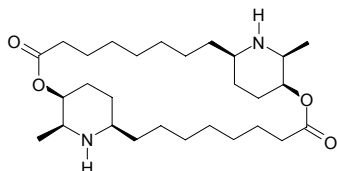
**3217 Carpachromene**

C<sub>20</sub>H<sub>16</sub>O<sub>5</sub> (336.35). **Source:** *Erythrina vogelii*. **Ref:** 4421.

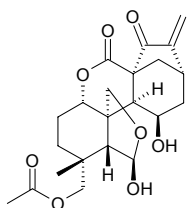


**3218 Carpine**

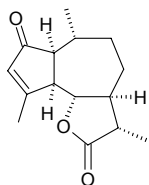
[3463-92-1]  $C_{28}H_{50}N_2O_4$  (478.72). mp 119~120°C. **Pharm:** Analgesic (anaesthetic to skeletal muscle, skeletal muscle relaxant); antineoplastic (L<sub>1210</sub>); antiprotozoal (amoeba, protozoan); antihypertensive (rbt); makes heart stop in period of relaxation (frog and rbt, *in vitro*); toxin (paralyses CNS). **Source:** HU LU BA *Trigonella foenum-graecum*, FAN MU GUA *Carica papaya*. **Ref:** 1, 5, 6.

**3219 Carpalasionin**

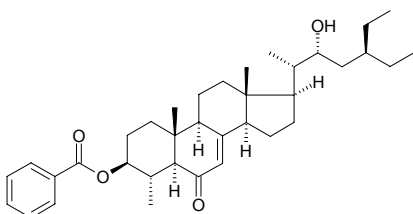
[83150-97-4]  $C_{22}H_{28}O_8$  (420.46). mp 287~288°C,  $[\alpha]_D^{27} = -122.3^\circ$  ( $c = 0.19$ , MeOH). **Source:** CU GUO XIANG CHA CAI *Isodon lasiocarpa*. **Ref:** 4067.

**3220 Carpesia lactone**

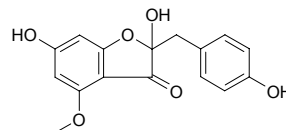
[82460-83-1]  $C_{15}H_{20}O_3$  (248.32). bp 195°C/4mmHg. **Pharm:** Bidirectional action to CNS (mus, first excitation then inhibition, causes paroxysm convulsion and death in high dose, inhibits respiration of cerebral tissue); antipyretic (rbt); hypnotic (marked synergistic effect with barbitone medicines); LD<sub>50</sub> (mus, ip) = 100mg/kg. **Source:** TIAN MING JING *Carpesium abrotanoides*, TIAN MING JING GUO *Carpesium abrotanoides*. **Ref:** 1, 6, 660.

**3221 Carpesterol**

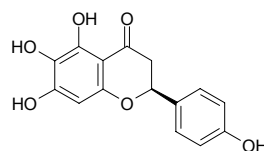
[31077-78-8]  $C_{37}H_{54}O_4$  (562.84). mp 248°C. **Pharm:** Antihepatotoxin (mus, 10mg/kg, due to carbon tetrachloride); anti-inflammatory. **Source:** HUANG GUO QIE *Solanum xanthocarpum*. **Ref:** 6, 1521, 1830.

**3222 Carpusin**

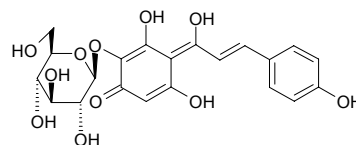
Marsupin  $C_{16}H_{14}O_6$  (302.29). Whitish crystals. **Pharm:** Antioxidant (DPPH radical scavenger, IC<sub>50</sub> = 4.7μg/mL; control Ascorbic acid, IC<sub>50</sub> = 3.9μg/mL). **Source:** ZANG BIAN DA HUANG *Rheum emodi* [Syn. *Rheum australe*] (root: yield = 0.028%dw). **Ref:** 4711.

**3223 Carthamidin**

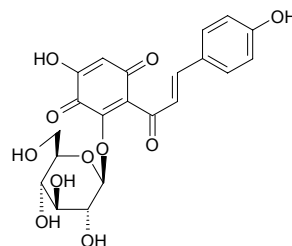
[479-54-9]  $C_{15}H_{12}O_6$  (288.26). **Source:** BAN ZHI LIAN *Scutellaria barbata* [Syn. *Scutellaria rivularis*], HONG HUA *Carthamus tinctorius*. **Ref:** 2, 5501.

**3224 Carthamin**

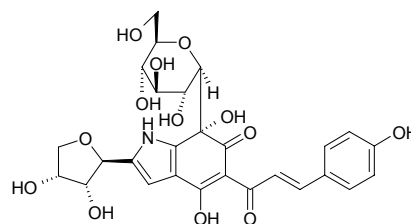
[36338-96-2]  $C_{21}H_{22}O_{11}$  (450.40). **Source:** HONG HUA *Carthamus tinctorius*. **Ref:** 2.

**3225 Carthamone**

[86579-00-2]  $C_{21}H_{20}O_{11}$  (448.39). **Pharm:** Pigment. **Source:** HONG HUA *Carthamus tinctorius*. **Ref:** 2, 658.

**3226 Cartormin**

$C_{27}H_{29}NO_{13}$  (575.53). mp > 230°C. **Source:** HONG HUA *Carthamus tinctorius*. **Ref:** 9.



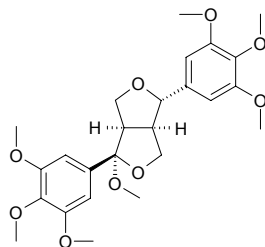


**3227 Caruilignan A**

$C_{25}H_{32}O_9$  (476.53). Amorphous powder,  $[\alpha]_D^{24} = +61.6^\circ$  ( $c = 0.83$ ,  $CHCl_3$ ).

**Pharm:** Cytotoxic (Meth-A,  $ED_{50} = 6.5\mu g/mL$ , LLC,  $ED_{50} > 10\mu g/mL$ ).

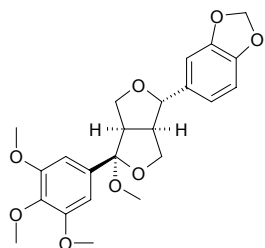
**Source:** QING HAO *Artemisia apiacea* [Syn. *Artemisia carvifolia*; *Artemisia caruifolia*] (aerial parts). **Ref:** 3510.

**3228 Caruilignan B**

$C_{25}H_{26}O_8$  (430.46). Amorphous powder,  $[\alpha]_D^{24} = +78.8^\circ$  ( $c = 0.51$ ,  $CHCl_3$ ).

**Pharm:** Cytotoxic (Meth-A,  $ED_{50} = 4.9\mu g/mL$ , LLC,  $ED_{50} > 10\mu g/mL$ ).

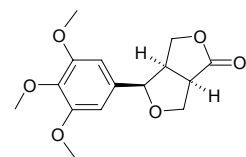
**Source:** QING HAO *Artemisia apiacea* [Syn. *Artemisia carvifolia*; *Artemisia caruifolia*] (aerial parts). **Ref:** 3510.

**3229 Caruilignan C**

$C_{15}H_{18}O_6$  (294.31). Amorphous powder,  $[\alpha]_D^{24} = +144.1^\circ$  ( $c = 0.18$ ,  $CHCl_3$ ).

**Pharm:** Cytotoxic (Meth-A,  $ED_{50} = 10\mu g/mL$ , LLC,  $ED_{50} > 10\mu g/mL$ ). **Source:**

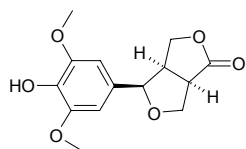
QING HAO *Artemisia apiacea* [Syn. *Artemisia carvifolia*; *Artemisia caruifolia*] (aerial parts). **Ref:** 3510.

**3230 Caruilignan D**

$C_{14}H_{16}O_6$  (280.28). Amorphous powder,  $[\alpha]_D^{24} = +126.0^\circ$  ( $c = 0.13$ ,  $CHCl_3$ ).

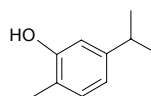
**Pharm:** Cytotoxic (Meth-A,  $ED_{50} > 10\mu g/mL$ , LLC,  $ED_{50} > 10\mu g/mL$ ). **Source:**

QING HAO *Artemisia apiacea* [Syn. *Artemisia carvifolia*; *Artemisia caruifolia*] (aerial parts). **Ref:** 3510.

**3231 Carvacrol**

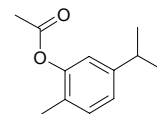
2-*p*-Cymenol [499-75-2]  $C_{10}H_{14}O$  (150.22). bp 237–238°C. **Pharm:**

Anthelmintic; antibacterial; antifungal; antispasmodic (gpg ileum and rat duodenum convulsion caused by histamine, barium chloride and acetylcholine); enhances trypsin activity; irritant; antifungal (*Aspergillus niger* KCCM11239, MFC = 0.78mg/mL; *Aspergillus flavus* KCCM11453, MFC = 0.39mg/mL; *Candida albicans* KCCM11282, MFC = 0.39mg/mL; *Candida utilis* KCCM11356, MFC = 0.39mg/mL; *Cryptococcus neoformans* KCCM0564, MFC = 0.39mg/mL; *Trichosporon mucoides* KCCM50570, MFC = 0.19mg/mL; *Trichophyton rubrum* ATCC6345, MFC = 0.09mg/mL; *Blastoschyzomyces capitatus* KCCM50270, MFC = 0.39mg/mL)<sup>[4079]</sup>. **Source:** DANG GUI *Angelica sinensis*, HA DA SHI JI NING *Orthodon hadai*, JIN YIN HUA *Lonicera japonica*, JU JIANG YE *Piper betle*, JU PI *Citrus reticulata*, QING GUO *Canarium album*, SHE XIANG CAO *Thymus vulgaris*, SHI XIANG RU *Mosla chinensis* [Syn. *Orthodon chinensis*] (dried aerial parts: content scope of 10 origins = 0.00%–0.50%, mean content = 0.19%<sup>[5508]</sup>), TU XIANG RU *Origanum vulgare*, XI XIN *Asarum sieboldii*, ZHANG MU *Cinnamomum camphora*, CHAO XIAN DA BAI LI XIANG *Thymus magnus*, WU MAI BAI LI XIANG *Thymus quinquecostatus*. **Ref:** 1, 2, 4079, 5508.

**3232 Carvacrol acetate**

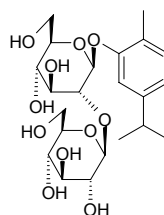
[4395-82-8]  $C_{12}H_{16}O_2$  (192.26). bp 245–248°C. **Source:** SHI XIANG RU

*Mosla chinensis* [Syn. *Orthodon chinensis*]. **Ref:** 6.

**3233 Carvacrol 2-O-β-glucopyranosyl-(1→2)-β-glucopyranoside**

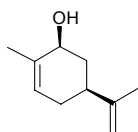
$C_{22}H_{34}O_{11}$  (474.51).  $[\alpha]_D^{25} = -25.1^\circ$  ( $c = 1.60$ , MeOH). **Source:** XU LI YA

NIU ZHI *Origanum syriacum* (aerial parts). **Ref:** 5223.

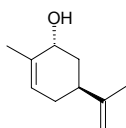


**3234 cis-Carveol**

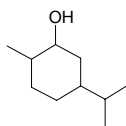
[7632-16-8] C<sub>10</sub>H<sub>16</sub>O (152.24). Source: HUANG HUA HAO *Artemisia annua*.  
Ref: 1, 2, 660.

**3235 trans-Carveol**

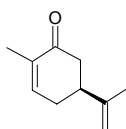
[2102-58-1] C<sub>10</sub>H<sub>16</sub>O (152.24). Pharm: Antiasthmatic. Source: AI YE  
*Artemisia argyi*, HUANG HUA HAO *Artemisia annua*. Ref: 1, 660.

**3236 Carvomenthol**

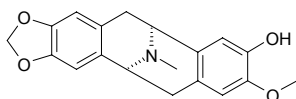
(1 $\alpha$ ,2 $\beta$ ,5 $\alpha$ )-2-Methyl-5-(1-methylethyl)cyclohexanol [499-69-4] C<sub>10</sub>H<sub>20</sub>O  
(156.27). bp (+) 101.8°C/14mmHg. Source: CHOU SHAN YANG *Orixa japonica*. Ref: 6.

**3237 Carvone**

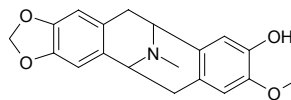
2-Methyl-5-(1-methylethenyl)-2-cyclohexen-1-one [99-49-0] C<sub>10</sub>H<sub>14</sub>O (150.22). bp  
230°C/755mmHg, 91°C/5-6mmHg. Pharm: Antiseptic; antitussive (suppresses  
cough and calms asthma); carminative (expels wind and settles pain); flavorant.  
Source: BAI DOU KOU *Amomum kravanh* [Syn. *Amomum cardamomum*], CHAI  
HU *Bupleurum chinense*, GE LU ZI *Carum carvi*, HUANG HAO *Artemisia scoparia* [Syn. *Artemisia capillaris* var. *scoparia*], KUAN YE QIANG HUO  
*Notopterygium forbesii* [Syn. *Notopterygium franchetii*], LIU LAN XIANG  
*Mentha spicata*, SHI LUO ZI *Anethum graveolens*, YE JU *Chrysanthemum indicum*, YIN CHEN HAO *Artemisia capillaris*, YU JIN *Curcuma aromatica*, YU  
XIANG CAO *Mentha rotundifolia*, ZI CAI *Porphyra tenera*. Ref: 1, 2, 660.

**3238 (-)-Caryachine**

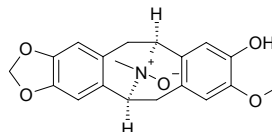
C<sub>19</sub>H<sub>19</sub>NO<sub>4</sub> (325.37). Source: HOU KE GUI *Cryptocarya chinensis* (leaf). Ref: 4129.

**3239 dl-Caryachine**

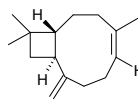
C<sub>19</sub>H<sub>19</sub>NO<sub>4</sub> (325.37). Source: HOU KE GUI *Cryptocarya chinensis* (wood). Ref: 3092.

**3240 (-)-Caryachine-N-oxide**

C<sub>19</sub>H<sub>19</sub>NO<sub>5</sub> (341.37). Colorless needles (acetone), mp >280°C, [ $\alpha$ ]<sub>D</sub> = -86.87°  
(c = 0.099, MeOH). Source: HOU KE GUI *Cryptocarya chinensis* (stem  
cortex). Ref: 4160.

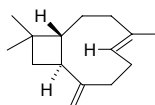
**3241  $\gamma$ -Caryophyllene**

Isocaryophyllene [118-65-0] C<sub>15</sub>H<sub>24</sub> (204.36). Oil, bp 125°C/14.5mmHg, [ $\alpha$ ]<sub>D</sub><sup>24</sup> =  
-27°. Pharm: Cytotoxic (cancer cell: MCF7, GI<sub>50</sub> = (84±6) $\mu$ mol/L, PC3, GI<sub>50</sub> =  
(87±8) $\mu$ mol/L, A549, GI<sub>50</sub> = (59±4) $\mu$ mol/L, DLD-1, GI<sub>50</sub> = (102±12) $\mu$ mol/L,  
M4BEU hmn melanoma cell, GI<sub>50</sub> = (43±3) $\mu$ mol/L, L-929, GI<sub>50</sub> = (34±1) $\mu$ mol/L,  
CT-26, GI<sub>50</sub> = (46±1) $\mu$ mol/L; normal hmn cell: fibroblasts, GI<sub>50</sub> = (124±15) $\mu$ mol/L;  
control Etoposide, GI<sub>50</sub> < 1.5 $\mu$ mol/L, Chlorambucil, GI<sub>50</sub> < 50 $\mu$ mol/L)<sup>[5391]</sup>;  
flavorant. Source: BAI CHANG *Acorus calamus*, BAI DOU KOU *Amomum kravanh* [Syn. *Amomum cardamomum*], BING PIAN *Dryobalanops aromatica*,  
CE BAI YE *Thuja orientalis* [Syn. *Platyclusus orientalis*; *Biota orientalis*], DING  
XIANG *Syzygium aromaticum* [Syn. *Eugenia caryophyllata*], DU SONG SHI  
*Juniperus rigida*, FENG DOU CAI *Petasites japonicus*, FU JU *Citrus tangemna*,  
GOU JU *Poncirus trifoliata*, GUANG HUO XIANG *Pogostemon cablin* [Syn.  
*Mentha cablin*], HU LUO BO *Daucus carota* var. *sativa*, HUANG GUO QIE  
*Solanum xanthocarpum*, HUANG HUA HAO *Artemisia annua*, HUO XIANG  
*Agastache rugosus*, JIA JING JIE *Nepeta cataria*, JIN QIAN PU *Acorus gramineus*,  
JIU LI XIANG *Murraya paniculata* [Syn. *Chalcas paniculata*], MAN SHAN  
HONG *Rhododendron dauricum*, MU HAO *Artemisia japonica*, PI JIU HUA  
*Humulus lupulus*, QING HAO *Artemisia apiacea* [Syn. *Artemisia carvifolia*;  
*Artemisia caruifolia*], SHAN HU JIAO *Lindera glauca*, SHE XIANG CAO  
*Thymus vulgaris*, TIAN MING JING *Carpesium abrotanoides*, TU DANG GUI  
*Aralia cordata*, WU SE MEI *Lantana camara*, WU YAO *Lindera strychnifolia*  
[Syn. *Lindera aggregata*], XIANG ZHI LENG SHAN *Abies balsamea* (essential  
oil extracted from leaves), YANG SHI CAO *Achillea millefolium*, YE XIANG  
MAO *Cymbopogon goeringii*, ZHANG MU *Cinnamomum camphora*, ZHU JU  
*Citrus erythrosa*, occurs in many plants. Ref: 658, 5391.



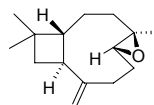
**3242  $\beta$ -Caryophyllene**

(-)-*trans*-Caryophyllene [87-44-5] C<sub>15</sub>H<sub>24</sub> (204.36). bp 129–130°C/14mmHg, bp (-) 118–119°C/9.7mmHg. **Pharm:** Flavorant. **Source:** AI YE *Artemisia argyi* (leaf: content = 0.0015%)<sup>[5501]</sup>, BAI CHANG *Acorus calamus*, BAI DOU KOU *Amomum kravanh* [Syn. *Amomum cardamomum*], BING PIAN *Dryobalanops aromatica*, CANG ZHU *Atractylodes lancea*, CE BAI YE *Thuja orientalis* [Syn. *Platycladus orientalis*; *Biota orientalis*] (leaf: content = 0.015%–0.020%)<sup>[5501]</sup>, DU SONG SHI *Juniperus rigida*, FENG DOU CAI *Petasites japonicus*, GOU JU *Poncirus trifoliata*, GUANG HUO XIANG *Pogostemon cablin* [Syn. *Mentha cablin*], HOU PO *Magnolia officinalis*, HU LUO BO *Daucus carota* var. *sativa*, HUANG GUO QIE *Solanum xanthocarpum*, HUANG HUA HAO *Artemisia annua*, HUI HUI SU GENG *Perilla frutescens* var. *crispa*, HUO XIANG *Agastache rugosus*, JIA JING JIE *Nepeta cataria*, JIAN ZI SU YE *Perilla frutescens* var. *acuta* [Syn. *Perilla frutescens* var. *purpurascens*], JING JIE *Schizonepeta tenuifolia* [Syn. *Nepeta tenuifolia*], JIU LI XIANG *Murraya paniculata* [Syn. *Chalcas paniculata*], KAN MAI NIANG ZHUANG SHA CAO *Cyperus alopecuroides* (essential oil), MAN SHAN HONG *Rhododendron dauricum*, MU HAO *Artemisia japonica*, PI JIU HUA *Humulus lupulus*, QING HAO *Artemisia apiacea* [Syn. *Artemisia carvifolia*; *Artemisia caruifolia*], REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*], SHAN HU JIAO *Lindera glauca*, SHE XIANG CAO *Thymus vulgaris*, SHENG JIANG *Zingiber officinale*, JIN QIAN PU *Acorus gramineus*, TIAN MING JING *Carpesium abrotanoides*, WU SE MEI *Lantana camara*, WU WEI ZI *Schisandra chinensis*, XI YANG SHEN *Panax quinquefolium*, XIANG ZHI LENG SHAN *Abies balsamea* (essential oil extracted from leaves), YANG SHI CAO *Achillea millefolium*, YE XIANG MAO *Cymbopogon goeringii*, YIN CHEN HAO *Artemisia capillaris*, YU XING CAO *Houttuynia cordata*, ZHANG MU *Cinnamomum camphora*, ZI SU YE *Perilla frutescens* var. *arguta*, occurs in many plants. **Ref:** 1, 2, 11, 658, 660, 5129, 5391, 5501.

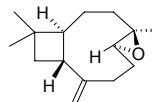
**3243 (6*R*,7*R*)-Caryophyllene oxide**

4,5-Epoxy-8(14)-caryophyllene;  $\beta$ -Caryophyllene epoxide [1139-30-6] C<sub>15</sub>H<sub>24</sub>O (220.36). [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -65° (*c* = 0.1, CHCl<sub>3</sub>). **Pharm:** Promotor of glutathione S-transferase (mus, liver and small intestine, prevents cancer); antifungal; antispasmodic (gpg, ileal contraction caused by histamine, IC<sub>50</sub> = 24µg/mL); antimalarial (*Plasmodium falciparum*, EC<sub>50</sub> = 345µmol/L); antibacterial (*Staphylococcus aureus*, MIC = 13.75µg/mL). **Source:** HUANG HAO *Artemisia scoparia* [Syn. *Artemisia capillaris* var. *scoparia*], XIANG

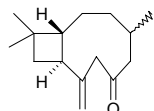
ZHI LENG SHAN *Abies balsamea* (essential oil extracted from leaves), XIONG RUI ZHUANG SHU WEI CAO *Salvia staminea*, YUN SHI *Caesalpinia decapetala* (leaf). **Ref:** 2, 660, 1089, 1808, 1809, 1810, 4456, 5391, 5400.

**3244 Caryophyllene oxide**

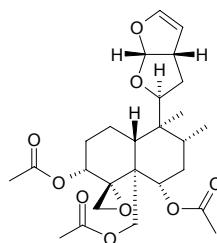
C<sub>15</sub>H<sub>24</sub>O (220.36). Colorless oil, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = ±0° (*c* = 0.93, CHCl<sub>3</sub>). **Pharm:** Platelet aggregation inhibitor (washed rabbit platelets, 50µg/mL, 100µmol/L AA-induced, InRt = 0.4%, control 50µmol/L Aspirin, InRt = 100%; 10µg/mL collagen-induced, InRt = 1.0%, 100µmol/L Aspirin, InRt = 4.9%; 0.1U/mL thrombin-induced, InRt = 4.6%, 100µmol/L Aspirin, InRt = 1.7%; 2ng/mL PAF-induced, InRt = 6.5%, 100µmol/L Aspirin, InRt = 2.1%)<sup>[5427]</sup>. **Source:** JI MEI YUN SHI *Caesalpinia pulcherrima* (leaf). **Ref:** 4394, 5427.

**3245 3(15)-Caryophyllen-5-one**

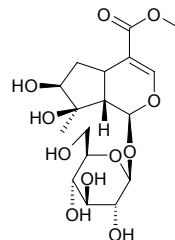
Buddledin E [68373-70-6] C<sub>15</sub>H<sub>24</sub>O (220.36). **Source:** DA YE ZUI YU CAO *Buddleja davidii*. **Ref:** 1521.

**3246 Caryoptin**

[50645-63-1] C<sub>26</sub>H<sub>36</sub>O<sub>9</sub> (492.57). **Pharm:** Insect antifeedant. **Source:** YOU<sup>(2)</sup> *Caryopteris divaricata*. **Ref:** 658.

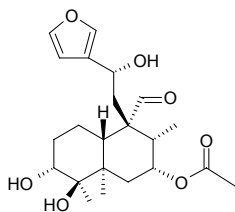
**3247 Caryoptoside**

C<sub>17</sub>H<sub>26</sub>O<sub>11</sub> (406.39). **Source:** XIAN SHENG MA XIAN HAO *Pedicularis muscicola*. **Ref:** 579.

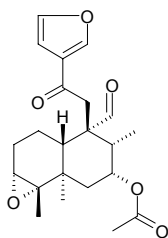


**3248 Cascarillin**

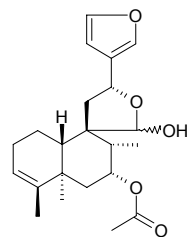
[10118-56-6]  $C_{22}H_{32}O_7$  (408.50). Pharm: Aromatic bitter. Source: KU XIANG SHU *Croton eluteria*. Ref: 658.

**3249 Cascarillin B**

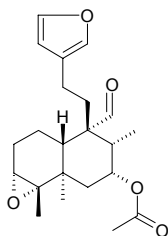
7 $\alpha$ -Acetoxy-3,4,15,16-diepoxy-12-oxo-cleroda-13(16),14-dien-20-al  
 $C_{22}H_{28}O_6$  (388.46). Yellow resin, mp 68–70°C,  $[\alpha]_D^{20} = -29.1^\circ$  ( $c = 1.65$ ,  $CHCl_3$ ). Source: KU XIANG SHU *Croton eluteria* (stem cortex). Ref: 5165.

**3250 Cascarillin C**

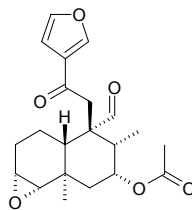
7 $\alpha$ -Acetoxy-15,16,12,20-diepoxy-20-hydroxy-cleroda-3,4,13(16),14-triene  
 $C_{22}H_{30}O_5$  (374.48). Clear yellowish resin, mp 60–62°C,  $[\alpha]_D^{20} = -47.6^\circ$  ( $c = 0.227$ ,  $CHCl_3$ ). Source: KU XIANG SHU *Croton eluteria* (stem cortex). Ref: 5165.

**3251 Cascarillin D**

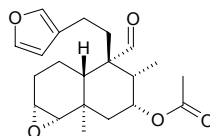
7 $\alpha$ -Acetoxy-3,4,15,16-diepoxy-cleroda-13(16),14-dien-20-al  $C_{22}H_{30}O_5$   
 (374.48). Clear yellowish resin, mp 64–66°C,  $[\alpha]_D^{20} = -23.6^\circ$  ( $c = 0.356$ ,  $CHCl_3$ ). Source: KU XIANG SHU *Croton eluteria* (stem cortex). Ref: 5165.

**3252 Cascarinin B**

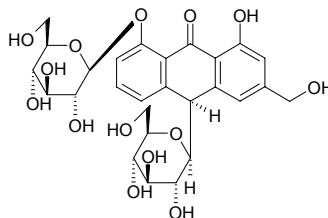
$C_{21}H_{26}O_6$  (374.44). Source: KU XIANG SHU *Croton eluteria*. Ref: 4552.

**3253 Cascarinin C**

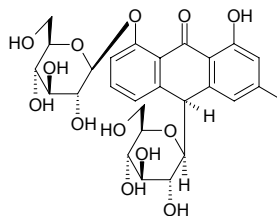
$C_{21}H_{28}O_5$  (360.45). Source: KU XIANG SHU *Croton eluteria*. Ref: 4552.

**3254 Cascaroside A**

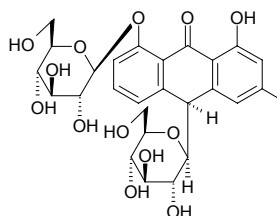
[53823-08-8]  $C_{27}H_{32}O_{14}$  (580.55). Pharm: Laxative. Source: BO XI SHU LI *Rhamnus purshiana*. Ref: 658.

**3255 Cascaroside C**

[52823-09-9]  $C_{27}H_{32}O_{13}$  (564.55). Source: ZANG BIAN DA HUANG *Rheum emodi* [Syn. *Rheum australe*] (root). Ref: 4273.

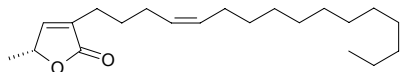
**3256 Cascaroside D**

$C_{27}H_{32}O_{13}$  (564.55). Source: ZANG BIAN DA HUANG *Rheum emodi* [Syn. *Rheum australe*] (root). Ref: 4273.

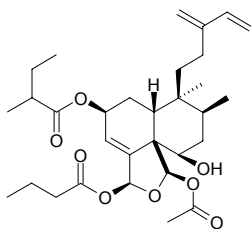


**3257 Casealactone**

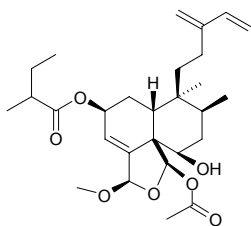
$C_{21}H_{36}O_2$  (320.52). Colorless oil,  $[\alpha]_D^{25} = +20.1^\circ$  ( $c = 0.15$ ,  $CHCl_3$ ). **Pharm:** Cytotoxic (P388,  $ED_{50} = 1.10\mu g/mL$ , control Mithramycin,  $ED_{50} = 0.58\mu g/mL$ ; A549,  $ED_{50} = 6.69\mu g/mL$ , Mithramycin,  $ED_{50} = 0.073\mu g/mL$ ; HT29,  $ED_{50} = 1.04\mu g/mL$ , Mithramycin,  $ED_{50} = 0.076\mu g/mL$ )<sup>[5421]</sup>. **Source:** MO ZHI JIAO GU CUI *Casearia membranacea* (stem). **Ref:** 5421.

**3258 Caseamembrin A**

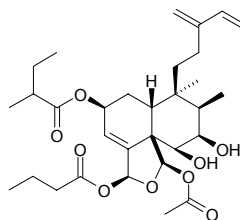
*rel*-(2*S*,5*R*,6*R*,8*S*,9*S*,10*R*,18*S*,19*R*)-19-Acetoxy-18-butanoyloxy-18,19-epoxy-6-hydroxy-2-(2-methylbutanoyloxy)cleroda-3,13(16),14-triene  $C_{31}H_{46}O_8$  (546.71). Yellowish oil,  $[\alpha]_D^{25} = +24.6^\circ$  ( $c = 0.07$ , MeOH); colorless viscous liquid,  $[\alpha]_D^{20} = +26^\circ$  ( $c = 0.135$ ,  $CH_2Cl_2$ ). **Pharm:** Cytotoxic (*in vitro*, PC3,  $IC_{50} = 1.5\mu mol/L$ , control Paclitaxel,  $IC_{50} = 0.016\mu mol/L$ ; Hep3B,  $IC_{50} = 2.3\mu mol/L$ , Paclitaxel,  $IC_{50} = 0.031\mu mol/L$ )<sup>[3010]</sup>; antitrypanosomal (Flagellate protozoan *Trypanosoma cruzi* causing Chagas' disease, MIC =  $0.59\mu g/mL$ )<sup>[4080]</sup>. **Source:** SHE XING LIN SHENG JIAO GU CUI *Casearia sylvestris* var. *lingua* (root cortex), MO ZHI JIAO GU CUI *Casearia membranacea* (leaf and twig: yield =  $0.0021\%dw$ )<sup>[3010]</sup>. **Ref:** 3010, 4080.

**3259 Caseamembrin B**

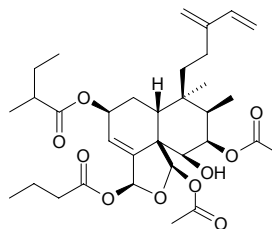
*rel*-(2*S*,5*R*,6*R*,8*S*,9*S*,10*R*,18*S*,19*R*)-19-Acetoxy-18,19-epoxy-6-hydroxy-18-methoxy-2-(2-methylbutanoyloxy)cleroda-3,13(16),14-triene  $C_{28}H_{42}O_7$  (490.64). Yellowish oil,  $[\alpha]_D^{25} = +62^\circ$  ( $c = 3.82$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, PC3,  $IC_{50} = 22.2\mu mol/L$ , control Paclitaxel,  $IC_{50} = 0.016\mu mol/L$ ; Hep3B,  $IC_{50} = 18\mu mol/L$ , Paclitaxel,  $IC_{50} = 0.031\mu mol/L$ )<sup>[3010]</sup>. **Source:** MO ZHI JIAO GU CUI *Casearia membranacea* (leaf and twig: yield =  $0.0004\%dw$ ). **Ref:** 3010.

**3260 Caseamembrin C**

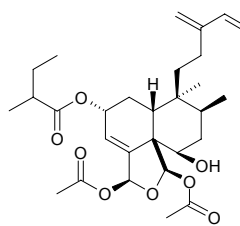
*rel*-(2*S*,5*R*,6*S*,7*R*,8*S*,9*S*,10*R*,18*S*,19*R*)-19-Acetoxy-18-butanoyloxy-18,19-epoxy-6,7-dihydroxy-2-(2-methylbutanoyloxy)cleroda-3,13(16),14-triene  $C_{31}H_{46}O_9$  (562.71). Yellowish oil,  $[\alpha]_D^{25} = +196^\circ$  ( $c = 6.6$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, PC3,  $IC_{50} = 0.6\mu mol/L$ , control Paclitaxel,  $IC_{50} = 0.016\mu mol/L$ ; Hep3B,  $IC_{50} = 0.8\mu mol/L$ , Paclitaxel,  $IC_{50} = 0.031\mu mol/L$ )<sup>[3010]</sup>. **Source:** MO ZHI JIAO GU CUI *Casearia membranacea* (leaf and twig: yield =  $0.00035\%dw$ ). **Ref:** 3010.

**3261 Caseamembrin D**

*rel*-(2*S*,5*R*,6*S*,7*R*,8*S*,9*S*,10*R*,18*S*,19*R*)-7,19-Diacetoxy-18-butanoyloxy-18,19-epoxy-6-hydroxy-2-(2-methylbutanoyloxy)cleroda-3,13(16),14-triene  $C_{33}H_{48}O_{10}$  (604.74). Yellowish oil,  $[\alpha]_D^{25} = +268.5^\circ$  ( $c = 0.07$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, PC3,  $IC_{50} = 2.4\mu mol/L$ , control Paclitaxel,  $IC_{50} = 0.016\mu mol/L$ ; Hep3B,  $IC_{50} = 1.9\mu mol/L$ , Paclitaxel,  $IC_{50} = 0.031\mu mol/L$ )<sup>[3010]</sup>. **Source:** MO ZHI JIAO GU CUI *Casearia membranacea* (leaf and twig: yield =  $0.0013\%dw$ ). **Ref:** 3010.

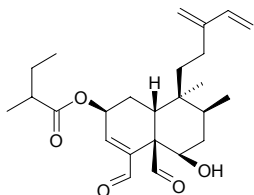
**3262 Caseamembrin E**

*rel*-(2*R*,5*R*,6*R*,8*S*,9*S*,10*R*,18*S*,19*R*)-18,19-Diacetoxy-18,19-epoxy-6-hydroxy-2-(2-methylbutanoyloxy)cleroda-3,13(16),14-triene  $C_{29}H_{42}O_8$  (518.65). Yellowish oil,  $[\alpha]_D^{25} = -131.3^\circ$  ( $c = 3.5$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, PC3,  $IC_{50} = 2.9\mu mol/L$ , control Paclitaxel,  $IC_{50} = 0.016\mu mol/L$ ; Hep3B,  $IC_{50} = 2.6\mu mol/L$ , Paclitaxel,  $IC_{50} = 0.031\mu mol/L$ )<sup>[3010]</sup>. **Source:** MO ZHI JIAO GU CUI *Casearia membranacea* (leaf and twig: yield =  $0.0018\%dw$ ). **Ref:** 3010.

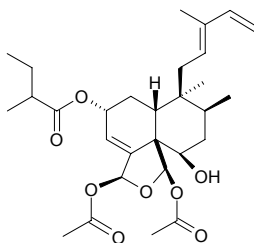


**3263 Caseamembrin F**

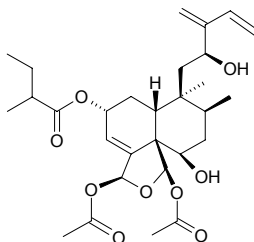
*rel*-(2*S*,5*R*,6*R*,8*S*,9*S*,10*R*,18*S*,19*R*)-6-Hydroxy-2-(2-methylbutanoyloxy)cleroda-3,13(16),14-triene-18,19-dicarboxaldehyde C<sub>25</sub>H<sub>36</sub>O<sub>5</sub> (416.56). Yellowish oil,  $[\alpha]_D^{25} = +29.1^\circ$  ( $c = 0.17$ , MeOH). **Pharm:** Cytotoxic (*in vitro*, PC3, IC<sub>50</sub> = 3.0 μmol/L, control Paclitaxel, IC<sub>50</sub> = 0.016 μmol/L; Hep3B, IC<sub>50</sub> = 14.7 μmol/L, Paclitaxel, IC<sub>50</sub> = 0.031 μmol/L). **Source:** MO ZHI JIAO GU CUI *Casearia membranacea* (leaf and twig: yield = 0.0022%dw). **Ref:** 3010.

**3264 Caseamembrol A**

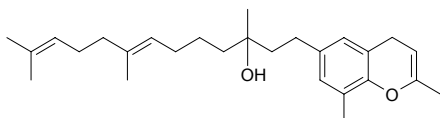
C<sub>29</sub>H<sub>42</sub>O<sub>8</sub> (518.65). Amorphous solid,  $[\alpha]_D^{25} = -8.3^\circ$  ( $c = 0.38$ , MeOH). **Pharm:** Cytotoxic (hmn PC3 tumor cells, IC<sub>50</sub> = 2.45 μmol/L, control Taxol, IC<sub>50</sub> = 0.16 μmol/L). **Source:** MO ZHI JIAO GU CUI *Casearia membranacea*. **Ref:** 4258.

**3265 Caseamembrol B**

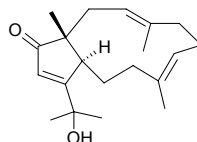
C<sub>29</sub>H<sub>42</sub>O<sub>9</sub> (534.65). Amorphous solid,  $[\alpha]_D^{25} = -11^\circ$  ( $c = 0.38$ , MeOH). **Pharm:** Cytotoxic (hmn PC3 tumor cells, IC<sub>50</sub> = 5.66 μmol/L, control Taxol, IC<sub>50</sub> = 0.16 μmol/L). **Source:** MO ZHI JIAO GU CUI *Casearia membranacea*. **Ref:** 4258.

**3266 Caseamemin**

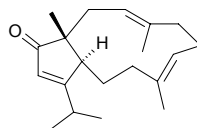
C<sub>27</sub>H<sub>40</sub>O<sub>2</sub> (396.62). Brownish oil,  $[\alpha]_D^{25} = +13.8^\circ$  ( $c = 0.28$ , CHCl<sub>3</sub>). **Pharm:** Cytotoxic (P<sub>388</sub>, ED<sub>50</sub> = 5.55 μg/mL, control Mithramycin, ED<sub>50</sub> = 0.58 μg/mL; A549, ED<sub>50</sub> > 50 μg/mL, Mithramycin, ED<sub>50</sub> = 0.073 μg/mL; HT29, ED<sub>50</sub> = 27.92 μg/mL, Mithramycin, ED<sub>50</sub> = 0.076 μg/mL). **Source:** MO ZHI JIAO GU CUI *Casearia membranacea* (stem). **Ref:** 5421.

**3267 Casearimene A**

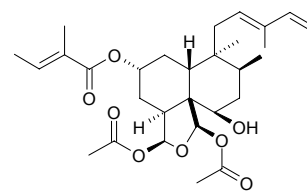
C<sub>20</sub>H<sub>30</sub>O<sub>2</sub> (302.46). Colorless needles (MeOH), mp 176–178°C,  $[\alpha]_D^{25} = +257.9^\circ$  ( $c = 0.48$ , CHCl<sub>3</sub>). **Pharm:** Cytotoxic (P<sub>388</sub>, ED<sub>50</sub> > 50 μg/mL, control Mithramycin, ED<sub>50</sub> = 0.58 μg/mL; A549, ED<sub>50</sub> > 50 μg/mL, Mithramycin, ED<sub>50</sub> = 0.073 μg/mL; HT29, ED<sub>50</sub> > 50 μg/mL, Mithramycin, ED<sub>50</sub> = 0.076 μg/mL). **Source:** MO ZHI JIAO GU CUI *Casearia membranacea* (stem). **Ref:** 5421.

**3268 Casearimene B**

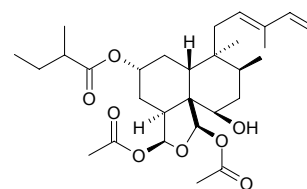
C<sub>20</sub>H<sub>30</sub>O (286.46). Colorless needles (MeOH), mp 108–109°C,  $[\alpha]_D^{25} = +144.9^\circ$  ( $c = 0.05$ , CHCl<sub>3</sub>). **Pharm:** Cytotoxic (P<sub>388</sub>, ED<sub>50</sub> > 50 μg/mL, control Mithramycin, ED<sub>50</sub> = 0.58 μg/mL; A549, ED<sub>50</sub> > 50 μg/mL, Mithramycin, ED<sub>50</sub> = 0.073 μg/mL; HT29, ED<sub>50</sub> > 50 μg/mL, Mithramycin, ED<sub>50</sub> = 0.076 μg/mL). **Source:** MO ZHI JIAO GU CUI *Casearia membranacea* (stem). **Ref:** 5421.

**3269 Casearinol A**

C<sub>29</sub>H<sub>42</sub>O<sub>8</sub> (518.65). **Pharm:** Anti-inflammatory (modulator of cytokine network: reduces expression of ICAM-1 and VCAM-1 in THP-1 hmn monocytes). **Source:** *Casearia guianensis*. **Ref:** 4416.

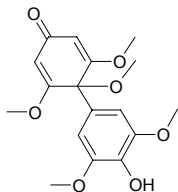
**3270 Casearinol B**

C<sub>29</sub>H<sub>44</sub>O<sub>8</sub> (520.67). **Pharm:** Anti-inflammatory (modulator of cytokine network: reduces expression of ICAM-1 and VCAM-1 in THP-1 hmn monocytes). **Source:** *Casearia guianensis*. **Ref:** 4416.

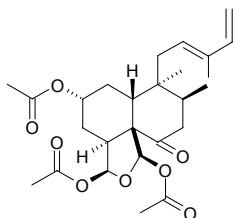


**3271 Casearinone**

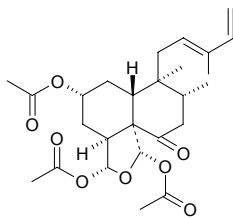
$C_{17}H_{20}O_7$  (336.34). Colorless needles (MeOH), mp 188–190°C,  $[\alpha]_D^{25} = 0^\circ$  ( $c = 0.22$ ,  $CHCl_3$ ). **Pharm:** Cytotoxic (P<sub>388</sub>, ED<sub>50</sub> = 10.00µg/mL, control Mithramycin, ED<sub>50</sub> = 0.58µg/mL; A549, ED<sub>50</sub> > 50µg/mL, Mithramycin, ED<sub>50</sub> = 0.073µg/mL; HT29, ED<sub>50</sub> > 50µg/mL, Mithramycin, ED<sub>50</sub> = 0.076µg/mL). **Source:** MO ZHI JIAO GU CUI *Casearia membranacea* (stem). **Ref:** 5421.

**3272 Casearinone A**

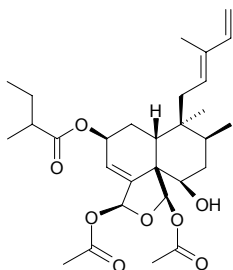
$C_{26}H_{36}O_8$  (476.57). **Pharm:** Anti-inflammatory (modulator of cytokine network: reduces expression of ICAM-1 and VCAM-1 in THP-1 hmn monocytes). **Source:** *Casearia guianensis*. **Ref:** 4416.

**3273 Casearinone B**

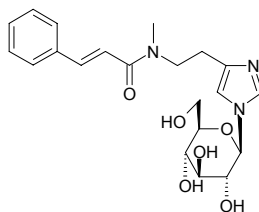
$C_{26}H_{36}O_8$  (476.57). **Pharm:** Anti-inflammatory (modulator of cytokine network: reduces expression of ICAM-1 and VCAM-1 in THP-1 hmn monocytes). **Source:** *Casearia guianensis*. **Ref:** 4416.

**3274 Casearlucin A**

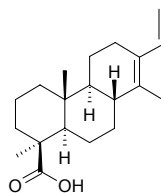
$C_{29}H_{42}O_8$  (518.65). **Pharm:** Cytotoxic (hmn PC3 tumor cells, IC<sub>50</sub> = 6.65µmol/L, control Taxol, IC<sub>50</sub> = 0.16µmol/L). **Source:** MO ZHI JIAO GU CUI *Casearia membranacea*. **Ref:** 4258.

**3275 Casimiroedine**

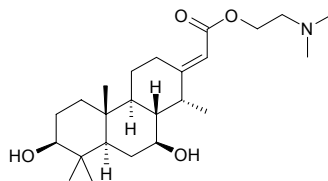
[5853-02-1]  $C_{21}H_{27}N_3O_6$  (417.47). **Pharm:** Cell growth regulator. **Source:** XIANG ROU GUO *Casimiroa edulis*. **Ref:** 658.

**3276 Cassa-13(14),15-dien-19-oic acid**

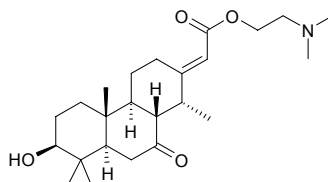
$C_{20}H_{30}O_2$  (302.46). Colorless needles, mp 175–177°C,  $[\alpha]_D^{23} = -95.5^\circ$  (EtOH). **Source:** MEI GUO KE YA SHU *Vouacapoua Americana* (wood). **Ref:** 4315.

**3277 Cassaidine**

[26296-41-3]  $C_{24}H_{41}NO_4$  (407.60). Prismatic crystals (acetone-ether), mp 139.5°C,  $[\alpha]_D^{20} = -98^\circ$  (ethanol),  $[\alpha]_D^{20} = -104^\circ$  (0.1mol/L HCl). **Pharm:** Cardiotonic; local anesthetic; LD<sub>50</sub> (anesthetic gpg iv) = (1.73±0.12)mg/kg. **Source:** JI NEI YA GE MU *Erythrophleum guineense*, XIANG YA HAI AN GE MU *Erythrophleum ivorense*, YE XIANG GE MU *Erythrophleum suaveolens*. **Ref:** 661.

**3278 Cassaine**

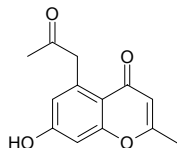
[468-76-8]  $C_{24}H_{39}NO_4$  (405.58). Lustering flocculus crystals (ether), mp 142.5°C,  $[\alpha]_D^{23} = -110.5^\circ$  ( $c = 1$ , ethanol). **Pharm:** Anesthetic; cardiotonic; LD<sub>50</sub> (anesthetic gpg iv) = (2.63±0.21)mg/kg. **Source:** JI NEI YA GE MU *Erythrophleum guineense*, XIANG YA HAI AN GE MU *Erythrophleum ivorense*. **Ref:** 661.



**3279 Cassiachromone**

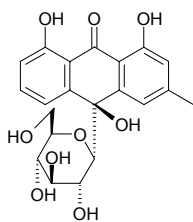
2-Methyl-5-acetyl-7-hydroxychromone [28955-30-8]  $C_{13}H_{12}O_4$  (232.24).

Colorless needles (MeOH), mp 209–210°C,  $[\alpha]_D = -113^\circ$ . Source: DA HUANG *Rheum officinale*, DA PENG TENG *Prana discifera*. Ref: 1437, 1521, 2504.

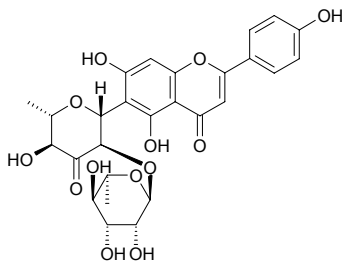
**3280 Cassialoin**

$C_{21}H_{22}O_9$  (418.40). Source: ZANG BIAN DA HUANG *Rheum emodi* [Syn.

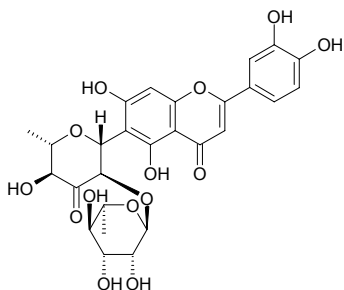
*Rheum australe*] (root). Ref: 4273.

**3281 Cassiaoccidentalin A**

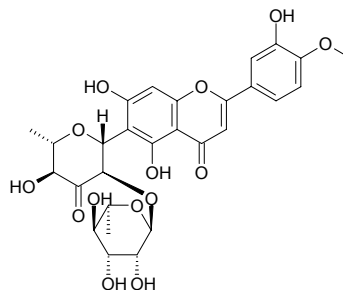
$C_{27}H_{28}O_{13}$  (560.52). Pale-yellow needles, mp 175°C (MeOH-H<sub>2</sub>O),  $[\alpha]_D = -80.1^\circ$  ( $c = 1$ , MeOH). Source: WANG JIANG NAN *Cassia occidentalis*. Ref: 2400.

**3282 Cassiaoccidentalin B**

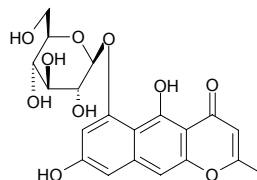
$C_{27}H_{28}O_{14}$  (576.52). Pale-yellow needles, mp 194°C (MeOH-H<sub>2</sub>O),  $[\alpha]_D = -63.6^\circ$  ( $c = 1$ , MeOH). Source: WANG JIANG NAN *Cassia occidentalis*. Ref: 2400.

**3283 Cassiaoccidentalin C**

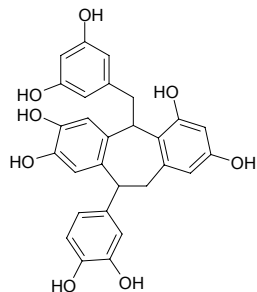
$C_{28}H_{30}O_{14}$  (590.54). Pale-yellow needles, mp 193°C (MeOH-H<sub>2</sub>O),  $[\alpha]_D = -55.6^\circ$  ( $c = 1$ , MeOH). Source: WANG JIANG NAN *Cassia occidentalis*. Ref: 2400.

**3284 Cassiaside**

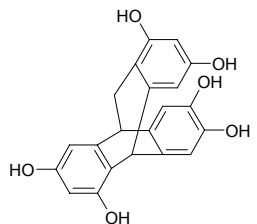
$C_{20}H_{20}O_{10}$  (420.38). Source: JUE MING ZI *Cassia tora*. Ref: 1521.

**3285 Cassigarol A**

10,11-Dihydro-2,4,7,8-tetrahydroxy-10-(3,4-dihydroxyphenyl)-5-[(3,5-dihydroxyphenyl)methyl]-5H-dibenzo[a,d]cycloheptene [106387-02-4]  $C_{28}H_{24}O_8$  (488.50). Pale-brown oil. Source: JIA LEI JUE MING *Cassia garrettiana* (heartwood). Ref: 4068.

**3286 Cassigarol B**

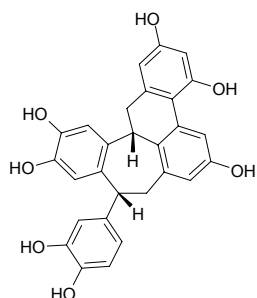
10,11-Dihydro-5,10[1',2']benzeno-5H-dibenzo[a,d]cycloheptene-2,4,7,8,15,17-hexol [119117-76-9]  $C_{21}H_{16}O_6$  (364.36). Pale-brown oil. Source: JIA LEI JUE MING *Cassia garrettiana* (heartwood). Ref: 4069.



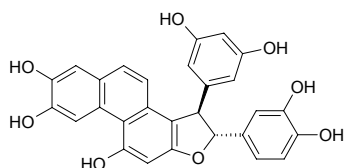


**3287 Cassigarol C**

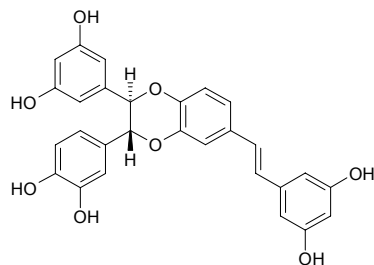
[144506-20-7]  $C_{28}H_{22}O_7$  (470.48). Off-white powder, mp 240°C (dec). Source: JIA LEI JUE MING *Cassia garrettiana* (heartwood). Ref: 4070.

**3288 Cassigarol D**

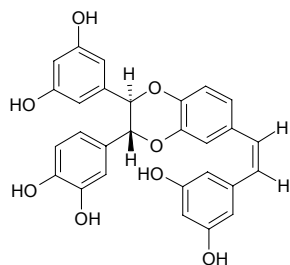
[144506-21-8]  $C_{28}H_{20}O_8$  (484.47). Pale-brown oil. Source: JIA LEI JUE MING *Cassia garrettiana* (heartwood). Ref: 4070.

**3289 Cassigarol E**

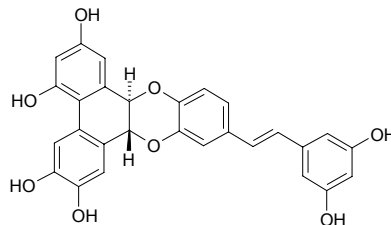
$C_{28}H_{22}O_8$  (486.48). Pharm: Antioxidant (superoxide anion scavenger ( $IC_{50} = (11.49 \pm 0.18) \mu\text{mol/L}$ , control (+)-Catechin  $IC_{50} = (3.67 \pm 0.14) \mu\text{mol/L}$ )<sup>[4514]</sup>. Source: MAO CI JIN JI ER *Caragana tibetica* (stem), JIA LEI JUE MING *Cassia garrettiana* (heartwood). Ref: 2234, 4514.

**3290 Cassigarol F**

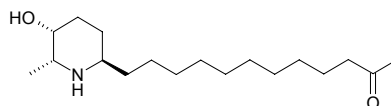
$C_{28}H_{22}O_8$  (486.48). Source: JIA LEI JUE MING *Cassia garrettiana* (heartwood). Ref: 2233, 2234.

**3291 Cassigarol G**

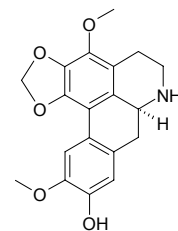
$C_{28}H_{20}O_8$  (484.47). Pharm: Antioxidant (superoxide anion scavenger ( $IC_{50} = (4.89 \pm 0.13) \mu\text{mol/L}$ , control (+)-Catechin,  $IC_{50} = (3.67 \pm 0.14) \mu\text{mol/L}$ )<sup>[4514]</sup>. Source: MAO CI JIN JI ER *Caragana tibetica* (stem), JIA LEI JUE MING *Cassia garrettiana* (heartwood). Ref: 2234, 4514.

**3292 (-)-Cassine**

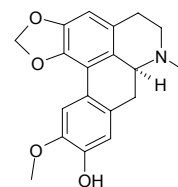
$C_{18}H_{35}NO_2$  (297.49). Pharm: Cytotoxic inactive ( $P_{388}$ ,  $IC_{50} > 20 \mu\text{g/mL}$ , control 5-FU,  $IC_{50} = 0.99 \mu\text{g/mL}$ ; KB,  $IC_{50} > 20 \mu\text{g/mL}$ , Doxorubicin,  $IC_{50} = 0.57 \mu\text{g/mL}$ ; BC-1,  $IC_{50} > 20 \mu\text{g/mL}$ , Doxorubicin,  $IC_{50} = 0.21 \mu\text{g/mL}$ ); cytotoxic (brine shrimp lethality,  $IC_{50} = 0.2 \mu\text{g/mL}$ , control Monocrotophos,  $IC_{50} = 0.24 \mu\text{g/mL}$ ). Source: ZHUANG GUAN FAN XIE *Senna spectabilis* (flower). Ref: 5480.

**3293 Cassyfiline**

Cassythine [4030-51-7]  $C_{19}H_{19}NO_5$  (341.37). mp 217–219°C (dec). Pharm: Antitrypanosomal and cytotoxic (*Trypanosoma brucei brucei*,  $IC_{50} = 6.0 \mu\text{mol/L}$ , Suramin,  $IC_{50} = 0.06 \mu\text{mol/L}$ ; hmn cervixcarcinoma cell HeLa,  $IC_{50} = 15.2 \mu\text{mol/L}$ )<sup>[4969]</sup>; tetanicum (animal model); Source: WU YE TENG *Cassytha filiformis*. Ref: 6, 658, 4969.

**3294 (+)-Cassythicine**

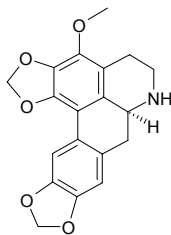
[5890-28-8]  $C_{19}H_{19}NO_4$  (325.37). Pharm: Antibacterial; cytotoxic. Source: HEI HUA WU GEN TENG *Cassytha melantha*, WU MAO WU GEN TENG *Cassytha glabella*, YUAN HUA FAN LI ZHI *Annona glabra*. Ref: 658.



**3295 Cassythidine**

[6081-07-8] C<sub>19</sub>H<sub>17</sub>NO<sub>5</sub> (339.35). mp 206–207°C. Source: WU YE TENG

*Cassytha filiformis*. Ref: 6.

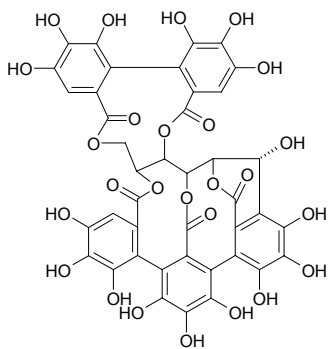
**3296 Castalagin**

[24312-00-3] C<sub>41</sub>H<sub>26</sub>O<sub>26</sub> (934.65). Yellowish amorphous powder, easily soluble in MeOH, Me<sub>2</sub>CO and H<sub>2</sub>O; colorless acicular crystals (water), mp 230°C, [α]<sub>D</sub> = –126.9° (c = 0.9, methanol:water = 3:7). Pharm:

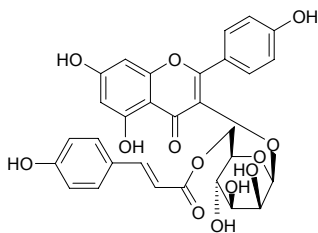
Antihypertensive (rat, iv, spontaneous hypertension); cytotoxic (malanotic carcinoma RPMI-7951, ED<sub>50</sub> = 0.79 μg/mL). Source: CU LIU GUO

*Hippophae rhamnoides*, FAN SHI LIU PI *Psidium guajava*, NING MENG AN YE *Eucalyptus citriodora*, TAO JIN NIANG *Rhodomyrtus tomentosa*.

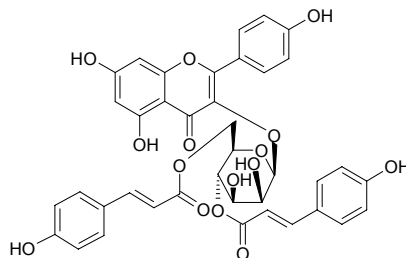
Ref: 429, 900.

**3297 Castanoside A**

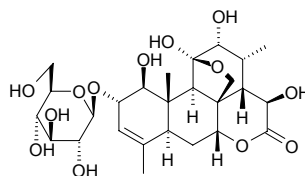
Kaempferol-3-*O*-[6"-(*E*)-*p*-coumaroyl]- $\alpha$ -D-mannopyranoside C<sub>30</sub>H<sub>26</sub>O<sub>13</sub> (594.53). Yellow grained powder, mp 247–249°C. Source: BAN LI *Castanea mollissima* (flower). Ref: 4842.

**3298 Castanoside B**

Kaempferol-3-*O*-[6",4"-di-(*E*)-*p*-coumaroyl]- $\alpha$ -D-mannopyranoside C<sub>39</sub>H<sub>32</sub>O<sub>15</sub> (740.68). Yellow powder, mp 235–238°C. Source: BAN LI *Castanea mollissima* (flower). Ref: 4842.

**3299 Casteloside B**

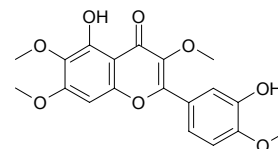
C<sub>26</sub>H<sub>38</sub>O<sub>13</sub> (558.58). Source: *Eurycoma harmandiana* (root). Ref: 5164.

**3300 Casticin**

Vitexicarpin [479-91-4] C<sub>19</sub>H<sub>18</sub>O<sub>8</sub> (374.35). Orange crystals (CHCl<sub>3</sub>–MeOH), mp 188–190°C, mp 188–189°C, mp 186–187°C, mp 183–184°C. Pharm:

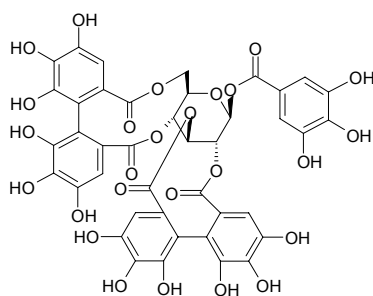
Cytotoxic (*in vitro*, PC12, GI<sub>50</sub> = 0.114 μg/mL, control Cisplatin, GI<sub>50</sub> = 0.111 μg/mL; HCT116, GI<sub>50</sub> = 0.119 μg/mL, control Cisplatin, GI<sub>50</sub> = 0.794 μg/mL)<sup>[4623]</sup>; cytotoxic (*in vitro*, Col2, ED<sub>50</sub> = 12.7 μg/mL; hTERT-RPE1, ED<sub>50</sub> = 0.2 μg/mL; HUVEC, ED<sub>50</sub> = 0.6 μg/mL; KB, ED<sub>50</sub> = 0.2 μg/mL; HUVEC, ED<sub>50</sub> = 0.5 μg/mL; Lu1, ED<sub>50</sub> = 0.8 μg/mL)<sup>[4699]</sup>;

antineoplastic inactive (*in vivo* hollow fiber assay, 40 mg/kg; Lu1, KB, and LNCaP cells; *in vivo* P<sub>388</sub> leukemia model, 135 mg/kg)<sup>[4699]</sup>; antiviral. Source: DAN YE MAN JING ZI *Vitex rotundifolia* [Syn. *Vitex trifolia* var. *simplicifolia*] (dried ripe fruit: yield = 0.011% dw)<sup>[4623]</sup>, HUANG HAO *Artemisia scoparia* [Syn. *Artemisia capillaris* var. *scoparia*], HUANG HUA HAO *Artemisia annua*, HUANG HUA HAO *Artemisia annua* (seed), HUANG JING YE *Vitex negundo* (leaf: yield = 0.035% dw)<sup>[4699]</sup>, MAN JING ZI *Vitex trifolia* (dried ripe fruit: mean content of 5 origins = 0.126%)<sup>[5508]</sup>, MU<sup>(3)</sup> JU *Matricaria chamomilla* [Syn. *Matricaria recutita*], RI BEN JIN YAO *Chrysosplenium japonicum*, SHANG ZUO ZHOU JIN YAO *Chrysosplenium tosaense*, SA SHI MAO DI HUANG *Digitalis thapsii*. Ref: 2, 6, 562, 658, 660, 3435, 4623, 4699, 5508.

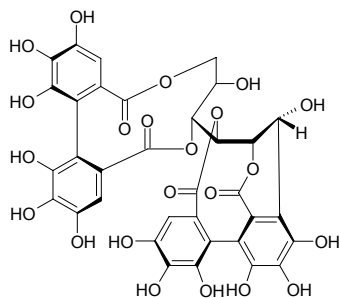


**3301 Casuarictin**

1-*O*-Galloylpedunculagin [79786-00-8] C<sub>41</sub>H<sub>28</sub>O<sub>26</sub> (936.66). **Pharm:** Antihepatotoxin (*in vitro*); antioxidant (SOD-like activity, EC<sub>50</sub> = 77.9 μmol/L, control Gallic acid, EC<sub>50</sub> = 31.7 μmol/L, *L*-Ascorbic acid, EC<sub>50</sub> = 34.6 μmol/L)<sup>[3408]</sup>; antioxidant (DPPH scavenger, EC<sub>50</sub> = 0.40 μmol/L, control Gallic acid, EC<sub>50</sub> = 5.88 μmol/L, *L*-Ascorbic acid, EC<sub>50</sub> = 6.25 μmol/L)<sup>[3408]</sup>. **Source:** BAI SHAO *Paeonia albiflora* [Syn. *Paeonia lactiflora*] (fresh fruit: yield = 0.047%fw)<sup>[4695]</sup>, DING XIANG *Syzygium aromaticum* [Syn. *Eugenia caryophyllata*], DUO ZHI AN *Eucalyptus viminalis*, FAN SHI LIU GAN *Psidium guajava*, HU TAO REN *Juglans regia*, *Quercus* sp., *Rubus* sp. **Ref:** 2, 658, 3408, 4695.

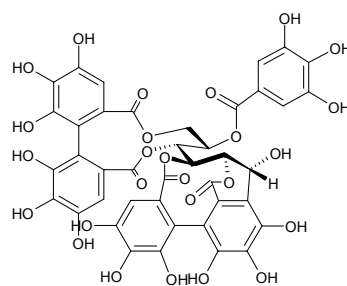
**3302 Casuariin**

5-Desgalloyl stachyurin [79786-04-2] C<sub>34</sub>H<sub>24</sub>O<sub>22</sub> (784.56). Brownish amorphous powder, easily soluble in MeOH and Me<sub>2</sub>CO. **Source:** BAI SHAO *Paeonia albiflora* [Syn. *Paeonia lactiflora*] (fresh fruit: yield = 0.010%fw)<sup>[4695]</sup>, TAO JIN NIANG *Rhodomyrtus tomentosa*. **Ref:** 429, 4695.

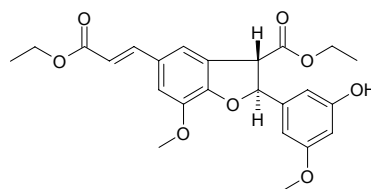
**3303 Casuarinin**

[79786-01-9] C<sub>41</sub>H<sub>28</sub>O<sub>26</sub> (936.66). Purity > 98%, [α]<sub>D</sub><sup>28</sup> = +40.2°. **Pharm:** Antioxidant (rbt, erythrocyte membrane ghost system); antioxidant (macrosome of liver cells in rat, inhibits lipid peroxidation); antioxidant (SOD-like activity, EC<sub>50</sub> = 57.7 μmol/L, control Gallic acid, EC<sub>50</sub> =

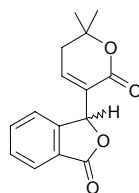
31.7 μmol/L, *L*-Ascorbic acid, EC<sub>50</sub> = 34.6 μmol/L)<sup>[3408]</sup>; antioxidant (DPPH free radical scavenger, EC<sub>50</sub> = 0.78 μmol/L, control Gallic acid, EC<sub>50</sub> = 5.88 μmol/L, *L*-Ascorbic acid, EC<sub>50</sub> = 6.25 μmol/L)<sup>[3408]</sup>; cytotoxic (antiproliferative, *in vitro*, MCF7, 10 μmol/L, InRt = 72.3%; IC<sub>50</sub> = 6.04 μmol/L)<sup>[5070]</sup>; antioxidant (Protects cultured MDCK Cells from H<sub>2</sub>O<sub>2</sub>-Induced oxidative stress and DNA oxidative damage)<sup>[4072]</sup>. **Source:** A JIANG LAN REN *Terminalia arjuna* (bark), DUO ZHI AN *Eucalyptus viminalis*, FAN SHI LIU GAN *Psidium guajava*, FEI YUE GUO *Feijoa sellowiana*, HU TAO REN *Juglans regia*, LU LU TONG *Liquidambar formosana* [Syn. *Liquidambar taiwaniana*], PU<sup>(3)</sup> TAO *Syzygium jambos*. **Ref:** 658, 3408, 4072, 5070.

**3304 Catalpafurxin**

2(*S*)-(3'-Hydroxy-5'-methoxy)-benz-3(*S*)-ethoxycarbonyl-6-*trans*-ethyl acrylate-8-methoxy-benzofuran C<sub>24</sub>H<sub>26</sub>O<sub>8</sub> (442.47). White needles (CHCl<sub>3</sub>), mp 145~147°C. **Source:** ZI SHI *Catalpa ovata*. **Ref:** 4597.

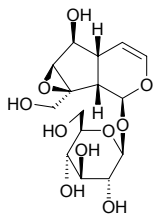
**3305 Catalpalactone**

[1585-69-9] C<sub>15</sub>H<sub>14</sub>O<sub>4</sub> (258.28). mp 105~106°C, 110~111°C. **Source:** ZI MU *Catalpa ovata* (the compound was isolated from the plant by M.Pailer, et al. in 1956)<sup>[5505]</sup>. **Ref:** 6, 5505.



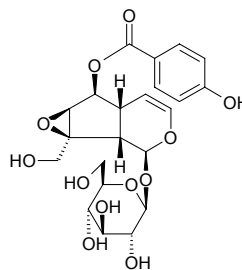
### 3306 Catalpol

Catalpinoside [2415-24-9]  $C_{15}H_{22}O_{10}$  (362.34). mp 207–209°C (dec). **Pharm:** Antitrypanosomal (*Trypanosoma brucei rhodesiense*,  $IC_{50} = 54.8\mu\text{g/mL}$ , control Melarsoprol,  $IC_{50} = 0.0033\mu\text{g/mL}$ ; *Trypanosoma cruzi*,  $IC_{50} > 90\mu\text{g/mL}$ , control Benznidazole,  $IC_{50} = 0.70\mu\text{g/mL}$ )<sup>[5251]</sup>; antileishmanial (*Leishmania donovani*,  $IC_{50} = 10.4\mu\text{g/mL}$ , control Miltefosine,  $IC_{50} = 0.32\mu\text{g/mL}$ )<sup>[5251]</sup>; antimalarial (*Plasmodium falciparum*,  $IC_{50} > 50\mu\text{g/mL}$ , control Artemisinin,  $IC_{50} = 0.002\mu\text{g/mL}$ )<sup>[5251]</sup>; cytotoxic (L6 cells,  $IC_{50} > 90\mu\text{g/mL}$ , control Podophyllotoxin,  $IC_{50} = 0.0075\mu\text{g/mL}$ )<sup>[5251]</sup>; diuretic; laxative (mus,  $ED_{50} = 0.32\sim 0.39\text{g/kg}$ ). **Source:** CHA RU SHI WAN CUO *Asystasia intrusa*, FEI LV BIN SHI ZI *Gmelina philippensis* (aerial parts), GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *Huechingensis*] (tuberoid: content scope of 3 origins = 0.02%–1.74%, mean content = 0.80%<sup>[5508]</sup>), JIAN QIU LUO MAO RUI HUA *Verbascum lychnites*, LIN PIAN XUAN SHEN *Scrophularia lepidota* (root), MAO PAO TONG *Paulownia tomentosa*, MAO RUI HUA *Verbascum thapsus*, SHU CE JIN ZHAN HUA *Adonis sutchuenensis*, SHU DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *huechingensis*] (tuberoid: content scope of 2 origins = <0.01%–0.04%, mean content = 0.02%)<sup>[5508]</sup>, XIAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *huechingensis*] (tuberoid: content scope of 18 origins = 0.774%–4.920%, mean content = 2.135%)<sup>[5508]</sup>, XI ZANG HU HUANG LIAN *Picrorhiza scrophulariiflora*, ZI MU *Catalpa ovata* (stem cortex). **Ref:** 1, 2, 660, 2589, 3954, 4416, 5251, 5501, 5508.



### 3307 Catalposide

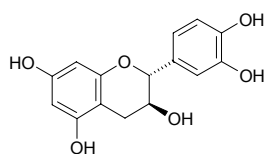
Catalpin [6736-85-2]  $C_{22}H_{26}O_{12}$  (482.45). **Pharm:** Diuretic; insect antifeedant (*Lymantria disper*); pesticide (lepidopteran *Ceratomia catalpae*); laxative (mus,  $ED_{50} > 0.32\sim 0.39\text{g/kg}$ ); anti-inflammatory (modulator of cytokine network: prevents production of  $\text{TNF-}\alpha$ , IL-1b and IL-6 in LPS-activated macrophages ( $IC_{50} \approx 50\text{ng/mL}$ ), possibly via NF- $\kappa\text{B}$  inhibition)<sup>[4416]</sup>. **Source:** A LA BO PO PO NA *Veronica persica* (aerial parts), HUANG JIN SHU *Catalpa speciosa*, JIAN QIU LUO MAO RUI HUA *Verbascum lychnites*, MEI GUO ZI *Catalpa bignonioides*, ZI BAI PI *Catalpa ovata*, ZI SHI *Catalpa ovata*, ZI YE *Catalpa ovata*. **Ref:** 1, 6, 4211, 4416.



### 3308 (+)-Catechin

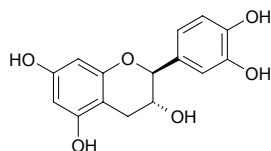
Catechic acid; Catechuic acid; Cyanidol [154-23-4]  $C_{15}H_{14}O_6$  (290.28). Pale-yellow powder, mp 95–98°C,  $[\alpha]_D^{20} = 17.5^\circ$  ( $c = 0.3$ ,  $\text{CHCl}_3$ ). **Pharm:** Antineoplastic; cytotoxic (cyclooxygenase-1 inhibitor)<sup>[5038]</sup>; antiviral; antibacterial; antiarrhythmic (blocks production of indole in large intestine); antiulcerative (rat, gastric ulcer); antihepatotoxin; hemostatic; similar action with vitamin P; inhibitory activity against NFAT transcription ( $IC_{50} = (22.4\pm 0.50)\mu\text{mol/L}$ , positive control Cyclosporin A,  $IC_{50} = (0.29\pm 0.01)\mu\text{mol/L}$ )<sup>[2536]</sup>; antioxidant (DPPH scavenger, for  $40\mu\text{mol/L}$  DPPH radical,  $SC_{50} = 5.9\mu\text{mol/L}$ )<sup>[4378]</sup>; antioxidant (inhibits free-radical induced lysis of rat red blood cells and exhibits strong and dose-dependent protection of cell membrane)<sup>[5341]</sup>; antioxidant (superoxide anion scavenger  $IC_{50} = (3.67\pm 0.14)\mu\text{mol/L}$ )<sup>[4514]</sup>;  $\beta$ -hexosaminidase inhibitor inactive (RBL-2H3 cells, inhibits release of  $\beta$ -hexosaminidase,  $100\mu\text{mol/L}$ ,  $\text{InRt} = (2.1\pm 2.5)\%$ )<sup>[4304]</sup>; inhibits cancer cell invasion (MM1 cells, *in vitro*,  $10\mu\text{g/mL}$ ,  $\text{InRt} = 34.0\%$ )<sup>[4329]</sup>; bone marrow cell proliferation promotor ( $1\sim 100\text{mg/mL}$ , promotes proliferation of cultured bone marrow cells, stimulates formation of myeloid colonies and enhances the effect of IL-3 to increase the number of colony forming-units in culture (CFU-c))<sup>[5390]</sup>; bone marrow cell proliferation promoter (*ex vivo*, model mouse of decreasing bone marrow functions, orally  $100\text{mg}/(\text{kg}\cdot\text{d})$ , stimulates IL-3-induced CFU-c formation of bone marrow cells)<sup>[5390]</sup>; antioxidant (DPPH scavenger, potent activity)<sup>[5232]</sup>; cytotoxic inactive (MCF, HM02, HEPG2)<sup>[5232]</sup>. **Source:** A LA BO JIAO JIN HE HUAN *Acacia nilotica*, BAI GUO *Ginkgo biloba*, BING LANG *Areca catechu*, CHA YE *Camellia sinensis* [Syn. *Thea sinensis*], CU LIU GUO *Hippophae rhamnoides*, DA ZAO *Ziziphus jujuba*, ER CHA GOU TENG *Uncaria gambir* (dried decocted extract of trunk: content scope of 10 origins = 22.4%–33.0%; mean content = 25.9%)<sup>[5508]</sup>, HAI ER CHA *Acacia catechu* (dried decocted extract of trunk: content scope of 8 origins = 11.6%–21.0%; mean content = 17.2%)<sup>[5508]</sup>, HEI ZI LI GUO JI SHENG *Scurrula atropurpurea*, HONG NAN PI *Machilus thunbergii*, HU ZHANG *Polygonum cuspidatum*, HUA CHA BIAO *Ribes fasciculatum* var. *chinense*, HUANG HUA ER LIU *Salix caprea*, JIAN PU ZHAI GU KE *Erythroxylum cambodianum* (aerial parts), KUN MING SHAN HAI TANG *Tripterygium hypoglaucom*, LUO BU MA *Apocynum venetum*, MAO GUO QI *Acer*

*nikoense* (stem cortex), MI HOU LI *Actinidia arguta*, MIAN MAO GOU TENG *Uncaria lanosa*, NIU XI XI *Rumex patientia*, PU<sup>(2)</sup> TAO *Vitis vinifera* (cell culture), RI BEN KU LIAN *Melia azedarach* var. *japonica*, SHA ZAO *Elaeagnus angustifolia*, SHAN YING TAO *Prunus tomentosa*, SUO LA MU *Salacia prinooides* [Syn. *Salacia chinensis*] (stem), TANG GU TE DA HUANG *Rheum tanguticum* (stem and rhizome: content = 0.79%)<sup>[5508]</sup>, TAO REN *Prunus persica*, XIAN HE CAO *Agrimonia pilosa* var. *japonica*, ZANG BIAN DA HUANG *Rheum emodi* [Syn. *Rheum australe*] (stem and rhizome: content = 0.22%)<sup>[5508]</sup>, ZHANG YE DA HUANG *Rheum palmatum* (stem and rhizome: content = 2.01%)<sup>[5508]</sup>, ZONG LV PI *Trachycarpus fortunei* (petiole and fibre of sheath, roasted petiole: mean content of 5 origins = 0.334%)<sup>[5508]</sup>, occurs in many plants. Ref: 1, 2, 6, 612, 2536, 4186, 4304, 4329, 4378, 4461, 4514, 5038, 5232, 5375, 5390, 5341, 5501, 5508.



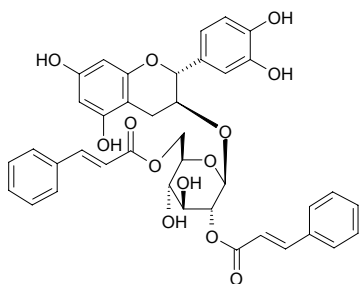
### 3309 (-)-Catechin

C<sub>15</sub>H<sub>14</sub>O<sub>6</sub> (290.28). **Pharm:** Anti-HIV (inhibits HIV replication, H9 Lymphocytic Cells, IC<sub>50</sub> (concentration that inhibits uninfected H9 cell growth by 50%) > 25µg/mL, EC<sub>50</sub> = 14.32µg/mL, TI = 1.75µg/mL, control AZT, IC<sub>50</sub> = 500µg/mL, EC<sub>50</sub> = 0.0007µg/mL, TI = 737000)<sup>[4267]</sup>. **Source:** NAN TOU QIU HAI TANG *Begonia nantoensis* (rhizome). Ref: 4267.



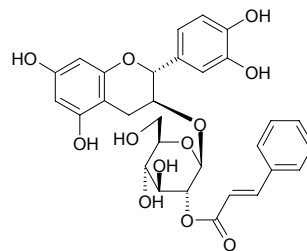
### 3310 (+)-Catechin-3-O-β-D-gluc(2,6-bis-cinnamoyl)-pyranoside

C<sub>39</sub>H<sub>36</sub>O<sub>13</sub> (712.71). Yellowish powder, [α]<sub>D</sub><sup>22</sup> = +34.5° (c = 0.035, MeOH). **Source:** SAN XING HUA XU YIN JIA *Inga umbellifera* (young leaf). Ref: 3757.



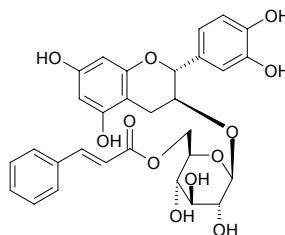
### 3311 (+)-Catechin-3-O-β-D-gluc(2-cinnamoyl)-pyranoside

C<sub>30</sub>H<sub>30</sub>O<sub>12</sub> (582.57). Yellowish powder, [α]<sub>D</sub><sup>22</sup> = -39.0° (c = 0.013, MeOH). **Source:** SAN XING HUA XU YIN JIA *Inga umbellifera* (young leaf). Ref: 3757.



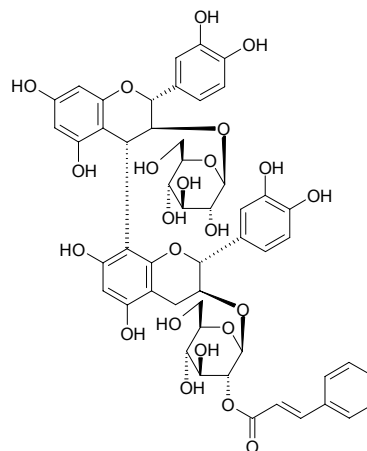
### 3312 (+)-Catechin-3-O-β-D-gluc(6-cinnamoyl)-pyranoside

C<sub>30</sub>H<sub>30</sub>O<sub>12</sub> (582.57). Pinkish powder, [α]<sub>D</sub><sup>22</sup> = +44.1° (c = 0.012, MeOH). **Source:** SAN XING HUA XU YIN JIA *Inga umbellifera* (young leaf). Ref: 3757.



### 3313 Catechin-3-O-β-D-glucopyranosyl-(4α→8)-catechin-3-O-β-D-gluc(2-cinnamoyl)pyranoside

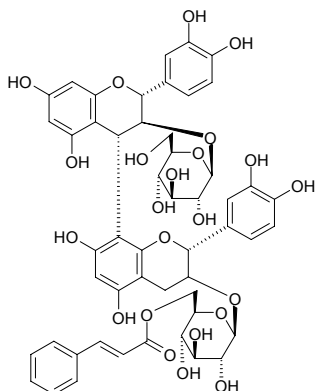
C<sub>51</sub>H<sub>52</sub>O<sub>23</sub> (1032.97). White powder, [α]<sub>D</sub><sup>22</sup> = -56.3° (c = 0.0103, MeOH). **Source:** SAN XING HUA XU YIN JIA *Inga umbellifera* (young leaf). Ref: 3757.



**3314 Catechin-3-O-β-D-glucopyranosyl-(4α→8)-epicatechin-3-O-β-D-gluco(6-cinnamoyl)pyranoside**

$C_{51}H_{52}O_{23}$  (1032.97). White powder,  $[\alpha]_D^{22} = -76.7^\circ$  ( $c = 0.0113$ , MeOH).

Source: SAN XING HUA XU YIN JIA *Inga umbellifera* (young leaf). Ref: 3757.

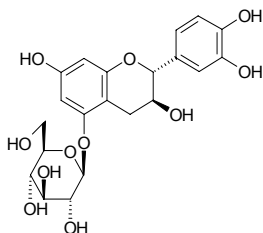


**3315 (+)-Catechin-5-O-glucoside**

[88126-53-8]  $C_{21}H_{24}O_{11}$  (452.42). Source: DA HUANG *Rheum officinale*, HU

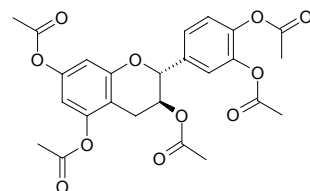
ZHANG *Polygonum cuspidatum*, TANG GU TE DA HUANG *Rheum*

*tanguticum*, ZHANG YE DA HUANG *Rheum palmatum*. Ref: 2, 660, 4186.



**3316 (+)-Catechin-pentaacetate**

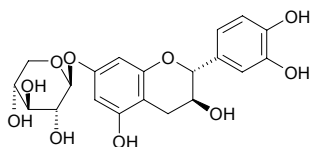
$C_{25}H_{24}O_{11}$  (500.46). Source: BAI GUO *Ginkgo biloba*. Ref: 2.



**3317 Catechin 7-O-β-D-xyloside**

[42830-48-8]  $C_{20}H_{22}O_{10}$  (422.39). Pharm: Feeding irritant (*Scolytus*

*multis-triatus*). Source: MEI ZHOU YU *Ulmus americana*. Ref: 658.



**3318 Catechol**

1,2-Benzenediol [120-80-9]  $C_6H_6O_2$  (110.11). mp 105°C, bp 240°C. Pharm:

Anticonvulsant; antifungal (dermatophyte, *Candida albicans*); antiseptic;

uterine stimulant; intestinal smooth muscle stimulant. Source: DA ZAO

*Ziziphus jujuba*, DENG ZHAN XI XIN *Erigeron breviscapus*, ER CHA GOU

TENG *Uncaria gambir*, HE ZI *Terminalia chebula*, LIAN XIANG SHU

*Cercidiphyllum japonicum* var. *sinense*, LIAN ZI *Nelumbo nucifera*, LIANG

YE HUA PI *Betula luminifera*, PU<sup>(2)</sup> TAO *Vitis vinifera*, SI GUA ZI *Luffa*

*cylindrica*, TAO *Prunus persica*, XI FAN LIAN *Passiflora caerulea*, XIANG

SI CAO *Conyza bonariensis* [Syn. *Erigeron bonariensis*; *Erigeron linifolius*;

*Erigeron crispus*]. Ref: 1, 2, 6.

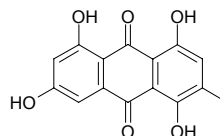


**3319 Catenarin**

$C_{15}H_{10}O_6$  (286.24). Pharm: Cytotoxic inactive (*in vitro*, HeLa, Vero, K562,

Raji, Wish, and Calu1 tumor cell lines,  $IC_{50} > 100\mu\text{mol/L}$ )<sup>[3057]</sup>. Source: YI HE

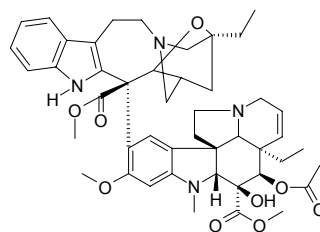
GUO *Ventilago leiocarpa* (stem). Ref: 3057.



**3320 Catharanthamine**

[78779-58-5]  $C_{46}H_{56}N_4O_9$  (808.98). Source: CHANG CHUN HUA

*Catharanthus roseus* [Syn. *Vinca rosea*; *Lochnera rosea*]. Ref: 2.



**3321 Catharanthine**

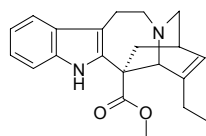
(+)-Catharanthine [2468-21-5]  $C_{21}H_{24}N_2O_2$  (336.44). mp (+) 126~128°C.

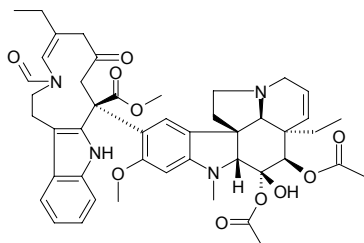
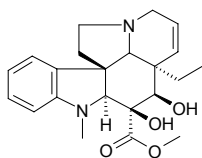
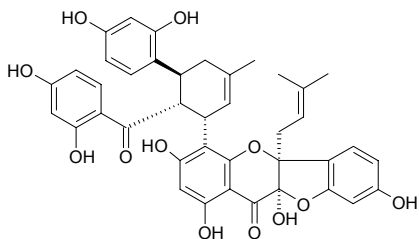
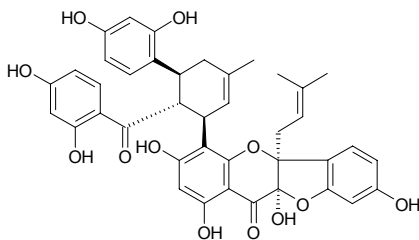
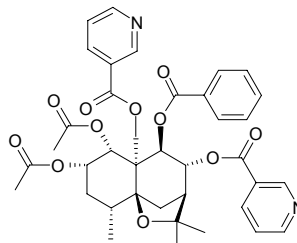
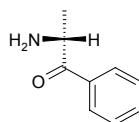
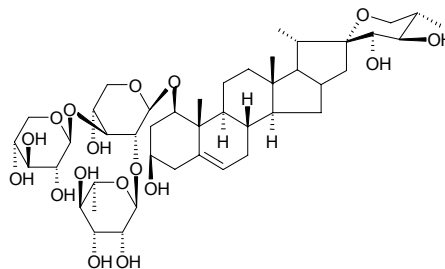
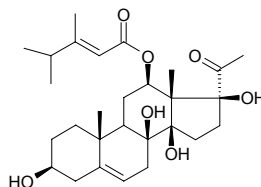
Pharm: Hypoglycemic. Source: CHANG CHUN HUA *Catharanthus roseus*

[Syn. *Vinca rosea*; *Lochnera rosea*], CHANG YE CHANG CHUN HUA

*Catharanthus longifolius* (whole herb: content = 0.0914%<sup>[5508]</sup>), LUAN

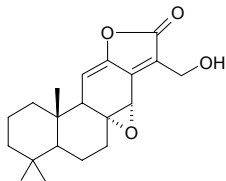
YUAN CHANG CHUN HUA *Catharanthus ovalis*. Ref: 1, 2, 5, 5508.



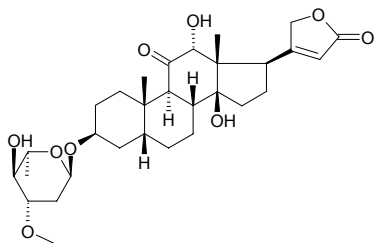
**3322 Catharine**[1355-31-3] C<sub>46</sub>H<sub>54</sub>N<sub>4</sub>O<sub>10</sub> (822.96). Source: CHANG CHUN HUA*Catharanthus roseus* [Syn. *Vinca rosea*; *Lochera rosea*]. Ref: 2.**3323 Catharosine**[2564-23-0] C<sub>22</sub>H<sub>28</sub>N<sub>2</sub>O<sub>4</sub> (384.48). Source: CHANG CHUN HUA*Catharanthus roseus* [Syn. *Vinca rosea*; *Lochera rosea*]. Ref: 2.**3324 Cathayanon A**C<sub>40</sub>H<sub>36</sub>O<sub>12</sub> (708.73). Pale yellow crystals (CH<sub>3</sub>OH), mp 180–181°C (dec),[α]<sub>D</sub><sup>19</sup> = –193.9° (c = 0.12, MeOH). Pharm: Cytotoxic (cell adhesion inhibitor, adhesion of HL-60 cell to BAEC, 10 μmol/L, InRt = 44.72%). Source: HUA SANG *Morus cathayana* (root cortex). Ref: 5169.**3325 Cathayanon B**C<sub>40</sub>H<sub>36</sub>O<sub>12</sub> (708.73). Yellow powder, [α]<sub>D</sub><sup>19</sup> = –733.7° (c = 0.18, MeOH).Pharm: Cytotoxic (cell adhesion inhibitor, adhesion of HL-60 cell to BAEC, 10 μmol/L, InRt = 39.02%). Source: HUA SANG *Morus cathayana* (root cortex). Ref: 5169.**3326 Catheduline E<sub>2</sub>**Cathedulin E<sub>2</sub> [61231-06-9] C<sub>38</sub>H<sub>40</sub>N<sub>2</sub>O<sub>11</sub> (700.75). Source: QIAO CHA*Catha edulis*. Ref: 658.**3327 D-Cathinone**[80096-54-4] C<sub>9</sub>H<sub>11</sub>NO (149.11). Pharm: Anorexic; CNS stimulant. Source:QIAO CHA *Catha edulis*, KE SHI MEI DENG MU *Maytenus krukovii*. Ref: 658.**3328 Caudaside A**C<sub>44</sub>H<sub>70</sub>O<sub>17</sub> (871.04). White powder, mp 156–157°C. Source: HU YAN WAN NIAN QING *Ornithogalum caudatum*. Ref: 839.**3329 Caudatin**C<sub>28</sub>H<sub>42</sub>O<sub>7</sub> (490.64). mp 158–160°C, 190–195°C. Source: BAI SHOU WU *Cynanchum bungei*. Ref: 6.

**3330 Caudicifolin**

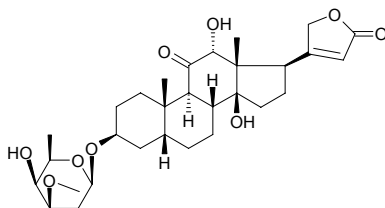
[65388-16-1] C<sub>20</sub>H<sub>26</sub>O<sub>4</sub> (330.43). Colorless needles. Source: DA GUO DA JI *Euphorbia wallichii* (root). Ref: 4585.

**3331 Caudoside**

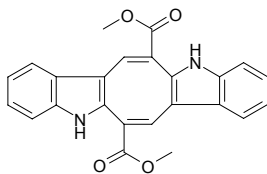
[464-76-6] C<sub>30</sub>H<sub>44</sub>O<sub>9</sub> (548.68). mp 249~252°C. Source: YANG JIAO AO ZI *Strophanthus divaricatus*. Ref: 6.

**3332 Caudostroside**

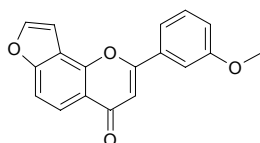
C<sub>30</sub>H<sub>44</sub>O<sub>9</sub> (548.68). Source: YANG JIAO AO ZI *Strophanthus divaricatus*. Ref: 6.

**3333 Caulerpin**

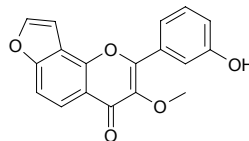
C<sub>24</sub>H<sub>18</sub>N<sub>2</sub>O<sub>4</sub> (398.42). Orange red solid, mp 316~318°C. Source: RUAN GU ZAO *Chondria armata* [Syn. *Lophura armata*]. Ref: 5080.

**3334 Cauliflorin A**

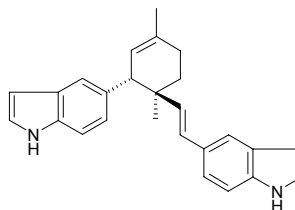
Pongol methyl ether C<sub>18</sub>H<sub>12</sub>O<sub>4</sub> (292.29). Colorless needles, mp 170~171°C; yellow powder. Source: GAN HUA DOU *Fordia cauliflora*, HONG E JI XUE TENG *Millettia erythrocalyx* (stem cortex: yield = 0.00075%dw). Ref: 2456, 4624.

**3335 Cauliflorin B**

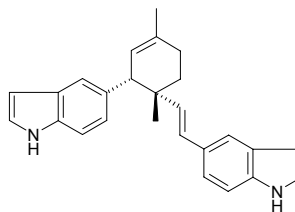
3'-Hydroxy,3-methoxy furo[8,7:4'',5'']flavone C<sub>18</sub>H<sub>12</sub>O<sub>5</sub> (308.29). Yellow needles, mp 182~183°C; white crystals (DMSO), mp 188°C. Source: GAN HUA DOU *Fordia cauliflora*, SHUI LIU DOU *Pongamia pinnata* (fruit). Ref: 2456, 3767.

**3336 Caulindole A**

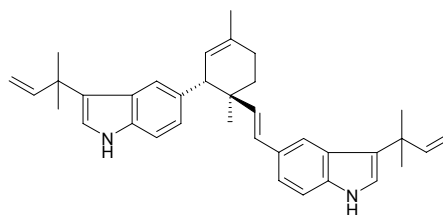
(3,4-*trans*)-3-(5'-Indolyl)-1,4-dimethyl-4-[ethyl-2-(5''-indolyl)enyl]-cyclohex-1-ene C<sub>26</sub>H<sub>26</sub>N<sub>2</sub> (366.51). Yellow oil, [ $\alpha$ ]<sub>D</sub> = +13.95° (c = 0.17, CHCl<sub>3</sub>). Source: JING SHENG HUA AI SUO LUO NA *Isolona cauliflora* (root cortex). Ref: 3755.

**3337 Caulindole B**

(3,4-*cis*)-3-(5'-Indolyl)-1,4-dimethyl-4-[ethyl-2-(5''-indolyl)enyl]-cyclohex-1-ene C<sub>26</sub>H<sub>26</sub>N<sub>2</sub> (366.51). Yellow oil. Source: JING SHENG HUA AI SUO LUO NA *Isolona cauliflora* (root cortex). Ref: 3755.

**3338 Caulindole C**

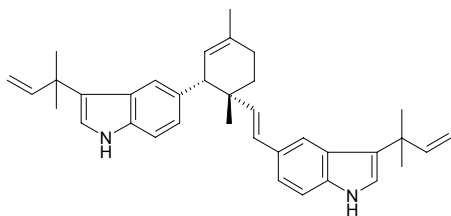
(3,4-*trans*)-3-[3'-(1''',1'''-Dimethyl-2'''-propenyl)-5'-indolyl]-1,4-dimethyl-4-[2-[3'-(1''',1'''-dimethyl-2'''-propenyl)-5''-indolyl]-ethyl-2-enyl]-cyclohex-1-ene C<sub>36</sub>H<sub>42</sub>N<sub>2</sub> (502.75). Yellow gum. Source: JING SHENG HUA AI SUO LUO NA *Isolona cauliflora* (root cortex). Ref: 3755.



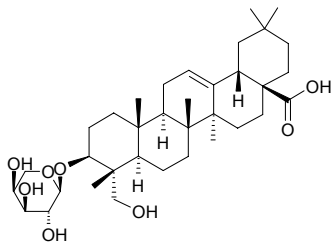


**3339 Caulindole D**

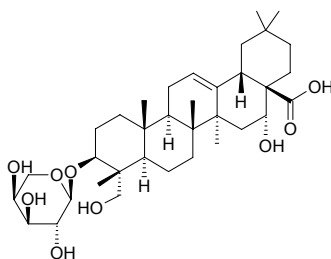
(3,4-*cis*)-3-[3'-(1''',1''''-Dimethyl-2'''-propenyl)-5'-indolyl]-1,4-dimethyl-4-{2-[3''-(1''''',1''''''-dimethyl-2''''-propenyl)-5''-indolyl]-ethyl-2-enyl}-cyclohex-1-ene  
 $C_{36}H_{42}N_2$  (502.75). Yellow gum. Source: JING SHENG HUA AI SUO LUO  
 NA *Isolona cauliflora* (root cortex). Ref: 3755.

**3340 Cauloside A**

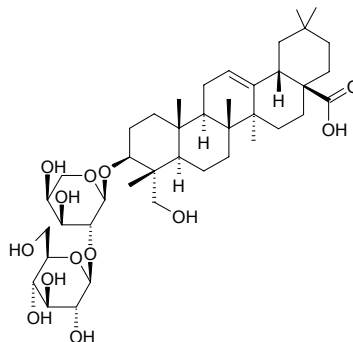
Koelreuteriasaponin A; Hederagenin 3-*O*-arabinoside [17184-21-3]  $C_{35}H_{56}O_8$   
 (604.83). mp 228°C (dec), mp 224~226°C (dec). Pharm: Molluscicide (snails  
*Biomphalaria glabrata*, 24h, LD<sub>100</sub> = 3mg/L). Source: BAI TOU WENG  
*Pulsatilla chinensis*, GUAN MU TONG *Aristolochia manshuriensis*, HONG  
 MAO QI *Leontice robustum*, LUAN HUA *Koelreuteria paniculata*, WEI  
 LING XIAN *Clematis chinensis*, YANG CHANG CHUN TENG *Hedera helix*,  
*Patrinia* sp. Ref: 6, 658.

**3341 Cauloside B**

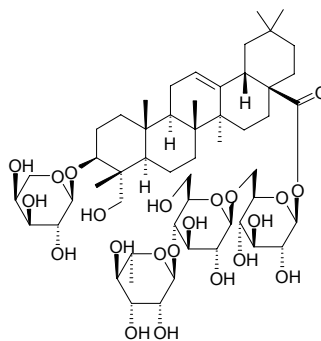
[12672-43-4]  $C_{35}H_{56}O_9$  (620.83). Source: HONG MAO QI *Leontice robustum*.  
Ref: 6.

**3342 Cauloside C**

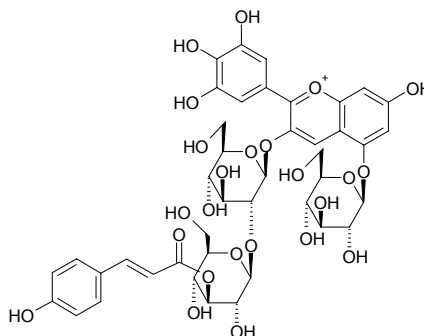
Hederagenin-3-*O*-β-*D*-glucopyranosyl(1→2)-α-*L*-arabinopyranoside  
 [20853-58-1]  $C_{41}H_{66}O_{13}$  (766.98). mp 252~255°C (dec). Source: HONG  
 MAO QI *Leontice robustum*, HONG MAO WU JIA PI *Acanthopanax giraldii*  
 [Syn. *Acanthopanax giraldii* var. *inermis*; *Eleutherococcus giraldii*], REN  
 DONG TENG *Lonicera japonica*. Ref: 6, 660.

**3343 Cauloside D**

Kizutasaponin K<sub>10</sub> [12672-45-6]  $C_{53}H_{86}O_{22}$  (1075.26). Source: HONG MAO  
 QI *Leontice robustum*, XI ZANG TIE XIAN LIAN *Clematis tibetana* (aerial  
 parts). Ref: 6, 3530.

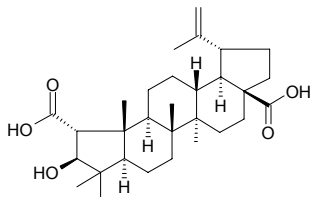
**3344 Cayratinin**

[33062-96-3]  $C_{42}H_{47}O_{24}^+$  (935.83). Source: WU LIAN MEI *Cayratia*  
*japonica*. Ref: 6.

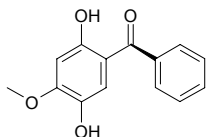


**3345 Ceanothic acid**

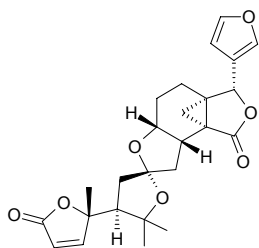
[121302-79-4] C<sub>30</sub>H<sub>46</sub>O<sub>5</sub> (486.70). Source: SUAN ZAO REN *Ziziphus jujuba* var. *spinosa*. Ref: 2.

**3346 Cearoin**

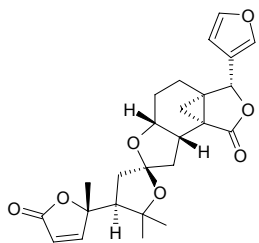
2,5-Dihydroxy-4-methoxybenzophenone [52811-37-7] C<sub>14</sub>H<sub>12</sub>O<sub>4</sub> (244.25).  
Source: JIANG ZHEN XIANG *Dalbergia odorifera*. Ref: 716.

**3347 Cedkathryn A**

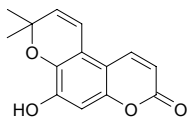
C<sub>25</sub>H<sub>28</sub>O<sub>7</sub> (440.50). Fine white crystals, mp 176–179°C, [α]<sub>D</sub> = –31° (c = 0.124, CHCl<sub>3</sub>). Source: *Cedrelopsis gracilis* (stem cortex). Ref: 3876.

**3348 Cedkathryn B**

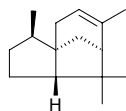
C<sub>25</sub>H<sub>28</sub>O<sub>7</sub> (440.50). Fine white crystals, mp 119–122°C, [α]<sub>D</sub> = +12° (c = 0.09, CHCl<sub>3</sub>). Source: *Cedrelopsis gracilis* (stem cortex). Ref: 3876.

**3349 Cedrecoumarin A**

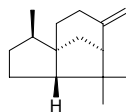
C<sub>14</sub>H<sub>12</sub>O<sub>4</sub> (244.25). Source: *Cedrelopsis grevei* (trunk bark). Ref: 5368.

**3350 α-Cedrene**

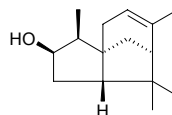
[469-61-4] C<sub>15</sub>H<sub>24</sub> (204.36). Pharm: Food additive. Source: BEI MEI YUAN BAI *Juniperus virginiana*, DANG GUI *Angelica sinensis*. Ref: 2, 658.

**3351 β-Cedrene**

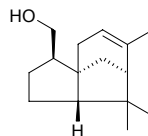
[546-28-1] C<sub>15</sub>H<sub>24</sub> (204.36). Source: DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*], SHENG JIANG *Zingiber officinale*. Ref: 2.

**3352 α-Cedren-3β-ol**

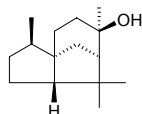
C<sub>15</sub>H<sub>24</sub>O (220.36). Colorless oil, [α]<sub>D</sub><sup>25</sup> = –53.4° (c = 1.0, CHCl<sub>3</sub>). Source: RU XIANG BAI *Juniperus thurifera* (wood). Ref: 5044.

**3353 α-Cedren-12-ol**

C<sub>15</sub>H<sub>24</sub>O (220.36). Colorless oil, [α]<sub>D</sub><sup>25</sup> = –50.1° (c = 1.0, CHCl<sub>3</sub>). Source: RU XIANG BAI *Juniperus thurifera* (wood). Ref: 5044.

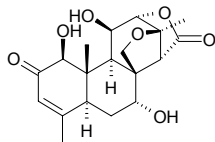
**3354 α-Cedrol**

[77-53-2] C<sub>15</sub>H<sub>26</sub>O (222.37). Pharm: Sedative (cedrol-exposed Wistar rats, accumulative spontaneous motor activity was significantly decreased, prolonged pentobarbital-induced sleeping time)<sup>[5497]</sup>; food additive; 12(S)-LOX inhibitor inactive (hmn Platelets, 100μg/mL, 12(S)-HETE Production inhibitor inactive)<sup>[4980]</sup>. Source: BEI MEI YUAN BAI *Juniperus virginiana*, DI ZHONG HAI BAI MU *Cupressus sempervirens*, MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*], OU ZHOU CI BAI *Juniperus communis* (wood), REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. Ref: 2, 658, 660, 4980, 5497.

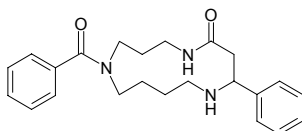


**3355 Cedronin**

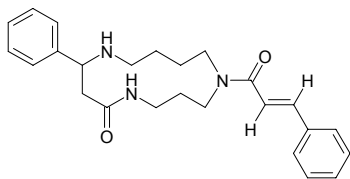
$C_{19}H_{24}O_7$  (364.40). **Pharm:** Cytotoxic (leukemia SR,  $LC_{50} = 44.2\mu\text{g/mL}$ ; non-small cell lung cancer NCI-H23,  $LC_{50} = 61.1\mu\text{g/mL}$ ; melanoma LOX IMVI,  $LC_{50} = 33.7\mu\text{g/mL}$ , MI4,  $LC_{50} = 50.7\mu\text{g/mL}$ ; renal cancer ACHN,  $LC_{50} = 69.4\mu\text{g/mL}$ , RXF 393,  $LC_{50} = 66.1\mu\text{g/mL}$ ). **Source:** MA DAO HUANG LIAN SHU *Samadera madagascariensis* (leaf). **Ref:** 5334.

**3356 Celabenzine**

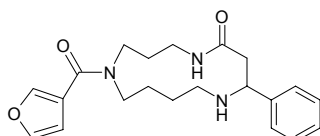
[53938-08-2]  $C_{23}H_{29}N_3O_2$  (379.51). **Pharm:** Insecticidal. **Source:** LEI GONG TENG *Tripterygium wilfordii*, MO SANG BI KE MEI DENG MU *Maytenus mossambicensis*. **Ref:** 2.

**3357 Celacinnine**

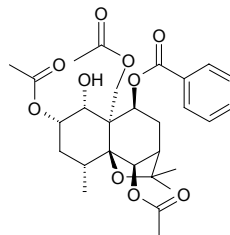
[53938-05-9]  $C_{25}H_{31}N_3O_2$  (405.54). **Source:** LEI GONG TENG *Tripterygium wilfordii*. **Ref:** 2.

**3358 Celafurine**

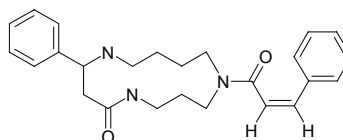
[53938-09-3]  $C_{21}H_{27}N_3O_3$  (369.47). **Source:** LEI GONG TENG *Tripterygium wilfordii*. **Ref:** 2.

**3359 Celahin C**

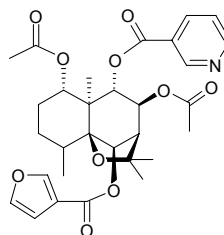
$C_{28}H_{36}O_{10}$  (532.59). **Pharm:** DPPH scavenger inactive (for  $40\mu\text{mol/L}$  DPPH radical,  $SC_{50} > 40\mu\text{mol/L}$ ). **Source:** SUO LA MU *Salacia prinoides* [Syn. *Salacia chinensis*] (stem). **Ref:** 4378.

**3360 Celaloccinnine**

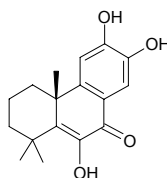
Caesalpinine C [53990-48-0]  $C_{25}H_{31}N_3O_2$  (405.54). **Source:** LEI GONG TENG *Tripterygium wilfordii*. **Ref:** 2.

**3361 Celapanine**

[52658-32-9]  $C_{30}H_{35}NO_{10}$  (569.61). **Pharm:** Irritant (strong); reduces toxicity of opium; antiarthritic (treatment of rheumatism and paralysis). **Source:** DENG YOU TENG ZI *Celastrus paniculatus*. **Ref:** 658.

**3362 Celaphanol A**

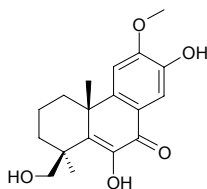
$C_{17}H_{20}O_4$  (288.35). Red amorphous powder,  $[\alpha]_D^{25} = +13^\circ$  ( $c = 0.9$ ,  $CDCl_3$ ). **Pharm:** Anti-inflammatory (*in vitro*, NF- $\kappa$ B inhibitor,  $IC_{50} = (18.2 \pm 1.0)\mu\text{mol/L}$ ; NO production inhibitor,  $IC_{50} = (32.6 \pm 1.4)\mu\text{mol/L}$ ; control Aminoguanidine,  $IC_{50} = (16.3 \pm 0.4)\mu\text{mol/L}$ )<sup>[4604]</sup>. **Source:** NAN SHE TENG GEN *Celastrus orbiculatus* [Syn. *Celastrus articulatus*] (root: yield = 0.0047%dw)<sup>[4604]</sup>, *Celastrus stephanotifolius*. **Ref:** 2310, 2511, 4604.



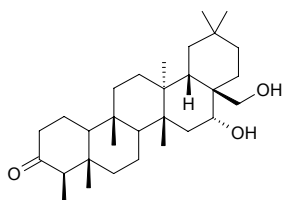
**3363 Celaphanol B**

$C_{18}H_{22}O_5$  (318.37). Brown amorphous powder,  $[\alpha]_D^{25} = +15^\circ$  ( $c = 0.6$ , MeOH).

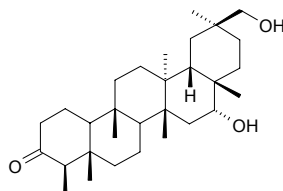
Source: NAN SHE TENG GEN *Celastrus orbiculatus* [Syn. *Celastrus articulatus*], *Celastrus stephanotifolius*. Ref: 2310, 2511.

**3364 Celasdin A**

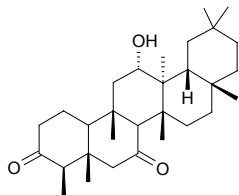
$C_{30}H_{50}O_3$  (458.73). Source: NAN SHE TENG GEN *Celastrus orbiculatus* [Syn. *Celastrus articulatus*]. Ref: 2511.

**3365 Celasdin B**

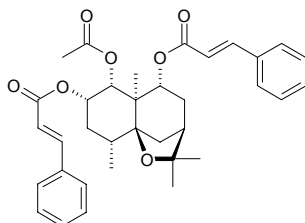
$C_{30}H_{50}O_3$  (458.73). Source: NAN SHE TENG GEN *Celastrus orbiculatus* [Syn. *Celastrus articulatus*]. Ref: 2511.

**3366 Celasdin C**

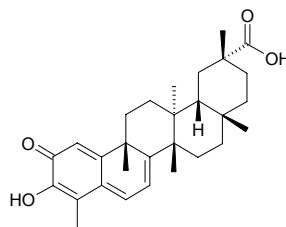
$C_{30}H_{48}O_3$  (456.72). Source: NAN SHE TENG GEN *Celastrus orbiculatus* [Syn. *Celastrus articulatus*]. Ref: 2511.

**3367 Celastrine B**

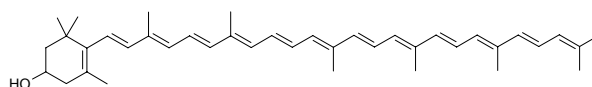
$C_{35}H_{40}O_7$  (572.70). Amorphous powder, mp 69~70°C. Source: CI NAN SHE TENG *Celastrus flagellaris*. Ref: 384.

**3368 Celastrol**

Tripteryne [34157-83-0]  $C_{29}H_{38}O_4$  (450.62). Red crystals, mp 205°C (dec); amorphous solid, mp 198~200°C. Pharm: Anti-inflammatory (rat, 0.5mg/kg, strongly inhibits cotton ball granuloma, 0.1~1.0μg/mL, inhibits PGE<sub>2</sub> induced by zymosan, 1.0μg/mL, inhibits macrophage phagocytic function); antiarthritic (inhibits activity of interleukin-1 in mus enterocelia macrophages, inhibits production of interleukin-2 in mus splenocyte, reduces synovioblasts to release PGE<sub>2</sub> in rbt); antioxidant (IC<sub>50</sub> = 7μmol/L); immunomodulator (strongly inhibits formation of platelet cell in mus spleen, significantly inhibits mus delayed hypersensitive reaction); immunosuppressant (inhibits reproduction of mus spleen cells caused by PHA, ConA and LPS, inhibits reproduction of lymphocytes); Spermicidal (gpg, *in vitro*); hypnotic (extends mus sleeping time induced by pentobarbital); anti-inflammatory (modulator of cytokine network: inhibits LPS-stimulated IL-1β production on hmn monocytes, mean IC<sub>50</sub> = 56nmol/L)<sup>[4416]</sup>; anti-inflammatory (modulator of cytokine network: decreases production of pro-inflammatory cytokines, TNF-α and IL-1β in hmn monocytes and macrophages, IC<sub>50</sub> = 30~100nmol/L)<sup>[4416]</sup>; anti-inflammatory (NO production inhibitor)<sup>[4415]</sup>; anti-inflammatory (*in vitro*, NF-κB inhibitor, IC<sub>50</sub> = (0.27±0.01)μmol/L; NO production inhibitor, IC<sub>50</sub> = (0.23±0.02)μmol/L; control Aminoguanidine, IC<sub>50</sub> = (16.3±0.4)μmol/L)<sup>[4604]</sup>; cytotoxic (KB, IC<sub>50</sub> = (1.6±0.1)μmol/L, control Podophyllotoxin, IC<sub>50</sub> = 0.014μmol/L)<sup>[3969]</sup>; antibacterial (*Bacillus cereus*, MIC = 4.44μmol/L, control Chloramphenicol, MIC = 6.19μmol/L; *Staphylococcus epidermidis*, MIC = 1.11μmol/L, Chloramphenicol, MIC = 12.38μmol/L; *Micrococcus luteus*, MIC = 4.44μmol/L, Chloramphenicol, MIC = 6.19μmol/L)<sup>[3969]</sup>. Source: CU MAO NAN SHE TENG *Celastrus strigillosus*, GAO MEI YING BAN *Crossopetalum gaumeri* (root), HEI MAN *Tripterygium regelii*, LEI GONG TENG *Tripterygium wilfordii*, MEI ZHOU NAN SHE TENG *Celastrus scandens*, NAN SHE TENG GEN *Celastrus orbiculatus* [Syn. *Celastrus articulatus*] (root: yield = 0.13%<sub>dw</sub>)<sup>[4604]</sup>. Ref: 1, 6, 900, 3969, 4416, 4415, 4604.

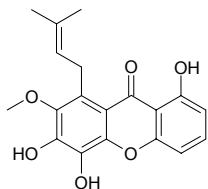
**3369 Celaxanthin**

[472-74-2]  $C_{40}H_{54}O$  (550.88). mp 209~210°C. Source: CI NAN SHE TENG *Celastrus flagellaris*. Ref: 6.

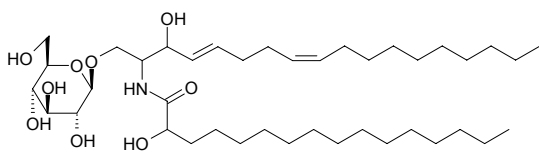


**3370 Celebixanthone**

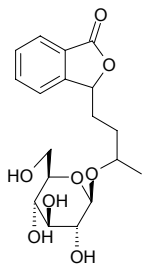
$C_{19}H_{18}O_6$  (342.35). **Pharm:** Antioxidant (DPPH scavenger,  $50\mu\text{mol/L}$ ,  $\text{ScRt} = 79.3\%$ ,  $\text{IC}_{50} = 12.3\mu\text{mol/L}$ ; control BHT,  $50\mu\text{mol/L}$ ,  $\text{ScRt} = 51.7\%$ ,  $\text{IC}_{50} = 28.9\mu\text{mol/L}$ )<sup>[4423]</sup>. **Source:** HUANG NIU MU *Cratoxylum cochinchinense* (root). **Ref:** 4423.

**3371 Celebroside**

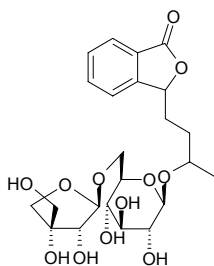
$C_{40}H_{75}NO_9$  (714.05). **Source:** GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *huechingensis*]. **Ref:** 2.

**3372 Celephtalide A**

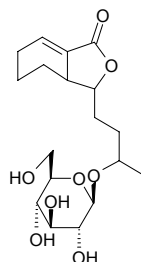
(3'S)-3'-Hydroxy-3-butyl phthalide  $\beta$ -D-glucopyranoside  $C_{18}H_{24}O_8$  (368.39). Amorphous powder,  $[\alpha]_D^{23} = -43^\circ$  ( $c = 3.0$ , MeOH). **Source:** HAN QIN *Apium graveolens* (fruit). **Ref:** 3477.

**3373 Celephtalide B**

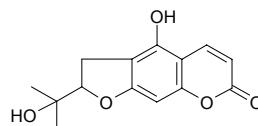
(3'S)-3'-Hydroxy-3-butyl phthalide  $\beta$ -D-apiofuranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranoside  $C_{23}H_{32}O_{12}$  (500.50). Amorphous powder,  $[\alpha]_D^{23} = -76^\circ$  ( $c = 0.5$ , MeOH). **Source:** HAN QIN *Apium graveolens* (fruit). **Ref:** 3477.

**3374 Celephtalide C**

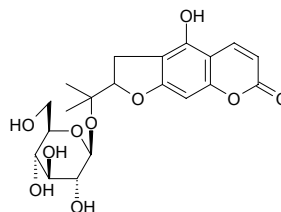
(3S)-3'-Hydroxysedanolid  $\beta$ -D-glucopyranoside  $C_{18}H_{28}O_8$  (372.42). Amorphous powder,  $[\alpha]_D^{23} = -56^\circ$  ( $c = 1.1$ , MeOH). **Source:** HAN QIN *Apium graveolens* (fruit). **Ref:** 3477.

**3375 Celereoin**

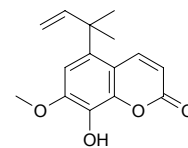
[74560-02-4]  $C_{14}H_{14}O_5$  (262.26). **Source:** HAN QIN *Apium graveolens*. **Ref:** 19.

**3376 Celereoside**

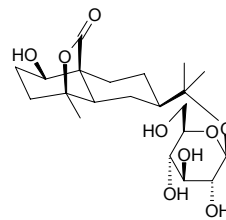
$C_{20}H_{24}O_{10}$  (424.41). **Source:** HAN QIN *Apium graveolens*. **Ref:** 19.

**3377 Celerin**

[73815-20-2]  $C_{15}H_{16}O_4$  (260.29). **Source:** HAN QIN *Apium graveolens*. **Ref:** 19.

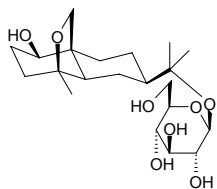
**3378 Celerioside A**

(1R,4S,5R,7R,10S)-1,11-Dihydroxy-eudesman-14,4-olide 11-O- $\beta$ -D-glucopyranoside  $C_{21}H_{34}O_9$  (430.50). Colorless needles (MeOH), mp  $223\text{--}225^\circ\text{C}$ ,  $[\alpha]_D^{23} = +19^\circ$  ( $c = 2.3$ , MeOH). **Source:** HAN QIN *Apium graveolens* (fruit). **Ref:** 3477.

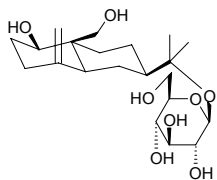


**3379 Celerioside B**

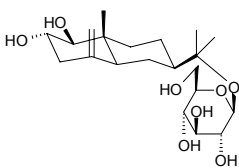
1 $\beta$ ,11-Dihydroxy-eudesman-4,14-oxide 11-*O*- $\beta$ -*D*-glucopyranoside C<sub>21</sub>H<sub>36</sub>O<sub>8</sub> (416.52). Amorphous powder,  $[\alpha]_D^{23} = -9^\circ$  ( $c = 0.8$ , MeOH). Source: HAN QIN *Apium graveolens* (fruit). Ref: 3477.

**3380 Celerioside C**

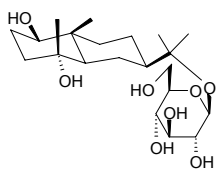
Eudesmane-4(15)-ene-1 $\beta$ ,11,14-triol 11-*O*- $\beta$ -*D*-glucopyranoside C<sub>21</sub>H<sub>36</sub>O<sub>8</sub> (416.52). Amorphous powder,  $[\alpha]_D^{23} = +20^\circ$  ( $c = 2.4$ , MeOH). Source: HAN QIN *Apium graveolens* (fruit). Ref: 3477.

**3381 Celerioside D**

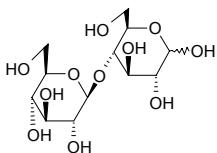
Eudesmane-4(15)-ene-1 $\beta$ ,2 $\alpha$ ,11-triol 11-*O*- $\beta$ -*D*-glucopyranoside C<sub>21</sub>H<sub>36</sub>O<sub>8</sub> (416.52). Amorphous powder,  $[\alpha]_D^{23} = +13^\circ$  ( $c = 0.3$ , MeOH). Source: HAN QIN *Apium graveolens* (fruit). Ref: 3477.

**3382 Celerioside E**

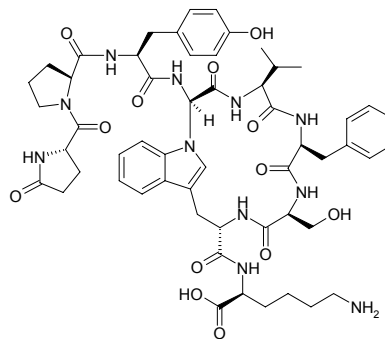
Eudesmane-1 $\beta$ ,4 $\alpha$ ,11-triol 11-*O*- $\beta$ -*D*-glucopyranoside C<sub>21</sub>H<sub>38</sub>O<sub>8</sub> (418.53). Amorphous powder,  $[\alpha]_D^{25} = +9^\circ$  ( $c = 2.4$ , MeOH). Source: HAN QIN *Apium graveolens* (fruit). Ref: 3477.

**3383 Cellobiose**

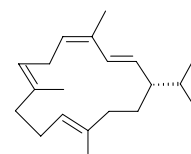
4-*O*- $\beta$ -*D*-Glucopyranosyl-*D*-glucose [528-50-7] C<sub>12</sub>H<sub>22</sub>O<sub>11</sub> (342.30). mp 225°C (dec). Source: PI HAN CAO *Melilotus suaveolens*. Ref: 6.

**3384 Celogenamide A**

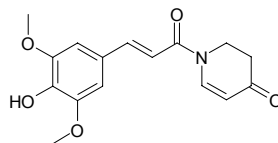
C<sub>53</sub>H<sub>69</sub>N<sub>11</sub>O<sub>13</sub> (1092.23). Colorless solid,  $[\alpha]_D^{22} = +3^\circ$  ( $c = 0.3$ , DMSO). Source: QIANG XIANG *Celosia argentea* (seed: yield = 0.0002%). Ref: 4771.

**3385 Cembrene**

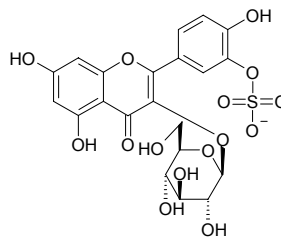
Thunbergene [1898-13-1] C<sub>20</sub>H<sub>32</sub> (272.48). mp 58–59°C. Source: HAI SONG ZI *Pinus koraiensis*. Ref: 6.

**3386 Cenocladamide**

*N*-(4'-Hydroxy-3',5'-dimethoxycinnamoyl)-*d*<sup>2</sup>-pyridin-4-one C<sub>16</sub>H<sub>17</sub>NO<sub>5</sub> (303.32). Pale yellow oil. Source: *Piper cenocladum* (leaf). Ref: 3896.

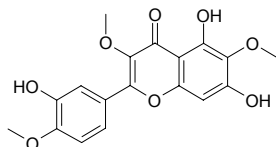
**3387 Centabracein**

Quercetin 3-*O*- $\beta$ -*D*-glucopyranoside 3'-sulphate C<sub>21</sub>H<sub>19</sub>O<sub>15</sub>S<sup>-</sup> (543.44). Yellowish amorphous solid,  $[\alpha]_D^{20} = -60.0^\circ$  ( $c = 0.13$ , MeOH). Source: BAO PIAN SHI CHE JU *Centaurea bracteata* (aerial parts). Ref: 5151.

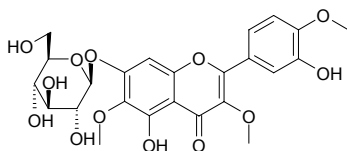


**3388 Centaureidin**

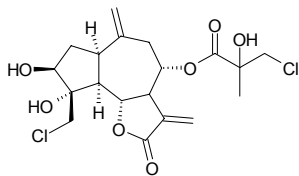
[17313-52-9] C<sub>18</sub>H<sub>16</sub>O<sub>8</sub> (360.32). mp 203°C. **Pharm:** Cytotoxic (2.7mg/mL); NO production inhibitor (LPS-induced, concentration-dependent manner, IC<sub>50</sub> = 31.9 or 7.1 μmol/L)<sup>[4918]</sup>; PGE<sub>2</sub> production inhibitor (LPS-induced, concentration-dependent manner, IC<sub>50</sub> = 21.7 or 28.7 μmol/L)<sup>[4918]</sup>. **Source:** CHU CHONG JU *Chrysanthemum cinerariaefolium*, OU ZHOU QI MU *Alnus glutinosa*, XIAO YE JU HAO *Tanacetum microphyllum* (aerial parts), YI WA JU *Iva frutescens*. **Ref:** 661, 4918.

**3389 Centaurein**

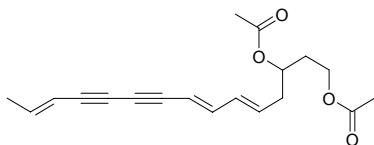
3,6,4'-Tri-*O*-methylquercetaletin-7-*O*-β-*D*-glucopyranoside C<sub>24</sub>H<sub>26</sub>O<sub>13</sub> (522.47). **Pharm:** Antioxidant (DPPH scavenger, IC<sub>50</sub> = (115.30±6.18) μmol/L, control Quercetin, IC<sub>50</sub> = (6.11±0.53) μg/mL)<sup>[5318]</sup>. **Source:** ZUI DA WAN SHOU JU *Tagetes maxima* (aerial parts). **Ref:** 5318.

**3390 Centaurepensin**

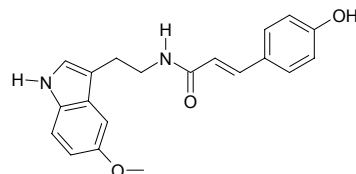
C<sub>19</sub>H<sub>24</sub>Cl<sub>2</sub>O<sub>7</sub> (435.30). **Source:** YI BAO MA HUA TOU *Serratula strangulata* (root stem). **Ref:** 5244.

**3391 Centaur X2**

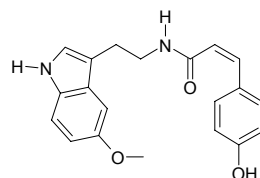
C<sub>19</sub>H<sub>22</sub>O<sub>4</sub> (314.38). mp 54–56°C. **Source:** QI ZHOU YI ZHI HAO *Conyza canadensis* [Syn. *Erigeron canadensis*]. **Ref:** 6.

**3392 Centeyamine**

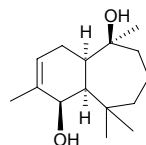
(*E*)-*N*-(4-Hydroxycinnamoyl)-5-methoxytryptamine C<sub>20</sub>H<sub>20</sub>N<sub>2</sub>O<sub>3</sub> (336.39). Amorphous. **Source:** SHI CHE JU *Centaurea cyanus* (seed). **Ref:** 5174.

**3393 cis-Centeyamine**

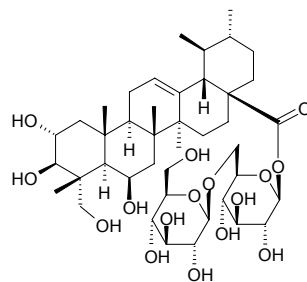
(*Z*)-*N*-(4-Hydroxycinnamoyl)-5-methoxytryptamine C<sub>20</sub>H<sub>20</sub>N<sub>2</sub>O<sub>3</sub> (336.39). Amorphous. **Source:** SHI CHE JU *Centaurea cyanus* (seed). **Ref:** 5174.

**3394 Centdarol**

[57308-24-4] C<sub>15</sub>H<sub>26</sub>O<sub>2</sub> (238.37). **Pharm:** Antispasmodic. **Source:** XUE SONG *Cedrus deodara*. **Ref:** 658.

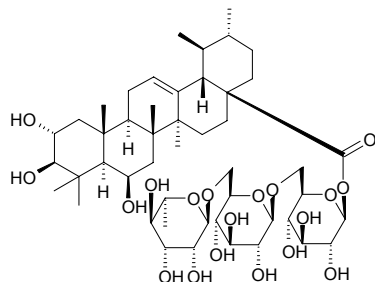
**3395 Centellasaponin B**

Madecassic acid 28-*O*-β-*D*-glucopyranosyl(1→6)-β-*D*-glucopyranoside C<sub>42</sub>H<sub>68</sub>O<sub>16</sub> (829.00). Colorless fine crystals (CHCl<sub>3</sub>-MeOH), mp 223–224°C, [α]<sub>D</sub><sup>25</sup> = +13.2° (c = 0.3, MeOH). **Source:** JI XUE CAO *Centella asiatica* (aerial parts). **Ref:** 4135.

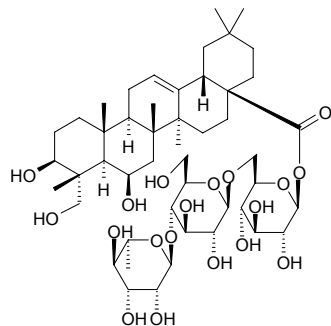


**3396 Centellasaponin C**

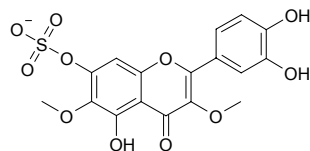
Madasiatic acid 28-*O*- $\alpha$ -*L*-rhamnopyranosyl(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl (1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranoside C<sub>48</sub>H<sub>78</sub>O<sub>19</sub> (959.15). Colorless fine crystals (CHCl<sub>3</sub>-MeOH), mp 209~210°C,  $[\alpha]_D^{25} = -9.0^\circ$  ( $c = 0.6$ , MeOH). Source: JI XUE CAO *Centella asiatica* (aerial parts). Ref: 4135.

**3397 Centellasaponin D**

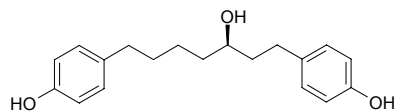
3 $\beta$ ,6 $\beta$ ,23-Trihydroxyolean-12-en-28-oic acid 28-*O*- $\alpha$ -*L*-rhamnopyranosyl(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranoside C<sub>48</sub>H<sub>78</sub>O<sub>19</sub> (959.15). Colorless fine crystals (CHCl<sub>3</sub>-MeOH), mp 202~203°C,  $[\alpha]_D^{25} = -12.4^\circ$  ( $c = 0.3$ , MeOH). Source: JI XUE CAO *Centella asiatica* (aerial parts). Ref: 4135.

**3398 Centradixin**

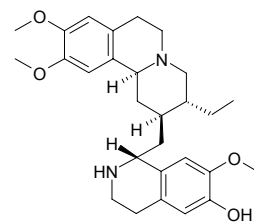
C<sub>17</sub>H<sub>13</sub>O<sub>11</sub>S<sup>-</sup> (425.35). Yellowish amorphous solid. Source: BAO PIAN SHI CHE JU *Centaurea bracteata* (root). Ref: 5235.

**3399 (-)-Centrololol**

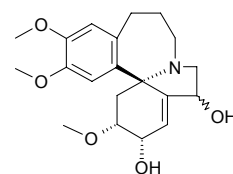
C<sub>19</sub>H<sub>24</sub>O<sub>3</sub> (300.40). Pharm:  $\beta$ -Hexosaminidase inhibitor inactive (RBL-2H3 cells, inhibits release of  $\beta$ -hexosaminidase, 100 $\mu$ mol/L, InRt = (-17.2 $\pm$ 3.8%)<sup>[4304]</sup>. Source: MAO GUO QI *Acer nikoense* (stem cortex). Ref: 4304.

**3400 Cephaeline**

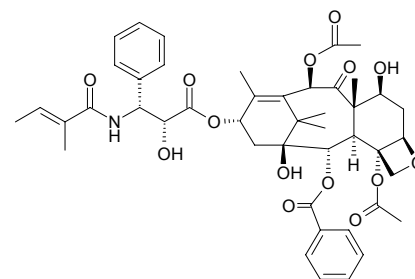
[483-17-0] C<sub>28</sub>H<sub>38</sub>N<sub>2</sub>O<sub>4</sub> (466.63). Pharm: Antiamebic; antitussive (dispels phlegm); emetic. Source: TU GEN *Cephaelis ipecacuanha*, AN GE LA BA JIAO FENG *Alangium lamarckii*. Ref: 658.

**3401 Cephalofortuneine**

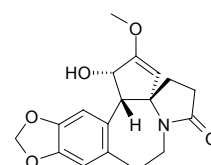
2-Epicephalofortuneine [68156-55-8] C<sub>20</sub>H<sub>27</sub>NO<sub>5</sub> (361.44). White crystals, mp 80~83°C,  $[\alpha]_D^{32} = +12.1^\circ$  ( $c = 0.15$ , chloroform). Source: SAN JIAN SHAN *Cephalotaxus fortunei*. Ref: 2, 27.

**3402 Cephalomannine**

Taxol B [71610-00-9] C<sub>45</sub>H<sub>53</sub>NO<sub>14</sub> (831.92). Acicular crystals (solution of methanol in water), mp 184~186°C,  $[\alpha]_D = -41^\circ$  (methanol). Pharm: Antineoplastic (P<sub>388</sub>); cytotoxic (KB, ED<sub>50</sub> = 0.0038 $\mu$ g/mL). Source: HAI NAN CU FEI *Cephalotaxus hainanensis* [Syn. *Cephalotaxus manii*], JIANG GUO ZI SHAN *Taxus baccata*, SU MEN DA LA HONG DOU SHAN *Taxus sumatrana* (twig and leaf: yield = 0.00045%dw)<sup>[4666]</sup>. Ref: 661, 4666.

**3403 Cephalotaxinamide**

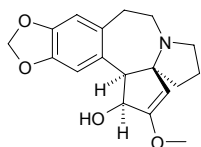
[80797-04-2] C<sub>18</sub>H<sub>19</sub>NO<sub>5</sub> (329.36). Source: SAN JIAN SHAN *Cephalotaxus fortunei*. Ref: 20.



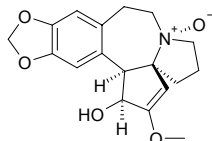


**3404 Cephalotaxine**

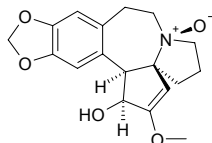
[24316-19-6]  $C_{18}H_{21}NO_4$  (315.37). White crystals, mp 132~133°C,  $[\alpha]_D^{25} = -204^\circ$  ( $c = 1.8$ , chloroform).<sup>[5507]</sup> **Pharm:** Antineoplastic (S<sub>180</sub> and malignant lymphoma); muscle stimulant; toxin (inhibits bone marrow). **Source:** HAI NAN CU FEI *Cephalotaxus hainanensis* [Syn. *Cephalotaxus manni*] (branchlet and bark: mean content of 2 samples = 0.054%<sup>[5508]</sup>), RI BEN CU FEI *Cephalotaxus harringtonia* (in 1963, isolated from the plant by Paudler for the first time<sup>[5507]</sup>), SAN JIAN SHAN *Cephalotaxus fortunei* (drupe: yield = 0.104%<sup>[4675]</sup>; branchlet and bark: mean content of 2 origins = 0.070%<sup>[5508]</sup>), TAI WAN CU FEI *Cephalotaxus wilsoniana*, ZHONG GUO CU FEI ZHI YE *Cephalotaxus sinensis* [Syn. *Cephalotaxus harringtonia* var. *sinensis*]. **Ref:** 1, 4, 5, 20, 660, 4675, 5507, 5508.

**3405 Cephalotaxine  $\alpha$ -N-oxide**

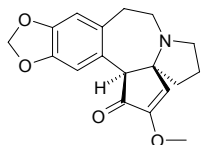
$C_{18}H_{21}NO_5$  (331.37). Amorphous solid,  $[\alpha]_D^{21} = -131^\circ$  ( $c = 0.5$ ,  $CHCl_3$ ). **Pharm:** Cytotoxic (*in vitro*, nasopharynx KB cells,  $IC_{50} = 30\mu g/mL$ , weak activity). **Source:** SAN JIAN SHAN *Cephalotaxus fortunei* (drupe: yield = 0.0010%). **Ref:** 4675.

**3406 Cephalotaxine  $\beta$ -N-oxide**

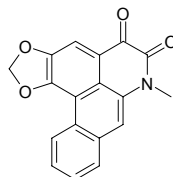
$C_{18}H_{21}NO_5$  (331.37). Amorphous solid,  $[\alpha]_D^{21} = -221^\circ$  ( $c = 0.5$ ,  $CHCl_3$ ). **Pharm:** Cytotoxic (*in vitro*, nasopharynx KB cells,  $IC_{50} = 14\mu g/mL$ , weak activity). **Source:** SAN JIAN SHAN *Cephalotaxus fortunei* (drupe: yield = 0.0026%). **Ref:** 4675.

**3407 Cephalotaxinone**

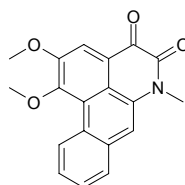
[38750-57-1]  $C_{18}H_{19}NO_4$  (313.36). **Source:** SAN JIAN SHAN *Cephalotaxus fortunei* (drupe: yield = 0.0020%)<sup>[4675]</sup>. **Ref:** 20, 4675.

**3408 Cephadione A**

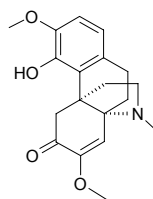
$C_{18}H_{11}NO_4$  (305.29). **Pharm:** Platelet aggregation inhibitor (rbt platelets induced by thrombin, 100 $\mu g/mL$ , add thrombin 0.1 u/mL, AggRt = (90.6 $\pm$ 1.4)%, control AggRt = (92.6 $\pm$ 0.4)%); add AA, 100 $\mu mol/L$ , 50 $\mu g/mL$ , AggRt = (84.7 $\pm$ 2.2)%, control AggRt = (87.8 $\pm$ 0.3)%, Aspirin 50 $\mu g/mL$ , AggRt = (11.7 $\pm$ 10.1)%); add collagen 10 $\mu g/mL$ , 50 $\mu g/mL$ , AggRt = (84.7 $\pm$ 1.3)%, control AggRt = (89.3 $\pm$ 0.5)%, Aspirin 100 $\mu g/mL$ , AggRt = (81.3 $\pm$ 0.5)%); add PAF 2ng/mL, 50 $\mu g/mL$ , AggRt = (92.5 $\pm$ 1.2)%, control AggRt = (93.0 $\pm$ 0.6)%<sup>[4938]</sup>. **Source:** MIAN MAO MA DOU LING *Aristolochia mollissima* (dried root and stem: yield = 0.00031%dw), TAI WAN HU JIAO *Piper taiwanense* (stem). **Ref:** 3026, 4938.

**3409 Cephadione B**

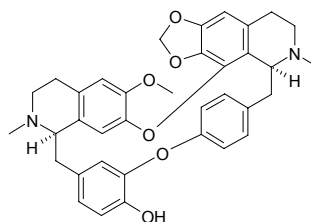
$C_{19}H_{15}NO_4$  (321.34). **Source:** YU XING CAO *Houttuynia cordata*. **Ref:** 2428.

**3410 Cepharamine**

[15444-26-5]  $C_{19}H_{23}NO_4$  (329.40). mp 186~187°C. **Source:** BAI YAO ZI *Stephania cepharantha*. **Ref:** 6.

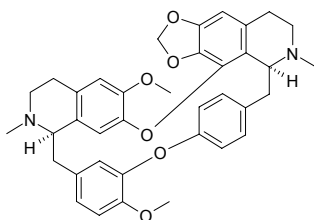
**3411 Cepharanoline**

[27686-34-6]  $C_{36}H_{36}N_2O_6$  (592.70). mp 270°C (dec). **Source:** BAI YAO ZI *Stephania cepharantha*. **Ref:** 6.

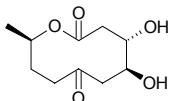


**3412 Cepharanthine**

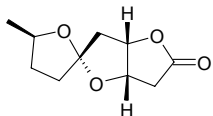
[481-49-2]  $C_{37}H_{38}N_2O_6$  (606.73). Yellow acicular crystals, (acetone–benzene), mp 145–155°C,  $[\alpha]_D^{20} = +277^\circ$  ( $c = 2$ , chloroform), soluble in common organic solvents, insoluble in petroleum spirit.<sup>[5507]</sup> **Pharm:** Activates lymph node; antibacterial (*Mycobacterium tuberculosis*); antineoplastic (HeLa, *in vitro*, ED<sub>50</sub> = 5.5 μg/kg; hmn, HeLa-S3, *in vitro*, ED<sub>50</sub> = 7.0 μg/kg; EAC *in vivo*; S<sub>180</sub> *in vivo*; inhibits DNA synthesis); antidote (effective detoxification for alcohol and venom); inhibits akaryocyte K<sup>+</sup> effusion caused by lysolecithin; platelet aggregation inhibitor (caused by collagen); antiallergic (inhibits some allergic shock). **Source:** BAI YAO ZI *Stephania cepharantha*, DI BU RONG *Stephania delavayi* [Syn. *Stephania epigaea*], TAI WAN QIAN JIN TENG *Stephania sasakii*. **Ref:** 1, 4, 5, 6, 5507.

**3413 Cepharosporolide C**

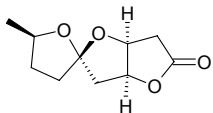
$C_{10}H_{16}O_5$  (216.24). **Pharm:** Antimalarial inactive (*Plasmodium falciparum* K1, 20 μg/mL; control Dihydroartemisinin, IC<sub>50</sub> = 1.2 ng/mL)<sup>[4784]</sup>. **Source:** YONG CHONG CAO *Cordyceps militaris*. **Ref:** 4784.

**3414 Cepharosporolide E**

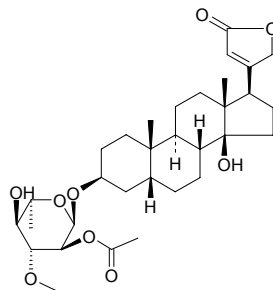
$C_{10}H_{14}O_4$  (198.22). **Source:** YONG CHONG CAO *Cordyceps militaris*. **Ref:** 4784.

**3415 Cepharosporolide F**

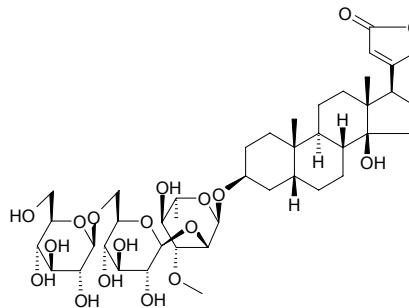
$C_{10}H_{14}O_4$  (198.22). **Source:** YONG CHONG CAO *Cordyceps militaris*. **Ref:** 4784.

**3416 Cerberin**

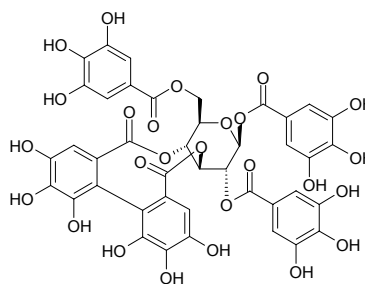
Veneniferin  $C_{32}H_{48}O_9$  (576.73). mp 212–215°C. **Pharm:** Cytotoxic (KB, ED<sub>50</sub> = 1.92 μg/mL; BC, ED<sub>50</sub> = 1.63 μg/mL; NCI-H187, ED<sub>50</sub> = 1.24 μg/mL; control Ellipticine, ED<sub>50</sub> = 0.3–0.6 μg/mL)<sup>[3777]</sup>. **Source:** AO DAO LA MU HAI MANG GUO *Cerbera odollam* (seed), HUANG HUA JIA ZHU TAO *Thevetia nerifolia* [Syn. *Thevetia peruviana*] (seed: mean content = 0.60%<sup>[5508]</sup>), NIU XIN QIE ZI *Cerbera manghas*. **Ref:** 1, 2594, 3777, 5508.

**3417 Cerberoside**

$C_{42}H_{66}O_{18}$  (858.99). mp 187.5–188.5°C, 197–201°C. **Source:** HUANG HUA JIA ZHU TAO *Thevetia nerifolia* [Syn. *Thevetia peruviana*], NIU XIN QIE ZI *Cerbera manghas*. **Ref:** 6.

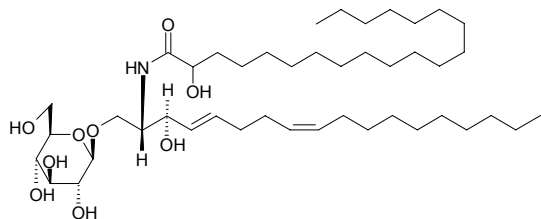
**3418 Cercidin A**

1,2,6-Tri-*O*-galloyl-3,4-(*R*)-hexahydroxydiphenoyl-β-*D*-glucose  $C_{41}H_{30}O_{26}$  (938.68). Off-white amorphous powder,  $[\alpha]_D = -71.6^\circ$  ( $c = 1.0$ , acetone) **Source:** RI BEN LIAN XIANG SHU *Cercidiphyllum japonicum* (bark). **Ref:** 3519.

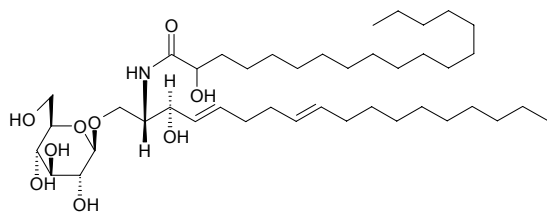


**3419 Cerebroside 1**

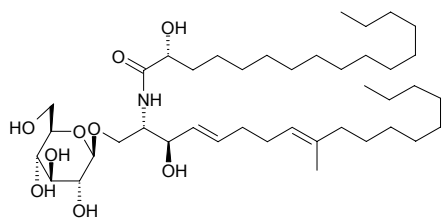
[174176-91-1] C<sub>44</sub>H<sub>83</sub>NO<sub>9</sub> (770.15). Colorless amorphous powder,  $[\alpha]_D^{25} = +17^\circ$  ( $c = 0.085$ , methanol). Pharm: Antihepatotoxin (rat, CCl<sub>4</sub>). Source: DONG BEI TIAN NAN XING *Arisaema amurense*. Ref: 1054.

**3420 Cerebroside 5**

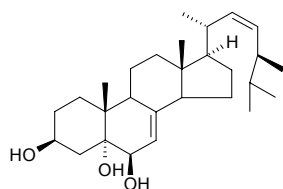
[174176-93-3] C<sub>42</sub>H<sub>79</sub>NO<sub>9</sub> (742.09). Colorless amorphous powder. Pharm: Antihepatotoxin (rat, CCl<sub>4</sub>). Source: DONG BEI TIAN NAN XING *Arisaema amurense*. Ref: 1054.

**3421 Cerebroside B**

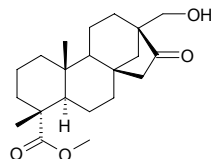
[88642-46-0] C<sub>41</sub>H<sub>77</sub>NO<sub>9</sub> (728.07). White amorphous powder,  $[\alpha]_D^{27} = +5.1^\circ$  ( $c = 0.3$ , MeOH). Source: AI LI SI DUO KONG JUN *Polyporus ellisii*. Ref: 2435.

**3422 (22Z,24S)-Cerevisterol**

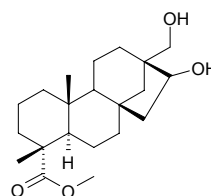
C<sub>28</sub>H<sub>46</sub>O<sub>3</sub> (430.68). White lamellar crystals (Me<sub>2</sub>CO) mp 240–242°C. Source: YA RONG GAI RU GU *Lactarius subvellereus*. Ref: 801.

**3423 Cериopsin A**

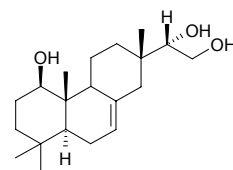
C<sub>21</sub>H<sub>32</sub>O<sub>4</sub> (348.49). Colorless needles (MeOH). mp 135–139°C,  $[\alpha]_D^{25} = -47.0^\circ$  ( $c = 0.6$ , CHCl<sub>3</sub>). Source: SHI XIONG RUI JIAO GUO MU *Ceriops decandra*. Ref: 1970.

**3424 Cериopsin B**

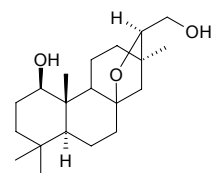
C<sub>21</sub>H<sub>34</sub>O<sub>4</sub> (350.50). Colorless needles (MeOH), mp 164–166°C,  $[\alpha]_D^{25} = -37.5^\circ$  ( $c = 0.80$ , CHCl<sub>3</sub>). Source: SHI XIONG RUI JIAO GUO MU *Ceriops decandra*. Ref: 1970.

**3425 Cериopsin C**

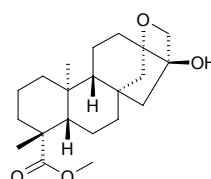
C<sub>20</sub>H<sub>34</sub>O<sub>3</sub> (322.49). Colorless oil,  $[\alpha]_D^{25} = +3.0^\circ$  ( $c = 0.4$ , CHCl<sub>3</sub>). Source: SHI XIONG RUI JIAO GUO MU *Ceriops decandra*. Ref: 1970.

**3426 Cериopsin D**

C<sub>20</sub>H<sub>34</sub>O<sub>3</sub> (322.49). Colorless oil,  $[\alpha]_D^{25} = +50.6^\circ$  ( $c = 1.5$ , CHCl<sub>3</sub>). Source: SHI XIONG RUI JIAO GUO MU *Ceriops decandra*. Ref: 1970.

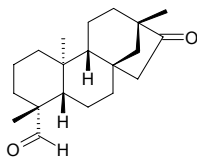
**3427 Cериopsin F**

Methyl *ent*-13,17-epoxy-16-hydroxykauran-19-oate C<sub>21</sub>H<sub>32</sub>O<sub>4</sub> (348.49). Colorless needles (MeOH), mp 130–133°C,  $[\alpha]_D^{25} = +40.2^\circ$  ( $c = 0.4$ , CHCl<sub>3</sub>). Source: SHI XIONG RUI JIAO GUO MU *Ceriops decandra*. Ref: 2053.

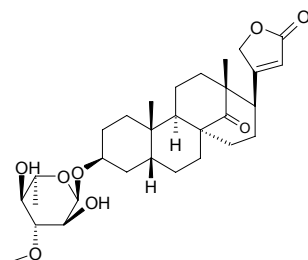


**3428 Ceriopsin G**

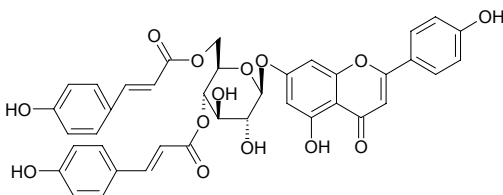
ent-16-Oxobeyeran-19-al C<sub>20</sub>H<sub>30</sub>O<sub>2</sub> (302.46). Colorless oil,  $[\alpha]_D^{25} = -49.0^\circ$  ( $c = 0.25$ , CHCl<sub>3</sub>). Source: SHI XIONG RUI JIAO GUO MU *Ceriops decandra*. Ref: 2053.

**3429 Cerleaside A**

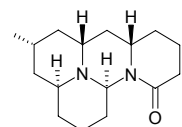
C<sub>30</sub>H<sub>44</sub>O<sub>8</sub> (532.68). Pharm: Cytotoxic (KB, inactive, ED<sub>50</sub> > 50 μg/mL; BC, ED<sub>50</sub> = 9.12 μg/mL; NCI-H187, inactive, ED<sub>50</sub> > 50 μg/mL; control Ellipticine, ED<sub>50</sub> = 0.3–0.6 μg/mL). Source: AO DAO LA MU HAI MANG GUO *Cerbera odollam* (seed). Ref: 3777.

**3430 Cernoside**

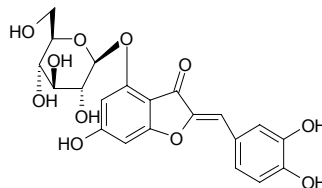
C<sub>39</sub>H<sub>32</sub>O<sub>14</sub> (724.68). mp 225–230°C (dec). Source: PU DI WU GONG *Lycopodium cernuum*. Ref: 6.

**3431 Cernuine**

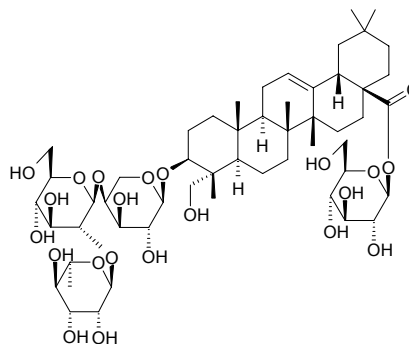
[6880-84-8] C<sub>16</sub>H<sub>26</sub>N<sub>2</sub>O (262.40). mp 106°C. Pharm: Low toxin. Source: PU DI WU GONG *Lycopodium cernuum*, KA LUO LAI NA SHI SONG *Lycopodium carolinianum*. Ref: 6, 658.

**3432 Cernuoside**

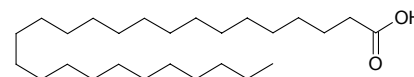
[480-69-3] C<sub>21</sub>H<sub>20</sub>O<sub>11</sub> (448.39). Yellow crystals (ethanol solution), mp 250–258°C,  $[\alpha]_D^{30} = -13^\circ$  (pyridine). Pharm: Pigment. Source: CHUN ZHU JU TAI *Chirita micronusa*, A ER JI LI YA BU XUE CAO *Limonium bonduellii*, SHI HU DIE *Petrocosmea kerrii*, YU YE JIN HUA *Mussaenda hirsutissima*, *Oxalis cernua*. Ref: 2109.

**3433 Cernuoside C**

3-*O*- $\alpha$ -L-Rhamnopyranosyl-(1→2)[ $\beta$ -D-glucopyranosyl(1→4)]- $\alpha$ -L-arabinopyranosyl hederagenin 28-*O*-D-glucopyranosyl ester C<sub>53</sub>H<sub>86</sub>O<sub>22</sub> (1075.26). White powder, mp 234–236°C,  $[\alpha]_D^{20} = +1.9^\circ$  ( $c = 0.26$ , CH<sub>3</sub>OH). Source: CHAO XIAN BAI TOU WENG *Pulsatilla cernua*. Ref: 860.

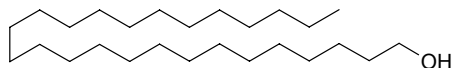
**3434 Cerotic acid**

Hexacosanoic acid [506-46-7] C<sub>26</sub>H<sub>52</sub>O<sub>2</sub> (396.70). Colorless acicular crystals, mp 87.7–87.9°C. Pharm: Platelet aggregation inhibitor (washed rabbit platelets, 50 μg/mL, 100 μmol/L AA-induced, AggRt = 18.4%, control 50 μmol/L Aspirin, AggRt = 100%; 10 μg/mL collagen-induced, AggRt = 4.2%, 100 μmol/L Aspirin, AggRt = 4.9%; 0.1 U/mL thrombin-induced, AggRt = 3.0%, 100 μmol/L Aspirin, AggRt = 1.7%; 2 ng/mL PAF-induced, AggRt = 5.0%, 100 μmol/L Aspirin, AggRt = 2.1%)<sup>[5427]</sup>. Source: CHONG BAI LA *Ericerus pela*, JIN QUE GEN *Caragana sinica*, SAN QI CAO *Gynura segetum* [Syn. *Gynura japonica*] (rhizome), SHUANG BIAN GUA LOU *Trichosanthes rosthornii* [Syn. *Trichosanthes uniflora*], YAO YONG PU GONG YING *Taraxacum officinale*. Ref: 2, 6, 455, 660, 5427.

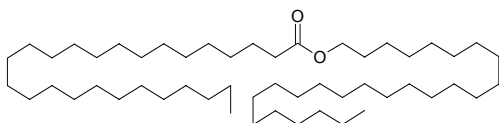


**3435 Ceryl alcohol**

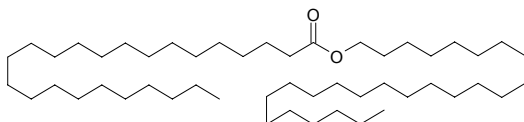
Hexacosanol-1 [506-52-5]  $C_{26}H_{54}O$  (382.72). Source: JIAN YE YIN YANG HUO *Epimedium sagittatum*, BAI GUO *Ginkgo biloba*. Ref: 2, 660.

**3436 Ceryl cerotate**

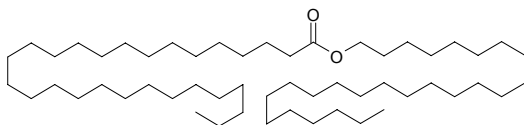
$C_{52}H_{104}O_2$  (761.41). mp 82~84°C. Source: CHONG BAI LA *Ericerus pela*. Ref: 6.

**3437 Ceryl lignocerate**

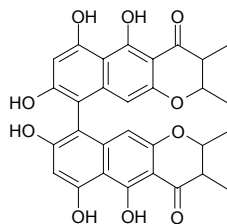
$C_{50}H_{100}O_2$  (733.35). Source: CHONG BAI LA *Ericerus pela*. Ref: 6.

**3438 Ceryl montanate**

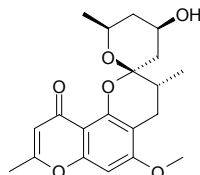
$C_{54}H_{108}O_2$  (789.46). Source: CHONG BAI LA *Ericerus pela*. Ref: 6.

**3439 Chaetochromin A**

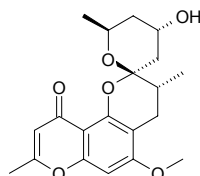
[75514-37-3]  $C_{30}H_{62}O_{10}$  (546.54). Source: *Chaetomium thielavioideum*. Ref: 1521.

**3440 Chaetoquadrin A**

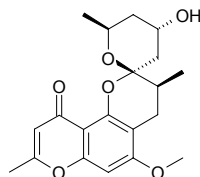
CQ-1  $C_{20}H_{24}O_6$  (360.41). Colorless amorphous. Pharm: MAO inhibitor (mus liver, 25µg/mL, InRt = 7.7%, control Luteusin A,  $IC_{50}$  = 6.6µmol/L, GP-A,  $IC_{50}$  = 2.7µmol/L, Monankarin,  $IC_{50}$  = 16µmol/L, Coniochaetone A,  $IC_{50}$  = 29µmol/L). Source: SI LENG JIAO MAO KE JUN *Chaetomium quadrangulatum*. Ref: 4167.

**3441 Chaetoquadrin B**

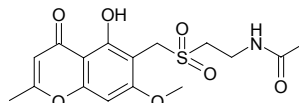
CQ-2  $C_{20}H_{24}O_6$  (360.41). Colorless amorphous. Pharm: MAO inhibitor (mus liver, 25µg/mL, InRt = 17.5%, control Luteusin A,  $IC_{50}$  = 6.6µmol/L, GP-A,  $IC_{50}$  = 2.7µmol/L, Monankarin,  $IC_{50}$  = 16µmol/L, Coniochaetone A,  $IC_{50}$  = 29µmol/L). Source: SI LENG JIAO MAO KE JUN *Chaetomium quadrangulatum*. Ref: 4167.

**3442 Chaetoquadrin C**

CQ-3  $C_{20}H_{24}O_6$  (360.41). Colorless amorphous. Pharm: MAO inhibitor (mus liver, 25µg/mL, InRt = 31.9%, control Luteusin A,  $IC_{50}$  = 6.6µmol/L, GP-A,  $IC_{50}$  = 2.7µmol/L, Monankarin,  $IC_{50}$  = 16µmol/L, Coniochaetone A,  $IC_{50}$  = 29µmol/L). Source: SI LENG JIAO MAO KE JUN *Chaetomium quadrangulatum*. Ref: 4167.

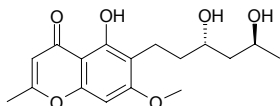
**3443 Chaetoquadrin D**

CQ-4  $C_{16}H_{19}NO_7S$  (369.40). White powder (aqueous  $CH_3CN$ ), mp 216~219°C. Pharm: MAO inhibitor (mus liver,  $IC_{50}$  = 0.038mmol/L = 0.014mg/mL, control Luteusin A,  $IC_{50}$  = 6.6µmol/L, GP-A,  $IC_{50}$  = 2.7µmol/L, Monankarin,  $IC_{50}$  = 16µmol/L, Coniochaetone A,  $IC_{50}$  = 29µmol/L). Source: SI LENG JIAO MAO KE JUN *Chaetomium quadrangulatum*. Ref: 4167.

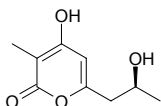


**3444 Chaetoquadrin E**

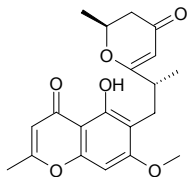
CQ-5 C<sub>17</sub>H<sub>22</sub>O<sub>6</sub> (322.36). White powder (aqueous CH<sub>3</sub>CN), mp 100~102°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +11.5° (c = 0.20, MeOH). **Pharm:** MAO inhibitor (mus liver, 25µg/mL, InRt = 8.8%, control Luteusin A, IC<sub>50</sub> = 6.6µmol/L, GP-A, IC<sub>50</sub> = 2.7µmol/L, Monankarin, IC<sub>50</sub> = 16µmol/L, Coniochaetone A, IC<sub>50</sub> = 29µmol/L). **Source:** SI LENG JIAO MAO KE JUN *Chaetomium quadrangulatum*. **Ref:** 4167.

**3445 Chaetoquadrin F**

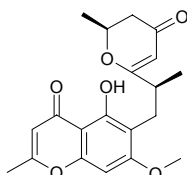
C<sub>9</sub>H<sub>12</sub>O<sub>4</sub> (184.19). White powder (CHCl<sub>3</sub>), mp 139~141°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +35.0° (c = 0.2, MeOH). **Pharm:** MAO inhibitor (mouse liver MAO, 100µg/mL, InRt = 0.5%, 25µg/mL, InRt = 3.8%, 10µg/mL, InRt = -1.7%). **Source:** SI LENG JIAO MAO KE JUN *Chaetomium quadrangulatum*. **Ref:** 4318.

**3446 Chaetoquadrin G**

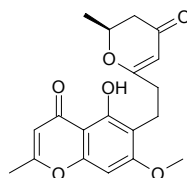
C<sub>20</sub>H<sub>22</sub>O<sub>6</sub> (358.39). White powder (CH<sub>3</sub>CN), mp 108~110°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -131.4° (c = 0.2, CHCl<sub>3</sub>). **Pharm:** MAO inhibitor (mouse liver MAO, 100µg/mL, InRt = 48.0%, 25µg/mL, InRt = 23.5%, 10µg/mL, InRt = 12.1%, IC<sub>50</sub> = 450µmol). **Source:** SI LENG JIAO MAO KE JUN *Chaetomium quadrangulatum*. **Ref:** 4318.

**3447 Chaetoquadrin H**

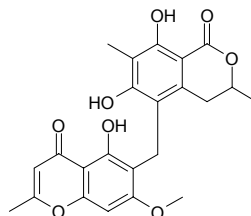
C<sub>20</sub>H<sub>22</sub>O<sub>6</sub> (358.39). White powder (CH<sub>3</sub>CN), mp 108~110°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -57.2° (c = 0.2, CHCl<sub>3</sub>). **Pharm:** MAO inhibitor (mouse liver MAO, 100µg/mL, InRt = 56.0%, 25µg/mL, InRt = 28.0%, 10µg/mL, InRt = 13.7%, IC<sub>50</sub> = 230µmol). **Source:** SI LENG JIAO MAO KE JUN *Chaetomium quadrangulatum*. **Ref:** 4318.

**3448 Chaetoquadrin I**

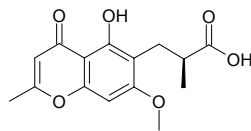
C<sub>19</sub>H<sub>20</sub>O<sub>6</sub> (344.37). Colorless amorphous, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -40.8° (c = 0.05, CHCl<sub>3</sub>). **Source:** SI LENG JIAO MAO KE JUN *Chaetomium quadrangulatum*. **Ref:** 4318.

**3449 Chaetoquadrin J**

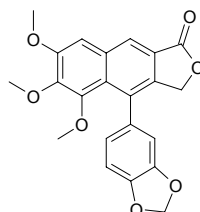
C<sub>23</sub>H<sub>22</sub>O<sub>8</sub> (426.43). White powder (MeOH), mp 253~255°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -30.9° (c = 0.2, CHCl<sub>3</sub>). **Pharm:** MAO inhibitor (mouse liver MAO, 100µg/mL, InRt = 4.5%, 25µg/mL, InRt = 1.9%, 10µg/mL, InRt = 3.6%). **Source:** SI LENG JIAO MAO KE JUN *Chaetomium quadrangulatum*. **Ref:** 4318.

**3450 Chaetoquadrin K**

C<sub>13</sub>H<sub>16</sub>O<sub>6</sub> (292.29). White powder (CH<sub>3</sub>CN), mp 166~169°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -2.5° (c = 0.3, CHCl<sub>3</sub>). **Pharm:** MAO inhibitor (mouse liver MAO, 100µg/mL, InRt = 8.6%, 25µg/mL, InRt = 5.3%, 10µg/mL, InRt = 4.8%). **Source:** SI LENG JIAO MAO KE JUN *Chaetomium quadrangulatum*. **Ref:** 4318.

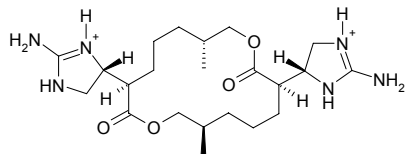
**3451 Chaihunaphthone**

C<sub>22</sub>H<sub>18</sub>O<sub>7</sub> (394.38). White needle crystals, mp 164~166°C. **Source:** HONG CHAI HU *Bupleurum scorzonerifolium* (root). **Ref:** 3498.

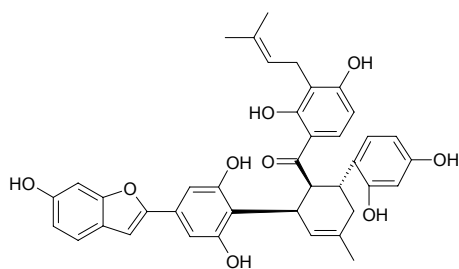


**3452 Chaksine**

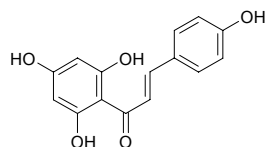
[486-53-3]  $C_{22}H_{40}N_6O_4^{+2}$  (452.60). **Pharm:** Antibacterial (*Staphylococcus aureus*, *Bacillus coli*, *B. typhosus* and hemolytic streptococcus); uterine stimulant; inhibits intestine and other smooth muscle movement; MLD (rbt) = 80mg/kg. **Source:** A SU JUE MING *Cassia absus*. **Ref:** 658.

**3453 Chalcomoracin**

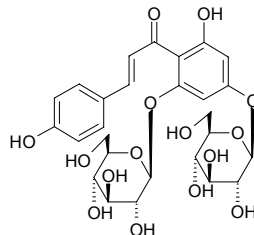
$C_{39}H_{36}O_9$  (648.72). **Pharm:** Antibacterial (*Enterococcus faecalis* JCM7783 (VSE) (= ATCC19434), MIC = 3.13µg/mL, control Linezolid, MIC = 1.56µg/mL; *Enterococcus faecalis* JU1856(VRE, VanA), MIC = 3.13µg/mL, Linezolid, MIC = 0.78µg/mL; *Enterococcus faecalis* JU1782(VRE, VanB), MIC = 3.13µg/mL, Linezolid, MIC = 0.78µg/mL; *Enterococcus faecium* JCM5804 (VSE) (= ATCC 29212), MIC = 6.25µg/mL, Linezolid, MIC = 1.56µg/mL; *Enterococcus faecium* JU1858 (VRE, VanA), MIC = 3.13µg/mL, Linezolid, MIC = 0.78µg/mL; *Enterococcus faecium* JU1777 (VRE, VanB), MIC = 3.13µg/mL, Linezolid, MIC = 1.56µg/mL; *Enterococcus gallinarum* JU2786 (VRE, VanC), MIC = 3.13µg/mL, Linezolid, MIC = 0.78µg/mL; *Staphylococcus aureus* JCM2874 (MSSA) (=ATCC29213), MIC = 3.13µg/mL, Linezolid, MIC = 1.56µg/mL; *Staphylococcus aureus* (MRSA, 10 strains), MIC = 3.13µg/mL, Linezolid, MIC = 0.78µg/mL; *Staphylococcus aureus* (MRSA, 8 strains), mean MIC<sub>80</sub> = 3.13µg/mL, Linezolid, mean MIC<sub>80</sub> = 0.78µg/mL)<sup>[5007]</sup>. **Source:** CAN SANG *Morus bombycis*. **Ref:** 5007.

**3454 Chalconaringenin**

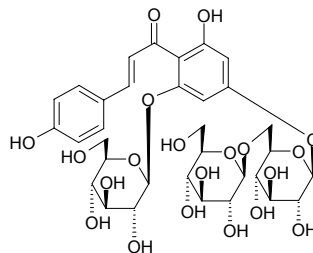
[5071-40-9]  $C_{15}H_{12}O_5$  (272.26). **Pharm:** Iodinate thyronine deiodinase inhibitor (rat liver cells). **Source:** SHUI YANG ZHI YE *Salix purpurea*, *Dianthus* sp., *Helichrysum* sp., *Paeonia* sp. **Ref:** 658.

**3455 Chalconaringenin 2',4'-di-O-β-D-glucoside**

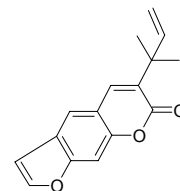
$C_{27}H_{32}O_{15}$  (596.55). Yellow powder. **Source:** JIA NA DA XI XIN *Asarum canadense* (leaf). **Ref:** 5120.

**3456 Chalconaringenin 2'-O-β-D-glucoside-4'-O-β-gentiobioside**

$C_{23}H_{42}O_{20}$  (758.69). Yellow powder. **Source:** JIA NA DA XI XIN *Asarum canadense* (leaf). **Ref:** 5120.

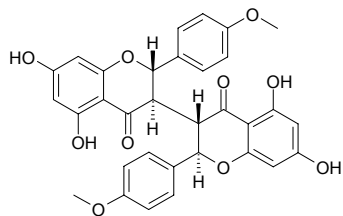
**3457 Chalepensis**

[13164-03-9]  $C_{16}H_{14}O_3$  (254.29). mp 80~90°C. **Pharm:** Phytogrowth inhibitor (100µg/mL, *Amaranthus hypochondriacus*, InRt = (22.0±0.6)%,  $P < 0.05$ ; *E. crusgalli*, InRt = (108±2)%)<sup>[5253]</sup>, cytotoxic (*in vitro*, A549, ED<sub>50</sub> = 7.7µg/mL, control Adriamycin, ED<sub>50</sub> = 0.0322µg/mL; MCF7, ED<sub>50</sub> = 5.7µg/mL, Adriamycin, ED<sub>50</sub> = 0.0204µg/mL; HT29, ED<sub>50</sub> = 3.5µg/mL, Adriamycin, ED<sub>50</sub> = 0.0421µg/mL; A498, ED<sub>50</sub> = 9.5µg/mL, Adriamycin, ED<sub>50</sub> = 0.00348µg/mL; PC3, ED<sub>50</sub> = 17.8µg/mL, Adriamycin, ED<sub>50</sub> = 0.241µg/mL; PACA-2, ED<sub>50</sub> = 5.2µg/mL, Adriamycin, ED<sub>50</sub> = 0.0120µg/mL)<sup>[5253]</sup>; contraceptive (rat, anti-fecundation in innocuous dose). **Source:** CHOU CAO *Ruta graveolens*, *Boenninghausenia* sp., *Stauranthus perforatus* (root). **Ref:** 6, 658, 5253.

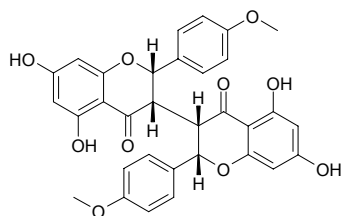


**3458 Chamaejasmenin A**

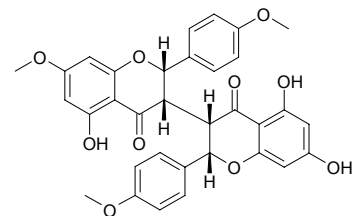
$C_{32}H_{26}O_{10}$  (570.56). **Pharm:** Antimitotic and antifungal (*Pyricularia oryzae*, 25 $\mu$ g/mL, middle inhibition, 50 $\mu$ g/mL, complete inhibition). **Source:** LANG DU *Stellera chamaejasme*. **Ref:** 4476.

**3459 Chamaejasmenin B**

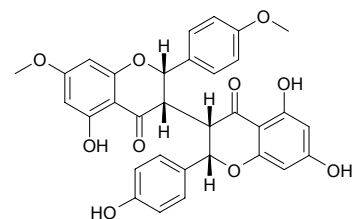
$C_{32}H_{26}O_{10}$  (570.56). **Pharm:** Antimitotic and antifungal (*Pyricularia oryzae*, 100 $\mu$ g/mL, middle inhibition). **Source:** LANG DU *Stellera chamaejasme*. **Ref:** 4476.

**3460 Chamaejasmenin C**

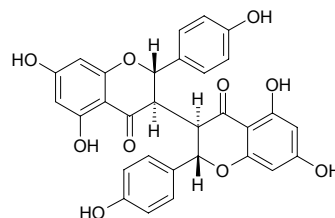
$C_{33}H_{28}O_{10}$  (584.59). **Pharm:** Antimitotic and antifungal inactive (*Pyricularia oryzae*, 400 $\mu$ g/mL). **Source:** LANG DU *Stellera chamaejasme*. **Ref:** 4476.

**3461 Chamaejasmenin D**

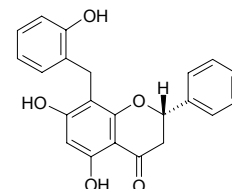
$C_{32}H_{26}O_{10}$  (570.56). White amorphous powder,  $[\alpha]_D^{20} = 0^\circ$  ( $c = 0.01$ , MeOH). **Pharm:** Antimitotic and antifungal (*Pyricularia oryzae*, 25 $\mu$ g/mL, strong inhibition, 100 $\mu$ g/mL, complete inhibition). **Source:** LANG DU *Stellera chamaejasme*. **Ref:** 4476.

**3462 (+)-Chamaejasmin**

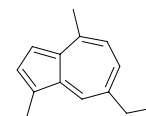
$C_{30}H_{22}O_{10}$  (542.50). Yellowish powder, mp > 300°C (MeOH),  $[\alpha]_D^{20} = +50^\circ$  ( $c = 0.46$ , MeOH);  $[\alpha]_D^{25} = -39.4^\circ$  ( $c = 0.7$ ,  $CHCl_3$ ). **Pharm:** Anti-inflammatory (acute inflammation model, carrageenan-induced mouse paw oedema, 3h after 50mg/kg challenge, oedema inhibition = 46%)<sup>[5459]</sup>; anti-inflammatory (chronic inflammation model, in the form of eczema, provoked by repeated administration of TPA to the ears of mouse, swelling reduction = 26%, control Dexamethasone, swelling reduction = 85%)<sup>[5459]</sup>; LTB<sub>4</sub> production inhibitor (rat peritoneal polymorphonuclear leukocytes, IC<sub>50</sub> = 29.8 $\mu$ mol/L)<sup>[4577]</sup>. **Source:** LANG DU *Stellera chamaejasme*, ROU MAO XIAO RU XIANG *Schinus molle* (fruit). **Ref:** 4577, 5459.

**3463 Chamanetin**

[58801-43-7]  $C_{22}H_{18}O_5$  (362.39). mp 210–211°C (benzene). **Pharm:** Antibacterial (*Staphylococcus aureus*, MIC = 6.3 $\mu$ g/mL; *Bacillus subtilis*, MIC = 6.3 $\mu$ g/mL; *Mycobacterium smegmatis*, MIC = 25 $\mu$ g/mL). **Source:** AN ZI YU PAN *Uvaria chamae*. **Ref:** 661.

**3464 Chamazulene**

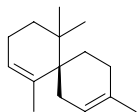
Dimethylene [529-05-5]  $C_{14}H_{16}$  (184.28). bp 161°C/12mmHg. **Pharm:** Antifungal; anti-inflammatory. **Source:** BAI YE JING JIE *Nepeta leucophylla*, GUANG RONG YIN YU *Skimmia laureola*, MU<sup>(3)</sup> JU *Matricaria chamomilla* [Syn. *Matricaria recutita*], SHE XIANG SHI CAO *Achillea moschata*, WU YAO *Lindera strychnifolia* [Syn. *Lindera aggregata*], YI ZHI HAO *Achillea alpina* [Syn. *Achillea sibirica*], ZHONG YA KU HAO *Artemisia absinthium*. **Ref:** 1, 6.



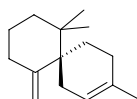


**3465  $\alpha$ -Chamigrene**

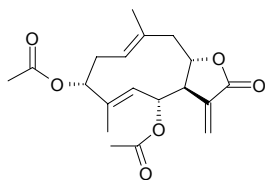
[19912-83-5] C<sub>15</sub>H<sub>24</sub> (204.36). Source: WU WEI ZI *Schisandra chinensis*. Ref: 2.

**3466  $\beta$ -Chamigrene**

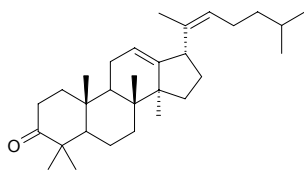
[18431-82-8] C<sub>15</sub>H<sub>24</sub> (204.36). bp 110–113°C/13mmHg. Source: CANG ZHU *Attractylodes lancea*, CE BAI ZHI JIE *Thuja orientalis* [Syn. *Platycladus orientalis*; *Biota orientalis*], DANG GUI *Angelica sinensis*, WU WEI ZI *Schisandra chinensis*. Ref: 2, 6, 660.

**3467 Chamissonin diacetate**

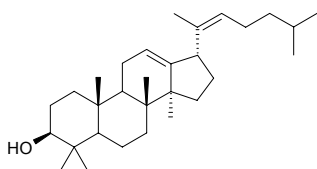
C<sub>19</sub>H<sub>24</sub>O<sub>6</sub> (348.40). Pharm: Antineoplastic; cytotoxic. Source: CI GUO TUN CAO *Ambrosia acanthicarpa*. Ref: 658.

**3468 Champalin A**

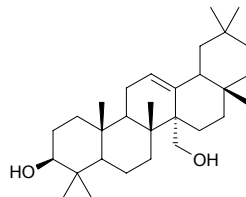
Damma-12,20(22)Z-dien-3-one C<sub>30</sub>H<sub>48</sub>O (424.72). Amorphous powder,  $[\alpha]_D^{27} = +43.1^\circ$  ( $c = 0.58$ , CHCl<sub>3</sub>). Source: DUN XING JI DAN HUA *Plumeria obtusa* (leaf and stem cortex). Ref: 3824.

**3469 Champalin B**

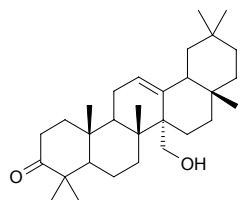
Damma-12,20(22)Z-dien-3 $\beta$ -ol C<sub>30</sub>H<sub>50</sub>O (426.73). Colorless oil,  $[\alpha]_D^{27} = +44.2^\circ$  ( $c = 0.04$ , CHCl<sub>3</sub>). Source: DUN XING JI DAN HUA *Plumeria obtusa* (leaf and stem cortex). Ref: 3824.

**3470 Champalinol**

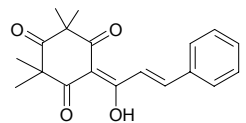
Olean-12-en-3 $\beta$ ,27-diol C<sub>30</sub>H<sub>50</sub>O<sub>2</sub> (442.73). Amorphous powder,  $[\alpha]_D^{27} = +42.1^\circ$  ( $c = 0.80$ , CHCl<sub>3</sub>). Source: DUN XING JI DAN HUA *Plumeria obtusa* (leaf and stem cortex). Ref: 3824.

**3471 Champalinone**

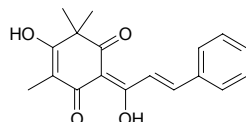
27-Hydroxyolean-12-en-3-one C<sub>30</sub>H<sub>48</sub>O<sub>2</sub> (440.72). Colorless amorphous powder. Source: DUN XING JI DAN HUA *Plumeria obtusa* (leaf and stem cortex). Ref: 3824.

**3472 Champanone A**

2,2,4,4-Tetramethyl-6-(1-oxo-3-phenylprop-2-enyl)cyclohexane-1,3,5-trione C<sub>19</sub>H<sub>20</sub>O<sub>4</sub> (312.37). Yellow needles, mp 92–93°C. Pharm: Antibacterial (*Micrococcus luteus*, MIC = 30 $\mu$ g/mL; *Staphylococcus aureus*, MIC = 30 $\mu$ g/mL; *Bacillus subtilis*, MIC = 30 $\mu$ g/mL; *Pseudomonas aeruginosa*, MIC = 30 $\mu$ g/mL; *Streptococcus faecalis*, MIC = 15 $\mu$ g/mL)<sup>[5313]</sup>. Source: *Campomanesia lineatifolia* (seed). Ref: 5313.

**3473 Champanone B**

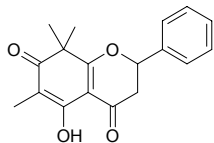
2,2,4-Trimethyl-6-(1-oxo-3-phenylprop-2-enyl)cyclohexane-1,3,5-trione C<sub>18</sub>H<sub>18</sub>O<sub>4</sub> (298.34). Yellow needles, mp 134–135°C. Pharm: Antibacterial (*Micrococcus luteus*, MIC = 30 $\mu$ g/mL)<sup>[5313]</sup>. Source: *Campomanesia lineatifolia* (seed). Ref: 5313.



**3474 Champanone C**

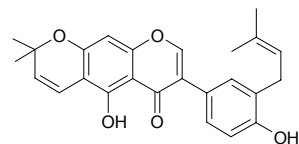
2,3-Dihydro-5-hydroxy-6,8,8-trimethyl-2-phenyl-4*H*-1-benzopyran-4,7(8*H*)-dione C<sub>18</sub>H<sub>18</sub>O<sub>4</sub> (298.34). Yellow needles, mp 147~148°C. Pharm:

Antibacterial (*Bacillus subtilis*, MIC = 30µg/mL; *Streptococcus faecalis*, MIC = 30µg/mL). Source: *Campomanesia lineatifolia* (seed). Ref: 5313.

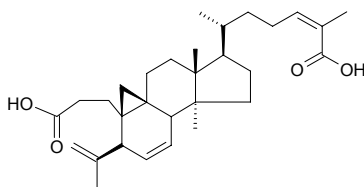
**3475 Chandalone**

C<sub>25</sub>H<sub>24</sub>O<sub>5</sub> (404.47). Pharm: Antioxidant (DPPH scavenger, ScRt = 18.42%, control BHT, ScRt = 71.5%)<sup>[3810]</sup>; antioxidant (DPPH scavenger, 10µmol/L, ScRt = 20%, control BHT, 10µmol/L, ScRt = 43%)<sup>[5319]</sup>; antibacterial (*Staphylococcus aureus* ATCC 25923, MIC = 128µg/mL, Vancomycin, MIC = 0.5µg/mL; MRSA SK1, MIC = 16µg/mL, Vancomycin, MIC =

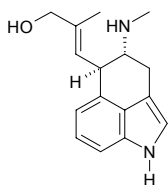
1.0µg/mL)<sup>[3810]</sup>; increases blood pressure (anesthetized rats, increases in mean arterial blood pressure, 4.0mg/kg, 11.67mmHg)<sup>[3810]</sup>. Source: PAN YUAN YU TENG *Derris scandens* (stem), TIAN SHAN ZHU ZI *Garcinia dulcis* (fruit). Ref: 1521, 3810, 5319.

**3476 Changnic acid**

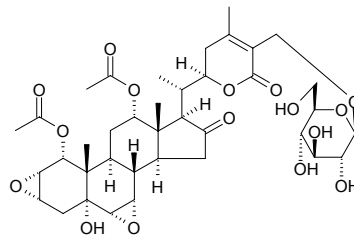
[136040-44-3] C<sub>30</sub>H<sub>44</sub>O<sub>4</sub> (468.68). Pharm: Cytotoxic (P<sub>388</sub> *in vitro*, ED<sub>50</sub> = 1.0µg/mL)<sup>[2436]</sup>. Source: CHANG GENG NAN WU WEI ZI *Kadsura peltigera* [Syn. *Kadsura longipedunculata*]. Ref: 2436, 2523.

**3477 Chanoclavine**

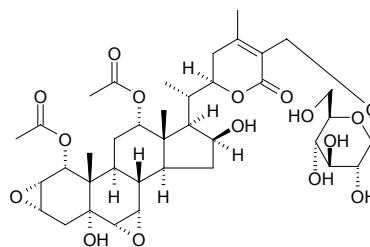
[2390-99-0] C<sub>16</sub>H<sub>20</sub>N<sub>2</sub>O (256.35). mp 220~222°C (dec). Pharm: Hallucinogen. Source: MAI JIAO *Claviceps purpurea*, QIAN NIU ZI *Pharbitis nil*, QING ZI QIAN NIU *Ipomoea violacea*, SAN SE QIAN NIU *Ipomoea tricolor*, YIN YE SHU *Ipomoea argyrophylla*. Ref: 6, 658.

**3478 Chantriolide A**

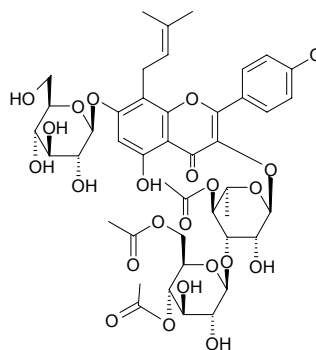
(22*R*)-1*α*,12*α*-Diacetoxy-2*α*,3*α*,6*α*,7*α*-diepoxy-27-[(*β*-*D*-glucopyranosyl)oxy]-5*α*-hydroxy-16-oxowith-24-enolide C<sub>38</sub>H<sub>52</sub>O<sub>16</sub> (764.83). Amorphous solid, [α]<sub>D</sub><sup>25</sup> = -4.0° (c = 0.10, MeOH). Source: JIAN GEN SHU *Tacca chantrieri* [Syn. *Tacca minor*; *Tacca esquirolii*] (rhizome: yield = 0.00045%dw). Ref: 4700.

**3479 Chantriolide B**

(22*R*)-1*α*,12*α*-Diacetoxy-2*α*,3*α*,6*α*,7*α*-diepoxy-27-[(*β*-*D*-glucopyranosyl)oxy]-5*α*,-16*β*-dihydroxywith-24-enolide C<sub>38</sub>H<sub>54</sub>O<sub>16</sub> (766.84). Amorphous solid, [α]<sub>D</sub><sup>25</sup> = +54.0° (c = 0.10, MeOH). Source: JIAN GEN SHU *Tacca chantrieri* [Syn. *Tacca minor*; *Tacca esquirolii*] (rhizome: yield = 0.00059%dw). Ref: 4700.

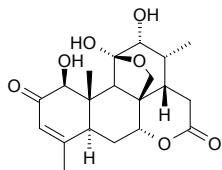
**3480 Chaohuocide A**

7-*O*-*β*-*D*-Glucopyranosyl-anhydroicaritin-3-*O*-*β*-*D*-(3,6-*O*-diacetyl)-glucopyranosyl-(1→3)-*α*-*L*-(4-*O*-acetyl)-rhamnopyranoside C<sub>45</sub>H<sub>56</sub>O<sub>23</sub> (964.93). Yellow powder, mp 144~155.5°C, [α]<sub>D</sub><sup>18</sup> = -86° (c = 0.01, methanol). Source: CHAO XIAN YIN YANG HUO *Epimedium koreanum*. Ref: 357.

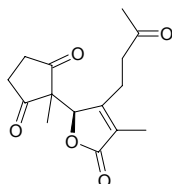


**3481 Chaparrinone**

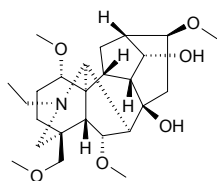
[22611-34-3]  $C_{20}H_{26}O_7$  (378.43). mp 236~248°C. Pharm: Antineoplastic (P<sub>388</sub>, 40mg/kg, biotic prolonged rate = 145%); cytotoxic (KB, ED<sub>50</sub> = 0.142μg/mL, Rous sarcoma virus *in vitro*). Source: CHU BAI PI *Ailanthus altissima*, QUAN YUAN CHU *Ailanthus integrifolia* ssp. *calycina*. Ref: 1, 5, 6.

**3482 Charminarone**

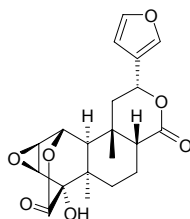
1,10-Seco-dihydroisoparthenin-1,10-dione  $C_{15}H_{18}O_5$  (278.31). Viscous mass, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -17.2° (c = 0.25, CHCl<sub>3</sub>). Source: YIN JIAO JU *Parthenium hysterophorus*. Ref: 3377.

**3483 Chasmanine**

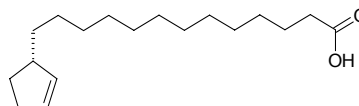
[5066-78-4]  $C_{25}H_{41}NO_6$  (451.61). mp 90~91°C. Source: CU JING WU TOU *Aconitum crassicaule*, GUA YE WU TOU *Aconitum hemsleyanum*, HUANG MAO WU TOU *Aconitum chrysotrichum*, LI JIANG WU TOU *Aconitum forrestii* [Syn. *Aconitum likiangense*], XIE XING WU TOU *Aconitum subcuneatum*, ZHAN HUA WU TOU *Aconitum chasmanthum*, ZHUA KUI GUA YE WU TOU *Aconitum hemsleyanum* var. *leueanthus* (root: yield = 0.00097%dw)<sup>[4678]</sup>. Ref: 513, 1521, 3171, 4678.

**3484 Chasmanthin**

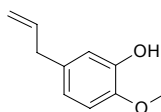
[20379-19-5]  $C_{20}H_{22}O_7$  (374.39). Source: FEI ZHOU FANG JI *Jateorhiza palmata*. Ref: 658.

**3485 Chaulmoogric acid**

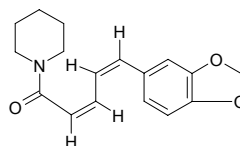
13-(2-Cyclopenten-1-yl)tridecanoic acid [29106-32-9]  $C_{18}H_{32}O_2$  (280.45). mp (+) 68.5°C, (±) 68.5°C, bp (+) 247~248°C/20mmHg. Pharm: Antileprotic (inhibits *Mycobacterium leprae*, treatment of leprosy using its ethyl ester). Source: DA FENG ZI *Hydnocarpus anthelminticus* (seed: content scope = 8.55%~14.30%<sup>[5501]</sup>). Ref: 6, 658, 5501.

**3486 Chavibetol**

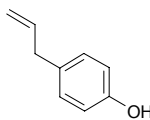
[501-19-9]  $C_{10}H_{12}O_2$  (164.21). mp 8.5°C, bp 254~255°C. Source: JU JIANG YE *Piper betle*. Ref: 6.

**3487 Chavicine**

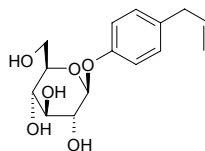
[495-91-0]  $C_{17}H_{19}NO_3$  (285.35). bp 245~260°C/0.25mmHg. Source: HU JIAO *Piper nigrum*. Ref: 6.

**3488 Chavicol**

4-Allylphenol [501-92-8]  $C_9H_{10}O$  (134.18). mp 16°C, bp 237°C. Source: DING XIANG *Syzygium aromaticum* [Syn. *Eugenia caryophyllata*], JU JIANG YE *Piper betle*. Ref: 6.

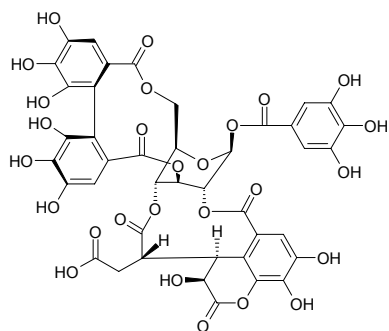
**3489 Chavicol β-D-glucoside**

$C_{15}H_{20}O_6$  (296.32). Source: BAI MEI HUA *Prunus mume* (flower: yield = 0.0014%fw). Ref: 4641.

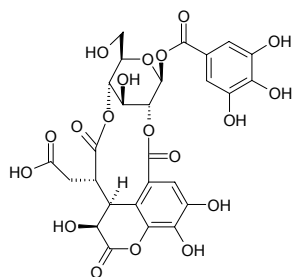


**3490 Chebulagic acid**

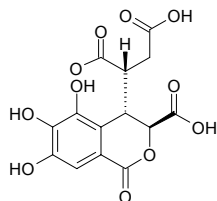
[23094-71-5] C<sub>41</sub>H<sub>30</sub>O<sub>27</sub> (954.68). mp > 240°C. **Pharm:** Antioxidant (lipid peroxidation inhibitor, mitochondria of hepatocyte in rat); promotes lipolysis (fat cells in rat, induced by ACTH); antibacterial (*Erwinia carotovora*, IZD = 19mm/100µg, control Quercetin sulfate, IZD = 21mm/10µg; *Staphylococcus aureus*, IZD = 11mm/100µg, Quercetin sulfate, IZD = 14mm/10µg; *Corynebacterium accolens*, IZD = 10mm/100µg, Quercetin sulfate, IZD = 28mm/10µg)<sup>[5250]</sup>; antifungal (*Candida albicans*, IZD = 12mm/100µg, control Nystatin, IZD = 11mm/20µg)<sup>[5250]</sup>; xanthine oxidase inhibitor (IC<sub>50</sub> = 46.3µg/mL, IC<sub>50</sub> = 48µmol/L; control Quercetin, IC<sub>50</sub> = 3.4µg/mL, IC<sub>50</sub> = 10µmol/L)<sup>[5250]</sup>. **Source:** AN MO LE *Phyllanthus emblica* (fruit juice, branch and leaf)<sup>[3094]</sup>, CAO YUAN LAO GUAN CAO *Geranium pratense*, DA YE KU NUO NI *Cunonia macrophylla* (leaf), HE ZI *Terminalia chebula*, YOU GAN MU PI *Phyllanthus emblica*, YOU GAN YE *Phyllanthus emblica*. **Ref:** 6, 658, 3094, 5250.

**3491 Chebulanin**

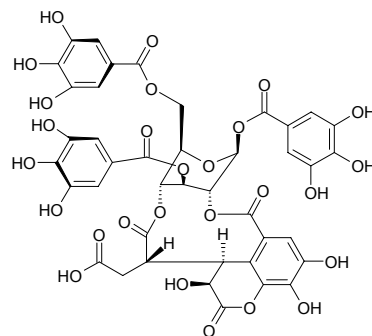
C<sub>27</sub>H<sub>24</sub>O<sub>19</sub> (652.48). **Source:** AN MO LE *Phyllanthus emblica* (fruit juice, branch and leaf). **Ref:** 3094.

**3492 Chebulic acid**

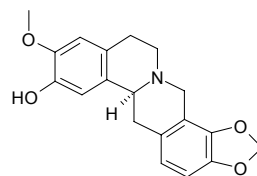
C<sub>14</sub>H<sub>12</sub>O<sub>11</sub> (356.25). **Source:** AN MO LE *Phyllanthus emblica*, *Schinopsis* spp. **Ref:** 1558, 3094.

**3493 Chebulinic acid**

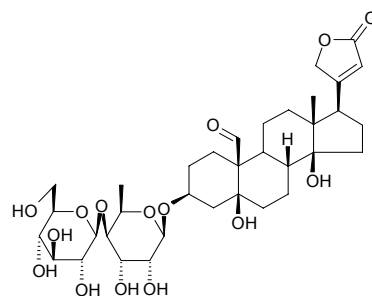
[18942-26-2] C<sub>41</sub>H<sub>32</sub>O<sub>27</sub> (956.70). mp 234°C. **Pharm:** Antioxidant (lipid peroxidation inhibitor, microsomes of hepatocyte in rat); promotes lipolysis (induced by ACTH). **Source:** AN MO LE *Phyllanthus emblica*, HE ZI *Terminalia chebula*, YOU GAN MU PI *Phyllanthus emblica*, YOU GAN YE *Phyllanthus emblica*. **Ref:** 6, 658.

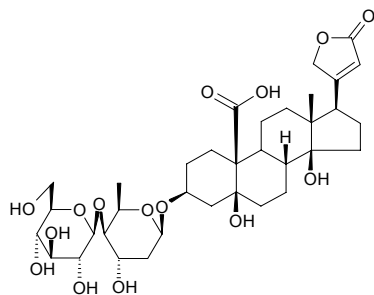
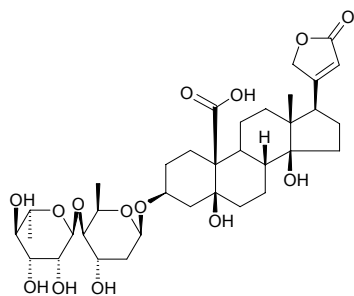
**3494 Cheilanthifoline**

[483-44-3] C<sub>19</sub>H<sub>19</sub>NO<sub>4</sub> (325.37). mp (-) 178~180°C. **Source:** BIAN FU GE GEN *Menispermum dauricum*, HE BAO MU DAN GEN *Dicentra spectabilis*, ZI HUA YU DENG CAO *Corydalis incisa*. **Ref:** 6.

**3495 Cheiranthoside VIII**

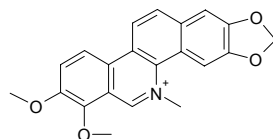
Strophanthidin 3-O-β-D-glucopyranosyl-(1→4)-β-D-antiaropyranoside C<sub>35</sub>H<sub>52</sub>O<sub>15</sub> (712.80). White powder, [α]<sub>D</sub><sup>31</sup> = -5.2° (c = 0.42, MeOH). **Source:** GUI ZHU TANG JIE *Erysimum cheiranthoides* (seed). **Ref:** 4209.



**3496 Cheiranthoside IX**Cheiranthidin 3-*O*- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-boiopyranosideC<sub>35</sub>H<sub>52</sub>O<sub>15</sub> (712.80). White powder,  $[\alpha]_D^{18} = +1.8^\circ$  ( $c = 0.45$ , MeOH). Source:GUI ZHU TANG JIE *Erysimum cheiranthoides* (seed). Ref: 4209.**3497 Cheiranthoside X**Cheiranthidin 3-*O*- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-digitoxopyranosideC<sub>35</sub>H<sub>52</sub>O<sub>14</sub> (696.80). White powder,  $[\alpha]_D^{18} = +16.3^\circ$  ( $c = 0.53$ , MeOH). Source:GUI ZHU TANG JIE *Erysimum cheiranthoides* (seed). Ref: 4209.**3498 Chelerythrine**

Toddaline [34316-15-9] C<sub>21</sub>H<sub>18</sub>NO<sub>4</sub><sup>+</sup> (348.38). Pharm: Antibacterial; antifungal; antiviral; causes abortion (gpg, in low dose, causes paralysis and death in high dose); toxin (neuromuscular poison, inhibits heart); anti-HIV inactive (H9 lymphocytes, control AZT, IC<sub>50</sub> = 500 $\mu$ g/mL, EC<sub>50</sub> = 0.0317 $\mu$ g/mL, TI = 15800)<sup>[5364]</sup>; cytotoxic (DNA intercalation and uncoupling of oxidative phosphorylation)<sup>[1521]</sup>; aminotransferase inhibitor (rat liver)<sup>[1521]</sup>; antimicrobial and anti-inflammatory (recommended for use against oral infections)<sup>[1521]</sup>; antihypertensive (mouse, rabbit and cat)<sup>[1521]</sup>; analgesic<sup>[1521]</sup>; sedative (lengthens sleeping time)<sup>[1521]</sup>; protein kinase C inhibitor<sup>[5369]</sup>; cytotoxic (completely suppresses the growth of GI-101A breast tumor cells stimulated by hydroxychloroquine and prednisone, blocks expression of vascular endothelial growth factor (VEGF)mRNA in GI-101A and HL-60 cells stimulated by 12-O-tetradecanoylphorbol 13-acetate (TPA) or diethylstilbestrol; inhibits increased proliferation of MCF7 cells stimulated by thymeleatoxin)<sup>[5369]</sup>; cytotoxic (inhibits proliferation of PC3 hmn prostate cancer cell line, AGS gastric cancer cell line)<sup>[5369]</sup>; cytotoxic (series of radioresistant and chemoresistant hmn squamous cell carcinoma

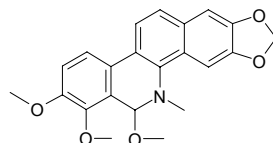
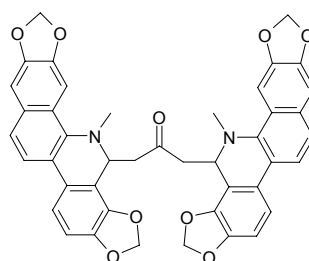
lines, causes rapidly apoptosis of carcinoma cells)<sup>[5369]</sup>; antineoplastic (nude mouse, radioresistant, chemoresistant and p53-deficient hmn head and neck squamous cell carcinoma line SQ-20B with significant tumor growth delay and minimal toxicity)<sup>[5369]</sup>. Source: BAI QU CAI *Chelidonium majus*, BO LUO HUI *Macleaya cordata* (whole herb: content = 8.97%<sup>[5508]</sup>), FEI LONG ZHANG XUE *Toddalia asiatica* [Syn. *Toddalia aculeata*; *Paullinia asiatica*], HE BAO MU DAN GEN *Dicentra spectabilis*, HE QING HUA *Hylomecon japonica*, JI YING SU *Argemone mexicana*, LI CHUN HUA *Papaver commutatum* [Syn. *Papaver rhoeas*], XI GUO JIAO HUI XIANG *Hypecoum leptocarpum*, occurs in many plants (family Papaveraceae spp. (*Argemone* spp.; *Bocconia* spp.; *Chelidonium* spp.; *Dicranostigma* spp.; *Eschscholzia* spp.; *Glaucium* spp.; *Hunnemannia* spp.; *Hylomecon* spp.; *Macleaya* spp.; *Papaver* spp.; *Sanguinaria* spp.; *Stylophorum* spp.; *Platystemon* spp.; *Stylomecon* spp.); family Rutaceae spp. (*Fagara* spp.; *Toddalia* spp.; *Zanthoxylum* spp.); family Fumariaceae spp. (*Corydalis* spp.; *Dicentra* spp.); family Sapindaceae spp. (*Pteridophyllum* spp.)). Ref: 6, 658, 1521, 5364, 5369, 5508.

**3499 Chelerythrine methanolate**

6-Methoxy-5,6-dihydrochelerythrine; 6-Methoxydihydrochelerythrine

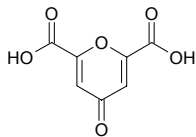
C<sub>22</sub>H<sub>21</sub>NO<sub>5</sub> (379.42). Pink prismatic crystals (methanol), mp 190°C, mp 226°C.

Pharm: Antineoplastic (EAC); antimicrobial; cytotoxic (KB, *in vitro*, 4–5 $\mu$ g/mL). Source: BAI QU CAI *Chelidonium majus* (whole herb: mean content of 5 origins = 0.142%<sup>[5508]</sup>), RU DI JIN NIU *Zanthoxylum nitidum*, FEI LONG ZHANG XUE *Toddalia asiatica* [Syn. *Toddalia aculeata*; *Paullinia asiatica*]. Ref: 661, 1290, 5508.

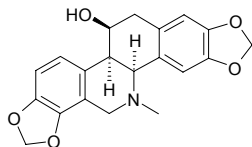
**3500 meso-Chelidimerine**[39110-99-1] C<sub>43</sub>H<sub>32</sub>N<sub>2</sub>O<sub>9</sub> (720.74). mp 258–260°C. Source: BAI QU CAI *Chelidonium majus*. Ref: 6.

**3501 Chelidonic acid**

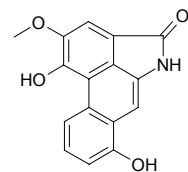
[99-32-1]  $C_7H_4O_6$  (184.11). mp 262°C. Source: BAI QU CAI *Chelidonium majus*, LING LAN *Convallaria keiskei* [Syn. *Convallaria majalis*], XIAO BAI BU *Asparagus officinalis*. Ref: 6.

**3502 Chelidonine**

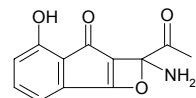
Diphylline; Stylophorin [476-32-4]  $C_{20}H_{19}NO_5$  (353.38). mp 136–140°C, bp 220°C. Pharm: Antibacterial; antispasmodic (smooth muscle); antiviral; cytotoxic (HeLa,  $ED_{50} = 0.27\mu\text{g/mL}$ ,  $S_{180}$  and EAC); inhibits cardiac muscles (slows heart rate and stops beating in period of expansion in high dose); CNS depressant (sedative and hypnotic); inhibits mitosis (fibrocyte *in vitro*,  $2.5\mu\text{mol/L}$ ); inhibits skeletal muscles; acaricide; paralyzes sensory and motor nerve;  $LD_{50}$  (mus, iv) =  $(34.6\pm 2.4)\text{mg/kg}$ . Source: BAI QU CAI *Chelidonium majus* (whole herb: mean content of 5 origins = 0.669%)<sup>[5508]</sup>, ER YE BAO YING SU *Stylophorum diphyllum*, HE QING HUA *Hylomecon japonica*, TU CHUANG HUA *Dicranostigma franchetianum* [Syn. *Dicranostigma leptopodum*], YE YING SU *Papaver nudicaule*. Ref: 4, 6, 590, 658, 5507, 5508.

**3503 Cheliensisam B**

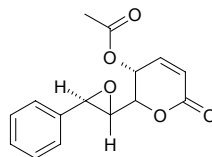
$C_{16}H_{11}NO_4$  (281.27). Source: *Goniothalamus* sp. Ref: 2447.

**3504 Cheliensisamine**

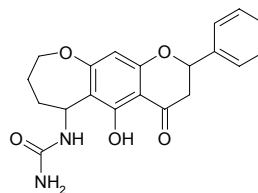
$C_{12}H_9NO_4$  (231.21). Yellow micro-acicular crystals, mp 178–180°C. Source: GE NA XIANG *Goniothalamus cheliensis*. Ref: 791.

**3505 Cheliensisin A**

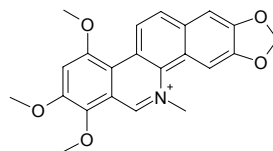
5 $\alpha$ -acetoxy-goniothalamine oxide  $C_{15}H_{14}O_5$  (274.28). White prismatic crystals, mp 152–153°C,  $[\alpha]_D^{24} = +293.45^\circ$  ( $c = 1.31$ ,  $CHCl_3$ ). Source: GE NA XIANG *Goniothalamus cheliensis*. Ref: 419, 660.

**3506 Cheliensisine**

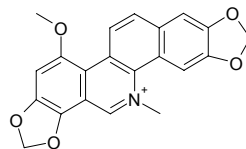
$C_{20}H_{20}N_2O_5$  (368.39). White powder, mp 224–226°C. Pharm: Antineoplastic<sup>[2446]</sup>. Source: GE NA XIANG *Goniothalamus cheliensis*. Ref: 2446.

**3507 Chelilutine**

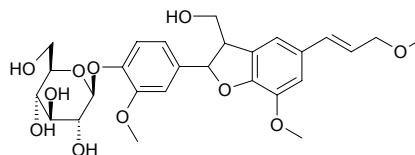
[55950-32-8]  $C_{22}H_{20}NO_5^+$  (378.41). Source: BAI QU CAI *Chelidonium majus*, HE BAO MU DAN GEN *Dicentra spectabilis*, HE QING HUA *Hylomecon japonica*. Ref: 6.

**3508 Chelirubine**

[182093-11-7]  $C_{21}H_{16}NO_5^+$  (362.37). Pharm: Local anesthetic; nematocide. Source: BAI QU CAI *Chelidonium majus*, HE BAO MU DAN GEN *Dicentra spectabilis*, HE QING HUA *Hylomecon japonica*. Ref: 6.

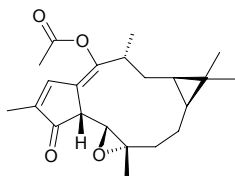
**3509 CPB-2001-49-282-32**

$C_{27}H_{34}O_{11}$  (534.57). Amorphous powder,  $[\alpha]_D^{28} = -54.8^\circ$  ( $c = 0.67$ , MeOH). Source: HAI CONG *Urginea maritima* (bulb). Ref: 3513.

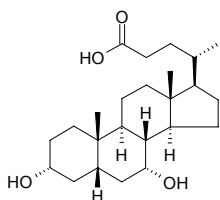


**3510 CPB-2004-52-608-2**

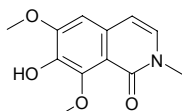
$C_{22}H_{30}O_4$  (358.48). Semi solid,  $[\alpha]_D^{25} = +68.2^\circ$  ( $c = 0.5$ ,  $CHCl_3$ ). Source: MA FENG SHU *Jatropha curcas* (aerial parts). Ref: 4287.

**3511 Chenodeoxycholic acid**

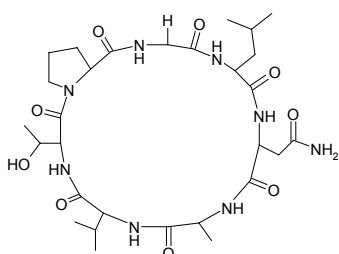
3 $\alpha$ ,7 $\alpha$ -dihydroxy-5 $\beta$ -cholanic acid [474-25-9]  $C_{24}H_{40}O_4$  (392.58). Pharm: Antibacterial (*Staphylococcus tetragenus*, *Staphylococcus aureus* and *Streptococcus* sp.); antihypercholesterolemic; LD<sub>50</sub> (sodium salt) = 961 mg/kg. Source: BAI E GAO *Anser cygnoides domestica*, JI NEI JIN *Gallus gallus domesticus*, NIU HUANG *Bos taurus domesticus*; *Bubalus bubalis* (gallstone: mean content = 1.71%<sup>[5508]</sup>), XIONG DAN *Selenarctos thibetanus*; *Ursus arctos*. Ref: 2, 658, 5508.

**3512 Cherianoine**

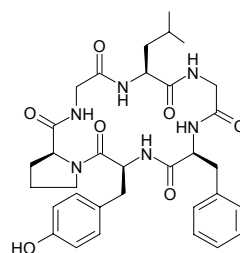
$C_{12}H_{13}NO_4$  (235.24). White acicular crystals, mp 122~124°C. Source: MAO YE FAN LI ZHI *Annona cherimolia*. Ref: 751.

**3513 Cherimolacyclopeptide D**

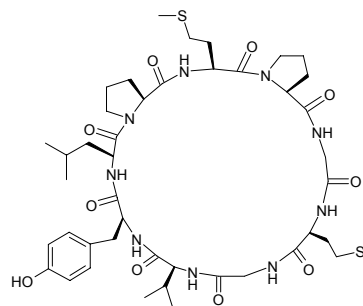
$C_{29}H_{48}N_8O_9$  (652.75). Colorless solid, mp 220~221°C,  $[\alpha]_D^{22} = -64^\circ$  ( $c = 0.1$ , MeOH). Pharm: Cytotoxic (*in vitro* KB cell culture system, IC<sub>50</sub> = 0.97  $\mu$ mol/L; control Doxorubicin, IC<sub>50</sub> = 0.02  $\mu$ mol/L). Source: MAO YE FAN LI ZHI *Annona cherimolia*. Ref: 5265.

**3514 Cherimolacyclopeptide E**

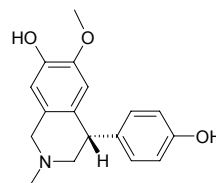
$C_{33}H_{42}N_6O_7$  (634.74). Colorless powder, mp 213~214°C (MeOH),  $[\alpha]_D^{22} = -56^\circ$  ( $c = 0.3$ , MeOH). Pharm: Cytotoxic (KB, IC<sub>50</sub> = 0.017  $\mu$ mol/L, control Doxorubicin, IC<sub>50</sub> = 0.02  $\mu$ mol/L). Source: MAO YE FAN LI ZHI *Annona cherimolia* (seed). Ref: 5320.

**3515 Cherimolacyclopeptide F**

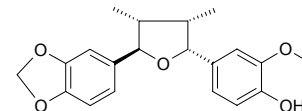
$C_{45}H_{69}N_9O_{10}S_2$  (960.23). Colorless solid, mp 139~140°C (MeOH),  $[\alpha]_D^{22} = -68^\circ$  ( $c = 0.1$ , MeOH). Pharm: Cytotoxic (KB, IC<sub>50</sub> = 0.06  $\mu$ mol/L, control Doxorubicin, IC<sub>50</sub> = 0.02  $\mu$ mol/L). Source: MAO YE FAN LI ZHI *Annona cherimolia* (seed). Ref: 5320.

**3516 Cherylline**

$C_{17}H_{19}NO_3$  (285.35). Pharm: AChE inhibitor (IC<sub>50</sub> = (211±10)  $\mu$ mol/L, control Galanthamine, IC<sub>50</sub> = (1.9±0.2)  $\mu$ mol/L). Source: GUAN MU WEN SHU LAN *Crinum macowanii* (bulb), *Crinum moorei*. Ref: 4000, 4952.

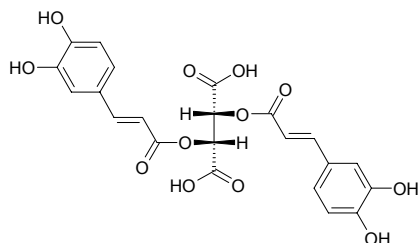
**3517 (-)-Chicanine**

$C_{20}H_{22}O_5$  (342.40). Colorless amorphous. Pharm: NO production inhibitor (mus, macrophage-like cell line RAW264.7 activated by LPS/IFN, IC<sub>50</sub> = 44.1  $\mu$ mol/L, control Quercetin, IC<sub>50</sub> = 26.8  $\mu$ mol/L)<sup>[2537]</sup>; antioxidant (DPPH scavenger)<sup>[4344]</sup>. Source: FENG CHAO CAO *Leucas aspera* (whole herb), HAI FENG TENG *Piper kadsura* [Syn. *Piper futokadsura*]. Ref: 2537, 4344.

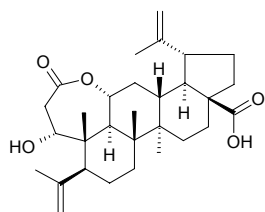


**3518 Chicoric acid**

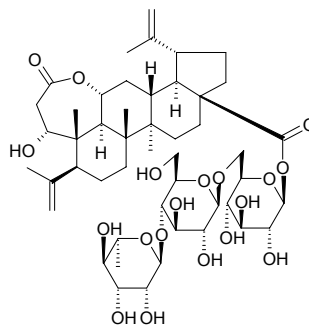
Chicoric acid [6357-80-0]  $C_{22}H_{18}O_{12}$  (474.38). mp 206°C. Pharm: Anti-HIV-1 (HIV-1 integrase inhibitor,  $IC_{50}$  (7.4±3.3)μg/mL)<sup>[5444]</sup>; anti-HIV (HIV-1<sub>III</sub>B-induced MT-4 cells,  $EC_{50}$  = (54.33±7.60)μg/mL;  $CC_{50}$  > 150μg/mL,  $SI$  > (2.81±0.39))<sup>[5444]</sup>. Source: JU QU *Cichorium intybus*. Ref: 6, 5444.

**3519 Chiisanogenin**

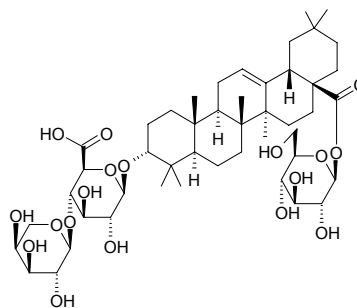
$C_{30}H_{44}O_5$  (484.68). Pharm: Platelet aggregation inhibitor (2~5mg/mL collagen-induced,  $IC_{50}$  = (574±13)μmol/L, control ASA,  $IC_{50}$  = (420±3)μmol/L; 1~4μmol/L epinephrine-induced with 0.8~1.0mg/mL collagen,  $IC_{50}$  = (2.5±0.2)μmol/L, ASA,  $IC_{50}$  = (53.0±4.5)μmol/L; 10~40μmol/L Sodium arachidonate-induced with 0.8~1.0mg/mL collagen,  $IC_{50}$  = (4.81±0.32)μmol/L, ASA,  $IC_{50}$  = (66.0±2.1)μmol/L; 1~5μmol/L  $PGH_2/TXA_2$  receptor agonist U46619-induced with 0.8~1.0mg/mL collagen,  $IC_{50}$  = (6.21±0.12)μmol/L, ASA,  $IC_{50}$  = (340±12)μmol/L). Source: CI WU JIA YE *Acanthopanax senticosus* [Syn. *Eleutherococcus senticosus*], WU GENG WU JIA PI *Acanthopanax sessiliflorus* (fruit). Ref: 4994.

**3520 Chiisanoside**

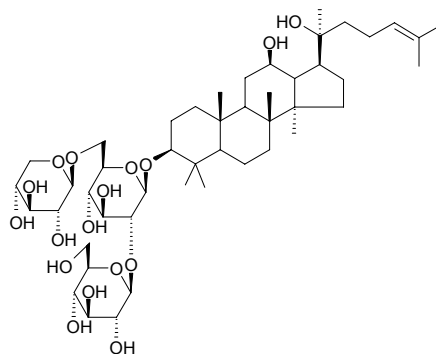
$C_{48}H_{74}O_{19}$  (955.11). Pharm: Platelet aggregation inhibitor (2~5mg/mL collagen-induced,  $IC_{50}$  = (574±11)μmol/L, control ASA,  $IC_{50}$  = (420±3)μmol/L; 1~4μmol/L epinephrine-induced with 0.8~1.0mg/mL collagen,  $IC_{50}$  = (367±13)μmol/L, ASA,  $IC_{50}$  = (53.0±4.5)μmol/L; 10~40μmol/L Sodium arachidonate-induced with 0.8~1.0mg/mL collagen,  $IC_{50}$  = (985±11)μmol/L, ASA,  $IC_{50}$  = (66.0±2.1)μmol/L; 1~5μmol/L  $PGH_2/TXA_2$  receptor agonist U46619-induced with 0.8~1.0mg/mL collagen,  $IC_{50}$  > 1000μmol/L, ASA,  $IC_{50}$  = (340±12)μmol/L). Source: CI WU JIA YE *Acanthopanax senticosus* [Syn. *Eleutherococcus senticosus*], WU GENG WU JIA PI *Acanthopanax sessiliflorus* (fruit). Ref: 4994.

**3521 Chikusetsu saponin Ib**

[59252-87-8]  $C_{47}H_{74}O_{18}$  (927.10). White crystalline powder, mp 233~235°C,  $[\alpha]_D^{20}$  = -21.7° (c = 0.1, MeOH). Source: TAI BAI CONG MU *Aralia taibaiensis*. Ref: 462.

**3522 Chikusetsusaponin III**

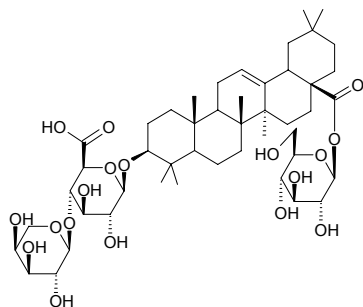
$C_{47}H_{80}O_{17}$  (917.15). Source: REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. Ref: 5004.



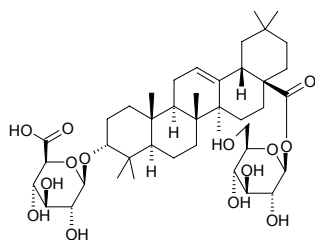


**3523 Chikusetsusaponin IV**

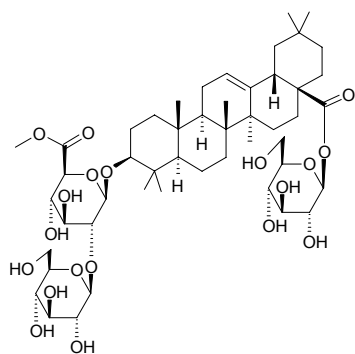
$C_{47}H_{74}O_{18}$  (927.10). Source: REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. Ref: 5004.

**3524 Chikusetsu saponin Iva**

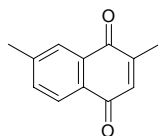
[51415-02-2]  $C_{42}H_{66}O_{14}$  (794.99). mp 214–216°C. Source: PENG XIAN XUE DAN *Hemsleya pengxianensis*. Ref: 554.

**3525 Chikusetsu saponin V methyl ester**

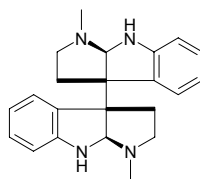
$C_{49}H_{78}O_{19}$  (971.16). White amorphous powder,  $[\alpha]_D^{25} = +6^\circ$  ( $c = 0.07$ , MeOH). Source: NIU XI *Achyranthes bidentata*. Ref: 4147.

**3526 Chimaphyllin**

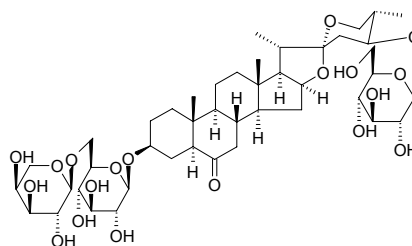
[482-70-2]  $C_{12}H_{10}O_2$  (186.21). mp 113.5–114.5°C. Pharm: Inhibits phagocytosis of hmn granular cells and stimulates the activity in low dose. Source: HONG HUA LU TI CAO *Pyrola incarnata*, LU XIAN CAO *Pyrola calliantha* [Syn. *Pyrola rotundifolia* ssp. *chinensis*], RI BEN LU TI CAO *Pyrola japonica*. Ref: 6, 658, 660.

**3527 Chimonanthine**

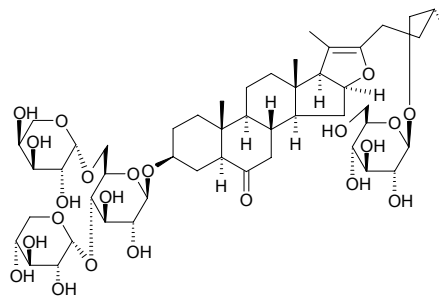
[5545-89-1]  $C_{22}H_{26}N_4$  (346.48). mp 188–189°C. Source: LA MEI HUA *Chimonanthus fragrans* [Syn. *Chimonanthus praecox*]. Ref: 6.

**3528 Chinenoside VI**

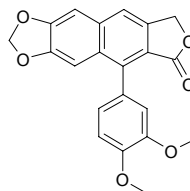
(25S)-24-O-β-D-Glucopyranosyl-3β,24β-dihydroxy-5α-spirost-3-O-α-arabino pyranosyl-(1→6)-β-D-glucopyranoside  $C_{44}H_{70}O_{19}$  (903.04). White amorphous powder, mp 219–221°C. Source: XIE BAI *Allium macrostemon*. Ref: 409.

**3529 Chinenoside II**

$C_{49}H_{78}O_{22}$  (1019.15). Pharm: Antineoplastic (strong). Source: QIAO TOU *Allium chinense*. Ref: 2165.

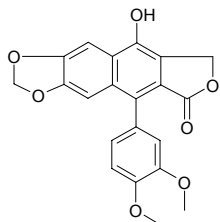
**3530 Chinensin**

[31888-76-3]  $C_{21}H_{16}O_6$  (364.36). mp 220–221°C. Source: DA JIN NIU CAO *Polygala chinensis* [Syn. *Polygala glomerata*]. Ref: 6.

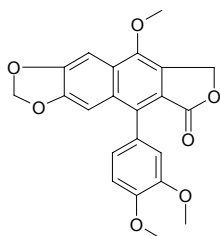


**3531 Chinensinaphthol**

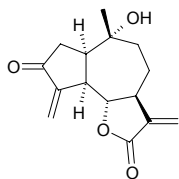
[53965-06-3]  $C_{21}H_{16}O_7$  (380.36). mp 285~286°C. Source: DA JIN NIU CAO *Polygala chinensis* [Syn. *Polygala glomerata*], HONG CHAI HU *Bupleurum scorzonerifolium* (root). Ref: 6, 3498.

**3532 Chinensinaphthol methyl ether**

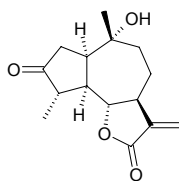
$C_{22}H_{18}O_7$  (394.38). mp 257~258°C. Source: DA JIN NIU CAO *Polygala chinensis* [Syn. *Polygala glomerata*]. Ref: 6.

**3533 Chinensiolide A**

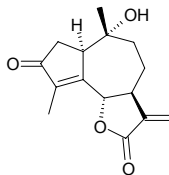
$C_{15}H_{18}O_4$  (262.31). Colorless plates, mp 110.5~112°C,  $[\alpha]_D^{20} +13.3^\circ$  ( $c = 0.015$ ,  $CHCl_3$ ). Source: SHAN KU MAI *Ixeris chinensis* (whole herb: yield = 0.0002%fw). Ref: 4670.

**3534 Chinensiolide B**

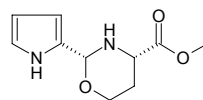
$C_{15}H_{20}O_4$  (264.32). Colorless plates, mp 195~199.5°C,  $[\alpha]_D^{20} +2.6^\circ$  ( $c = 0.469$ ,  $CHCl_3$ ). Source: SHAN KU MAI *Ixeris chinensis* (whole herb: yield = 0.0007%fw). Ref: 4670.

**3535 Chinensiolide C**

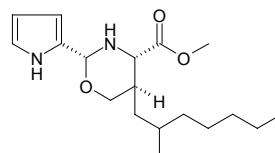
$C_{15}H_{18}O_4$  (262.31). Colorless microcrystals, 185.5~186.5°C,  $[\alpha]_D^{20} +73.2^\circ$  ( $c = 1.07$ , MeOH). Source: SHAN KU MAI *Ixeris chinensis* (whole herb: yield = 0.0010%fw). Ref: 4670.

**3536 Chinese bittersweet alkaloid I**

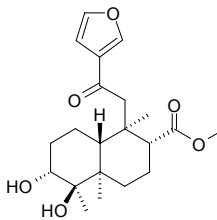
$C_{10}H_{14}N_2O_3$  (210.23). Colorless oil,  $[\alpha]_D^{20} = -0.12^\circ$  ( $c = 0.45$ ,  $CHCl_3$ ). Source: DIAO GAN MA *Celastrus angulatus*. Ref: 2425.

**3537 Chinese bittersweet alkaloid II**

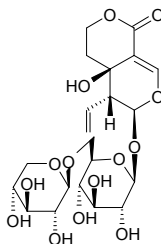
$C_{18}H_{30}N_2O_3$  (322.45). Yellowish liquid. Source: DIAO GAN MA *Celastrus angulatus*. Ref: 2425.

**3538 Chiromodine**

[125107-28-0]  $C_{20}H_{30}O_6$  (378.47). Source: *Croton hovarum*. Ref: 4552.

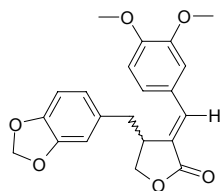
**3539 Chironiside**

6'-*O*- $\beta$ -*D*-Xylopyranosylswertiamarin  $C_{21}H_{30}O_{14}$  (506.46). Source: RI BEN ZHANG YA CAI *Swertia japonica*. Ref: 2573.

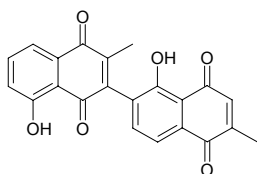


**3540 Chisulactone**

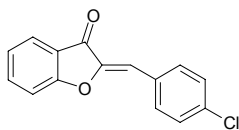
[50924-59-9] C<sub>21</sub>H<sub>20</sub>O<sub>6</sub> (368.39). mp 108–110°C. Source: DA JIN NIU CAO *Polygala chinensis* [Syn. *Polygala glomerata*]. Ref: 6.

**3541 Chitranone**

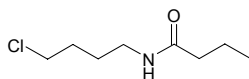
3,6'-Biplumbagin C<sub>22</sub>H<sub>14</sub>O<sub>6</sub> (374.35). Orange plates (MeOH), mp 174–177°C, 116–118°C. Pharm: Ichthyotoxin (MLC = 0.5mg/L, control Juglone, MLC = 0.2mg/L)<sup>[4185]</sup>. Source: BAI HUA DAN *Plumbago zeylanica*, HAI SHI *Diospyros maritima* (fruit). Ref: 1521, 4185.

**3542 4'-Chloroaurone**

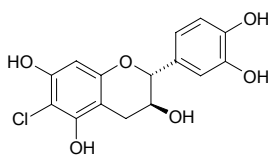
C<sub>15</sub>H<sub>9</sub>ClO<sub>2</sub> (256.69). Colorless solid, mp 206°C Source: YI BIAN HE SHE *ZAO Spatoglossum variable* (residue of methanolic extract: yield = 0.0033%). Ref: 3505.

**3543 N-4'-Chlorobutylbutyramide**

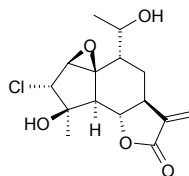
C<sub>8</sub>H<sub>16</sub>ClNO (177.68). Source: SA BA LU HUI *Aloe sabaee*. Ref: 728.

**3544 6-Chlorocatechin**

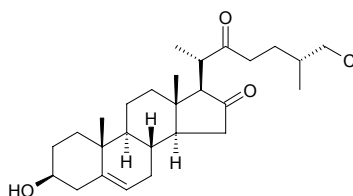
C<sub>15</sub>H<sub>13</sub>ClO<sub>6</sub> (324.72). Amorphous, [α]<sub>D</sub><sup>20</sup> = +50° (c = 0.16, DMSO), Pharm: Antioxidant (DPPH scavenger, potent activity)<sup>[5232]</sup>; cytotoxic inactive (MCF, HM02, HEPG2)<sup>[5232]</sup>. Source: NIU XI XI *Rumex patientia*. Ref: 5232.

**3545 Chlorochrymorin**

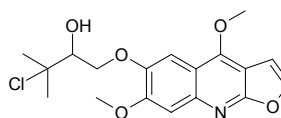
[52525-23-2] C<sub>15</sub>H<sub>19</sub>ClO<sub>5</sub> (314.77). Pharm: Plant growth regulator. Source: JU HUA *Chrysanthemum morifolium* [Syn. *Dendranthema morifolium*]. Ref: 658.

**3546 26-Chloro-26-deoxycryptogenin**

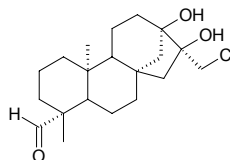
[53356-56-2] C<sub>27</sub>H<sub>41</sub>ClO<sub>3</sub> (449.08). mp 149–151°C. Source: YAN LING CAO *Trillium tschonoskii*. Ref: 6, 660.

**3547 Chlorodesnkolbisine**

C<sub>18</sub>H<sub>20</sub>ClNO<sub>5</sub> (365.82). Needles, mp 181–182°C, [α]<sub>D</sub> = +40° (c = 0.02, MeOH). Source: GAO GUI YOU MU YUN XIANG *Teclea nobilis* (aerial parts). Ref: 3503.

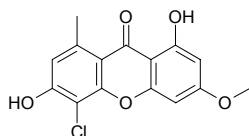
**3548 17-Chloro-13,16β-dihydroxy-ent-kauran-19-al**

C<sub>20</sub>H<sub>31</sub>ClO<sub>3</sub> (354.92). White amorphous solid, [α]<sub>D</sub><sup>20</sup> = –45.0° (c = 0.3, CHCl<sub>3</sub>). Pharm: Antiproliferative and cytotoxic (*in vitro*, L-929, GI<sub>50</sub> = 50μg/mL; K562, GI<sub>50</sub> = 29.2μg/mL; HeLa, CC<sub>50</sub> = 38.2μg/mL; control Paclitaxel, L-929, GI<sub>50</sub> = 0.1μg/mL; K562, GI<sub>50</sub> = 0.01μg/mL; HeLa, CC<sub>50</sub> = 0.01μg/mL). Source: MU LAN<sup>(3)</sup> *Bruguiera gymnorrhiza* (stem: yield = 0.000164%). Ref: 4770.

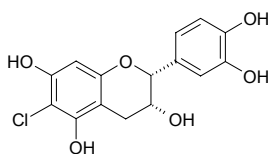


**3549 5-Chloro-1,6-dihydroxy-3-methoxy-8-methylxanthone**

$C_{15}H_{11}ClO_5$  (306.70). Yellow powder, mp 243–244°C (dec). Source: HUANG HAI TANG *Hypericum ascyron*. Ref: 2398.

**3550 (–)-6-Chloroepicatechin**

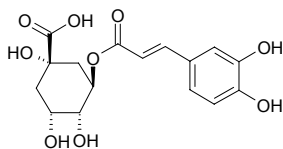
$C_{15}H_{13}ClO_6$  (324.72).  $[\alpha]_D^{25} = -84^\circ$  ( $c = 0.18$ , MeOH). Source: QU YU CAO DI LAO GUAN CAO *Geranium pratense* ssp. *funitimum* (aerial parts). Ref: 5126.

**3551 Chlorogenic acid**

3-Caffeoylquinid acid [327-97-9]  $C_{16}H_{18}O_9$  (354.32). Yellowish powder, mp 208–209°C. Pharm: Antioxidant (chemiluminescence Method,  $IC_{50} = (0.31 \pm 0.01) \mu\text{mol/L}$ , control Rutin,  $IC_{50} = (0.11 \pm 0.01) \mu\text{mol/L}$ , Quercetin,  $IC_{50} = (0.53 \pm 0.01) \mu\text{mol/L}$ , Caffeic acid,  $IC_{50} = (0.66 \pm 0.07) \mu\text{mol/L}$ , Gallic acid,  $IC_{50} = (0.74 \pm 0.06) \mu\text{mol/L}$ ; DPPH scavenger,  $IC_{50} = (0.13 \pm 0.01) \mu\text{mol/L}$ , Rutin,  $IC_{50} = (0.15 \pm 0.00) \mu\text{mol/L}$ , Quercetin,  $IC_{50} = (0.26 \pm 0.02) \mu\text{mol/L}$ , Caffeic acid,  $IC_{50} = (0.39 \pm 0.01) \mu\text{mol/L}$ , Gallic acid,  $IC_{50} = (0.36 \pm 0.02) \mu\text{mol/L}$ )<sup>[3764]</sup>, antioxidant (DPPH scavenger,  $EC_{50} = 4.2 \mu\text{g/mL} = 11.9 \mu\text{mol/L}$ , control Ascorbic acid,  $EC_{50} = 1.6 \mu\text{g/mL} = 9.1 \mu\text{mol/L}$ )<sup>[4154]</sup>, antioxidant (DPPH scavenger,  $IC_{50} = (1.28 \pm 0.38) \mu\text{g/mL}$ )<sup>[5307]</sup>; antineoplastic; cytotoxic (hmn myelocytic leukemia cells K562, inhibits cell proliferation,  $IC_{50} = 97.2 \mu\text{g/mL}$ ); antibacterial (*in vivo*); antimutagenic; antiviral; choleric (rat); curtails the time of blood clotting and bleeding; promotes intestinal motion (mus and rat); uterine stimulant (rat, enhances hystera tension); hemostatic; leukopoietic; sensitizer (hmn); CNS stimulant (rat, orl or ip); antitrypanosomal (*Trypanosoma b. rhodesiense*,  $IC_{50} = 18.9 \mu\text{g/mL}$ , control Melarsoprol,  $IC_{50} = 0.00098 \mu\text{g/mL}$ ; *Trypanosoma cruzi*,  $IC_{50} > 90 \mu\text{g/mL}$ , control Benzimidazole,  $IC_{50} = 1.06 \mu\text{g/mL}$ )<sup>[5009]</sup>; antileishmanial (*Leishmania donovani*,  $IC_{50} = 7.0 \mu\text{g/mL}$ , control Miltefosine,  $IC_{50} = 0.102 \mu\text{g/mL}$ )<sup>[5009]</sup>; antimalarial (*Plasmodium falciparum*,  $IC_{50} > 50 \mu\text{g/mL}$ , control Artemisinin,  $IC_{50} = 0.0022 \mu\text{g/mL}$ )<sup>[5009]</sup>; cytotoxic (L6,  $IC_{50} > 90 \mu\text{g/mL}$ , control Podophyllotoxin,  $IC_{50} = 0.008 \mu\text{g/mL}$ )<sup>[5009]</sup>;  $LD_{50}$  (young rat, orl)  $\geq 1 \text{g/kg}$ , (young rat, ip)  $\geq$

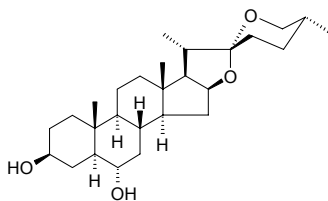
0.25g/kg. Source: A LA BO JIAO JIN HE HUAN *Acacia nilotica*, BAI MEI HUA *Prunus mume* (flower: yield = 0.0006%fw)<sup>[4641]</sup>, BEI JING SHI WEI *Pyrrosia davidii* (dried leaf: content = 1.64%)<sup>[5508]</sup>, BEI SHA SHEN *Glehnia littoralis* (underground part), BIAN XU *Polygonum aviculare*, CHA YE *Camellia sinensis* [Syn. *Thea sinensis*], CHAO XIAN YIN YANG HUO *Epimedium koreanum* (aerial parts: content = 0.251%)<sup>[5508]</sup>, CHE SANG ZI YE *Dodonaea viscosa*, CU LIU GUO *Hippophae rhamnoides*, DA CHE QIAN *Plantago major*, DA XUE TENG *Sargentodoxa cuneata* (stem), DU ZHONG *Eucommia ulmoides* (bark: content scope of 32 origins = 0.0043%–0.286%, mean content = 0.0654%)<sup>[5508]</sup>, DU ZHONG YE *Eucommia ulmoides* (leaf in spring: mean content of 17 origins = 3.42%, leaf in autumn: mean content of 17 origins = 0.65%)<sup>[5508]</sup>, DUO ZU JUE *Polypodium vulgare*, GAN LAN *Brassica oleracea* var. *capitata*, GUANG YE DING GONG TENG *Erycibe schmidtii*, HUA NAN REN DONG *Lonicera confusa* (flower bud: content = 3.97%)<sup>[5508]</sup>, HUANG HAO *Artemisia scoparia* [Syn. *Artemisia capillaris* var. *scoparia*], HUANG HE MAO REN DONG *Lonicera fulvotomentosa*, JI MU *Loropetalum chinense* (root, leaf and flower: mean content = 2.05%)<sup>[5508]</sup>, JI ZI MU *Sinoadina Racemosa* [Syn. *Adina racemosa*] (leaf, flower and twig: yield = 0.38%dw)<sup>[4723]</sup>, JIA MA BIAN *Stachytarpheta jamaicensis*, JIN YIN HUA *Lonicera japonica* (flower bud: content scope of 5 origins = 1.84%–5.13%, mean content = 3.21%)<sup>[5508]</sup>, JU HUA *Chrysanthemum morifolium* [Syn. *Dendranthema morifolium*] (dried capitulum: content scope of 41 origins = 0.08%–0.72%, mean content = 0.305%)<sup>[5508]</sup>, KE KE *Theobroma cacao*, LIU QIU SHE GEN CAO *Ophiorrhiza liukuensis* (whole herb), LU SHAN SHI WEI *Pyrrosia shearereri* (dried leaf: content = 0.605%)<sup>[5508]</sup>, MA QIAN ZI *Strychnos nux-vomica*, NI GUANG SHI WEI *Pyrrosia pseudocalvata* (dried leaf: content = 0.44%)<sup>[5508]</sup>, PENG ZI CAI *Galium verum*, PU GONG YING *Taraxacum mongolicum* (dried whole herb: content = 0.913%)<sup>[5508]</sup>, QIAN QU CAI *Lythrum salicaria*, REN DONG TENG *Lonicera japonica* (stem-branch: content = 1.73%)<sup>[5508]</sup>, SANG YE *Morus alba* (leaf: content scope of 6 origins = 0.69%–2.46%, mean content = 1.38%)<sup>[5508]</sup>, SHAN LI HONG *Crataegus pinnatifida* var. *major*, SHAN WO JU *Lactuca indica* (fresh whole herb: yield = 0.0033%fw)<sup>[4689]</sup>, SHAN ZHA *Crataegus pinnatifida*, SHI WEI *Pyrrosia lingua* (dried leaf: content scope of 5 origins = 0.048%–0.344%, mean content = 0.154%)<sup>[5508]</sup>, TAI WAN PU GONG YING *Taraxacum formosanum* (dried whole herb: content = 0.275%)<sup>[5508]</sup>, WU MAO JUE *Blechnum orientale*, XI NAN SHI WEI *Pyrrosia gralla* (dried leaf: content = 0.711%)<sup>[5508]</sup>, XI ZHAN MAO REN DONG *Lonicera similis* (flower bud: mean content = 4.80%)<sup>[5508]</sup>, XIAN YE REN DONG *Lonicera hypoglauca* (flower bud: content = 2.40%)<sup>[5508]</sup>, XIAO GUO KA FEI *Coffea arabica*, XIAO JI *Cirsium setosum* [Syn. *Cerratala setosa*; *Cirsium segetum*; *Cephalanoplos segetum*] (whole herb or

root: mean content = 0.0372%)<sup>[5508]</sup>, XIAO YE GUAN ZHONG *Matteuccia struthiopteris*<sup>[3764]</sup>, XUAN FU HUA *Inula britannica*, YAO YONG PU GONG YING *Taraxacum officinale* (dried whole herb: content = 0.291%<sup>[5508]</sup>), YE JU HUA *Chrysanthemum indicum* (capitulum: content scope of 14 origins = 0.053%~0.358%, mean content = 0.230%)<sup>[5508]</sup>, YE SHAN ZHA *Crataegus cuneata*, YI ZHU QIAN MA *Urtica dioica*, YING GUO SHAN ZHA *Crataegus oxyacantha*, YOU BING SHI WEI *Pyrrosia petiolosa* (dried leaf: content scope of 12 origins = 0.085%~1.463%, mean content = 0.658%)<sup>[5508]</sup>, YU XING CAO *Houttuynia cordata*, ZHAN MAO SHI WEI *Pyrrosia drakeana* (dried leaf: content = 0.595%)<sup>[5508]</sup>, ZHI ZHU XIANG *Valeriana jatamansii* [Syn. *Valeriana wallichii*], ZHI ZI *Gardenia jasminoides* [Syn. *Gardenia florida*] (dried ripe fruit: mean content = 0.096%)<sup>[5508]</sup>, ZONG KUI CAO SU *Phlomis brunneogaleata*, occurs in many plants (including *Chrozophora* spp., *Cinchona* spp., *Scabiosa* spp., *Valeriana* spp., *Senecio* spp., *Baccharis* spp. and *Hypericum* spp., originally from Liberian coffee). Ref: 2, 4, 585, 602, 638, 658, 660, 3764, 4154, 4527, 4641, 4689, 4723, 4895, 5009, 5307, 5375, 5501, 5508.



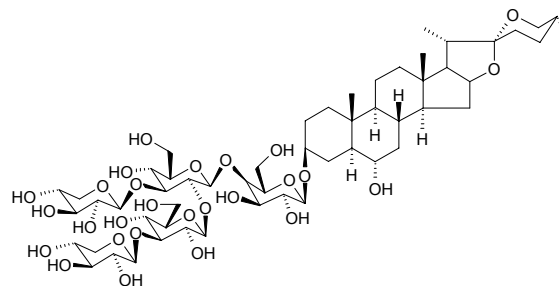
### 3552 Chlorogenin

[562-34-5] C<sub>27</sub>H<sub>44</sub>O<sub>4</sub> (432.65). mp 273~276°C. Source: DONG YI HAO JIAN MA *Agave east-one*, DUAN YE LONG SHE LAN *Agave angustifolia*, FAN MA *Agave americana*, JI LI GEN *Tribulus terrestris*, JIAN MA *Agave sisalana*, WU CI FAN MA *Agave americana* var. *marginata* [Syn. *Agave americana* var. *variegata*], XIA YE LONG SHE LAN *Agave cantala*, YIN BIAN LONG SHE LAN *Agave angustifolia* var. *marginata*. Ref: 6, 10.



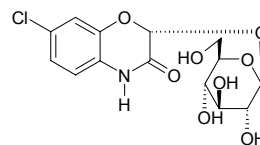
### 3553 Chlorogenin-3-O-β-D-xylopyranosyl-(1→3)-β-D-glucopyranosyl-(1→2)-[β-D-xylopyranosyl-(1→3)]-β-D-glucopyranosyl-(1→4)-β-D-galactopyranoside

C<sub>55</sub>H<sub>90</sub>O<sub>27</sub> (1183.31). Pharm: Cytotoxic (*in vitro*, HeLa, IC<sub>50</sub> = 7.5 μg/mL; control *cis*-Platin, IC<sub>50</sub> = 0.75 μg/mL). Source: WAN XIANG YU *Polianthes tuberosa* (tuber: yield = 0.0025%fw). Ref: 3002.



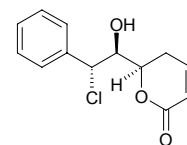
### 3554 7-Chloro-(2R)-2-O-β-D-glucopyranosyl-2H-1,4-benzoxazin-3(4H)-one

C<sub>14</sub>H<sub>16</sub>ClNO<sub>8</sub> (361.74). White amorphous powder, [α]<sub>D</sub><sup>26</sup> = +198.0° (c = 0.33, DMSO). Source: LAO SHU LE *Acanthus ilicifolius* (aerial parts). Ref: 5204.



### 3555 8-Chlorogoniodiol

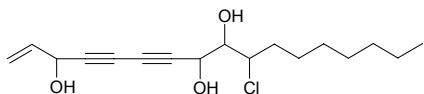
(6R,7R,8R)-8-Chlorogoniodiol; 6R-(7R-Hydroxy-8R-chloro-8-phenyl)-5,6-dihydro-2-pyrone C<sub>13</sub>H<sub>13</sub>ClO<sub>3</sub> (252.70). Colorless plate crystals, mp 126~128°C, [α]<sub>D</sub><sup>25</sup> = +13.7° (c = 0.3, CHCl<sub>3</sub>). Pharm: Cytotoxic (HepG2, IC<sub>50</sub> = 0.64 μg/mL, control Doxorubicin, IC<sub>50</sub> = 0.38 μg/mL; Hep3B, IC<sub>50</sub> = 3.64 μg/mL, Doxorubicin, IC<sub>50</sub> = 0.36 μg/mL; MDA-MB-231, IC<sub>50</sub> = 1.47 μg/mL, Doxorubicin, IC<sub>50</sub> = 1.20 μg/mL; MCF7, IC<sub>50</sub> = 2.32 μg/mL, Doxorubicin, IC<sub>50</sub> = 2.51 μg/mL)<sup>[5056]</sup>; cytotoxic (*in vitro*, NUGC, IC<sub>50</sub> = 31 μg/mL; HONE-1, IC<sub>50</sub> = 4.87 μg/mL, significant selective cytotoxicity; control Actinomycin, NUGC, IC<sub>50</sub> = 6.61 μg/mL; HONE-1, IC<sub>50</sub> = 4.53 μg/mL)<sup>[4686]</sup>. Source: TAI WAN GE NA XIANG *Goniothalamus amuyon* (fresh leaf: yield = 0.00041%fw; stem: yield = 0.00067%fw). Ref: 4686, 5056.



**3556 10-Chloro-1-heptadecene-4,6-diyne-3,8,9-triol**

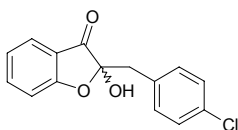
$C_{17}H_{25}ClO_3$  (312.84). Amorphous powder,  $[\alpha]_D^{25} = +47.5^\circ$  ( $c = 0.1$ , MeOH).

Source: *Niphogeton ternata*. Ref: 4156.

**3557 4'-Chloro-2-hydroxyaurone**

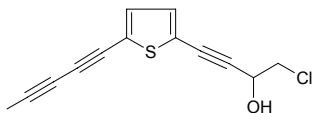
$C_{15}H_{11}ClO_3$  (274.71). Colorless solid, mp  $225^\circ C$ ,  $[\alpha]_D^{25} = 50^\circ$  ( $CHCl_3$ ). Source:

YI BIAN HE SHE ZAO *Spatoglossum variabile* (residue of methanolic extract: yield = 0.0028%). Ref: 3505.

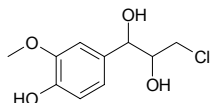
**3558 2-(4-Chloro-3-hydroxybut-1-ynyl)-5-(penta-1,3-diyanyl) thiophene**

[26905-70-4]  $C_{13}H_9ClOS$  (248.73). Source: MO HAN LIAN *Eclipta prostrata*

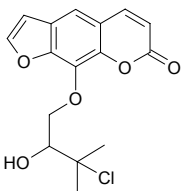
[Syn. *Eclipta alba*]. Ref: 6.

**3559 threo-3-Chloro-1-(4-hydroxy-3-methoxyphenyl)propane-1,2-diol**

$C_{10}H_{13}ClO_4$  (232.67). Colorless needles, mp  $121^\circ C$  ( $CHCl_3$ ),  $[\alpha]_D^{25} = -2^\circ$  ( $c = 0.52$ , EtOH). Pharm: Inhibits autoxidation of linoleic acid (in a water-alcohol system)<sup>[2390]</sup>. Source: DUO XIANG GUO *Pimenta dioica*. Ref: 2390.

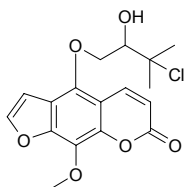
**3560 8-(3-Chloro-2-hydroxy-3-methylbutoxy)psoralen**

$C_{16}H_{15}ClO_5$  (322.75). Source: *Niphogeton ternata*. Ref: 4156.

**3561 5-O-(3-Chloro-2-hydroxy-3-methylbutyl)-8-methoxypsoralen**

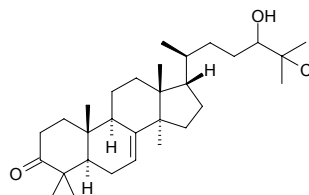
$C_{17}H_{17}ClO_6$  (352.77). Amorphous powder,  $[\alpha]_D^{25} = +1.4^\circ$  ( $c = 0.8$ , MeOH).

Source: *Niphogeton ternata*. Ref: 4156.

**3562 25-Chloro-24-hydroxytirucall-7-en-3-one**

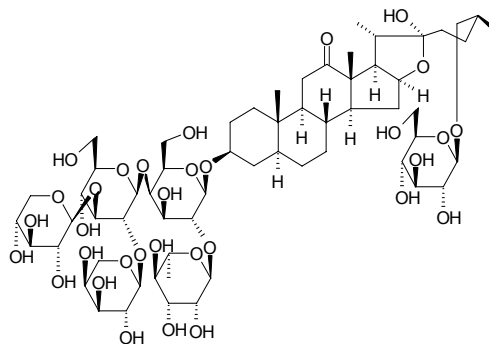
$C_{30}H_{49}ClO_2$  (477.18). Amorphous powder,  $[\alpha]_D^{25} = -15.8^\circ$  ( $c = 0.6$ , MeOH).

Source: NAN RI BEN LEI GONG TENG *Tripterygium doianum*. Ref: 1916.

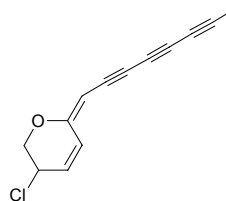
**3563 Chloromaloside E**

26-O-β-D-Glucopyranosyl-22-hydroxy-25(S)-5α-furostan-12-oxo-3β,26-diol-3-O-β-D-xylopyranosyl(1→3)[α-L-arabinopyranosyl(1→2)]-β-D-glucopyranosyl(1→4)-[α-L-rhamnopyranosyl(1→2)]-β-D-galactopyranoside

$C_{61}H_{100}O_{32}$  (1345.46). Colorless acicular crystals (methanol). Source: DA YE DIAO LAN *Chlorophytum malayense*. Ref: 893.

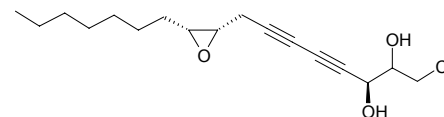
**3564 5-Chloro-2-(octa-2,4,6-triynylidene)-5,6-dihydro-2H-pyran**

$C_{13}H_9ClO$  (216.67). mp  $73^\circ C$ . Source: DA YE BAI TOU WENG *Anaphalis margaritacea*. Ref: 6.

**3565 Chloropanaxydiol**

[114687-51-3]  $C_{17}H_{25}ClO_3$  (312.84).  $[\alpha]_D = -37.2^\circ C$  ( $c = 0.2$ , MeOH). Pharm:

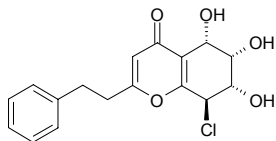
Cytotoxic. Source: REN SHEN *Panax ginseng* [Syn. *Panax schinseng*]. Ref: 3118.



**3566 8-Chloro-2-(2-phenylethyl)-5,6,7-trihydroxy-5,6,7,8-tetrahydrochromone**

$C_{17}H_{17}ClO_5$  (336.78). White amorphous solid,  $[\alpha]_D^{25} = +7.4^\circ$  ( $c = 1.0$ , MeOH).

Source: BAI MU XIANG *Aquilaria sinensis* (Withered wood). Ref: 4339.

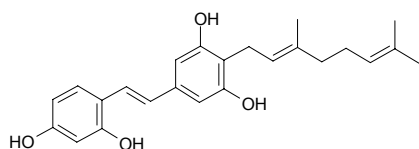


**3567 Chlorophorin**

4-Geranyl-2',3,4',5-tetrahydroxy-*trans*-stilbene [537-41-7]  $C_{24}H_{28}O_4$  (380.49).

Pharm: Tyrosinase inhibitor ( $IC_{50} = 1.3 \mu\text{mol/L}$ )<sup>[4326]</sup>. Source: GAO HUANG

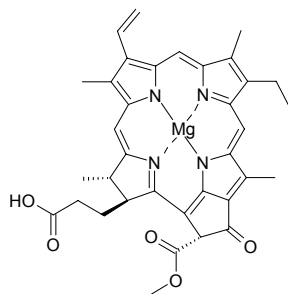
LU SANG *Chlorophora excelsa* (heartwood). Ref: 658, 4326.



**3568 Chlorophyllide a**

$C_{35}H_{34}MgN_4O_5$  (615.00). Pharm: Cytotoxic (soft agar transformation assay with JB6 cells,  $IC_{50} = 0.30 \mu\text{g/mL}$ )<sup>[5038]</sup>; cytotoxic (mouse mammary organ culture assay, 58% at  $10 \mu\text{g/mL}$ )<sup>[5038]</sup>. Source: FEI CHENG SUAN JIANG

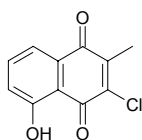
*Physalis philadelphica*. Ref: 5038.



**3569 3-Chloroplumbagin**

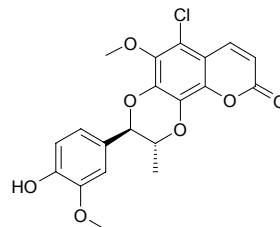
[21890-57-3]  $C_{11}H_7ClO_3$  (222.63). Source: BAI HUA DAN *Plumbago*

*zeylanica*. Ref: 6.



**3570 5-Chloropropacin**

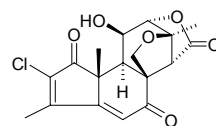
$C_{20}H_{17}ClO_7$  (404.81). Amorphous solid. Source: MENG DI TENG *Mondia whitei* (root). Ref: 5264.



**3571 2-Chlorosamaderine A**

$C_{18}H_{17}ClO_6$  (364.79). Pale yellow amorphous solid,  $[\alpha]_D = -13^\circ$  ( $c = 0.016$ ,  $CHCl_3$ ). Pharm: Cytotoxic (colon cancer HCT15,  $LC_{50} = 85.4 \mu\text{g/mL}$ ; renal cancer A498,  $LC_{50} = 70.0 \mu\text{g/mL}$ ). Source: MA DAO HUANG LIAN SHU

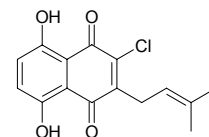
*Samadera madagascariensis* (leaf). Ref: 5334.



**3572 Chlorosesamone**

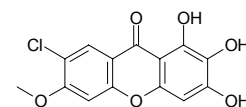
$C_{15}H_{13}ClO_4$  (292.72). Pharm: Antifungal (*Cladosporium fulvum*,  $0.1 \mu\text{g/spot}$ ).

Source: HU MA GEN *Sesamum indicum*. Ref: 5234.



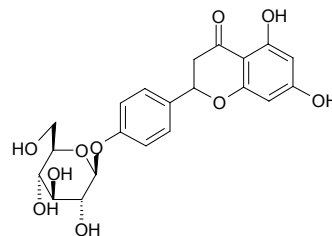
**3573 7-Chloro-1,2,3-trihydroxy-6-methoxyxanthone**

$C_{14}H_9ClO_6$  (308.68). Yellow solid. Pharm: Cytotoxic (*in vitro* antiproliferative activity,  $LoVo$ ,  $IC_{50} = (8.30 \pm 0.09) \mu\text{mol/L}$ , control Doxorubicin,  $IC_{50} = (0.04 \pm 0.01) \mu\text{mol/L}$ ;  $LoVo/Doxo$ ,  $IC_{50} = (6.70 \pm 0.40) \mu\text{mol/L}$ , control Doxorubicin,  $IC_{50} = (10.2 \pm 0.1) \mu\text{mol/L}$ ). Source: PU TONG YUAN ZHI *Polygala vulgaris*. Ref: 4246.



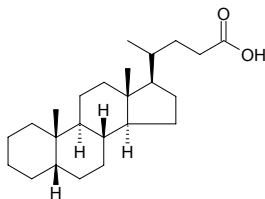
**3574 Choerospondin**

$C_{21}H_{22}O_{10}$  (434.40). Source: *Glycyrrhiza* sp. Ref: 2431.



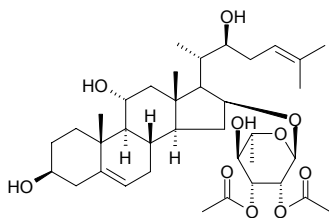
**3575 5 $\beta$ -Cholanic acid**

[546-18-9] C<sub>24</sub>H<sub>40</sub>O<sub>2</sub> (360.59). mp 164°C. Source: XIANG SI ZI *Abrus precatorius*. Ref: 6.

**3576 (22S)-Cholesta-5,24-diene-3 $\beta$ ,11 $\alpha$ ,16 $\beta$ ,22-tetrol 16-O-(2,3-di-O-acetyl- $\alpha$ -L-rhamnopyranoside)**

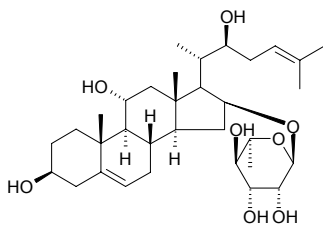
C<sub>37</sub>H<sub>58</sub>O<sub>10</sub> (662.87). Amorphous solid,  $[\alpha]_D^{30} = -24.0^\circ$  ( $c = 0.10$ , MeOH).

Pharm: Cytotoxic (cytostatic, HL-60 cells, GI<sub>50</sub> = 0.80  $\mu$ mol/L). Source: *Ornithogalum saundersiae*. Ref: 2364.

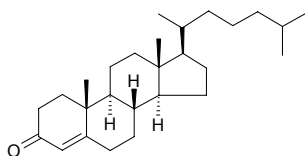
**3577 (22S)-Cholesta-5,24-diene-3 $\beta$ ,11 $\alpha$ ,16 $\beta$ ,22-tetrol 16-O- $\alpha$ -L-rhamnopyranoside**

C<sub>33</sub>H<sub>54</sub>O<sub>8</sub> (578.79). Amorphous solid,  $[\alpha]_D^{28} = -42.0^\circ$  ( $c = 0.54$ , MeOH).

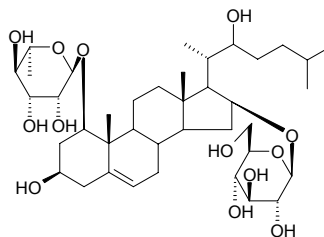
Source: *Ornithogalum saundersiae*. Ref: 2364.

**3578 Cholest-4-ene-3-one**

[601-57-0] C<sub>27</sub>H<sub>44</sub>O (384.65). Source: SHE XIANG *Moschus moschiferus*; *Moschus berezovskii*; *Moschus sifanicus*. Ref: 2.

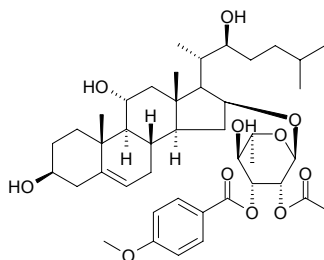
**3579 (22S)-Cholest-5-ene-1 $\beta$ ,3 $\beta$ ,16 $\beta$ ,22-tetraol-1-O- $\alpha$ -L-rhamnopyranosyl-16-O- $\beta$ -D-glucopyranoside**

C<sub>39</sub>H<sub>66</sub>O<sub>13</sub> (742.95). White needles (MeOH), mp 201.5~202.5°C. Source: XIE BAI *Allium macrostemon*. Ref: 4897.

**3580 (22S)-Cholest-5-ene-3 $\beta$ ,11 $\alpha$ ,16 $\beta$ ,22-tetrol 16-O-{2-O-acetyl-3-O-(p-methoxybenzoyl)- $\alpha$ -L-rhamnopyranoside}**

C<sub>43</sub>H<sub>64</sub>O<sub>11</sub> (756.98). Amorphous solid,  $[\alpha]_D^{30} = -12.0^\circ$  ( $c = 0.10$ , MeOH).

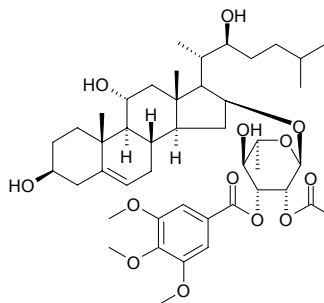
Pharm: Cytotoxic (cytostatic, HL-60 cells, GI<sub>50</sub> = 0.022  $\mu$ mol/L). Source: *Ornithogalum saundersiae*. Ref: 2364.

**3581 (22S)-Cholest-5-ene-3 $\beta$ ,11 $\alpha$ ,16 $\beta$ ,22-tetrol**

16-O-{2-O-acetyl-3-O-(3,4,5-trimethoxybenzoyl)- $\alpha$ -L-rhamnopyranoside}

C<sub>45</sub>H<sub>69</sub>O<sub>13</sub> (817.04). Amorphous solid,  $[\alpha]_D^{27} = +6.0^\circ$  ( $c = 0.10$ , MeOH).

Pharm: Cytotoxic (cytostatic, HL-60 cells, GI<sub>50</sub> = 1.8  $\mu$ mol/L). Source: *Ornithogalum saundersiae*. Ref: 2364.



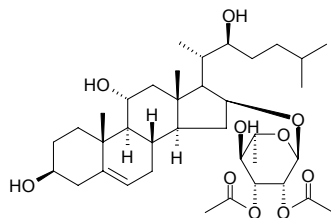


**3582 (22S)-Cholest-5-ene-3 $\beta$ ,11 $\alpha$ ,16 $\beta$ ,22-tetrol 16-O-(2,3-di-O-acetyl- $\alpha$ -L-rhamnopyranoside)**

C<sub>37</sub>H<sub>60</sub>O<sub>10</sub> (664.88). Amorphous solid,  $[\alpha]_D^{30} = -28.0^\circ$  ( $c = 0.10$ , MeOH).

**Pharm:** Cytotoxic (cytostatic, HL-60 cells, GI<sub>50</sub> = 6.9  $\mu$ mol/L). **Source:**

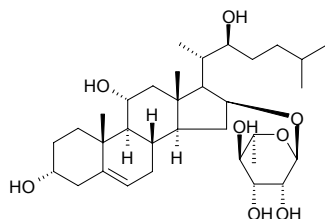
*Ornithogalum saundersiae*. **Ref:** 2364.



**3583 (22S)-Cholest-5-ene-3 $\alpha$ ,11 $\alpha$ ,16 $\beta$ ,22-tetrol 16-O- $\alpha$ -L-rhamnopyranoside**

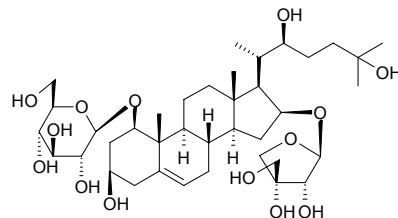
C<sub>33</sub>H<sub>56</sub>O<sub>8</sub> (580.81). Amorphous solid,  $[\alpha]_D^{26} = -39.0^\circ$  ( $c = 0.50$ , MeOH).

**Pharm:** Cytotoxic (cytostatic, HL-60 cells, GI<sub>50</sub> = 0.19  $\mu$ mol/L); cytotoxic (NCI 60 cell lines, Leukemia: K562, GI<sub>50</sub> = 0.12  $\mu$ mol/L, Molt-4, GI<sub>50</sub> = 0.028  $\mu$ mol/L, RPMI-8226, GI<sub>50</sub> = 0.016  $\mu$ mol/L, SR leukemia, GI<sub>50</sub> = 0.042  $\mu$ mol/L; Non-small cell lung cancer: A549/ATCC, GI<sub>50</sub> = 1.5  $\mu$ mol/L, HOP-62, GI<sub>50</sub> = 0.032  $\mu$ mol/L, NCI-H23, GI<sub>50</sub> = 27  $\mu$ mol/L, NCI-H522, GI<sub>50</sub> = 5.3  $\mu$ mol/L; Colon cancer: Colon205, GI<sub>50</sub> = 1.3  $\mu$ mol/L, HCT116, GI<sub>50</sub> = 0.18  $\mu$ mol/L, HT29, GI<sub>50</sub> = 1.8  $\mu$ mol/L, KM12, GI<sub>50</sub> = 0.41  $\mu$ mol/L, SW620, GI<sub>50</sub> = 0.14  $\mu$ mol/L; CNS cancer: SF268, GI<sub>50</sub> = 1.2  $\mu$ mol/L, SF295, GI<sub>50</sub> = 0.021  $\mu$ mol/L, SF539, GI<sub>50</sub> = 0.015  $\mu$ mol/L, U251, GI<sub>50</sub> = 0.010  $\mu$ mol/L; Melanoma: MALME-3M, GI<sub>50</sub> = 2.5  $\mu$ mol/L, M14, GI<sub>50</sub> = 1.2  $\mu$ mol/L, SK-MEL-2, GI<sub>50</sub> = 7.2  $\mu$ mol/L, SK-MEL-28, GI<sub>50</sub> = 0.22  $\mu$ mol/L, SK-MEL-5, GI<sub>50</sub> = 0.74  $\mu$ mol/L, UACC62, GI<sub>50</sub> = 0.50  $\mu$ mol/L; Ovarian cancer: OVCAR-5, GI<sub>50</sub> = 6.2  $\mu$ mol/L; Renal cancer: 780-6, GI<sub>50</sub> = 0.11  $\mu$ mol/L, A498, GI<sub>50</sub> = 0.46  $\mu$ mol/L, CAKI-1, GI<sub>50</sub> = 0.63  $\mu$ mol/L, RXF-393, GI<sub>50</sub> = 0.025  $\mu$ mol/L, UO-31, GI<sub>50</sub> = 3.1  $\mu$ mol/L; Prostate cancer: PC3, GI<sub>50</sub> = 0.34  $\mu$ mol/L; Breast cancer: MCF7, GI<sub>50</sub> = 0.022  $\mu$ mol/L, MCF7/ADR-RES, GI<sub>50</sub> = 87  $\mu$ mol/L, MDA-MB-231/ATCC, GI<sub>50</sub> = 1.0  $\mu$ mol/L, MDA-MB-435, GI<sub>50</sub> = 0.98  $\mu$ mol/L, MDA-N, GI<sub>50</sub> = 1.2  $\mu$ mol/L; mean GI<sub>50</sub> = 1.5  $\mu$ mol/L; mean TGI = 20  $\mu$ mol/L; mean LC<sub>50</sub> = 69  $\mu$ mol/L). **Source:** *Ornithogalum saundersiae*. **Ref:** 2364.



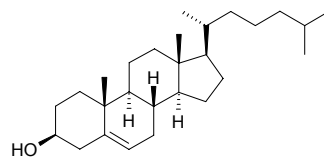
**3584 (22S)-Cholest-5-en-1 $\beta$ ,3 $\beta$ ,16 $\beta$ ,22,25-pentaol 1-O- $\beta$ -D-glucopyranosyl-16-O- $\beta$ -D-apiofuranoside**

C<sub>38</sub>H<sub>64</sub>O<sub>14</sub> (744.93). White amorphous powder,  $[\alpha]_D^{17.1} = 38.76^\circ$  ( $c = 0.0387$ , pyridine). **Source:** WAN XIANG YU *Polianthes tuberosa*. **Ref:** 2483.



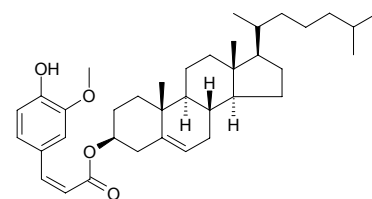
**3585 Cholesterol**

5-Cholesten-3 $\beta$ -ol [57-88-5] C<sub>27</sub>H<sub>46</sub>O (386.67). **Pharm:** Raw material for synthesis of vitamin D and hormones. **Source:** BAI JIANG CAN *Bombyx mori*, BO CAI *Spinacia oleracea*, CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus*, GOU QI ZI *Lycium chinense*, GUA DI *Cucumis melo*, JING MI *Oryza sativa*, LU HUI *Aloe vera* [Syn. *Aloe barbadensis*], LU RONG *Cervus nippon*; *Cervus elaphus*, LUO HUA SHENG *Arachis hypogaea*, NIU HUANG *Bos taurus domesticus*; *Bubalus bubalis* (gallstone: mean content = 0.165%)<sup>[5508]</sup>, QIU YIN *Pheretima aspergillum*; *Allolobophora caliginosa trapezoides*, QUAN XIE *Buthus martensi*, SHAN YAO *Dioscorea batatas* [Syn. *Dioscorea opposita*], SHE XIANG *Moschus moschiferus*; *Moschus berezovskii*; *Moschus sifanicus*, SHUI HU MAN *Clerodendron inerme*, WU GONG *Scolopendra subspinipes mutilans*, WU LOU ZI *Phoenix dactylifera*, YE MING SHA *Vespertilio superans*, YUN TAI ZI *Brassica campestris* [Syn. *Brassica campestris* var. *oleifera*], ZHE GU CAI *Caloglossa leprieurii*, *Panulirus* sp. **Ref:** 2, 658, 660, 5508.



**3586 Cholesteryl ferulate**

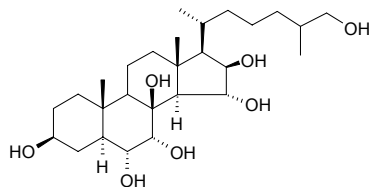
C<sub>37</sub>H<sub>54</sub>O<sub>4</sub> (562.84). **Source:** MI PI KANG *Oryza sativa*. **Ref:** 6.



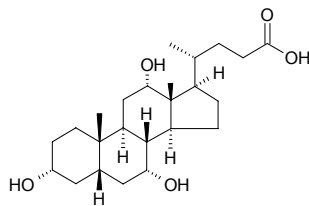
**3587 5 $\alpha$ -Cholest-3 $\beta$ ,6 $\alpha$ ,7 $\alpha$ ,8 $\beta$ ,15 $\alpha$ ,16 $\beta$ ,26-sevol**

C<sub>27</sub>H<sub>48</sub>O<sub>7</sub> (484.68). White powder. Source: HAI YAN *Asterina pectinifera*.

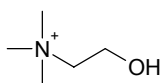
Ref: 4887.

**3588 Cholic acid**

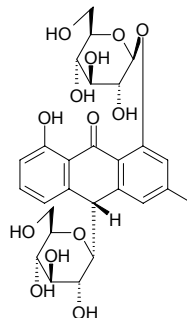
5 $\beta$ -Cholic acid; 3 $\alpha$ ,7 $\alpha$ ,12 $\alpha$ -Trihydroxy-5 $\beta$ -cholan-3-ic acid [81-25-4] C<sub>24</sub>H<sub>40</sub>O<sub>5</sub> (408.58). mp 195°C (anhydrous), [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +37° (c = 0.6, ethanol), very slightly soluble in water, slightly soluble in ether, chloroform, soluble in ethanol, acetone, easily soluble in ice vinegar.<sup>[5507]</sup> Pharm: Sedative (mouse, orl, calcium salt); anticonvulsant (induced by corazol); antipyretic (induced by dinitrophenol); stimulates heart (toad heart, 1.0mmol/L); Vasodilator (rbt ear, calcium salt); anti-inflammatory (mouse, acetic acid-induced, ip, inhibits increase of vaso-permeability); antitussive (mouse, fog-ammonia method); antibacterial (gram-positive bacteria); antiviral (jockos, inactivator to hepatitis B virus HBV, non-A non-B hepatitis virus NANB, hmn T-lymphocytes-phil virus III HTLV-III in blood products); LD<sub>50</sub> (mouse, orl) = 1.52g/kg. Source: NIU HUANG *Bos taurus domesticus*; *Bubalus bubalis* (gallstone: content scope = 3.08%~15.67%<sup>[5501]</sup>, mean content = 5.70%<sup>[5508]</sup>), XIONG DAN *Selenarctos thibetanus*; *Ursus arctos*. Ref: 5501, 5507, 5508.

**3589 Choline**

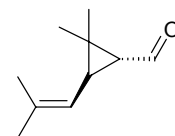
Bilinerine [62-49-7] C<sub>5</sub>H<sub>14</sub>NO<sup>+</sup> (104.17). Easily soluble in water, ethanol, insoluble in ether, petroleum ether.<sup>[5507]</sup> Source: BAN XIA *Pinellia ternata*, CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*], DANG GUI *Angelica sinensis*, DANG SHEN *Codonopsis pilosula*, FU LING *Poria cocos*, HUANG HAO *Artemisia scoparia* [Syn. *Artemisia capillaris* var. *scoparia*], HUANG QI *Astragalus membranaceus*, PU GONG YING *Taraxacum mongolicum*, REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], YAO YONG PU GONG YING *Taraxacum officinale*, ZHI MU *Anemarrhena asphodeloides*. Ref: 2, 660, 5507.

**3590 10R-Chrysaloin 1-O- $\beta$ -D-glucopyranoside**

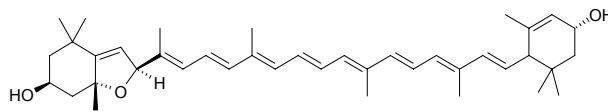
C<sub>27</sub>H<sub>32</sub>O<sub>13</sub> (564.55). Pale yellow amorphous, [ $\alpha$ ]<sub>D</sub><sup>21</sup> = -56.6° (c = 0.049, MeOH). Source: ZANG BIAN DA HUANG *Rheum emodi* [Syn. *Rheum australe*] (root). Ref: 4273.

**3591 Chrysanthemal**

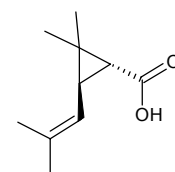
C<sub>10</sub>H<sub>16</sub>O (152.24). colorless oil. Source: NIAN HAO *Artemisia cana* ssp. *viscidula*. Ref: 1980.

**3592 Chrysanthemaxanthin**

[27780-11-6] C<sub>40</sub>H<sub>56</sub>O<sub>3</sub> (584.89). mp 184~185°C. Source: QIAN LI GUANG *Senecio scandens* [Syn. *Senecio chinensis*], YE JU *Chrysanthemum indicum*. Ref: 6.

**3593 Chrysanthemic acid**

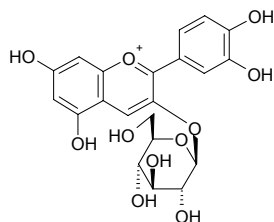
[827-90-7] C<sub>10</sub>H<sub>16</sub>O<sub>2</sub> (168.24). Pharm: Irritant (eyes and mucous membranes). Source: CHU CHONG JU *Chrysanthemum cinerariaefolium*. Ref: 658.



**3594 Chrysanthemim**

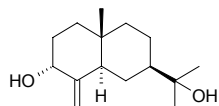
Cyanidin 3-O-glucoside [7084-24-4]  $C_{21}H_{21}O_{11}^+$  (449.39). mp 205°C (dec).

**Pharm:** Antihypertensive; larvacide (*Heliothis virescens*). **Source:** BAI FAN DOU *Phaseolus vulgaris*, DI YU *Sanguisorba officinalis*, DU JUAN HUA *Rhododendron simsii*, FU PEN ZI *Rubus idaeus*, HEI DA DOU PI *Glycine max*, JU HUA *Chrysanthemum morifolium* [Syn. *Dendranthema morifolium*], LING MU *Eurya japonica*, MAO SHU *Dioscorea alata*, QIU MU GUA *Chaenomeles lagenaria* [Syn. *Chaenomeles speciosa*], TOU GU CAO *Speranskia tuberculata*, YE JU *Chrysanthemum indicum*, YE JU HUA *Chrysanthemum indicum*, ZAI PEI ZI WAN *Aster cultivars*. **Ref:** 6, 658, 5501.

**3595 Chrysanthemol**

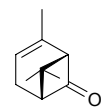
Chrysanthemyl alcohol [113773-90-3]  $C_{15}H_{26}O_2$  (238.37). White shortness rhombic crystals, mp 146~148°C,  $[\alpha]_D^{19} = +5.8^\circ$  ( $c = 0.51$ , chloroform).

**Pharm:** Anti-inflammatory (mus). **Source:** YE JU *Chrysanthemum indicum*. **Ref:** 90.

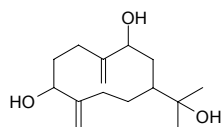
**3596 Chrysanthenone**

$C_{10}H_{14}O$  (150.22). bp 105~114°C/44mmHg. **Source:** JU HUA

*Chrysanthemum morifolium* [Syn. *Dendranthema morifolium*]. **Ref:** 6.

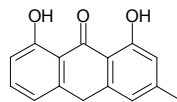
**3597 Chrysanthetriol**

$C_{15}H_{26}O_3$  (254.37). Colorless, oleaginous, viscous liquid,  $[\alpha]_D^{20} = -31.8^\circ$  ( $c = 0.3$ , chloroform). **Source:** YE JU HUA *Chrysanthemum indicum*. **Ref:** 222.

**3598 Chrysarobin**

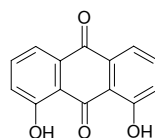
1,8-Dihydroxy-3-methyl-9-anthrone [491-58-7]  $C_{15}H_{12}O_3$  (240.26). mp

206~208°C. **Pharm:** Antibacterial; antifungal; anthelmintic; laxative. **Source:** BO XI SHU LI *Rhamnus purshiana*, HE SHOU WU *Polygonum multiflorum*, JUE MING ZI *Cassia tora*, LI LA GEN *Rhamnus crenata*, NIU ER DA HUANG *Rumex crispus*, TIE DAO MU *Cassia siamea*. **Ref:** 2, 6, 555, 658.

**3599 Chrysazin**

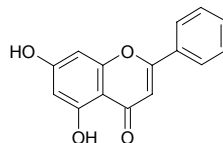
1,8-Dihydroxy-anthraquinone [117-10-2]  $C_{14}H_8O_4$  (240.22). mp 193°C.

**Pharm:** Immunosuppressant (macrophage and lymphocyte, high dose); laxative. **Source:** WANG JIANG NAN *Cassia occidentalis*, ZHANG YE DA HUANG *Rheum palmatum*, JIN JI LE *Cinchona ledgeriana*. **Ref:** 6, 658.

**3600 Chrysin**

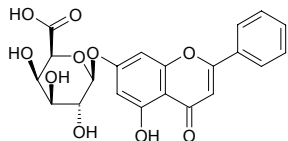
5,7-Dihydroxyflavone [480-40-0]  $C_{15}H_{10}O_4$  (254.24). Yellow granular crystals

(MeOH), mp 266~268°C. **Pharm:** Anti-HIV (inhibits HIV replication,  $EC_{50} = 5\mu\text{mol/L}$ ); anti-inflammatory; antimicrobial; cytotoxic (KB,  $ED_{50} = 13\mu\text{g/mL}$ ); induces production of estrin synthetase and cruarin; antihistamine (inhibits histamine release, rat peritoneum mastocyte); aldose reductase inhibitor (eye lens); iodinate thyronine deiodinase inhibitor; anti-inflammatory (COX-2 inhibitor, prevents COX-2 expression)<sup>[4415]</sup>; platelet aggregation inhibitor<sup>[4415]</sup>. **Source:** BEI JING YANG *Populus beijingensis* (bark: content = 0.10%)<sup>[5508]</sup>, CI GUO SONG *Pinus aristata*, DIAN HUANG QIN *Scutellaria amoena*, FENG JIAO *Apis mellifera ligustica*, HUANG QIN *Scutellaria baicalensis*, JIA YANG *Populus canadensis* (bark: content = 0.10%)<sup>[5508]</sup>, JIA ZHOU SHAN SONG *Pinus monticola*, MAO BAI YANG *Populus tomentosa* (bark: content = 0.03%)<sup>[5508]</sup>, MU HU DIE *Oroxylum indicum*, QIAO GUI *Pinus excelsa*, SHAN YANG *Populus davidiana* (bark: content = 0.04%)<sup>[5508]</sup>, XIAO HEI YANG *Populus xiaohei* (bark: content = 0.02%)<sup>[5508]</sup>, XIAO QING YANG *Populus pseudo-simonii* (bark: content = 0.08%)<sup>[5508]</sup>, XIN JIANG YANG *Populus alba* var. *pyramidalis* (bark: content = 0.01%)<sup>[5508]</sup>, YIN BAI YANG *Populus alba* (bark: content = 0.01%)<sup>[5508]</sup>, *Populus* sp., *Escallonia* sp. **Ref:** 2, 5, 463, 660, 1553, 4415, 5501, 5508.

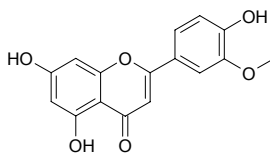


**3601 Chrysin 7-O- $\beta$ -galactopyranuronoside**

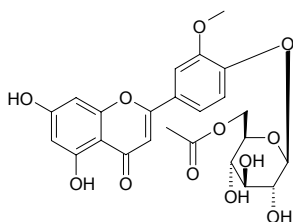
$C_{21}H_{18}O_{10}$  (430.37). Pale yellowish amorphous powder. Source: DONG AN NA TUO LI YA SHI CHE JU *Centaurea pseudoscabiosa* ssp. *pseudoscabiosa*. Ref: 1947.

**3602 Chrysoeriol**

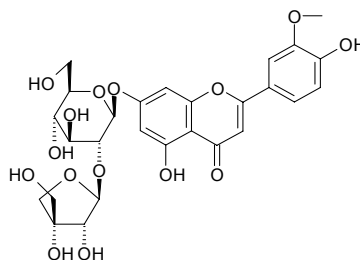
Chrysoeriol; 3'-Methoxy-4',5,7-trihydroxyflavone [491-71-4]  $C_{16}H_{12}O_6$  (300.27). Pharm: Antineoplastic (Inhibition of DMBA-induced preneoplastic lesions *in vitro*, MMOC assay,  $IC_{50} = 36\mu\text{mol/L}$ ; control Sulforaphane,  $IC_{50} = 11\mu\text{mol/L}$ )<sup>[4718]</sup>; antineoplastic (inhibits carcinogenesis of 3,4-benzopyrene, inhibits its metabolism); cytotoxic ( $P_{388}$ ,  $ED_{50} = 1.9\mu\text{g/mL}$ ); cAMP phosphodiesterase inhibitor (*in vitro*,  $IC_{50} = 269\mu\text{mol/L}$ ); cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells)<sup>[5038]</sup>; anti-allergic and anti-inflammatory (inhibits basophile to release histamine and inhibits neutrophil cells to release  $\beta$ -glucuronidase); aldose reductase inhibitor ( $50\mu\text{g/mL}$  InRt = 61.5%,  $IC_{50} = 14.0\mu\text{mol/L}$ ); xanthinoxidase inhibitor ( $50\mu\text{g/mL}$  InRt = 61.5%,  $IC_{50} = 14.0\mu\text{mol/L}$ ); anti-coagulant (hum, inhibits expression of tissue factor in monocyte induced by interleukin I,  $IC_{50} = 2.6\mu\text{mol/L}$ ); anticomplement activity. Source: DU HUI MAO DOU *Tephrosia toxicaria* (stem: yield = 0.00017%dw)<sup>[4718]</sup>, HUANG HUA HAO *Artemisia annua*, JIN YIN HUA *Lonicera japonica*, PAN YUAN YU TENG *Derris scandens* (stem), SAN JIAN SHAN *Cephalotaxus fortunei*, XIANG DOU *Dipteryx odorata* (callus and root). Ref: 2, 660, 1627, 1628, 1629, 1630, 1631, 1632, 1633, 1634, 3810, 4718, 5038.

**3603 Chrysoeriol 4'-O-(6''-O-acetyl)- $\beta$ -D-glucopyranoside**

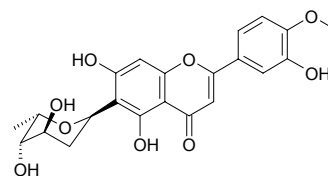
$C_{24}H_{24}O_{12}$  (504.45). Source: LV DOU *Onobrychis vicifolia* (leaf). Ref: 5084.

**3604 Chrysoeriol-7-apio-glucoside**

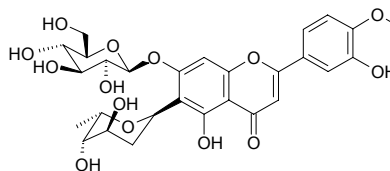
Graveobioside B  $C_{27}H_{30}O_{15}$  (594.53). mp 214~216°C. Source: HAN QIN *Apium graveolens*. Ref: 6.

**3605 Chrysoeriol 6-C- $\beta$ -L-boivinopyranoside**

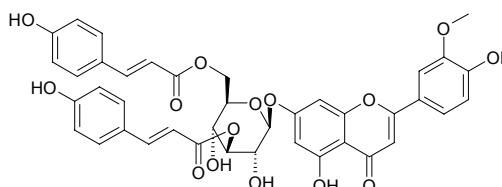
$C_{22}H_{22}O_9$  (430.42). Yellow amorphous solid, mp 212~216°C,  $[\alpha]_D^{20} = +27.1^\circ$  ( $c = 1.18$ , MeOH). Pharm: Glycation inhibitor (similar to that of aminoguanidine). Source: YU SHU SHU *Zea mays* (style: yield = 0.0012%dw). Ref: 4687.

**3606 Chrysoeriol 6-C- $\beta$ -boivinopyranosyl-7-O- $\beta$ -glucopyranoside**

$C_{28}H_{32}O_{14}$  (592.56). Yellow amorphous solid, mp 196~198°C,  $[\alpha]_D^{20} = -24.9^\circ$  ( $c = 0.61$ , MeOH). Pharm: Glycation inhibitor (similar to that of aminoguanidine). Source: YU SHU SHU *Zea mays* (style: yield = 0.00081%dw). Ref: 4687.

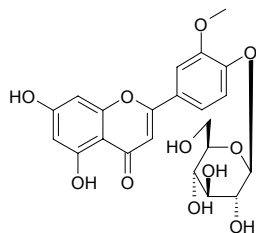
**3607 Chrysoeriol 7-O-(3'',6''-Di-O-E-p-coumaroyl)- $\beta$ -D-glucopyranoside**

$C_{40}H_{34}O_{15}$  (754.71). Amorphous yellow powder,  $[\alpha]_D^{20} = -13.2^\circ$  ( $c = 0.05$ , MeOH). Source: DUAN RONG MAO OU XIA ZHI CAO *Marrubium velutinum* (aerial parts). Ref: 3448.



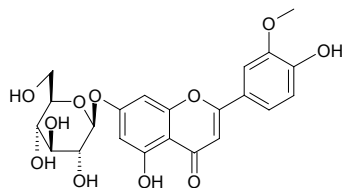
**3608 Chrysoeriol 4'-O-β-D-glucopyranoside**

$C_{22}H_{22}O_{11}$  (462.41). Source: LV DOU *Onobrychis vicifolia* (leaf). Ref: 5084.

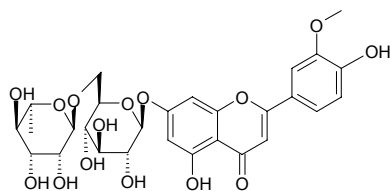
**3609 Chrysoeriol 7-O-β-D-glucopyranoside**

$C_{22}H_{22}O_{11}$  (462.41). Pharm: Aldose reductase inhibitor ( $IC_{50} = 26\mu\text{mol/L}$ , control Epalrestat,  $IC_{50} = 0.072\mu\text{mol/L}$ )<sup>[4530]</sup>; antitrypanosomal (*Trypanosoma b. rhodesiense*,  $IC_{50} = 88.7\mu\text{g/mL}$ , control Melarsoprol,  $IC_{50} = 0.00098\mu\text{g/mL}$ ; *Trypanosoma cruzi*,  $IC_{50} > 90\mu\text{g/mL}$ , control Benznidazole,  $IC_{50} = 1.06\mu\text{g/mL}$ )<sup>[5009]</sup>; antileishmanial (*Leishmania donovani*,  $IC_{50} = 4.1\mu\text{g/mL}$ , control Miltefosine,  $IC_{50} = 0.102\mu\text{g/mL}$ )<sup>[5009]</sup>; antimalarial (*Plasmodium falciparum*,  $IC_{50} = 5.9\mu\text{g/mL}$ , control Artemisinin,  $IC_{50} = 0.0022\mu\text{g/mL}$ )<sup>[5009]</sup>; cytotoxic (L6,  $IC_{50} > 90\mu\text{g/mL}$ , control Podophyllotoxin,  $IC_{50} = 0.008\mu\text{g/mL}$ )<sup>[5009]</sup>.

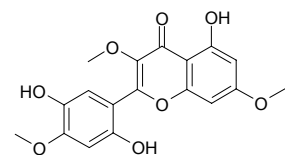
Source: SHUI MU XUE LIAN HUA *Saussurea medusa* (whole herb), ZONG KUI CAO SU *Phlomis brunneogaleata*. Ref: 4530, 5009.

**3610 Chrysoeriol 7-O-rutinoside**

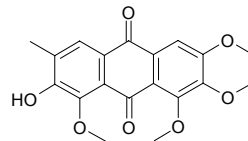
$C_{28}H_{32}O_{15}$  (608.56). Pharm: Aldose reductase inhibitor ( $IC_{50} = 14\mu\text{mol/L}$ ; control Epalrestat,  $IC_{50} = 0.072\mu\text{mol/L}$ ). Source: SHUI MU XUE LIAN HUA *Saussurea medusa* (whole herb). Ref: 4530.

**3611 Chrysograyanin**

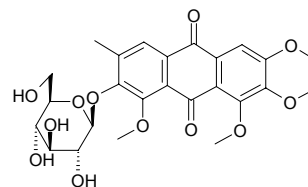
Oxyayanin A  $C_{18}H_{16}O_8$  (360.32). mp 245–247°C. Pharm: Allergenic. Source: JIN QIAN KU YE CAO *Chrysosplenium grayanum*, NI RI LI YA LIANG RUI SU MU *Distemonanthus benthamianus*. Ref: 6, 658.

**3612 Chrysoobtusin**

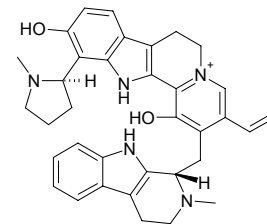
2-Hydroxy-1,6,7,8-tetramethoxy-3-methyl-9,10-anthracenedione [70588-06-6]  $C_{19}H_{18}O_7$  (358.37). Source: JUE MING ZI *Cassia tora*. Ref: 725.

**3613 Chrysoobtusin glucoside**

$C_{25}H_{28}O_{12}$  (520.49). Pharm: Platelet aggregation inhibitor (rat). Source: JUE MING ZI *Cassia tora*, DUN YE JUE MING *Cassia obtusifolia*. Ref: 658.

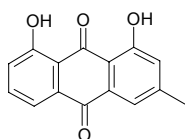
**3614 Chrysopentamine**

$C_{35}H_{38}N_5O_2$  (560.73). Orange amorphous powder. Pharm: Antiplasmodial (chloroquine-sensitive line,  $IC_{50} = (579\pm 376)\text{nmol/L}$ ,  $IC_{90} = 1918\text{nmol/L}$ , control Quinine,  $IC_{50} = (269\pm 6)\text{nmol/L}$ ,  $IC_{90} = 1910\text{nmol/L}$ ; chloroquine-resistant line,  $IC_{50} = (550\pm 149)\text{nmol/L}$ ,  $IC_{90} = 1980\text{nmol/L}$ , Quinine,  $IC_{50} = (200\pm 33)\text{nmol/L}$ ,  $IC_{90} = 2740\text{nmol/L}$ ; moderately chloroquine-resistant line,  $IC_{50} = (507\pm 227)\text{nmol/L}$ ,  $IC_{90} = 1774\text{nmol/L}$ , Quinine,  $IC_{50} = (413\pm 11)\text{nmol/L}$ ,  $IC_{90} = 1720\text{nmol/L}$ )<sup>[4925]</sup>. Source: DONG FEI MA QIAN *Strychnos usambarensis* (leaf). Ref: 4925.

**3615 Chrysophanol**

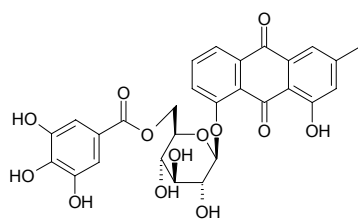
3-Methylchrysazin [481-74-3]  $C_{15}H_{10}O_4$  (254.24). Hexagon or oblique crystals (ethanol or benzene), mp 196°C (sub); orange lamellar crystals, mp 198°C. Pharm: Antibacterial ( $\alpha$ -Streptococcus, *Diplococcus pneumoniae*, *Bacillus influenzae*, *Coccus catarrhalis*); antitussive; coagulant (oral or subcutaneous, cuts clotting time); diuretic (rat); paralyzes muscle; promotes intestinal motion; stimulates nerve; cytotoxic (K562 cells,  $IC_{50} = 52.50\mu\text{g/mL}$ )<sup>[4600]</sup>; cytotoxic inactive (MCF, HM02, HEPG2)<sup>[5232]</sup>; cytotoxic inactive (*in vitro*, HeLa, Vero, K562, Raji, Wish, and Calu1 tumor cell lines,  $IC_{50} > 100\mu\text{mol/L}$ )<sup>[3057]</sup>; antioxidant inactive (DPPH radical scavenger,  $IC_{50} > 100\mu\text{g/mL}$ ; control Ascorbic acid,  $IC_{50} = 3.9\mu\text{g/mL}$ )<sup>[4711]</sup>; antioxidant inactive (DPPH radical scavenger assay)<sup>[5232]</sup>. Source: BEI HUANG HUA CAI *Hemerocallis*

*lilio-asphodelus* (root: content = 0.0031%)<sup>[5508]</sup>, BO XI SHU LI *Rhamnus purshiana*, CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*], DA HUANG *Rheum officinale*, DUN YE JUE MING *Cassia obtusifolia* (ripe seed: mean content = 0.0036%)<sup>[5508]</sup>, FAN XIE YE *Cassia angustifolia*, HE SHOU WU *Polygonum multiflorum*, HU ZHANG *Polygonum cuspidatum*, HUANG HUA CAI *Hemerocallis citrina* (root: content = 0.0035%)<sup>[5508]</sup>, JIAN YE FAN XIE YE *Cassia acutifolia*, JUE MING ZI *Cassia tora* (ripe seed: content = 0.0129%<sup>[5501]</sup>; = 0.0033%<sup>[5508]</sup>), LU HUI *Aloe vera* [Syn. *Aloe barbadensis*], MI MAI E ZHANG CHAI *Schefflera venulosa* (stem cortex), NI BO ER YANG TI *Rumex nepalensis*, NIU SHE CAO *Rumex dentatus* (root: mean content = 0.0945%<sup>[5508]</sup>), NIU XI *Achyranthes bidentata*, NIU XI XI *Rumex patientia* (root: mean content = 0.1543%<sup>[5508]</sup>), PO LUO MEN ZAO JIA *Cassia fistula* (seed: yield = 0.00086%)<sup>[4642]</sup>, SHAN BIAN DOU ZI *Cassia mimosoides*, SHU LI *Rhamnus davurica*, SUAN MO *Rumex acetosa* (root: mean content = 0.1187%<sup>[5508]</sup>), TANG GU TE DA HUANG *Rheum tanguticum*, TIAN SHAN DA HUANG *Rheum wittrockii*, TIE DAO MU *Cassia siamea*, WANG JIANG NAN *Cassia occidentalis*, XUAN CAO GEN *Hemerocallis fulva* (root: content = 0.00044%)<sup>[5508]</sup>, YANG TI *Rumex japonicus* (root: mean content = 0.1565%<sup>[5508]</sup>), YI HE GUO *Ventilago leiocarpa* (stem)<sup>[3057]</sup>, YOU MU *Tectona grandis*, ZANG BIAN DA HUANG *Rheum emodi* [Syn. *Rheum australe*] (root: yield = 0.25%dw)<sup>[4711]</sup>, ZHANG YE DA HUANG *Rheum palmatum*, occurs in many plants (very widely distributed: including *Cassia* spp., *Rumex* spp., *Rheum* spp., *Asphodelus* spp. and *Muehlenbeckia* spp.). **Ref:** 2, 4, 555, 582, 608, 660, 661, 3057, 4600, 4642, 4711, 5232, 5501, 5508.



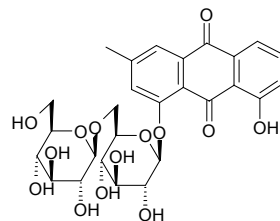
### 3616 Chrysophanol-8-O-β-D-(6'-O-galloyl)-glucopyranoside

C<sub>28</sub>H<sub>24</sub>O<sub>13</sub> (568.50). Aurantium acicular crystals (acetone) mp 213~216°C. **Source:** HE TAO DA HUANG *Rheum hotaoense*. **Ref:** 783.



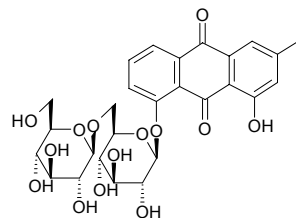
### 3617 Chrysophanol-1-β-gentiobioside

C<sub>27</sub>H<sub>30</sub>O<sub>14</sub> (578.53). **Source:** JUE MING ZI *Cassia tora*. **Ref:** 2.



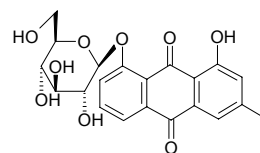
### 3618 Chrysophanol-8-O-gentiobioside

C<sub>27</sub>H<sub>30</sub>O<sub>14</sub> (578.53). **Source:** ZANG BIAN DA HUANG *Rheum emodi* [Syn. *Rheum australe*] (root: yield = 0.067%dw). **Ref:** 4711.



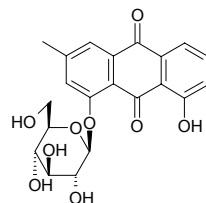
### 3619 Chrysophanol-8-O-β-D-glucopyranoside

C<sub>21</sub>H<sub>20</sub>O<sub>9</sub> (416.39). **Pharm:** Spermicidal (hmn); antioxidant inactive (DPPH radical scavenger assay)<sup>[5232]</sup>; antioxidant inactive (DPPH radical scavenger, IC<sub>50</sub> > 100µg/mL; control Ascorbic acid, IC<sub>50</sub> = 3.9µg/mL)<sup>[4711]</sup>; cytotoxic inactive (MCF, HM02, HEPG2)<sup>[5232]</sup>. **Source:** DA HUANG *Rheum officinale*, NIU XI XI *Rumex patientia*, TANG GU TE DA HUANG *Rheum tanguticum*, TIAN SHAN DA HUANG *Rheum wittrockii*, ZANG BIAN DA HUANG *Rheum emodi* [Syn. *Rheum australe*] (root: yield = 0.52%dw), ZHANG YE DA HUANG *Rheum palmatum*. **Ref:** 2, 608, 658, 660, 4711, 5232.



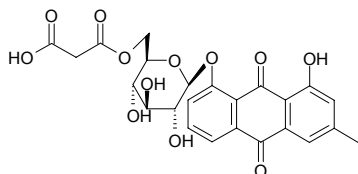
### 3620 Chrysophanol-1-O-β-D-glucoside

Chrysophanein; Chrysophanol-1-O-β-D-glucopyranoside [4839-60-5] C<sub>21</sub>H<sub>20</sub>O<sub>9</sub> (416.39). mp 245°C. **Source:** DA HUANG *Rheum officinale*, NIU ER DA HUANG *Rumex crispus*, PO LUO MEN ZAO JIA *Cassia fistula* (seed: yield = 0.0002%)<sup>[4642]</sup>, SUAN MO *Rumex acetosa*, TANG GU TE DA HUANG *Rheum tanguticum*, ZHANG YE DA HUANG *Rheum palmatum*. **Ref:** 2, 6, 660, 4642.

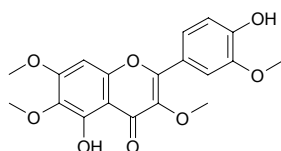


**3621 Chrysophanol 8-O-β-D-(6'-O-malonyl) glucopyranoside**

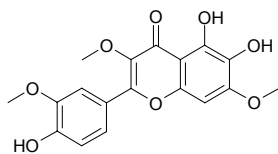
$C_{24}H_{22}O_{12}$  (502.44). Yellow powder. Source: QIN LING DA HUANG *Rheum qinlingense*. Ref: 811.

**3622 Chrysosplenetin**

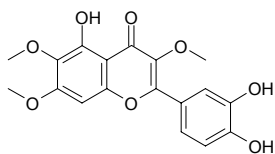
[603-56-5]  $C_{19}H_{18}O_8$  (375.35). Pharm: Antiviral. Source: MU<sup>(3)</sup> JU *Matricaria chamomilla* [Syn. *Matricaria recutita*], RI BEN JIN YAO *Chrysosplenium japonicum*, SHANG ZUO ZHOU JIN YAO *Chrysosplenium tosaense*, SA SHI MAO DI HUANG *Digitalis thapsii*. Ref: 658.

**3623 Chrysosplenol**

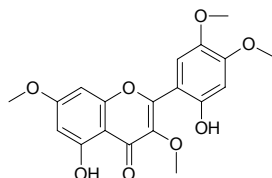
Chrysosplenol C  $C_{18}H_{16}O_8$  (360.32). Pharm: Antiviral (rhinovirus II). Source: DUI YE JIN YAO *Chrysosplenium oppositifolium*, JIN YAO *Chrysosplenium alternifolium*, MA SHI JIN YAO *Chrysosplenium maximowiczii*, *Milisia balansae* (branch and leaf: yield = 0.109%dw)<sup>[3016]</sup>. Ref: 658, 3016.

**3624 Chrysosplenol D**

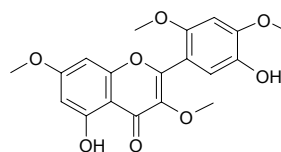
3,6,7-Trimethylquercetagenin  $C_{18}H_{16}O_8$  (360.22). Source: HUANG HUA HAO *Artemisia annua* (seed), MAN JING ZI *Vitex trifolia* (dried ripe fruit: mean content of 5 origins = 0.0147%)<sup>[5508]</sup>. Ref: 562, 3435, 5508.

**3625 Chrysosplenol E**

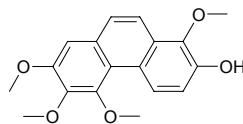
[23289-81-8]  $C_{19}H_{18}O_8$  (374.35). mp 190–192°C (dil. methanol), branched yellowish crystals (acetone–ethanol), mp 147–149°C. Pharm: Inhibits promotor of cancer (TPA, IC<sub>50</sub> = 9.0μg/mL). Source: JIN QIAN KU YE CAO *Chrysosplenium grayanum*. Ref: 900.

**3626 Chrysosplenol G**

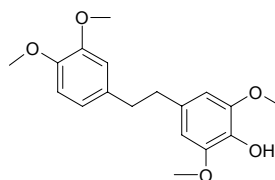
[130252-52-7]  $C_{19}H_{18}O_8$  (374.35). Yellowish rhombic crystals (methanol), mp 153–155°C. Pharm: Cytotoxic (KB, ED<sub>50</sub> = (8.61±0.43)μg/mL). Source: JIN QIAN KU YE CAO *Chrysosplenium grayanum*. Ref: 1060.

**3627 Chrysotoxene**

2-Hydroxy-1,5,6,7-tetramethoxyphenanthrene  $C_{18}H_{18}O_5$  (314.34). Colorless lamellar crystals, mp 177–178°C (petroleum spirit–chloroform). Source<sup>[5508]</sup>: BAO CHUN SHI HU *Dendrobium primulinum* (stem: content = 0.129%), BEI QIAO SHI HU *Dendrobium gratiosissimum* (stem: content = 0.013%), GU CHUI SHI HU *Dendrobium chrysotoxum* (stem: content = 0.030%), HEI MAO SHI HU *Dendrobium williamsonii* (stem: content = 0.035%), LIU SU SHI HU *Dendrobium fimbriatum* var. *oculatum* (stem: content = trace), SHU HUA SHI HU *Dendrobium chrysanthum* (stem: content = 0.020%), TIE PI SHI HU *Dendrobium officinale* (stem: content = 0.020%), XI JING SHI HU *Dendrobium moniliforme* (stem: content = trace). Ref: 318, 5508.

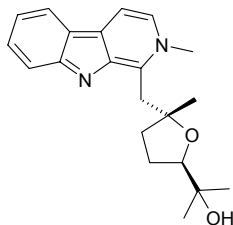
**3628 Chrysotoxin**

4-Hydroxy-3,5,3',4'-tetramethoxybibenzyl  $C_{18}H_{22}O_5$  (318.37). Colorless needle (*n*-hexane–chloroform), mp 97–98°C. Source: GU CHUI SHI HU *Dendrobium chrysotoxum*. Ref: 351.

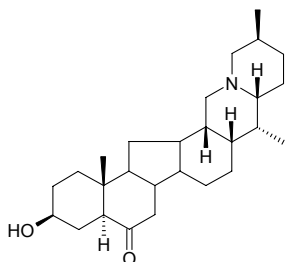


**3629 Chrysotricine**

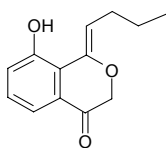
$C_{21}H_{26}N_2O_2$  (338.45). Yellow amorphous solids,  $[\alpha]_D = +10^\circ$  ( $c = 0.50$ , MeOH). Source: JIN MAO ER CAO *Hedyotis chrysotricha* [Syn. *Oldenlandia chrysotricha*], XIAO TOU LIANG HOU CHA *Hedyotis capitellata*. Ref: 1521, 2424.

**3630 Chuanbeinone**

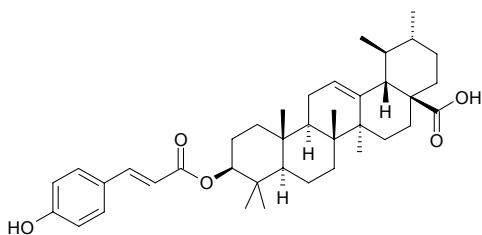
[103530-47-8]  $C_{27}H_{43}NO_2$  (413.65). Source: LENG SHA BEI MU *Fritillaria delavayi*, NING XIA BEI MU *Fritillaria taipaiensis* var. *ningxiaensis*, GAN SU BEI MU *Fritillaria przewalskii*. Ref: 2, 271, 660.

**3631 Chuanxiongol**

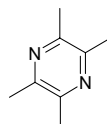
$C_{13}H_{14}O_3$  (218.25). Source: CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*]. Ref: 2.

**3632 Chuanxiongterpene**

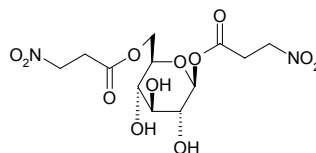
$C_{39}H_{54}O_5$  (602.86). Source: CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*]. Ref: 2251.

**3633 Chuanxiongzine**

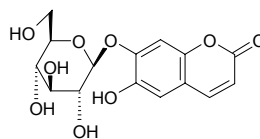
2,3,5,6-Tetramethylpyrazine [1124-11-4]  $C_8H_{12}N_2$  (136.20). Pharm: Antibacterial (gram-positive bacteria); antispasmodic (rbt aorta *in vitro*); ganglionic blocker; improves acute myocardial ischemia (rbt); coronary vasodilator; increases coronary flow (dog); platelet aggregation inhibitor (induced by ADP, collagen and thrombase); antihypertensive; increases tolerance to anoxia (mus); cardioprotective agent (isolated rat hearts, protective effects on ischemia reperfusion and DPPH-induced myocardial injury; related with reduction of TNF- $\alpha$  content by inhibition of free radical production)<sup>[5017]</sup>; LD<sub>50</sub> (mus, iv) = 239mg/kg. Source: CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*] (rhizome: content = 6.24%<sup>[5501]</sup>; = 0.0168%<sup>[5508]</sup>), MA HUANG *Ephedra sinica* (herbaceous twigs: content = 0.0624%<sup>[5508]</sup>), MU ZEI MA HUANG *Ephedra equisetina* (herbaceous twigs: content = 0.0172%<sup>[5508]</sup>), YU JIN *Curcuma aromatica*. Ref: 2, 4, 658, 660, 5017, 5501, 5508.

**3634 Cibarian**

[39797-90-5]  $C_{12}H_{18}N_2O_{12}$  (382.28). Pharm: Toxin. Source: DUAN CHI HUANG QI *Astragalus canadensis* var. *brevidens*, JIA NA DA HUANG QI *Astragalus canadensis* var. *mortonii*, LIAN XING HUANG QI *Astragalus falcatus*, SHI YONG HUANG QI *Astragalus cibarius*, WAN YAN HUANG QI *Astragalus flexuosus*. Ref: 658.

**3635 Cichoriin**

[531-58-8]  $C_{15}H_{16}O_9$  (340.29). mp 215~220°C. Pharm: Insect antifeedant (grasshopper). Source: JU QU *Cichorium intybus*, *Artemisia* sp., *Centaurea* sp., *Launaea* sp., *Sonchus* sp. Ref: 6, 658.

**3636 Cicutol**

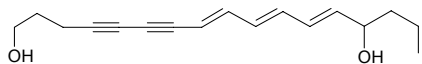
$C_{17}H_{22}O$  (242.36). mp 66°C. Source: DU QIN GEN *Cicuta virosa*. Ref: 6.



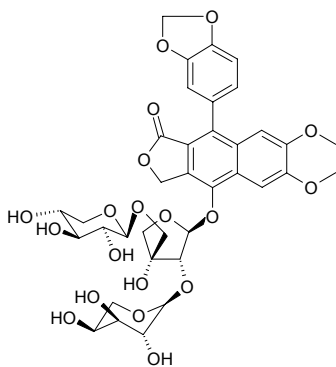


**3637 Cicutoxin**

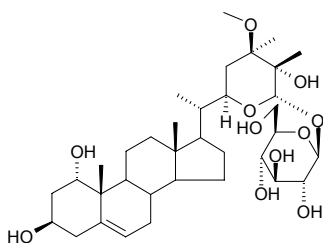
[505-75-9]  $C_{17}H_{22}O_2$  (258.37). mp 54°C. **Pharm:** Antineoplastic (leukemia); eclamptogenic (increases blood pressure, accelerating breathing and leading ultimately to death at high dose); CNS depressant (at low dose, sedative, antihypertensive, and slightly increases urine quantity); LD<sub>50</sub> (cat, iv) = 48.3mg/kg. **Source:** DU QIN GEN *Cicuta virosa*. **Ref:** 6, 658.

**3638 Ciliatoside A**

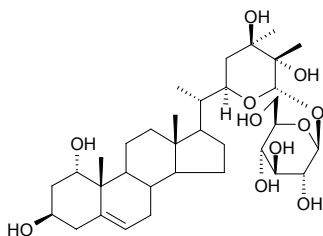
$C_{36}H_{40}O_{19}$  (776.71). **Source:** JUE CHUANG *Rostellularia procumbens* [Syn. *Justicia procumbens*] (whole herb: yield = 0.0001%dw). **Ref:** 4612.

**3639 Cilistol I**

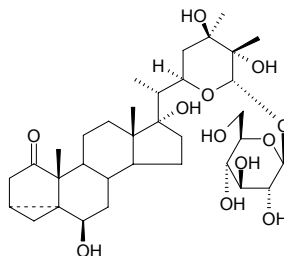
(22*R*,24*R*,25*R*,26*S*)-22,26-Epoxy-24-*O*-methyl-1*α*,3*β*,24,25,26-pentahydroxyergost-5-ene 26-*O*-*β*-*D*-glucopyranoside  $C_{35}H_{58}O_{11}$  (654.85). Amorphous powder,  $[\alpha]_D^{23} = -56.5^\circ$  ( $c = 0.46$ , MeOH). **Source:** DING QIE *Solanum aculeatissimum* (leaf). **Ref:** 3509.

**3640 Cilistol J**

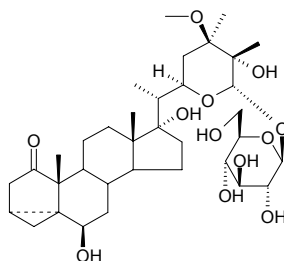
$C_{34}H_{56}O_{11}$  (640.82). Amorphous powder,  $[\alpha]_D^{23} = -63.7^\circ$  ( $c = 0.19$ , MeOH). **Source:** DING QIE *Solanum aculeatissimum* (leaf). **Ref:** 3509.

**3641 Cilistol p**

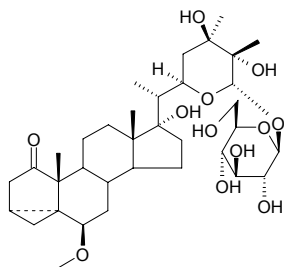
(22*R*,24*R*,25*R*,26*S*)-1-Oxo-22,26-epoxy-3*α*,5*α*-cycloergostane-6*β*,17*α*,24,25,26-pentaol 26-*O*-*β*-*D*-glucopyranoside  $C_{34}H_{54}O_{12}$  (654.80). Amorphous powder,  $[\alpha]_D^{23} = -77.8^\circ$  ( $c = 0.23$ , MeOH). **Source:** DING QIE *Solanum aculeatissimum* (leaf). **Ref:** 4138.

**3642 Cilistol pl**

(22*R*,24*R*,25*R*,26*S*)-1-Oxo-22,26-epoxy-3*α*,5*α*-cycloergostane-6*β*,17*α*,24,25,26-pentaol 26-*O*-*β*-*D*-glucopyranoside 24-*O*-methyl ether  $C_{35}H_{56}O_{12}$  (668.83). Amorphous powder,  $[\alpha]_D^{23} = -125.0^\circ$  ( $c = 0.26$ , MeOH). **Source:** DING QIE *Solanum aculeatissimum* (leaf). **Ref:** 4138.

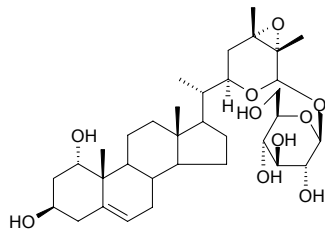
**3643 Cilistol pm**

(22*R*,24*R*,25*R*,26*S*)-1-Oxo-22,26-epoxy-3*α*,5*α*-cycloergostane-6*β*,17*α*,24,25,26-pentaol 26-*O*-*β*-*D*-glucopyranoside 6-*O*-methyl ether  $C_{35}H_{56}O_{12}$  (668.83). Amorphous powder,  $[\alpha]_D^{23} = -65.2^\circ$  ( $c = 0.36$ , MeOH). **Source:** DING QIE *Solanum aculeatissimum* (leaf). **Ref:** 4138.

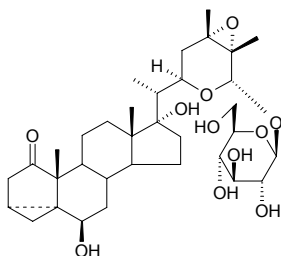


**3644 Cilistol T**

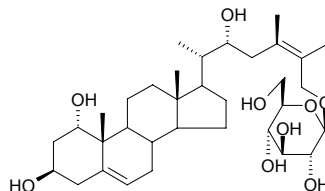
(22*R*,24*S*,25*R*,26*S*)-24,25,22,26-diepoxy-1 $\alpha$ ,3 $\delta$ ,26-trihydroxyergost-5-ene 26-*O*- $\beta$ -*D*-glucopyranoside C<sub>34</sub>H<sub>54</sub>O<sub>10</sub> (622.80). Amorphous powder,  $[\alpha]_D^{23} = -54.4^\circ$  ( $c = 0.62$ , MeOH). Source: DING QIE *Solanum aculeatissimum* (leaf). Ref: 3509.

**3645 Cilistol U**

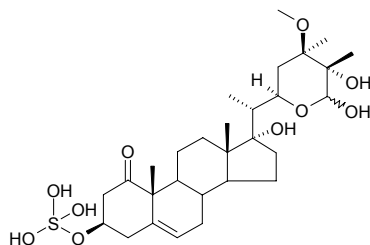
C<sub>34</sub>H<sub>52</sub>O<sub>11</sub> (636.79). Amorphous powder,  $[\alpha]_D^{23} = -102.0^\circ$  ( $c = 0.15$ , MeOH). Source: DING QIE *Solanum aculeatissimum* (leaf). Ref: 4138.

**3646 Cilistol V**

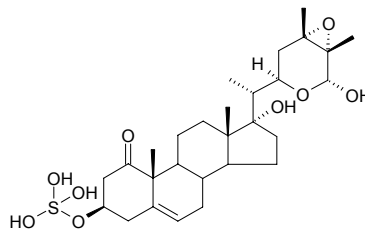
(22*R*,24*Z*)-1 $\alpha$ ,3 $\beta$ ,22,26-tetrahydroxyergost-5,24-diene 26-*O*- $\beta$ -*D*-glucopyranoside. C<sub>34</sub>H<sub>56</sub>O<sub>9</sub> (608.82). Amorphous powder,  $[\alpha]_D^{23} = -23.4^\circ$  ( $c = 0.23$ , MeOH). Source: DING QIE *Solanum aculeatissimum* (leaf). Ref: 3509.

**3647 Cilistol W**

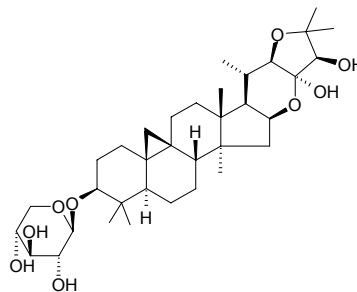
(22*R*,24*R*,25*R*,26 $\Phi$ )-1-oxo-22,26-epoxy-24-*O*-methyl-3 $\beta$ ,17 $\alpha$ ,24,25,26-penta-hydroxyergost-5-ene 3-*O*-sulfate C<sub>29</sub>H<sub>48</sub>O<sub>10</sub>S (588.76). Amorphous powder,  $[\alpha]_D^{23} = +12.6^\circ$  ( $c = 0.71$ , MeOH). Source: DING QIE *Solanum aculeatissimum* (leaf). Ref: 3509.

**3648 Cilistol Y**

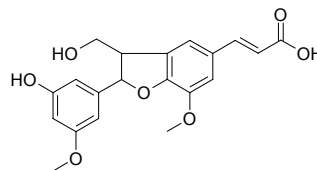
(22*R*,24*S*,25*R*,26*R*)-1-Oxo-22,26;24,25-diepoxy-3 $\beta$ ,17 $\alpha$ ,26-trihydroxyergost-5-ene 3-*O*-sulfate C<sub>28</sub>H<sub>44</sub>O<sub>9</sub>S (556.72). Amorphous powder,  $[\alpha]_D^{23} = +8.6^\circ$  ( $c = 0.21$ , MeOH). Source: DING QIE *Solanum aculeatissimum* (leaf). Ref: 3509.

**3649 Cimiaceroside B**

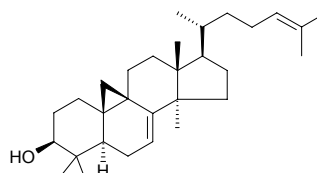
[210643-84-8] C<sub>35</sub>H<sub>56</sub>O<sub>9</sub> (620.83). White amorphous powder, mp 239~241°C (MeOH). Pharm: Immunosuppressant (mouse allogeneic mixed lymphocyte reaction, suppresses the proliferation of lymphocytes, IC<sub>50</sub> = 103 μmol/L)<sup>[4330]</sup>. Source: HUANG SAN QI *Souliea vaginata* (Rhizome), SAN MIAN DAO *Cimicifuga acerina*, YE SHENG MA *Cimicifuga simplex*, *Cimicifuga* sp. (rhizome). Ref: 1521, 4291, 4330.

**3650 Cimicifugic acid**

C<sub>20</sub>H<sub>20</sub>O<sub>7</sub> (372.38). White crystals, mp 233~235°C,  $[\alpha]_D^{20} = +5.19^\circ$  ( $c = 0.48$ , MeOH). Source: SHENG MA *Cimicifuga foetida*. Ref: 2232.

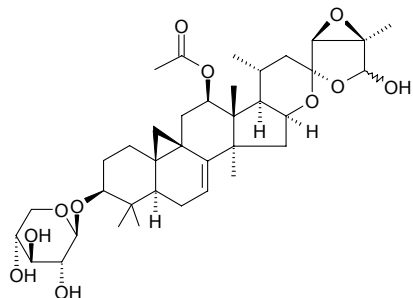
**3651 Cimicifugenol**

[28282-48-6] C<sub>30</sub>H<sub>48</sub>O (424.72). mp 112~113°C. Source: SAN MIAN DAO *Cimicifuga acerina*, YE SHENG MA *Cimicifuga simplex*. Ref: 6.

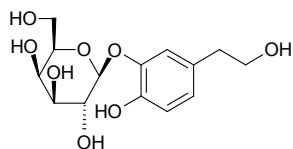


**3652 Cimicifugoside**

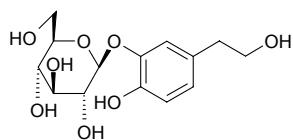
[66176-93-0] C<sub>37</sub>H<sub>54</sub>O<sub>11</sub> (674.84). mp 237~238°C. **Pharm:** Selectively inhibits nucleoside transport across cellular chorion (mammal). **Source:** FANG FENG *Saposhnikovia divaricata* [Syn. *Ledebouriella seseloides*] (dried root: mean content of 15 origins = 0.277%)<sup>[5508]</sup>, XING AN SHENG MA *Cimicifuga dahurica*, YE SHENG MA *Cimicifuga simplex*, *Cimicifuga* sp. **Ref:** 6, 658, 660, 5508.

**3653 Cimidahurine**

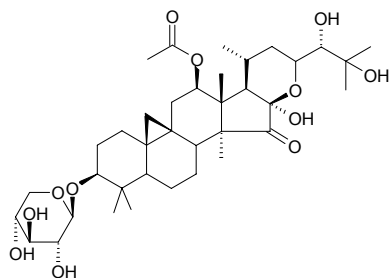
3,4-Dihydroxy- $\beta$ -phenethanol-3-*O*- $\beta$ -D-galactopyranoside C<sub>14</sub>H<sub>20</sub>O<sub>8</sub> (316.31). White amorphous powder, mp 78~80°C,  $[\alpha]_D^{17} = -51.2^\circ$  ( $c = 0.15$ , methanol). **Source:** XING AN SHENG MA *Cimicifuga dahurica*. **Ref:** 294.

**3654 Cimidahurinine**

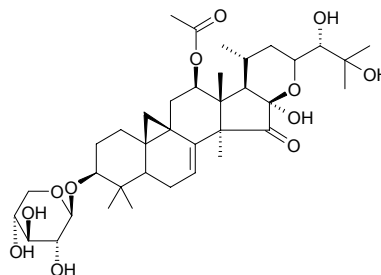
3,4-Dihydroxy- $\beta$ -phenethanol-3-*O*- $\beta$ -D-glucopyranoside C<sub>14</sub>H<sub>20</sub>O<sub>8</sub> (316.31). White amorphous powder, mp 86~90°C,  $[\alpha]_D^{17} = -45.6^\circ$  ( $c = 0.07$ , methanol). **Source:** XING AN SHENG MA *Cimicifuga dahurica*. **Ref:** 294.

**3655 Cimidahuside C**

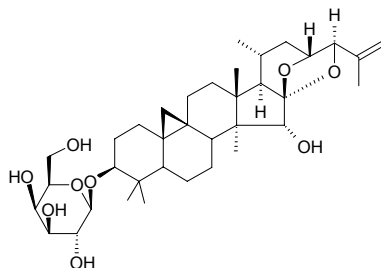
C<sub>37</sub>H<sub>58</sub>O<sub>12</sub> (694.87). White amorphous powder, mp 172~173°C,  $[\alpha]_D^{20} = -48.0^\circ$  ( $c = 0.25$ , CHCl<sub>3</sub>/MeOH). **Source:** XING AN SHENG MA *Cimicifuga dahurica*. **Ref:** 2476.

**3656 Cimidahuside D**

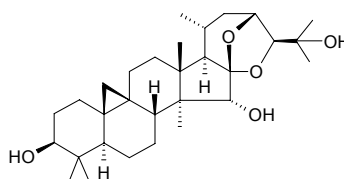
C<sub>37</sub>H<sub>56</sub>O<sub>12</sub> (692.85). White amorphous powder, mp 160~162°C,  $[\alpha]_D^{20} = -56.3^\circ$  ( $c = 0.36$ , CHCl<sub>3</sub>-MeOH). **Source:** XING AN SHENG MA *Cimicifuga dahurica*. **Ref:** 2476.

**3657 Cimifoetiside III**

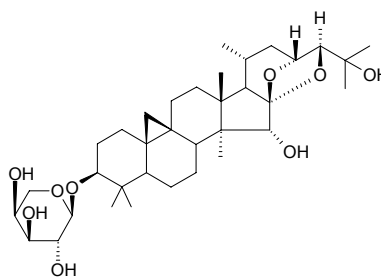
C<sub>36</sub>H<sub>56</sub>O<sub>9</sub> (632.84). White powder, mp 174~176°C,  $[\alpha]_D^{20} = -57.2^\circ$  ( $c = 0.21$ , CHCl<sub>3</sub>). **Source:** SHENG MA *Cimicifuga foetida*. **Ref:** 2429.

**3658 Cimigenol**

[3779-59-7] C<sub>30</sub>H<sub>48</sub>O<sub>5</sub> (488.71). **Source:** SHENG MA *Cimicifuga foetida*, YE SHENG MA *Cimicifuga simplex*, XING AN SHENG MA *Cimicifuga dahurica*, ZONG ZHUANG SHENG MA *Cimicifuga racemosa*. **Ref:** 2215, 4140.

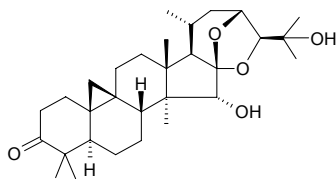
**3659 Cimigenol 3-*O*- $\alpha$ -L-arabinopyranoside**

C<sub>35</sub>H<sub>56</sub>O<sub>9</sub> (620.83). **Pharm:** Cytotoxic (HSC-2 cells, IC<sub>50</sub> > 400 $\mu$ mol/L, control Etoposide, IC<sub>50</sub> = 24 $\mu$ mol/L; HGF cells, IC<sub>50</sub> > 400 $\mu$ mol/L). **Source:** ZONG ZHUANG SHENG MA *Cimicifuga racemosa* (rhizome). **Ref:** 4158.

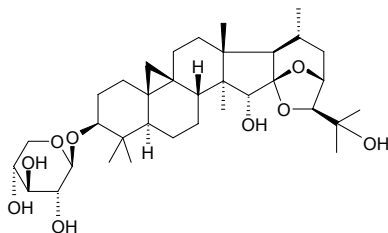


**3660 Cimigenol-3-one**

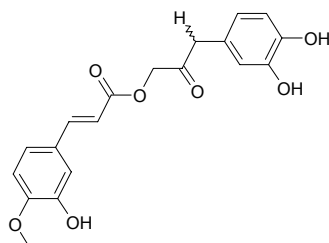
$C_{30}H_{46}O_5$  (486.70). Source: RI BEN SHENG MA *Cimicifuga japonica*. Ref: 2215.

**3661 Cimigenoside**

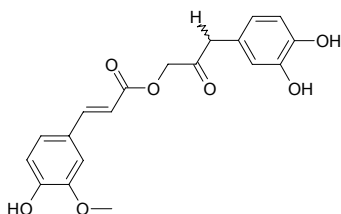
[27994-11-2]  $C_{35}H_{56}O_9$  (620.83). mp 261–264°C. Source: YE SHENG MA *Cimicifuga simplex*. Ref: 6.

**3662 Cimiracemate A**

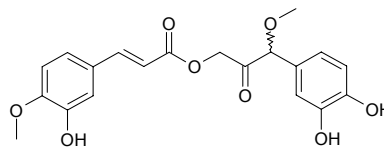
$C_{19}H_{18}O_7$  (358.35). Light brown powder, mp 94–96°C. Source: YE SHENG MA *Cimicifuga simplex*. Ref: 1924.

**3663 Cimiracemate B**

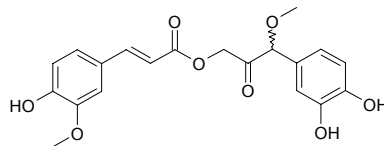
$C_{19}H_{18}O_7$  (358.35). Light brown powder, mp 86.0–88.5°C. Source: YE SHENG MA *Cimicifuga simplex*. Ref: 1924.

**3664 Cimiracemate C**

$C_{20}H_{20}O_8$  (388.38). Light brown powder, mp 88–90°C,  $[\alpha]_D^{20} = -6.82^\circ$  ( $c = 0.147$ , MeOH). Source: YE SHENG MA *Cimicifuga simplex*. Ref: 1924.

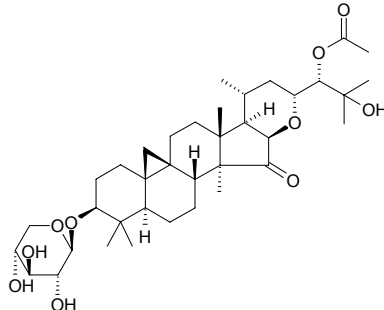
**3665 Cimiracemate D**

$C_{20}H_{20}O_8$  (388.38). Light brown powder, mp 100–102°C,  $[\alpha]_D^{20} = -6.25^\circ$  ( $c = 0.147$ , MeOH). Source: YE SHENG MA *Cimicifuga simplex*. Ref: 1924.

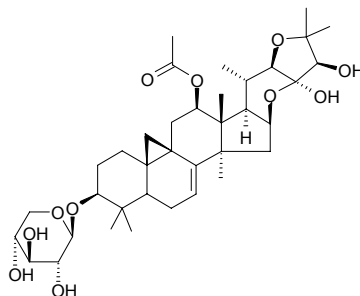
**3666 Cimiracemoside E**

24-*O*-Acetylisdahurinol-3-*O*-β-*D*-xylopyranoside  $C_{37}H_{58}O_{10}$  (622.87).

Colorless needle, mp 223–224°C (MeOH). Source: HUANG SAN QI *Souliea vaginata* (Rhizome), ZONG ZHUANG SHENG MA *Cimicifuga racemosa*. Ref: 1521, 4291.

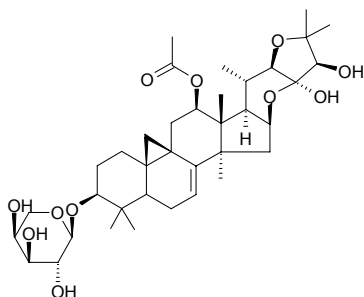
**3667 Cimiracemoside F**

$C_{37}H_{56}O_{11}$  (676.85). Pharm: Cytotoxic (HSC-2 cells,  $IC_{50} = 80\mu\text{mol/L}$ , control Etoposide,  $IC_{50} = 24\mu\text{mol/L}$ ; HGF cells,  $IC_{50} = 275\mu\text{mol/L}$ ). Source: ZONG ZHUANG SHENG MA *Cimicifuga racemosa* (rhizome). Ref: 4158.

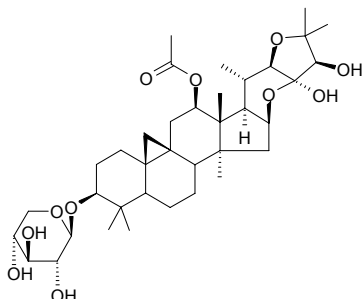


**3668 Cimracemoside G**

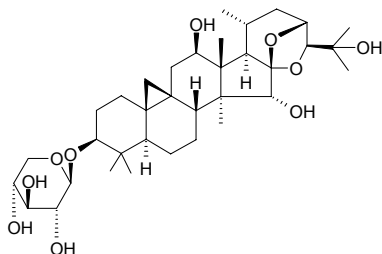
$C_{37}H_{56}O_{11}$  (676.85). **Pharm:** Cytotoxic (HSC-2 cells,  $IC_{50} = 18\mu\text{mol/L}$ , control Etoposide,  $IC_{50} = 24\mu\text{mol/L}$ ; HGF cells,  $IC_{50} = 280\mu\text{mol/L}$ ). **Source:** ZONG ZHUANG SHENG MA *Cimicifuga racemosa* (rhizome). **Ref:** 4158.

**3669 Cimracemoside H**

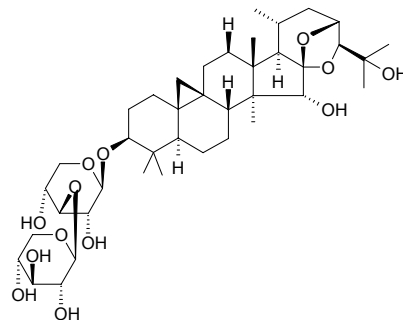
$C_{37}H_{58}O_{11}$  (678.87). **Pharm:** Cytotoxic (HSC-2 cells,  $IC_{50} = 171\mu\text{mol/L}$ , control Etoposide,  $IC_{50} = 24\mu\text{mol/L}$ ; HGF cells,  $IC_{50} = 294\mu\text{mol/L}$ ). **Source:** ZONG ZHUANG SHENG MA *Cimicifuga racemosa* (rhizome). **Ref:** 4158.

**3670 Cimside A**

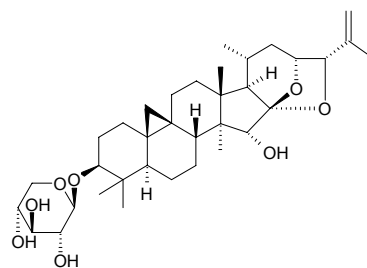
$C_{35}H_{56}O_{10}$  (636.83). Colorless acicular crystals, mp 262–264°C,  $[\alpha]_D^{15} = -36.8^\circ$  ( $c = 0.063$ ,  $\text{CHCl}_3:\text{CH}_3\text{OH} = 1:1$ ). **Source:** XING AN SHENG MA *Cimicifuga dahurica*. **Ref:** 282.

**3671 Cimside B**

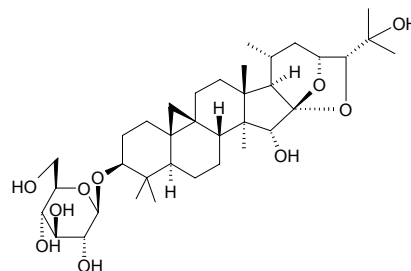
$C_{40}H_{64}O_{13}$  (752.95). White amorphous powder,  $[\alpha]_D^{15} = -15.3^\circ$  ( $c = 0.072$ ,  $\text{CHCl}_3:\text{CH}_3\text{OH} = 1:1$ ). **Source:** XING AN SHENG MA *Cimicifuga dahurica*. **Ref:** 282.

**3672 Cimside E**

25-Anhydrocimicigenol-3-O-β-D-xylopyranoside-(23R,24S) [154822-57-8]  $C_{35}H_{54}O_8$  (602.82). Colorless acicular crystals, mp > 300°C,  $[\alpha]_D^{19} = +31.4^\circ$  ( $c = 0.058$ , chloroform:methanol = 1:1). **Source:** XING AN SHENG MA *Cimicifuga dahurica*. **Ref:** 304, 660.

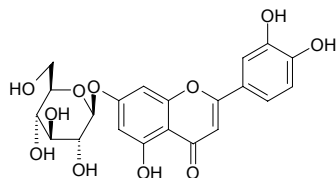
**3673 Cimside F**

$C_{36}H_{58}O_{10}$  (650.86). White powder, mp 107–110°C,  $[\alpha]_D^{29} = 0^\circ$  ( $c = 0.075$ , methanol). **Source:** XING AN SHENG MA *Cimicifuga dahurica*. **Ref:** 320, 660.

**3674 Cinaroside**

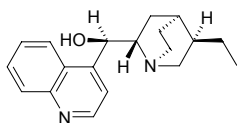
Luteolin-7-O-glucoside; Cymaroside [5373-11-5]  $C_{21}H_{20}O_{11}$  (448.39). Yellow granular crystals, mp 255–260°C;  $[\alpha]_D^{20} = -48^\circ$  ( $c = 0.15$ , EtOH). **Pharm:** Aldose reductase inhibitor ( $IC_{50} = 0.99\mu\text{mol/L}$ , control Epalrestat,  $IC_{50} = 0.072\mu\text{mol/L}$ )<sup>[4214, 4530]</sup>; phagostimulant (*Chrysomela vigintipunctata*); antitrypanosomal (*Trypanosoma brucei rhodesiense*,  $IC_{50} = 60.6\mu\text{g/mL}$ , control Melarsoprol,  $IC_{50} = 0.00098\mu\text{g/mL}$ ; *Trypanosoma cruzi*,  $IC_{50} > 90\mu\text{g/mL}$ , control Benznidazole,  $IC_{50} = 1.06\mu\text{g/mL}$ )<sup>[5009]</sup>; antileishmanial

(*Leishmania donovani*,  $IC_{50} = 1.1\mu\text{g/mL}$ , control Miltefosine,  $IC_{50} = 0.102\mu\text{g/mL}$ )<sup>[5009]</sup>, antimalarial (*Plasmodium falciparum*,  $IC_{50} = 2.4\mu\text{g/mL}$ , control Artemisinin,  $IC_{50} = 0.0022\mu\text{g/mL}$ )<sup>[5009]</sup>; cytotoxic (L6,  $IC_{50} > 90\mu\text{g/mL}$ , control Podophyllotoxin,  $IC_{50} = 0.008\mu\text{g/mL}$ )<sup>[5009]</sup>; anti-inflammatory (modulator of cytokine network: inhibits LPS-stimulated TNF- $\alpha$  and IL-6 release in RAW264.7 macrophages,  $IC_{50} = 50\mu\text{mol/L}$ )<sup>[4416]</sup>; antioxidant (DPPH scavenger, DPPH radical  $15\mu\text{mol/L}$ :  $10\mu\text{mol/L}$ , ScRt = 38.0%; control BHA,  $10\mu\text{mol/L}$ , ScRt = 23.0%; Vitamin E,  $10\mu\text{mol/L}$ , ScRt = 41.1%)<sup>[3846]</sup>. **Source:** DA CHE QIAN *Plantago major*, HU ZHANG *Polygonum cuspidatum*, HUANG HUA HAO *Artemisia annua*, JIA HUI SE JIU LI XIANG PO PO NA *Veronica thymoides* ssp. *pseudocinerea*<sup>[3846]</sup>, JING JIE *Schizonepeta tenuifolia* [Syn. *Nepeta tenuifolia*], JU HUA *Chrysanthemum morifolium* [Syn. *Dendranthema morifolium*] (dried capitulum: content scope of 20 origins = 0.009%~0.472%, mean content = 0.154%)<sup>[5508]</sup>, LV CAO *Humulus japonicus* [Syn. *Humulus scandens*], SHUI MU XUE LIAN HUA *Saussurea medusa* (whole herb), XIA KU CAO *Prunella vulgaris*, XIAN HE CAO *Agrimonia pilosa* var. *japonica*, YANG QING LAN *Dracocephalum rupestre* (whole herb: mean content = 0.33%)<sup>[5508]</sup>, YAO YONG PU GONG YING *Taraxacum officinale*, YE JU HUA *Chrysanthemum indicum*, ZHAN LONG JIAN *Veronicastrum sibiricum*, ZONG KUI CAO SU *Phlomis brunneogaleata*, *Salix* sp. **Ref:** 2, 4, 440, 475, 658, 660, 2508, 3846, 4214, 4416, 4530, 5009, 5508.



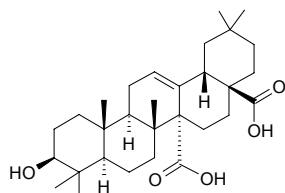
### 3675 Cinchamide

Hydrocinchonidine [485-64-3]  $C_{19}H_{24}N_2O$  (296.42). **Source:** JIN JI LE *Cinchona ledgeriana*. **Ref:** 6.



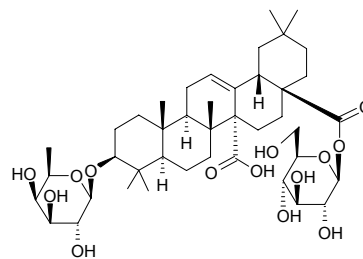
### 3676 Cincholic acid

[5948-32-3]  $C_{30}H_{46}O_5$  (486.70). mp 265~268°C (dec). **Source:** SHUI TUAN HUA *Adina pilulifera* [Syn. *Cephalanthus pilulifera*]. **Ref:** 6.



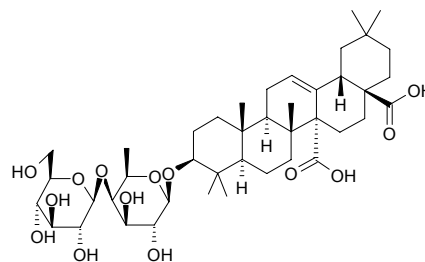
### 3677 Cincholic acid 3 $\beta$ -O- $\beta$ -D-fucopyranosyl-28-O- $\beta$ -D-glucopyranosyl ester

$C_{42}H_{66}O_{14}$  (794.99). Colorless amorphous powder,  $[\alpha]_D^{25} = +36.0^\circ$  ( $c = 1.21$ , MeOH). **Source:** BI LU GOU TENG *Uncaria tomentosa*. **Ref:** 2581.



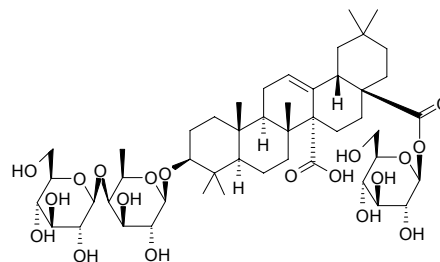
### 3678 Cincholic acid 3 $\beta$ -O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-fucopyranoside

$C_{42}H_{66}O_{14}$  (794.99). Colorless amorphous powder,  $[\alpha]_D^{25} = +31.2^\circ$  ( $c = 0.82$ , MeOH). **Source:** BI LU GOU TENG *Uncaria tomentosa*. **Ref:** 2581.



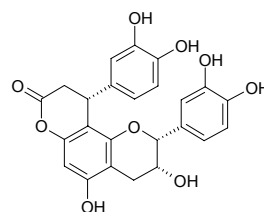
### 3679 Cincholic acid 3 $\beta$ -O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-fucopyranosyl-28-O- $\beta$ -D-glucopyranosyl ester

$C_{48}H_{76}O_{19}$  (957.13). Colorless amorphous powder,  $[\alpha]_D^{25} = +26.0^\circ$  ( $c = 1.11$ , MeOH). **Source:** BI LU GOU TENG *Uncaria tomentosa*. **Ref:** 2581.



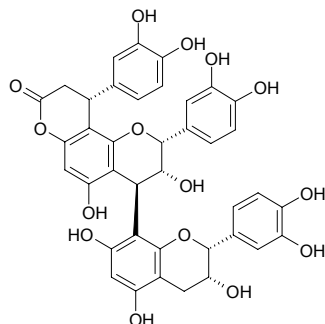
### 3680 Cinchonain Ia

$C_{24}H_{20}O_9$  (452.42). **Pharm:** Antioxidant. **Source:** BI LU GOU TENG *Uncaria tomentosa*, GOU TENG *Uncaria rhynchophylla* [Syn. *Nauclea rhynchophylla*]. **Ref:** 5341.

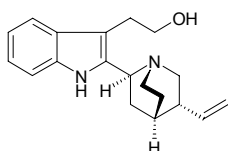


**3681 Cinchonain Ib**

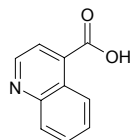
$C_{39}H_{32}O_{15}$  (740.68). Pharm: Antioxidant. Source: BI LU GOU TENG *Uncaria tomentosa*, GOU TENG *Uncaria rhynchophylla* [Syn. *Nauclea rhynchophylla*]. Ref: 5341.

**3682 Cinchonamine**

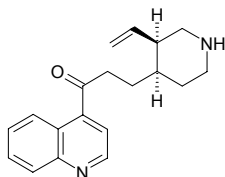
[482-28-0]  $C_{19}H_{24}N_2O$  (296.42). mp 186°C. Source: JIN JI LE *Cinchona ledgeriana*. Ref: 6.

**3683 Cinchonic acid**

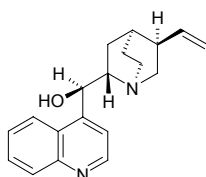
[486-74-8]  $C_{10}H_7NO_2$  (173.17). mp 253–254°C. Source: SHE XIANG CAO *Thymus vulgaris*. Ref: 6.

**3684 Cinchonidine**

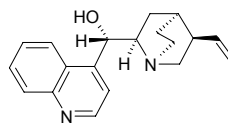
[69-24-9]  $C_{19}H_{22}N_2O$  (294.40). mp 58–60°C. Source: JIN JI LE *Cinchona ledgeriana*. Ref: 6.

**3685 Cinchonidine**

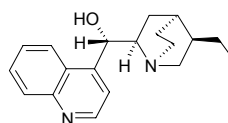
(8 $\alpha$ ,9*R*)-Cinchonan-9-ol [485-71-2]  $C_{19}H_{22}N_2O$  (294.40). mp 210.5°C. Source: JIN JI LE *Cinchona ledgeriana*. Ref: 6.

**3686 Cinchonine**

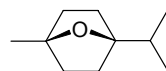
9-Cinchonan-9-ol [118-10-5]  $C_{19}H_{22}N_2O$  (294.40). Colorless acicular crystals, mp 255°C,  $[\alpha]_D^{17} = +229^\circ$  (ethanol), slightly soluble in ethanol, hot water, chloroform, ether, almost insoluble in cold water.<sup>[5507]</sup> Pharm: Antimalarial (slimicide). Source: YOU GAN LAN *Olea europaea*, OU ZHOU NV ZHEN *Ligustrum vulgare*, JIN JI LE *Cinchona ledgeriana*. Ref: 6, 658, 5507.

**3687 Cinchotine**

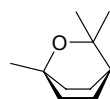
[485-65-4]  $C_{19}H_{24}N_2O$  (296.42). mp 268–269°C. Source: JIN JI LE *Cinchona ledgeriana*. Ref: 6.

**3688 1,4-Cineole**

[470-67-7]  $C_{10}H_{18}O$  (154.25). Source: HOU PO *Magnolia officinalis*, HUANG HAO *Artemisia scoparia* [Syn. *Artemisia capillaris* var. *scoparia*]. Ref: 2.

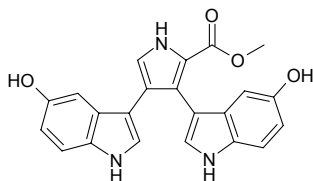
**3689 1,8-Cineole**

1,3,3-Trimethyl-2-oxabicyclo[2.2.2]octane [470-82-6]  $C_{10}H_{18}O$  (154.25). Pharm: Antibacterial (gram-positive: *Staphylococcus aureus* ATCC25923, MIC = 6.4mg/mL; *Staphylococcus epidermidis* ATCC12228, MIC = 6.4mg/mL; *Streptococcus pyogenes* ATCC19615, MIC = 3.2mg/mL; *Streptococcus mutans* ATCC25175, MIC = 6.4mg/mL; *Enterococcus faecalis* ATCC33186, MIC = 6.4mg/mL; *Enterococcus gallinarum* CDC-42, MIC = 6.4mg/mL; gram-negative: *Salmonella typhimurium* ATCC14028, MIC, 6.4mg/mL; *Escherichia coli* ATCC25922, MIC = 3.2mg/mL; *Escherichia coli* O157:H7 ATCC43894, MIC = 6.4mg/mL; *Enterobacter cloacae* ATCC23350, MIC = 6.4mg/mL; *Klebsiella pneumoniae* ATCC13883, MIC = 6.4mg/mL; *Pseudomonas aeruginosa* ATCC27853, MIC > 12.8mg/mL; *Vibrio vulnificus* ATCC29307, MIC = 3.2mg/mL; *Citrobacter freundii* ATCC8090, MIC = 6.4mg/mL)<sup>[5373]</sup>; antipyretic; anti-inflammatory; antiasthmatic; analgesic. Source: BEI YE JU *Chrysanthemum boreale*, DONG LING CAO *Rabdosia rubescens*, GAN JIANG *Zingiber officinale*, HUA JIAO *Zanthoxylum bungeanum*, HUANG HUA HAO *Artemisia annua*, LIAO XI XIN *Asarum heterotropoides* var. *mandshuricum*, MAN JING ZI *Vitex trifolia*, SHENG JIANG *Zingiber officinale*, XI XIN *Asarum sieboldii*. Ref: 2, 660, 5373, 5501.

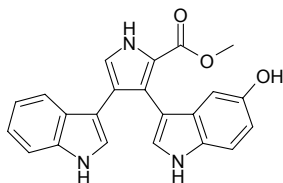


**3690 Cinereapyrrole A**

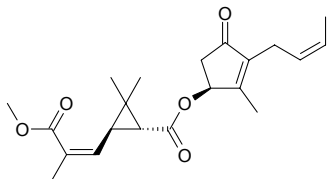
$C_{22}H_{17}N_3O_4$  (387.40). Dark brown amorphous powder. Source: HUI JIN SE TUAN WANG JUN *Arcyria cinerea* (wild sporocarp). Ref: 4465.

**3691 Cinereapyrrole B**

$C_{22}H_{17}N_3O_3$  (371.40). Dark brown amorphous powder. Source: HUI JIN SE TUAN WANG JUN *Arcyria cinerea* (wild sporocarp). Ref: 4465.

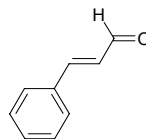
**3692 CinerinII**

[121-20-0]  $C_{21}H_{28}O_5$  (360.45). Pharm: Causes involuntary repetitive movement (hmn); damages function of liver and kidney (hmn); laxative (hmn); paralyses respiration (hmn); pesticide. Source: CHU CHONG JU *Chrysanthemum cinerariaefolium*. Ref: 658.

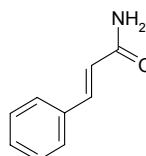
**3693 Cinnamaldehyde**

Cinnamic aldehyde [104-55-2]  $C_9H_8O$  (132.16). Yellowish oily liquid, strong Chinese cinnamon odor, mp  $-7.5^\circ\text{C}$ , bp  $246.0^\circ\text{C}/760\text{mmHg}$ ,  $76.1^\circ\text{C}/1\text{mmHg}$ . Pharm: Analgesic (mus); antineoplastic (mus tumor due to SV40 virus,  $50\mu\text{g}/\text{mL}$  iv, InRt = 100%); antifungal; antipyretic (mus); NF- $\kappa\text{B}$  inhibitor (LPS-induced NF- $\kappa\text{B}$  transcriptional activity,  $\text{IC}_{50} = 43\mu\text{mol}/\text{L}$ , positive control Caffeic acid phenethyl ester (CAPE),  $\text{IC}_{50} = 2\mu\text{mol}/\text{L}$ ; NF- $\kappa\text{B}$  is a transcription factor regulating expression of inflammatory and immune genes)<sup>[5018]</sup>;  $\text{LD}_{50}$  (mus, iv) =  $132\text{mg}/\text{kg}$ , (mus, ip) =  $610\text{mg}/\text{kg}$ , (mus, orl) =  $2225\text{mg}/\text{kg}$ . Source: GUANG HUO XIANG *Pogostemon cablin* [Syn. *Mentha cablin*], GUI PI *Cinnamomum japonicum* (bark: content = 2.19%)<sup>[5508]</sup>, GUI ZHI *Cinnamomum cassia* [Syn. *Cinnamomum aromaticum*] (twig: content scope = 0.15%–0.70%<sup>[5501]</sup>, content scope of 40 origins = 0.198%–1.17%, mean content = 0.68%<sup>[5508]</sup>), KONG SHI CHUN *Ulva pertusa*, MO YAO *Commiphora myrrha* [Syn. *Commiphora molmol*], ROU GUI *Cinnamomum cassia* [Syn. *Cinnamomum aromaticum*] (bark: content

scope = 0.9%–3.5%<sup>[5501]</sup>, content scope of 6 origins = 0.76%–3.37%, mean content = 2.56%<sup>[5508]</sup>), SAN TIAO JIN *Cinnamomum tamala*, XI LAN ROU GUI *Cinnamomum zeylanicum*, *Hyacinthus* sp., *Lavandula* sp., *Narcissus* sp. Ref: 2, 658, 660, 661, 5018, 5501, 5508.

**3694 trans-Cinnamamide**

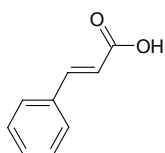
$C_9H_9NO$  (147.18). Pharm: Platelet aggregation inhibitor (rbt platelets induced by thrombin,  $100\mu\text{g}/\text{mL}$ , add thrombin 0.1u/mL, AggRt =  $(90.4\pm 0.8)\%$ , control AggRt =  $(92.6\pm 0.4)\%$ ; add AA,  $100\mu\text{mol}/\text{L}$ ,  $50\mu\text{g}/\text{mL}$ , AggRt =  $(85.8\pm 0.8)\%$ , control AggRt =  $(87.8\pm 0.3)\%$ , Aspirin  $50\mu\text{g}/\text{mL}$ , AggRt =  $(11.7\pm 10.1)\%$ ; add collagen  $10\mu\text{g}/\text{mL}$ ,  $50\mu\text{g}/\text{mL}$ , AggRt =  $(91.0\pm 0.4)\%$ , control AggRt =  $(89.3\pm 0.5)\%$ , Aspirin  $100\mu\text{g}/\text{mL}$ , AggRt =  $(81.3\pm 0.5)\%$ ; add PAF  $2\text{ng}/\text{mL}$ ,  $50\mu\text{g}/\text{mL}$ , AggRt =  $(90.1\pm 1.1)\%$ , control AggRt =  $(93.0\pm 0.6)\%$ ). Source: TAI WAN HU JIAO *Piper taiwanense* (stem). Ref: 4938.

**3695 Cinnamic acid**

3-Phenylacrylic acid [140-10-3]  $C_9H_8O_2$  (148.16). mp  $132\sim 134^\circ\text{C}$ . Pharm: Antibacterial; antifungal; antispasmodic; choleric (dog); laxative (rat); leukopoietic; dermatitic (causes contact dermatitis); neuroprotectant (primary cultures of rat cortical cells injured by glutamate,  $0.1\mu\text{mol}/\text{L}$ , cell viability =  $(28.2\pm 2.9)\%$ , control MK-801,  $0.1\mu\text{mol}/\text{L}$ , cell viability =  $(31.8\pm 7.1)\%$ , APV,  $0.1\mu\text{mol}/\text{L}$ , cell viability =  $(5.7\pm 1.9)\%$ , XNXX,  $0.1\mu\text{mol}/\text{L}$ , cell viability =  $(28.1\pm 5.6)\%$ <sup>[3967]</sup>; elastase inhibitor (hmn leukocyte *in vitro*,  $\text{IC}_{50} > 500\mu\text{g}/\text{mL}$  ( $800\mu\text{mol}/\text{L}$ ); control Caffeic acid,  $\text{IC}_{50} = 86\mu\text{g}/\text{mL} = 475\mu\text{mol}/\text{L}$ <sup>[5458]</sup>; cytotoxic inactive (MCF7,  $\text{IC}_{50} > 100\mu\text{mol}/\text{L}$ , control Adriamycin,  $\text{IC}_{50} = (1.5\pm 0.2)\mu\text{mol}/\text{L}$ ; K562,  $\text{IC}_{50} > 100\mu\text{mol}/\text{L}$ , Adriamycin,  $\text{IC}_{50} = (0.07\pm 0.01)\mu\text{mol}/\text{L}$ ; Bowes,  $\text{IC}_{50} > 100\mu\text{mol}/\text{L}$ , Adriamycin,  $\text{IC}_{50} = (0.45\pm 0.01)\mu\text{mol}/\text{L}$ ; T24S,  $\text{IC}_{50} > 100\mu\text{mol}/\text{L}$ , Adriamycin,  $\text{IC}_{50} = (5.8\pm 0.6)\mu\text{mol}/\text{L}$ ; A549,  $\text{IC}_{50} > 100\mu\text{mol}/\text{L}$ , Adriamycin,  $\text{IC}_{50} = (15.8\pm 6.7)\mu\text{mol}/\text{L}$ <sup>[5288]</sup>. Source: AN XI XIANG *Styrax benzoin* (balsam: content = 16.9%)<sup>[5508]</sup>, BEI XUAN SHEN *Scrophularia buergeriana* (root), BI LU XIANG JIAO *Myroxylon pereirae*, DA CHE QIAN *Plantago major*, GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *Huechingensis*], GOU QI GEN PI *Lycium chinense*, GOU QI ZI *Lycium chinense*, GU KE *Erythroxylum coca*, GUI PI *Cinnamomum japonicum* (bark: content = 0.037%)<sup>[5508]</sup>, GUI ZHI *Cinnamomum cassia* [Syn. *Cinnamomum*

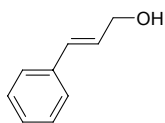


*aromaticum*] (twig: content scope of 40 origins = 0.015%–0.087%, mean content = 0.040%<sup>[5508]</sup>), HU HUANG LIAN *Picrorhiza kurrooa* (dried rhizome: content scope = 0.53%–1.13%<sup>[5508]</sup>), HUI XIANG *Foeniculum vulgare*, LIN SHENG XUAN SHEN *Scrophularia nodosa*, MU ZEI MA HUANG *Ephedra equisetina*, NAN FEI GOU MA *Harpagophytum procumbens*, QING LIANG BAI HE *Lilium candidum*, ROU GUI *Cinnamomum cassia* [Syn. *Cinnamomum aromaticum*] (bark: mean content of 3 origins = 0.024%<sup>[5508]</sup>), SAI ER WEI YA SHI CAO *Achillea alexandri-regis*, SU HE XIANG *Liquidambar orientalis* (balsam: content = 7.03%<sup>[5508]</sup>), TAI WAN GE NA XIANG *Goniothalamus amuyon* (fresh leaf: yield = 0.00010%fw)<sup>[4686]</sup>, XI ZANG HU HUANG LIAN *Picrorhiza scrophulariiflora* (dried rhizome: content scope = 0.53%–1.13%<sup>[5508]</sup>), XUAN SHEN *Scrophularia ningpoensis* (root: mean content of 22 origins = 0.032%<sup>[5508]</sup>), *Alpinia* sp., *Styrax* sp., *Populus* sp., *Globularia* sp., occurs in many plants. Ref: 2, 4, 658, 660, 2545, 3967, 4686, 5288, 5458, 5501, 5508.



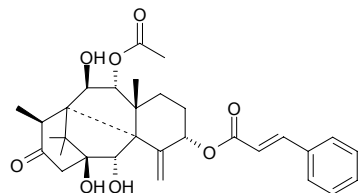
### 3696 Cinnamic alcohol

2-Phenyl-2-propen-1-ol [104-54-1] C<sub>9</sub>H<sub>10</sub>O (134.18). mp 33°C, bp 258°C. Source: GUI ZHI *Cinnamomum cassia* [Syn. *Cinnamomum aromaticum*] (twig: content scope of 40 origins = 0.0%–0.217%, mean content = 0.030%<sup>[5508]</sup>; bark: content scope of 3 origins = 0.002%–0.068%, mean content = 0.033%<sup>[5508]</sup>), LANG DU *Stellera chamaejasme*, SHUI XIAN HUA *Narcissus tazetta* var. *chinensis*. Ref: 6, 660, 5508.



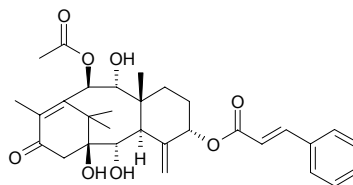
### 3697 5-Cinnamoyl-9-O-acetylphototaxicin I

C<sub>31</sub>H<sub>38</sub>O<sub>8</sub> (538.64). mp 78–80°C, [α]<sub>D</sub> = +3.2° (CH<sub>2</sub>Cl<sub>2</sub>). Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.



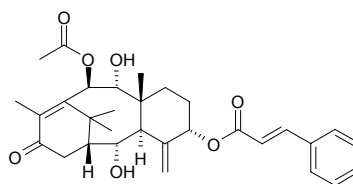
### 3698 5-Cinnamoyl-10-aceyltaxicin I

C<sub>31</sub>H<sub>38</sub>O<sub>8</sub> (538.64). mp 145°C, [α]<sub>D</sub> = +185° (CHCl<sub>3</sub>). Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.



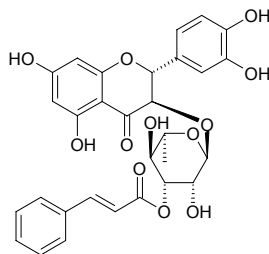
### 3699 5-Cinnamoyl-10-aceyltaxicin II

C<sub>31</sub>H<sub>38</sub>O<sub>7</sub> (522.64). mp 204–205°C, [α]<sub>D</sub> = +128° (CHCl<sub>3</sub>). Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.



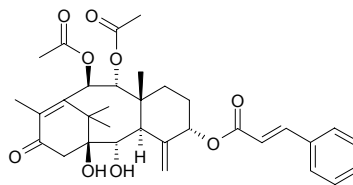
### 3700 3'-O-trans-Cinnamoyl-astilbin

C<sub>30</sub>H<sub>28</sub>O<sub>12</sub> (580.55). [α]<sub>D</sub><sup>20</sup> = +1.29° (c = 0.22, acetone). Pharm: Antimalarial (*Plasmodium falciparum* PoW, IC<sub>50</sub> = (10.4±1.3)μg/mL, control Chloroquine diphosphate, IC<sub>50</sub> = (0.006±0.002)μg/mL; Dd2, IC<sub>50</sub> = (4.2±1.3)μg/mL, Chloroquine diphosphate, IC<sub>50</sub> = (0.06±0.01)μg/mL). Source: WU CI KE YA SHU *Andira inermis* (leaf). Ref: 5208.



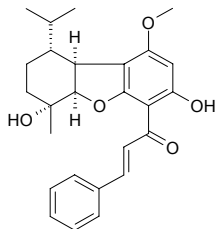
### 3701 5-Cinnamoyl-9,10-diacetyltaxicin I

C<sub>33</sub>H<sub>40</sub>O<sub>9</sub> (580.68). mp 185°C. Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.



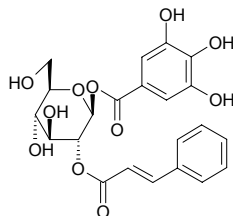
**3702 (5*A*,6*R*,9*R*,9*A*)-4-Cinnamoyl-3,6-dihydroxy-1-methoxy-6-methyl-9-(1-methylethyl)-5a,6,7,8,9a-hexahydro-dibenzofuran**

[166983-85-3] C<sub>26</sub>H<sub>30</sub>O<sub>5</sub> (422.52). Yellow solid, [ $\alpha$ ]<sub>D</sub> = -22.7° (*c* = 0.86, chloroform). **Pharm:** Antineoplastic (inhibits melanin production). **Source:** DIAO ZHANG GEN PI *Lindera umbellata* [Syn. *Lindera erythrocarpa*]. **Ref:** 1024.



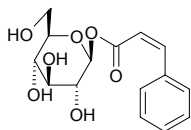
**3703 2-*O*-Cinnamoyl-glucogallin**

1-Galloyl-2-cinnamoyl-glucose C<sub>22</sub>H<sub>22</sub>O<sub>11</sub> (462.41). **Source:** DA HUANG *Rheum officinale*, ZHANG YE DA HUANG *Rheum palmatum*, TANG GU TE DA HUANG *Rheum tanguticum*. **Ref:** 2, 660.



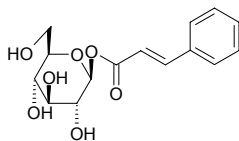
**3704 1-*O*-cis-Cinnamoyl- $\beta$ -D-glucopyranose**

C<sub>15</sub>H<sub>18</sub>O<sub>7</sub> (310.31). **Source:** ZHEN ZHU XIU XIAN JU *Spiraea thunbergii*. **Ref:** 3782.



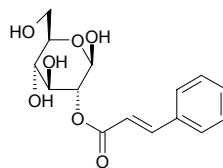
**3705 1-*O*-trans-Cinnamoyl- $\beta$ -D-glucopyranose**

C<sub>15</sub>H<sub>18</sub>O<sub>7</sub> (310.31). **Source:** ZHEN ZHU XIU XIAN JU *Spiraea thunbergii*. **Ref:** 3782.



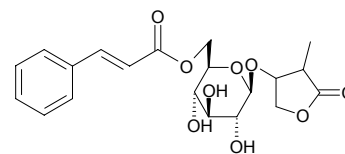
**3706 2-Cinnamoyl-glucose**

C<sub>15</sub>H<sub>18</sub>O<sub>7</sub> (310.31). **Source:** DA HUANG *Rheum officinale*, TANG GU TE DA HUANG *Rheum tanguticum*, ZHANG YE DA HUANG *Rheum palmatum*. **Ref:** 2, 660.



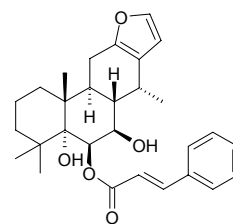
**3707 6-*O*-(trans-Cinnamoyl)-1-*O*-(4''-hydroxy-3''-methylfuran-2''-one)- $\beta$ -D-glucopyranose**

C<sub>20</sub>H<sub>24</sub>O<sub>9</sub> (408.41). **Source:** ZHEN ZHU XIU XIAN JU *Spiraea thunbergii*. **Ref:** 3782.



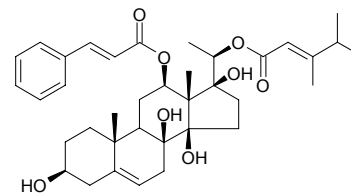
**3708 6 $\beta$ -Cinnamoyl-7 $\beta$ -hydroxyvouacapen-5 $\alpha$ -ol**

C<sub>29</sub>H<sub>36</sub>O<sub>5</sub> (464.61). Colorless needles, mp 213~215°C (CHCl<sub>3</sub>-MeOH), [ $\alpha$ ]<sub>D</sub><sup>30</sup> = +53.4 (*c* = 1.104, CHCl<sub>3</sub>). **Pharm:** Antitubercular (*Mycobacterium tuberculosis* H37Ra, MIC = 6.25 $\mu$ g/mL, control Kanamycin sulfate, MIC = 2.5~5.0 $\mu$ g/mL)<sup>[5435]</sup>; cytotoxic (KB cells, IC<sub>50</sub> = (3.2 $\pm$ 0.4) $\mu$ g/mL, control Ellipticine, IC<sub>50</sub> = (0.3 $\pm$ 0.1) $\mu$ g/mL; BC, IC<sub>50</sub> = (1.4 $\pm$ 0.2) $\mu$ g/mL, Ellipticine, IC<sub>50</sub> = (0.3 $\pm$ 0.1) $\mu$ g/mL; NCI-H187, IC<sub>50</sub> = (6.2 $\pm$ 0.9) $\mu$ g/mL)<sup>[5435]</sup>. **Source:** JI MEI YUN SHI *Caesalpinia pulcherrima*. **Ref:** 5435.



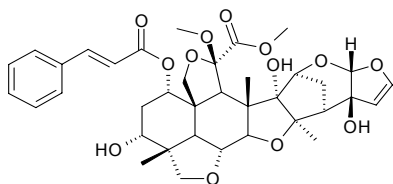
**3709 12-*O*-Cinnamoyl-20-*O*-ikemaoyl sarcostin**

C<sub>37</sub>H<sub>50</sub>O<sub>8</sub> (622.81). mp 158~163°C. **Source:** BAI SHOU WU *Cynanchum bungei*. **Ref:** 6.

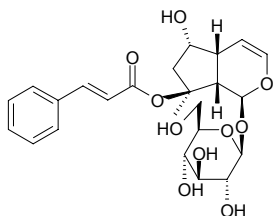


**3710 1-Cinnamoyl-11-methoxymeliacarpinin**

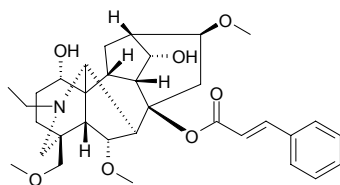
1-Cinnamoyl-3-hydroxy-11-methoxymeliacarpinin [177795-22-1] C<sub>37</sub>H<sub>44</sub>O<sub>13</sub> (696.75). Colorless powder, mp 124–126°C (chloroform), [α]<sub>D</sub> = -2.39° (c = 0.2, chloroform). **Pharm:** Cytotoxic (P<sub>388</sub>, IC<sub>50</sub> = 1.5 μg/mL). **Source:** KU LIAN PI *Melia azedarach*. **Ref:** 1104.

**3711 8-Cinnamoylmyoporoside**

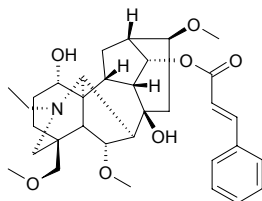
C<sub>24</sub>H<sub>30</sub>O<sub>10</sub> (478.50). **Source:** NAN FEI GOU MA *Harpagophytum procumbens*. **Ref:** 5458.

**3712 8-O-Cinnamoylneoline**

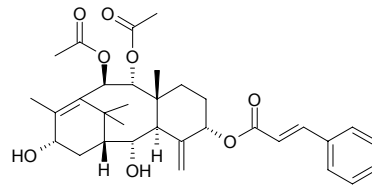
C<sub>33</sub>H<sub>45</sub>NO<sub>7</sub> (567.73). Amorphous powder, [α]<sub>D</sub><sup>20</sup> = +24.0° (c = 0.98, EtOH). **Pharm:** Analgesic (mouse, tail pressure test, = 0.86 mg/kg, LD<sub>50</sub>/ED<sub>50</sub> = 13.8); acute toxicity (mouse, = 11.9 mg/kg). **Source:** WU TOU *Aconitum carmichaeli* (buds). **Ref:** 5451.

**3713 14-O-Cinnamoylneoline**

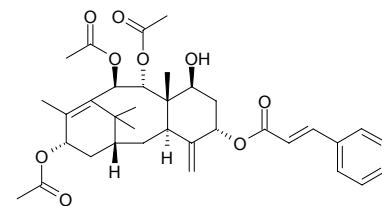
C<sub>33</sub>H<sub>45</sub>NO<sub>7</sub> (567.73). Amorphous powder (MeOH), [α]<sub>D</sub><sup>23</sup> = +9.7° (c = 0.35, CHCl<sub>3</sub>). **Source:** FU ZI *Aconitum carmichaeli* (tuber). **Ref:** 4373.

**3714 5α-Cinnamoyloxy-2α,13α-dihydroxy-9α,10β-diacetoxy-4(20),11-taxadiene**

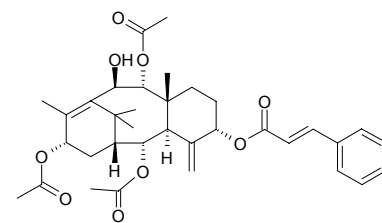
C<sub>33</sub>H<sub>42</sub>O<sub>8</sub> (566.70). mp 104–106°C, [α]<sub>D</sub> = +4° (CHCl<sub>3</sub>). **Source:** HONG DOU SHAN *Taxus chinensis*. **Ref:** 662.

**3715 5α-Cinnamoyloxy-7β-hydroxy-9α,10β,13α-triacetoxytaxa-4(20),11-diene**

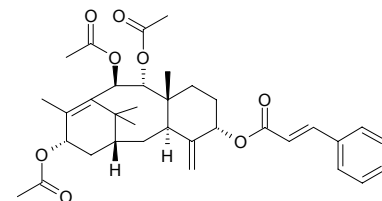
C<sub>35</sub>H<sub>44</sub>O<sub>9</sub> (608.74). [α]<sub>D</sub> = +20° (CHCl<sub>3</sub>). **Source:** MEI LI HONG DOU SHAN *Taxus mairei*. **Ref:** 662.

**3716 5α-Cinnamoyloxy-10β-hydroxy-2α,9α,13α-triacetoxytaxa-4(20),11-diene**

C<sub>35</sub>H<sub>44</sub>O<sub>9</sub> (608.74). mp 110–112°C, [α]<sub>D</sub> = +29.6° (CHCl<sub>3</sub>). **Source:** HONG DOU SHAN *Taxus chinensis*. **Ref:** 662.

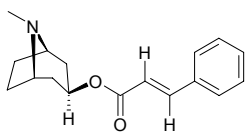
**3717 5α-Cinnamoyloxy-9α,10β,13α-triacetoxytaxa-4(20),11-diene**

C<sub>35</sub>H<sub>44</sub>O<sub>8</sub> (592.74). mp 165–166°C, mp 175–177°C, [α]<sub>D</sub> = +118.5° (CHCl<sub>3</sub>). **Source:** MEI LI HONG DOU SHAN *Taxus mairei*, HONG DOU SHAN *Taxus chinensis*. **Ref:** 662.

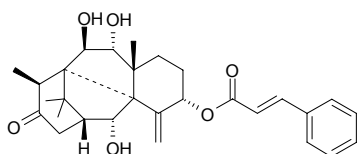


**3718 trans-3 $\beta$ -Cinnamoyloxytropane**

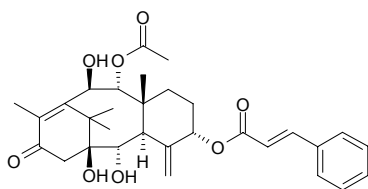
C<sub>17</sub>H<sub>21</sub>NO<sub>2</sub> (271.36). Source: XI LAN GU KE *Erythroxylum zeylanicum* (root). Ref: 3919.

**3719 5-Cinnamoylphototaxin II**

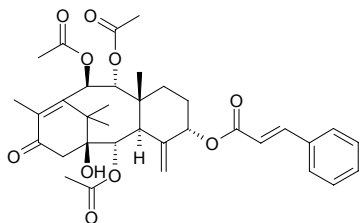
C<sub>29</sub>H<sub>36</sub>O<sub>6</sub> (480.61). Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.

**3720 O-Cinnamoyltaxicin I**

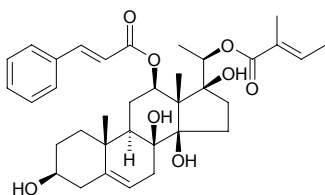
C<sub>31</sub>H<sub>38</sub>O<sub>8</sub> (496.61). mp 233–234°C, [ $\alpha$ ]<sub>D</sub> = +285° (CHCl<sub>3</sub>). Source: JIANG GUO ZI SHAN *Taxus baccata*. Ref: 662.

**3721 O-Cinnamoyltaxicin I triacetate**

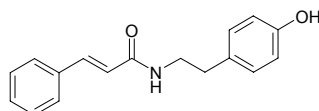
C<sub>35</sub>H<sub>42</sub>O<sub>10</sub> (622.72). mp 237–239°C, [ $\alpha$ ]<sub>D</sub> = +218° (CHCl<sub>3</sub>). Source: JIANG GUO ZI SHAN *Taxus baccata*, ZI SHAN *Taxus cuspidata*. Ref: 662.

**3722 12-O-Cinnamoyl-20-O-tigloyl sarcostin**

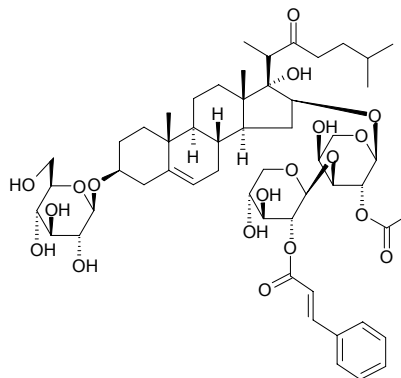
C<sub>35</sub>H<sub>46</sub>O<sub>8</sub> (594.75). Source: BAI SHOU WU *Cynanchum bungei*. Ref: 6.

**3723 N-trans-Cinnamoyltyramine**

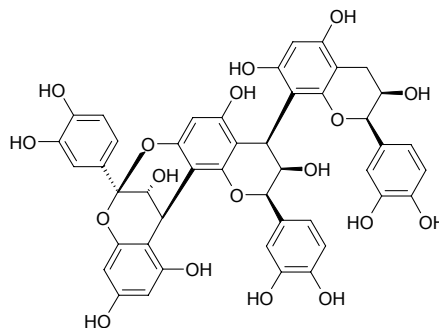
C<sub>17</sub>H<sub>17</sub>NO<sub>2</sub> (267.33). White powder. Pharm: Platelet aggregation inhibitor (rbt platelets induced by thrombin, 100 $\mu$ g/mL, add thrombin 0.1u/mL, AggRt = (91.1 $\pm$ 0.4)%, control AggRt = (92.6 $\pm$ 0.4)%; add AA, 100 $\mu$ mol/L, 100 $\mu$ g/mL, AggRt = (87.4 $\pm$ 1.7)%, control AggRt = (87.8 $\pm$ 0.3)%, Aspirin 50 $\mu$ g/mL, AggRt = (11.7 $\pm$ 10.1)%; add collagen 10 $\mu$ g/mL, 100 $\mu$ g/mL, AggRt = (60.7 $\pm$ 1.7)%, control AggRt = (89.3 $\pm$ 0.5)%, Aspirin 100 $\mu$ g/mL, AggRt = (81.3 $\pm$ 0.5)%; add PAF 2ng/mL, 100 $\mu$ g/mL, AggRt = (91.4 $\pm$ 0.2)%, control AggRt = (93.0 $\pm$ 0.6%)<sup>[4938]</sup>. Source: HONG SI XIAN *Lycianthes biflora*, MIAN MAO MA DOU LING *Aristolochia mollissima* (dried root and stem: yield = 0.00062%dw), RI BEN HUANG BAI *Phellodendron japonicum* (leaf), TAI WAN HU JIAO *Piper taiwanense* (stem). Ref: 2230, 3026, 4502, 4938.

**3724 16 $\beta$ -[(O-(2-O-(E)-Cinnamoyl- $\beta$ -D-xylopyranosyl)-(1 $\rightarrow$ 2)-2-O-acetyl- $\alpha$ -L-arabinopyranosyl)oxy]-3 $\beta$ -[( $\beta$ -D-glucopyranosyl)oxy]-17 $\alpha$ -hydroxy cholest-5-en-22-one**

C<sub>54</sub>H<sub>78</sub>O<sub>19</sub> (1031.21). Amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -16.0° (c = 0.10, MeOH). Pharm: Cytotoxic (HL-60 cells, IC<sub>50</sub> = 0.00012 $\mu$ mol/L, control Etoposide, IC<sub>50</sub> = 0.025 $\mu$ mol/L). Source: XIA FENG XIN ZI *Galtonia candicans* (bulb). Ref: 4116.

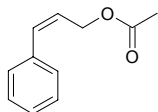
**3725 Cinnamtannin B<sub>1</sub>**

C<sub>45</sub>H<sub>36</sub>O<sub>18</sub> (864.78). Pale yellow amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>21</sup> = +69.2° (c = 0.99, MeOH). Source: CHANG JIE ZHU *Parameria laevigata* (bark). Ref: 3523.

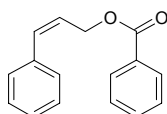


**3726 Cinnamyl acetate**

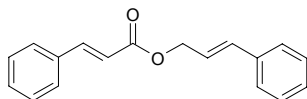
Phenylallyl acetate [103-54-8]  $C_{11}H_{12}O_2$  (176.22). bp 141°C/18mmHg. Source: ROU GUI *Cinnamomum cassia* [Syn. *Cinnamomum aromaticum*]. Ref: 6.

**3727 Cinnamyl benzoate**

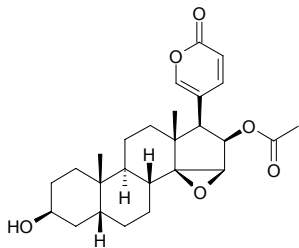
[5320-75-2]  $C_{16}H_{14}O_2$  (238.29). bp 209°C/12mmHg. Source: YUE NAN AN XI XIANG *Styrax tonkinensis*. Ref: 6.

**3728 Cinnamyl cinnamate**

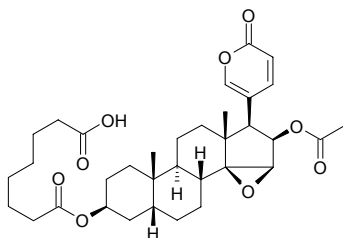
[122-69-0]  $C_{18}H_{16}O_2$  (264.33). mp 44°C. Source: AN XI XIANG *Styrax benzoin*. Ref: 6.

**3729 Cinobufagin**

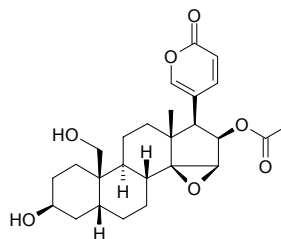
[470-37-1]  $C_{26}H_{34}O_6$  (442.56). Pharm: Cytotoxic (*in vitro*, KB,  $IC_{50}$  = 0.21  $\mu$ g/mL; HL-60,  $IC_{50}$  < 0.01  $\mu$ g/mL; MH-60,  $IC_{50}$  > 25  $\mu$ g/mL)<sup>[3082]</sup>; cardiotoxic; increases blood pressure; LD<sub>50</sub> (cat) = 0.23mg/kg. Source: CHAN CHU *Bufo bufo gargarizans*; *Bufo melanostictus*, CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus* (dried secretion: content = 7.2%<sup>[5501]</sup>; content = 0.91%<sup>[5508]</sup>). Ref: 2, 617, 658, 3082, 5501, 5508.

**3730 Cinobufagin-3-hydrogen suberate**

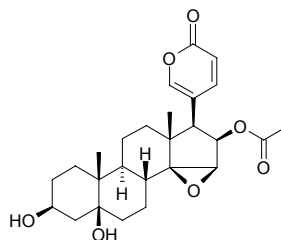
$C_{34}H_{46}O_9$  (598.74). Source: CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus*. Ref: 2, 6.

**3731 Cinobufaginol**

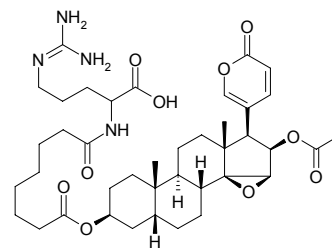
[6691-83-4]  $C_{26}H_{34}O_7$  (458.56). Source: CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus*. Ref: 2, 6.

**3732 Cinobufotalin**

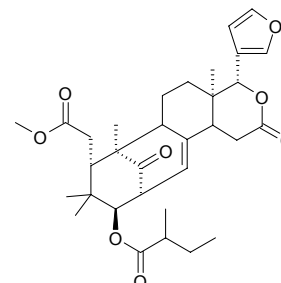
[1108-68-5]  $C_{26}H_{34}O_7$  (458.56). Pharm: Cytotoxic (*in vitro*, KB,  $IC_{50}$  = 0.37  $\mu$ g/mL; HL-60,  $IC_{50}$  = 0.047  $\mu$ g/mL; MH-60,  $IC_{50}$  > 25  $\mu$ g/mL)<sup>[3082]</sup>; cardiotoxic; increases blood pressure. Source: CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus*. Ref: 2, 3082, 5501.

**3733 Cinobufotoxin**

[60113-07-7]  $C_{40}H_{58}N_4O_{10}$  (754.93). Source: CHAN SU *Bufo bufo gargarizans*; *Bufo melanostictus*. Ref: 2.

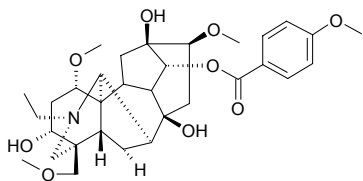
**3734 Cipadesin**

$C_{32}H_{42}O_8$  (554.69). Colorless acicular crystals (MeOH), mp 112~114°C,  $[\alpha]_D^{26}$  = -145.4° ( $c$  = 0.17,  $CHCl_3$ ). Source: YA LUO CHUN *Cipadessa baccifera*. Ref: 745.

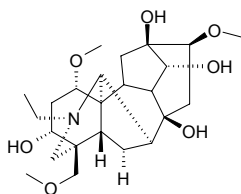


**3735 Circinadine A**

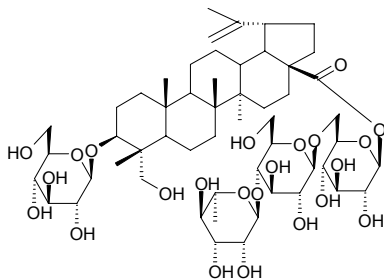
$C_{32}H_{45}NO_9$  (587.72). Amorphous powder, mp 102~103°C. Source: QUAN JU GUA YE WU TOU *Aconitum hemsleyanum* var. *circinacum* (root: yield = 0.0033%dw). Ref: 914.

**3736 Circinadine B**

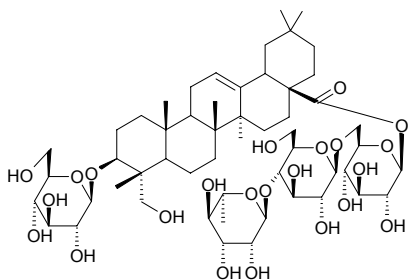
$C_{24}H_{39}NO_7$  (453.58). Amorphous powder, mp 92~93°C. Source: QUAN JU GUA YE WU TOU *Aconitum hemsleyanum* var. *circinacum* (root: yield = 0.0005%dw). Ref: 914.

**3737 Cirenshenoside S**

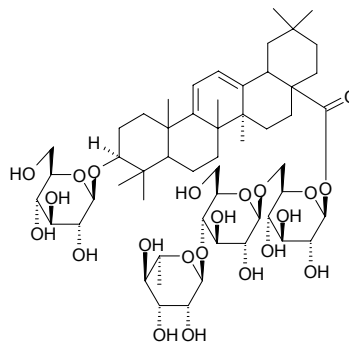
3-*O*- $\beta$ -*D*-Glucopyranosyl 3 $\beta$ ,23-dihydroxylup-20(29)-en-28-oic acid 28-*O*- $\alpha$ -*L*-rhamnopyranosyl (1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranoside  $C_{54}H_{88}O_{23}$  (1105.29). White powder, mp 220~222°C,  $[\alpha]_D^{20} = -23.5^\circ$  ( $c = 0.5$ , MeOH). Source: DONG BEI CI REN SHEN *Oplopanax elatus* (leaf). Ref: 4840.

**3738 Cirenshenoside T**

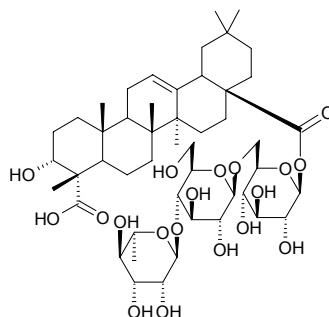
3-*O*- $\beta$ -*D*-Glucopyranosyl hederagenin 28-*O*- $\alpha$ -*L*-rhamnopyranosyl (1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranoside  $C_{54}H_{88}O_{23}$  (1105.29). White powder, mp 240~242°C,  $[\alpha]_D^{20} = +0.7^\circ$  ( $c = 0.2$ , MeOH). Source: DONG BEI CI REN SHEN *Oplopanax elatus* (leaf). Ref: 4840.

**3739 Cirenshenoside U**

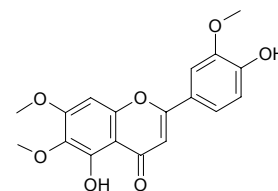
3-*O*- $\beta$ -*D*-Glucopyranosyl 3 $\beta$ -hydroxylean-9(11),12-dien-28-oic acid 28-*O*- $\alpha$ -*L*-rhamnopyranosyl (1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranoside  $C_{54}H_{86}O_{22}$  (1087.27). White powder, mp 224~226°C,  $[\alpha]_D^{20} = +78.6^\circ$  ( $c = 0.5$ , MeOH). Source: DONG BEI CI REN SHEN *Oplopanax elatus* (leaf). Ref: 4840.

**3740 Cirenshenoside V**

3 $\alpha$ -Hydroxyolean-12-en-23,28-dioic acid 28-*O*- $\alpha$ -*L*-rhamnopyranosyl (1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranoside  $C_{48}H_{76}O_{19}$  (957.13). White powder, mp 230~232°C,  $[\alpha]_D^{20} = -5.5^\circ$  ( $c = 0.5$ , MeOH). Source: DONG BEI CI REN SHEN *Oplopanax elatus* (leaf). Ref: 4840.

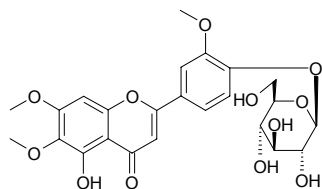
**3741 Cirsilineol**

5,4'-Dihydroxy-6,7,3'-trimethoxyflavone [41365-32-6]  $C_{18}H_{16}O_7$  (344.32). Pharm: Antispasmodic. Source: HUANG HUA HAO *Artemisia annua*, RONG MAO DAN SHEN *Salvia tomentosa*, SHE XIANG CAO *Thymus vulgaris*, YIN CHEN HAO *Artemisia capillaris*, *Sideritis* sp. Ref: 2, 658, 660.

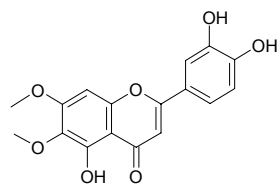


**3742 Cirsilineol-4'-monoglucoside**

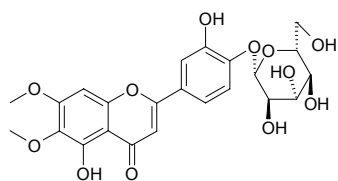
[41087-97-2] C<sub>24</sub>H<sub>26</sub>O<sub>12</sub> (506.47). mp 158–159°C. **Pharm:** Aldose reductase inhibitor (rat eye lens, 10µmol/L InRt = 42%, ox eye lens, 10µmol/L InRt = 59%). **Source:** KU AO *Cirsium chinense*. **Ref:** 6, 1771.

**3743 Cirsiliol**

[34334-69-5] C<sub>17</sub>H<sub>14</sub>O<sub>7</sub> (330.30). **Pharm:** Selective arachidonic acid 5-lipoxygenase inhibitor<sup>[658]</sup>; anti-inflammatory (oral, inhibits mouse paw oedema induced by carrageenan)<sup>[4415]</sup>; 5-LOX inhibitor (rat basophilic leukaemia cells and guinea pig peritoneal polymorphonuclear leukocytes, IC<sub>50</sub> = 0.1µmol/L)<sup>[4415]</sup>. **Source:** HUANG HUA HAO *Artemisia annua*, TIAO YE JI *Cirsium lineare*, YAO YONG DAN SHEN *Salvia officinalis*, JI XIANG SHI CAO *Achillea fragrantissima*. **Ref:** 2, 658, 660, 4415.

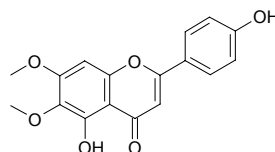
**3744 Cirsiliol-4'-monoglucoside**

[41087-98-3] C<sub>23</sub>H<sub>24</sub>O<sub>12</sub> (492.44). mp 215–217°C. **Pharm:** Aldose reductase inhibitor (rat eye lens, 10µmol/L InRt = 53%, 1µmol/L InRt = 25%; ox eye lens, 10µmol/L InRt = 61%, 1µmol/L InRt = 24%). **Source:** KU AO *Cirsium chinense*. **Ref:** 6, 1771.

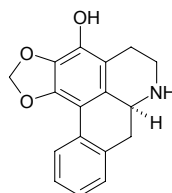
**3745 Cirsimaritin**

[6601-62-3] C<sub>17</sub>H<sub>14</sub>O<sub>6</sub> (314.30). **Pharm:** Antibacterial (gram-positive and gram-negative bacteria); antispasmodic (gpg, ileal spasm caused by histamine, barium chloride and acetylcholine); cAMP phosphodiesterase inhibitor (IC<sub>50</sub> = 118µmol/L); aldose reductase inhibitor; cytotoxic (HeLa *in vitro*, IC<sub>50</sub> = 3.2µg/mL, EAC *in vitro*, IC<sub>50</sub> = 0.54µg/mL); antineoplastic (mus, myelocytic leukemia M1, inducing cell differentiation activity, 50µmol/L growth rate = 28%, phago-activity >10%); binding activity to benzodiazepine receptor (IC<sub>50</sub> = (350±37)µmol/L, control Diazepam, IC<sub>50</sub> = (0.05±0.01)µmol/L)<sup>[5366]</sup>; antioxidant (ferric thiocyanate method, 0.5mmol/L, peroxidation value =

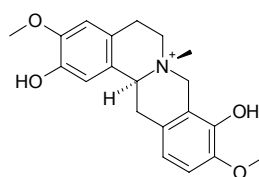
14.3%, control BHA, 0.5mmol/L, peroxidation value = 4.5%, control Vitamin E, 0.5mmol/L, peroxidation value = 14.7%)<sup>[4508]</sup>. **Source:** HUANG HUA HAO *Artemisia annua*, HUANG HAO *Artemisia scoparia* [Syn. *Artemisia capillaris* var. *scoparia*], TIAN SHE CAO *Lippia dulcis* (aerial parts), YIN CHEN HAO *Artemisia capillaris*, YAO YONG DAN SHEN YE *Salvia officinalis*. **Ref:** 2, 660, 1652, 1739, 1740, 1741, 1742, 4508, 5366.

**3746 (-)-Cissaglaberrimine**

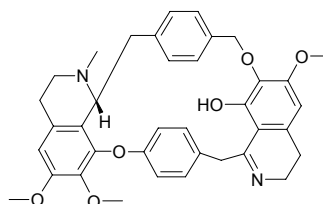
C<sub>17</sub>H<sub>15</sub>NO<sub>3</sub> (281.31). **Source:** YOU GOU YING ZHAO *Artabotrys uncinatus* (stem and leaf). **Ref:** 3083.

**3747 Cissamine**

(*S*)-*trans*-Cyclanoline [63527-13-9] C<sub>20</sub>H<sub>24</sub>NO<sub>4</sub><sup>+</sup> (342.42). Iodide: crystals, mp 242–243°C (dec), [α]<sub>D</sub><sup>24</sup> = -95.2° (c = 0.7, CHCl<sub>3</sub>). **Pharm:** striated muscle relaxant (rat, sciatic nerve-gastrocnemius specimen, action intensity = 1/20 that of Asiatic Moonseed, used as muscle relaxant in surgical operation). **Source:** FANG JI *Stephania tetrandra* (root: content scope = 0.32%–0.54%)<sup>[5501]</sup>, HAI NAN QING NIU DAN *Tinospora hainanensis*, XI SHENG TENG *Cissampelos pareira*, ZHU SHA LIAN *Aristolochia kaempferi*. **Ref:** 2, 4, 6, 687, 5501.

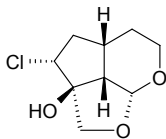
**3748 Cissampareine**

Methylwarifteine [32728-54-4] C<sub>37</sub>H<sub>38</sub>N<sub>2</sub>O<sub>6</sub> (606.73). mp 239–240°C (dec). **Pharm:** Cytotoxic (KB, ED<sub>50</sub> = 1.1–3.8µg/mL). **Source:** XI SHENG TENG *Cissampelos pareira*. **Ref:** 5, 6, 658.

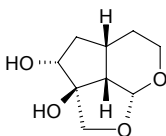


**3749 Cistachlorin**

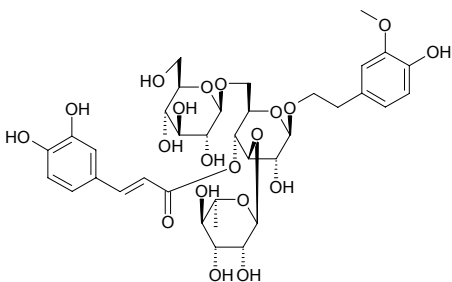
[91431-88-8] C<sub>9</sub>H<sub>13</sub>ClO<sub>3</sub> (204.66). Source: ROU CONG RONG *Cistanche deserticola*. Ref: 628.

**3750 Cistanin**

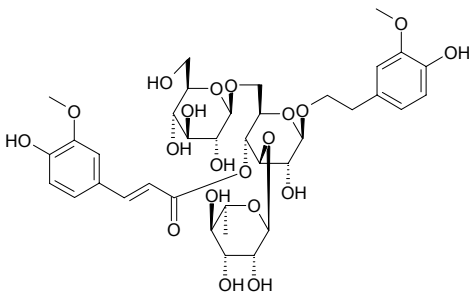
[91431-89-9] C<sub>9</sub>H<sub>14</sub>O<sub>4</sub> (186.21). Source: ROU CONG RONG *Cistanche deserticola*. Ref: 628.

**3751 Cistanoside A**

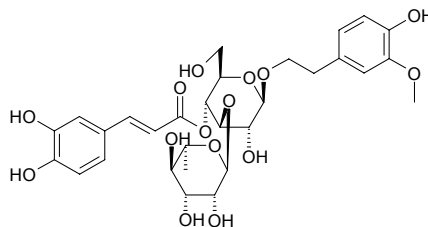
[93236-42-1] C<sub>36</sub>H<sub>48</sub>O<sub>20</sub> (800.77). Pharm: Anti-stress (stress mus, protection to avoid sexual immaturity and learning disability). Source: GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *Huechingensis*]. Ref: 2, 628, 1199.

**3752 Cistanoside B**

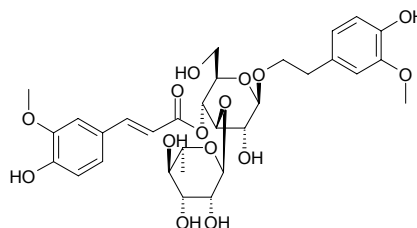
[93236-4-0] C<sub>37</sub>H<sub>50</sub>O<sub>20</sub> (814.80). Source: ROU CONG RONG *Cistanche deserticola*. Ref: 628.

**3753 Cistanoside C**

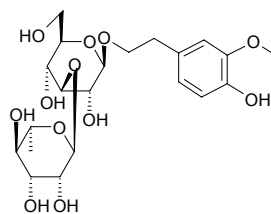
[94492-22-5] C<sub>30</sub>H<sub>38</sub>O<sub>15</sub> (638.63). Amorphous powder, [α]<sub>D</sub><sup>19</sup> = -88.4° (c = 0.86, methanol). Pharm: Used in treatment of sexual immaturity and learning disability (mus, orl, 10mg/kg). Source: ROU CONG RONG *Cistanche deserticola*, YAN SHENG ROU CONG RONG *Cistanche salsa*. Ref: 628, 960, 1032, 1199.

**3754 Cistanoside D**

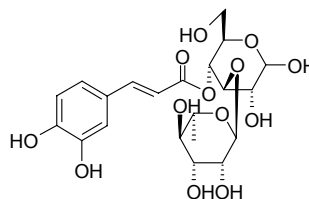
[94492-21-4] C<sub>31</sub>H<sub>40</sub>O<sub>15</sub> (652.66). Amorphous powder, [α]<sub>D</sub><sup>20</sup> = -71.0° (c = 1.0, methanol). Pharm: Antineoplastic (SMMC-7721, IC<sub>50</sub> = (267.8±12.6)μg/mL, L342, IC<sub>50</sub> = (289.4±14.6)μg/mL, MGc803, IC<sub>50</sub> = (256.7±11.2)μg/mL); antioxidant (microsome, 32.5μmol/L, InRt of lipid peroxidation = 12.9%, InRt of producing superoxide anion = 27.8%). Source: ROU CONG RONG *Cistanche deserticola*, YAN SHENG ROU CONG RONG *Cistanche salsa*. Ref: 628, 900.

**3755 Cistanoside E**

[97400-08-3] C<sub>21</sub>H<sub>32</sub>O<sub>12</sub> (476.48). Amorphous powder, [α]<sub>D</sub><sup>25</sup> = -51.5° (c = 0.7, methanol). Pharm: Sympatholytic (mus, inhibits stress reaction). Source: ROU CONG RONG *Cistanche deserticola*, YAN SHENG ROU CONG RONG *Cistanche salsa*. Ref: 628, 959, 1033.

**3756 Cistanoside F**

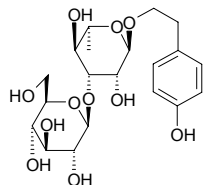
C<sub>21</sub>H<sub>28</sub>O<sub>13</sub> (488.45). Pharm: Immunosuppressant (mus, 100mg/kg orl, inhibits formation of hemolytic patch formative cell HPFC in spleen, InRt = 15.2%); antioxidant (mitochondria, lipid peroxidation inhibitor, reduces glutathione). Source: GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *Huechingensis*]. Ref: 2, 1785, 1786.



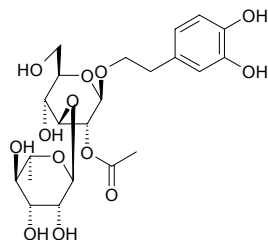


**3757 Cistanoside G**

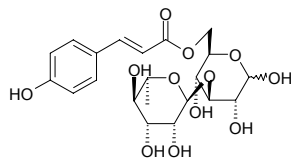
[105214-52-6] C<sub>20</sub>H<sub>30</sub>O<sub>11</sub> (446.46). Amorphous powder,  $[\alpha]_D^{19} = -62.9^\circ$  ( $c = 1.59$ , methanol). **Pharm:** Sympatholytic (mus, inhibits stress reaction). **Source:** ROU CONG RONG *Cistanche deserticola*, YAN SHENG ROU CONG RONG *Cistanche salsa*. **Ref:** 628, 1195.

**3758 Cistanoside H**

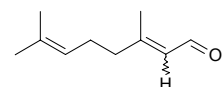
[104806-92-0] C<sub>22</sub>H<sub>32</sub>O<sub>13</sub> (504.49). Amorphous powder,  $[\alpha]_D^{18} = -58.9^\circ$  ( $c = 1.6$ , methanol). **Pharm:** Sympatholytic (mus, inhibits stress reaction). **Source:** ROU CONG RONG *Cistanche deserticola*, YAN SHENG ROU CONG RONG *Cistanche salsa*. **Ref:** 1032, 1194.

**3759 Cistanoside I**

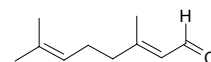
C<sub>21</sub>H<sub>28</sub>O<sub>12</sub> (472.45). **Source:** ROU CONG RONG *Cistanche deserticola*. **Ref:** 2448.

**3760 Citral**

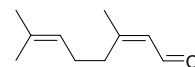
[5392-40-5] C<sub>10</sub>H<sub>16</sub>O (152.24). **Pharm:** Antitoxin (anti-aflatoxin); antifungal; anthelmintic; antiseptic; raw material for synthesis of ionone and vitamin A. **Source:** DA SUAN *Allium sativum*, GAN JIANG *Zingiber officinale*, HU LUO BO *Daucus carota* var. *sativa*, HUI HAO *Seriphidium cinum* [Syn. *Artemisia cina*], HUI HUI SU GENG *Perilla frutescens* var. *crispa*, JU YUAN *Citrus medica*, LI MENG *Citrus limonia*, NING MENG *Citrus limon*, SAN YE MA BIAN CAO *Verbena triphylla* [Syn. *Lippia citriodora*], SHENG JIANG *Zingiber officinale*, TIAN CHENG *Citrus sinensis*, WAN YAN XIANG MAO *Cymbopogon flexuosus*, WU WEI ZI *Schisandra chinensis*, XIANG MAO *Cymbopogon citratus*, XIANG PI MU *Alstonia scholaris*, XIANG QING LAN *Dracocephalum moldavicum*, XIN YI *Magnolia liliflora*, XING REN *Prunus armeniaca*. **Ref:** 2, 658, 660.

**3761 (E)-Citral**

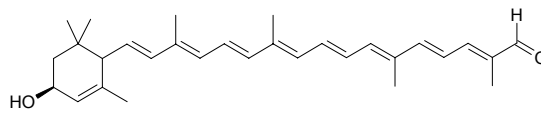
Geranial [141-27-5] C<sub>10</sub>H<sub>16</sub>O (152.24). bp 226~228°C. **Pharm:** Anti-ischemia myocardial (rbt, enhances blood flow through coronary arteries, ischemia myocardial induced by hypophysin; mouse, reduces oxygen consumption in cardiac muscle; isolated pig heart, relaxes normal coronary arteries and coronary arteries contracted by adrenaline); antiseptic (stronger than phenol); antifungal; insecticidal; antitrypanosomal (epimastigotes of *Trypanosoma cruzi*, MLC = 3.1 μmol/L, control Gentian violet, MLC = 6.2 μmol/L)<sup>[2579]</sup>. **Source:** BI CHENG QIE *Piper cubeba* (fruit: content scope = 1.14%~1.51%)<sup>[5501]</sup>, CHA YE *Camellia sinensis* [Syn. *Thea sinensis*], GAN JIANG *Zingiber officinale*, CHENG ZI *Citrus junos*, CHENG ZI PI *Citrus junos*, LIAN QIAO *Forsythia suspensa*, SHENG JIANG *Zingiber officinale*, XING ZI *Prunus armeniaca*, YI LANG QING LAN *Dracocephalum kotschyi*, YUN XIANG CAO *Cymbopogon distans*. **Ref:** 2, 6, 2579, 5501.

**3762 (Z)-Citral**

Neral [106-26-3] C<sub>10</sub>H<sub>16</sub>O (152.24). bp 103°C/12mmHg. **Pharm:** Anti-ischemia myocardial (rbt, enhances blood flow through coronary arteries, ischemia myocardial induced by hypophysin; mouse, reduces oxygen consumption in cardiac muscle; isolated pig heart, relaxes normal coronary arteries and coronary arteries contracted by adrenaline); antiseptic (stronger than phenol); antifungal; insecticidal; antitrypanosomal (epimastigotes of *Trypanosoma cruzi*, MLC = 3.1 μmol/L, control Gentian violet, MLC = 6.2 μmol/L)<sup>[2579]</sup>. **Source:** BI CHENG QIE *Piper cubeba* (fruit: content scope = 0.77%~1.02%)<sup>[5501]</sup>, GAN JIANG *Zingiber officinale*, JU PI *Citrus reticulata*, SHENG JIANG *Zingiber officinale*, YI LANG QING LAN *Dracocephalum kotschyi*. **Ref:** 2, 2579, 5501.

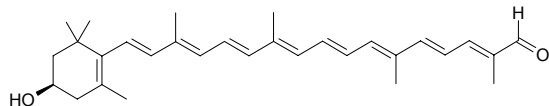
**3763 α-Citraurin**

C<sub>30</sub>H<sub>40</sub>O<sub>2</sub> (432.65). mp 153°C. **Source:** DAI DAI HUA *Citrus aurantium* var. *amara*. **Ref:** 6.

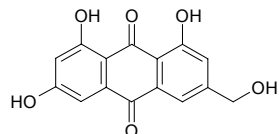


**3764  $\beta$ -Citraurin**

[650-69-1] C<sub>30</sub>H<sub>40</sub>O<sub>2</sub> (432.65). mp 146~147°C. Source: DAI DAI HUA *Citrus aurantium* var. *amara*. Ref: 6.

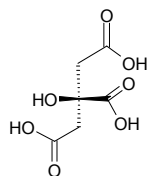
**3765 Citreoreosin**

$\omega$ -Hydroxyemodin [481-73-2] C<sub>15</sub>H<sub>10</sub>O<sub>6</sub> (286.24). Source: HU ZHANG *Polygonum cuspidatum*, MI HOU TAO *Actinidia chinensis*. Ref: 2, 660.

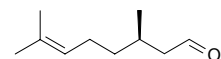
**3766 Citric acid**

2-Hydroxy-1,2,3-propanetricarboxylic acid [77-92-9] C<sub>6</sub>H<sub>8</sub>O<sub>7</sub> (192.13).

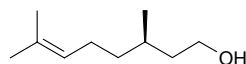
Pharm: Flavorant. Source: BAI BU *Stemona tuberosa*, CU LIU GUO *Hippophae rhamnoides*, HU ZHANG YE *Polygonum cuspidatum*, JU YUAN *Citrus medica*, KUAN YE XIANG PU *Typha latifolia*, MU ZEI MA HUANG *Ephedra equisetina*, REN SHEN *Panax ginseng* [Syn. *Panax schinseng*], SHAN LI HONG *Crataegus pinnatifida* var. *major*, SHAN ZHA *Crataegus pinnatifida* (dried ripe fruit: mean content of 2 origins = 1.88%<sup>[5508]</sup>), TIAN MA *Gastrodia elata*, WU MEI *Prunus mume* (closing-ripe fruit: content = 54.72%<sup>[5508]</sup>), YE SHAN ZHA *Crataegus cuneata*, YI ZHU QIAN MA *Urtica dioica*, YUN NAN SHAN ZHA *Crataegus scabrifolia* (dried ripe fruit: mean content of 2 origins = 0.86%<sup>[5508]</sup>). Ref: 2, 658, 660, 5508.

**3767 Citronellal**

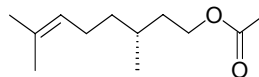
3,7-Dimethyl-6-octen-1-al [106-23-0] C<sub>10</sub>H<sub>18</sub>O (154.25). Pharm: Antibacterial (*Staphylococcus aureus* and *Bacillus typhia*); antifungal; anthelmintic; Flavorant. Source: CHENG QIE ZI *Litsea cubeba*, FU SHE SONG *Pinus radiata*, JING XIANG MAO *Cymbopogon nardus*, JU PI *Citrus reticulata*, KONG SHI CHUN *Uva pertusa*, LI MENG *Citrus limonia*, MI HUA XIANG MAO *Cymbopogon densiflorus*, NING MENG *Citrus limon*, NING MENG AN YE *Eucalyptus citriodora*, SHI LA HONG *Pelargonium hortorum*, WEN TE XIANG MAO *Cymbopogon winterianus*, XIANG FENG HUA *Melissa officinalis*, XIANG MAO *Cymbopogon citratus*. Ref: 2, 658.

**3768 Citronellol**

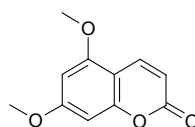
2,3-Dihydrogeraniol [106-22-9] C<sub>10</sub>H<sub>20</sub>O (156.27). bp 222°C. Pharm: Antibacterial (*Staphylococcus aureus*, *Bacillus typhosus*); Flavorant. Source: JIU LI XIANG *Murraya paniculata* [Syn. *Chalcas paniculata*], FEI LONG ZHANG XUE *Toddalia asiatica* [Syn. *Toddalia aculeata*; *Paullinia asiatica*], DAI DAI HUA *Citrus aurantium* var. *amara*, SHUI XIAN HUA *Narcissus tazetta* var. *chinensis*, SHI LA HONG *Pelargonium hortorum*, DU SONG SHI *Juniperus rigida*, MEI GUI HUA *Rosa rugosa* (oil: content = 44.46%<sup>[5501]</sup>), NING MENG AN YE *Eucalyptus citriodora*, HU LUO BO *Daucus carota* var. *sativa*, XIANG YE *Pelargonium graveolens*, JIN YIN HUA *Lonicera japonica*, JU PI *Citrus reticulata*, SHENG JIANG *Zingiber officinale*, WU WEI ZI *Schisandra chinensis*. Ref: 6, 11, 658, 5501.

**3769 Citronellyl acetate**

3,7-Dimethyl-6-octen-1-yl acetate [150-84-5] C<sub>12</sub>H<sub>22</sub>O<sub>2</sub> (198.31). Source: SHENG JIANG *Zingiber officinale*, WU WEI ZI *Schisandra chinensis*. Ref: 2.

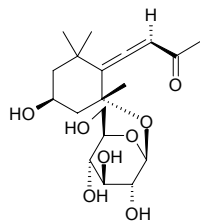
**3770 Citropten**

Limettin; 5,7-Dimethoxycoumarin [487-06-9] C<sub>11</sub>H<sub>10</sub>O<sub>4</sub> (206.20). Acicular crystals (methanol), mp 147~148°C. Pharm: Antihistamine (anesthetic cat, pulmonary overflow test, iv 5~10mg/kg; against gpg isolated trachea contraction induced by histamine)<sup>[5501]</sup>; antihypertensive (anesthetic dog, iv 10mg/kg, blood pressure being reduced by (53.5±15)% , action lasts 20min)<sup>[5501]</sup>; LD<sub>50</sub> (mouse, orl) = 3.95g/kg<sup>[5501]</sup>. Source: BO LI ZI HUA JIAO *Zanthoxylum belizense*, FO SHOU *Citrus medica* var. *sarcodactylis* (fruit: content = 0.007%<sup>[5501]</sup>), NING MENG *Citrus limon*, JU YUAN YE *Citrus medica*, JU YUAN *Citrus medica*, XIANG YUAN *Citrus wilsonii*. Ref: 5, 6, 660, 661, 5501.

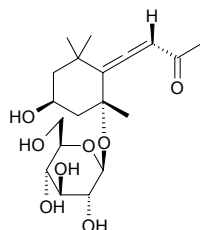


**3771 Citroside A**

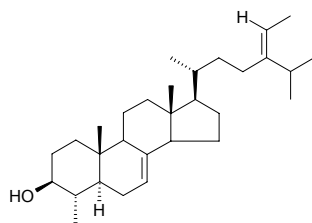
$C_{19}H_{30}O_8$  (386.45). Amorphous powder,  $[\alpha]_D^{23} = -117^\circ$ . Source: HU SUI ZI *Coriandrum sativum*, JIAN PU ZHAI GU KE *Erythroxylum cambodianum* (aerial parts), PI PA YE *Eriobotrya japonica* (stem and leaf). Ref: 3061, 4302, 4461.

**3772 Citroside B**

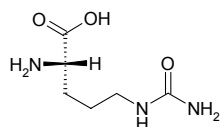
$C_{19}H_{30}O_8$  (386.45). Amorphous powder,  $[\alpha]_D^{23} = -51^\circ$ . Source: HU SUI ZI *Coriandrum sativum*. Ref: 4302.

**3773 Citrostadienol**

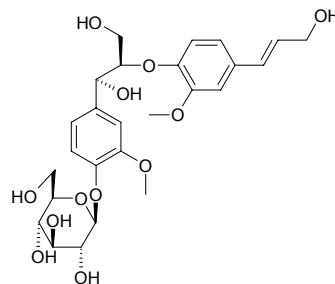
[474-40-8]  $C_{30}H_{50}O$  (426.73). mp 162–164°C. Source: GOU QI ZI *Lycium chinense*, MAN TUO LUO ZI *Datura metel*, SHUI LONG GU *Polypodium niponicum*. Ref: 6, 660.

**3774 Citrulline**

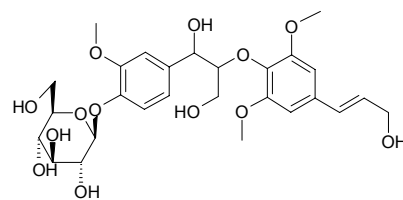
2-Amino-5-ureidovaleric acid [372-75-8]  $C_6H_{13}N_3O_3$  (175.19). mp 222°C. Pharm: Antitoxin. Source: DONG GUA ZI *Benincasa hispida*, HEI ZHI MA *Sesamum indicum* (black seed) [Syn. *Sesamum orientale* (black seed)], HU TAO REN *Juglans regia*, KU GUA *Momordica charantia*, MO GU *Agaricus campestris*, MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*], MU XU *Medicago sativa*, NAN GUA *Cucurbita moschata*, SHI ZI *Diospyros kaki*, SI GUA *Luffa cylindrica*, TIAN HUA FEN *Trichosanthes kirilowii*, XI GUA *Citrullus vulgaris* [Syn. *Citrullus lanatus*]. Ref: 2, 6, 658, 660.

**3775 Citrusin A**

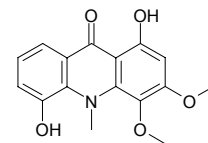
$C_{26}H_{34}O_{12}$  (538.55). Pharm: Antioxidant (DPPH scavenger,  $EC_{50} > 50\mu\text{g/mL}$ ,  $50\mu\text{g/mL}$  InRt = 23%, control Ascorbic acid,  $EC_{50} = 1.6\mu\text{g/mL} = 9.1\mu\text{mol/L}$ ). Source: BEI SHA SHEN *Glehnia littoralis* (underground part). Ref: 4154.

**3776 Citrusin B**

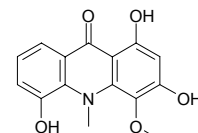
[105279-10-5]  $C_{27}H_{36}O_{13}$  (568.58). Source: DU ZHONG *Eucommia ulmoides*. Ref: 2.

**3777 Citrusinine I**

$C_{16}H_{15}NO_5$  (301.3). Pharm: Cytotoxic (*in vitro*, Colon205,  $ED_{50} = 6.3\mu\text{g/mL}$ ; hep-3B,  $ED_{50} = 6.6\mu\text{g/mL}$ ; KB,  $ED_{50} = 0.09\mu\text{g/mL}$ ). Source: DONG FENG JU GEN *Atalantia buxifolia* [Syn. *Severinia buxifolia*] (root cortex). Ref: 3075.

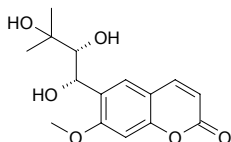
**3778 Citrusinine II**

$C_{15}H_{13}NO_5$  (287.27). Pharm: Cytotoxic (*in vitro*, Colon205,  $ED_{50} > 25\mu\text{g/mL}$ , inactive; hep-3B,  $ED_{50} > 25\mu\text{g/mL}$ , inactive; KB,  $ED_{50} = 0.82\mu\text{g/mL}$ ). Source: DONG FENG JU GEN *Atalantia buxifolia* [Syn. *Severinia buxifolia*] (root cortex). Ref: 3075.

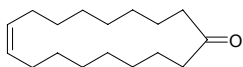


**3779 Citrusol**

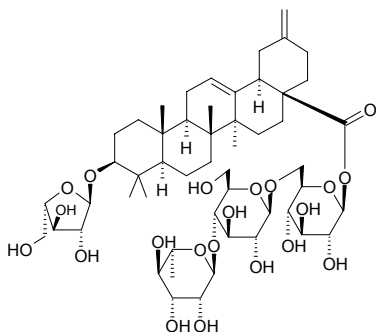
$C_{15}H_{18}O_6$  (294.31). **Pharm:** Antineoplastic (Raji cells, antitumor promotor, *in vivo*, inhibits TPA-induced EBV-EA activation, compound concentration = 500(mol ratio/32 pmol TPA): EBV-EA-positive cells = (15.3±1.5)% (viability > 80%),  $\beta$ -Carotene, EBV-EA-positive cells = (34.3±1.1)% (viability >80), Curcumin, EBV-EA-positive cells = (22.8±1.8)% (viability > 80%), compound  $IC_{50}$  = 180(mol ratio/32 pmol TPA),  $\beta$ -Carotene,  $IC_{50}$  = 400(mol ratio/32 pmol TPA), Curcumin,  $IC_{50}$  = 341(mol ratio/32 pmol TPA)). **Source:** PU TAO YOU DA HONG JU ZA JIAO ZHONG *Citrus paradisi* x *Citrus tangerina*. **Ref:** 5048.

**3780 Civetone**

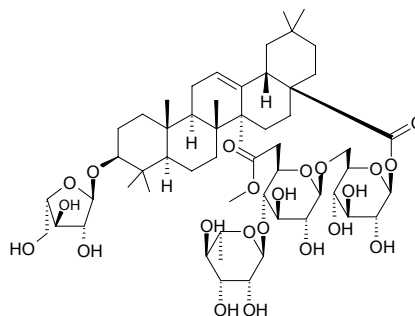
*cis*-Civetone [542-46-1]  $C_{17}H_{30}O$  (250.43). mp 32.5°C, bp 342°C/742mmHg. **Source:** LING MAO XIANG *Viverra zibetha*. **Ref:** 6.

**3781 Ciwujianoside C<sub>1</sub>**

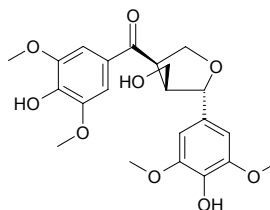
Yemuoside YM14 [114906-73-9]  $C_{52}H_{82}O_{21}$  (1043.21). White powder,  $[\alpha]_D^{18} = +14.6^\circ$  ( $c = 1.03$ , methanol). **Pharm:** Antihistamine (inhibits histamine release, rat peritoneum giant cells, caused by anti-Ig-E). **Source:** CI WU JIA *Acanthopanax senticosus* [Syn. *Eleutherococcus senticosus*]. **Ref:** 945, 1026.

**3782 Ciwujianoside D<sub>1</sub>**

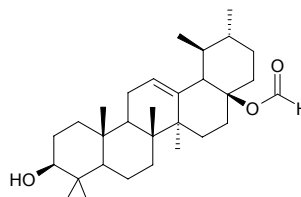
[114912-35-5]  $C_{55}H_{88}O_{22}$  (1101.29). White powder,  $[\alpha]_D^{18} = -9.8^\circ$  ( $c = 0.41$ , methanol). **Pharm:** Antihistamine (inhibits histamine release, rat peritoneum giant cells, caused by anti-Ig-E). **Source:** CI WU JIA *Acanthopanax senticosus* [Syn. *Eleutherococcus senticosus*]. **Ref:** 945, 1026.

**3783 Ciwujiatone**

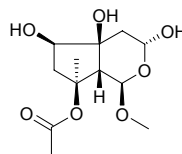
$C_{22}H_{26}O_9$  (434.45). White acicular crystals, mp 112~114°C. **Source:** CI WU JIA *Acanthopanax senticosus* [Syn. *Eleutherococcus senticosus*]. **Ref:** 671.

**3784 Cladocalol**

17 $\beta$ -Formyloxy-28-nor-urs-12-en-3 $\beta$ -ol  $C_{30}H_{48}O_3$  (456.72). Amorphous solid,  $[\alpha]_D^{20} = +58^\circ$  ( $c = 0.2$ ,  $CHCl_3$ ). **Pharm:** Cytotoxic (HL-60 cells,  $IC_{50} = (42\pm 4)\mu mol/L$ ). **Source:** ZHI ZHUANG E AN *Eucalyptus cladocalyx* (leaf). **Ref:** 5259.

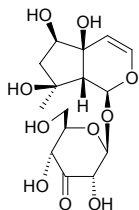
**3785 Clandonensine**

1- $\beta$ -Methoxy-3,4-dihydro-3 $\alpha$ -hydroxy-8-*O*-acetylharpagide aglucone  $C_{12}H_{20}O_7$  (276.29). White amorphous powder. **Source:** ZA JIAO YOU<sup>(2)</sup> *Caryopteris clandonensis*. **Ref:** 3988.

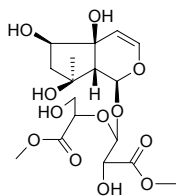


**3786 Clandonoside**

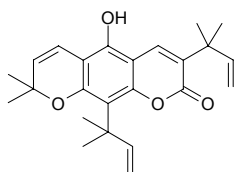
Harpagide-aglucone-1-*O*- $\beta$ -D-ribohexo-3-uloipyranoside [239467-35-7]  
 $C_{15}H_{22}O_{10}$  (362.34). White amorphous powder. Source: ZA JIAO YOU<sup>(2)</sup>  
*Caryopteris clandonensis*. Ref: 2312.

**3787 Clandonoside II**

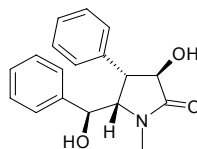
Harpagide-aglucone-1-*O*-3',4'-seco-glycopyranoside  $C_{17}H_{26}O_{12}$  (422.39).  
 White amorphous powder. Source: ZA JIAO YOU<sup>(2)</sup> *Caryopteris*  
*clandonensis*. Ref: 3988.

**3788 Clausarin**

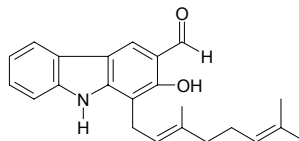
3,10-Bis(1,1-dimethyl-2-propenyl)-5-hydroxy-8,8-dimethyl-2*H*,8*H*-benzo[1,2-*b*:5,4-*b'*]dipyran-2-one [62770-67-6]  $C_{24}H_{28}O_4$  (380.49). Pharm:  
 Antineoplastic (Raji cells, antitumor promotor, *in vivo*, inhibits TPA-induced  
 EBV-EA activation, compound concentration = 500(mol ratio/32 pmol  
 TPA), EBV-EA-positive cells = (41.9 $\pm$ 1.5)% (viability > 80%),  $\beta$ -Carotene,  
 EBV-EA-positive cells = (34.3 $\pm$ 1.1)% (viability > 80), Curcumin,  
 EBV-EA-positive cells = (22.8 $\pm$ 1.8)% (viability > 80%);  $IC_{50}$  = 343(mol  
 ratio/32 pmol TPA),  $\beta$ -Carotene,  $IC_{50}$  = 400(mol ratio/32 pmol TPA),  
 Curcumin,  $IC_{50}$  = 341(mol ratio/32 pmol TPA)<sup>[5048]</sup>. Source: SHAN  
 HUANG PI *Clausena excavata*, CHENG ZI *Citrus junos*, *Citrus medica* var.  
*etrog*, *Citrus jambhiri*, *Citrus tamurana*. Ref: 703, 5048.

**3789 Clausenamide**

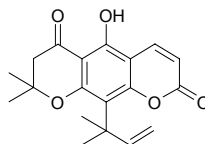
[103541-15-7]  $C_{18}H_{19}NO_3$  (297.36). White acicular crystals (methanol), mp  
 239–240°C. Source: HUANG PI YE *Clausena lansium*. Ref: 72.

**3790 Clausenatine A**

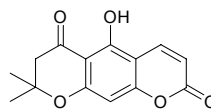
Mukoeneine B  $C_{23}H_{25}NO_2$  (347.46). Yellowish powder, mp >280°C (acetone).  
Source: SHAN HUANG PI *Clausena excavata*. Ref: 2368.

**3791 Clausenidin**

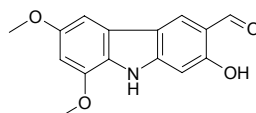
[28384-44-3]  $C_{19}H_{20}O_5$  (328.37). mp 135–136°C. Pharm: Antibacterial  
 (*Mycobacterium tuberculosis*, MIC = 200 $\mu$ g/mL, control Isoniazide, MIC =  
 0.040–0.090 $\mu$ g/mL, kanamycin sulfate, MIC = 2.0–5.0 $\mu$ g/mL)<sup>[5367]</sup>; antifungal  
 inactive (*Candida albicans*, control Amphotericin,  $IC_{50}$  = 0.01 $\mu$ g/mL)<sup>[5367]</sup>.  
Source: SHAN HUANG PI *Clausena excavata*. Ref: 6, 5367.

**3792 Clausenin**

[17276-27-6]  $C_{14}H_{12}O_5$  (260.25). mp 156–157°C. Source: SHAN HUANG PI  
*Clausena excavata*. Ref: 1521.

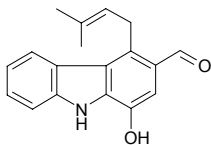
**3793 Clausine B**

[182261-81-0]  $C_{15}H_{13}NO_4$  (271.28). mp 228–229°C. Pharm: Platelet  
 aggregation inhibitor (rbt, 100 $\mu$ g/mL, due to arachidonic acid, InRt = 23%,  
 due to collagen, InRt = 16%, due to PAF, InRt = 19%). Source: SHAN  
 HUANG PI *Clausena excavata*. Ref: 703.

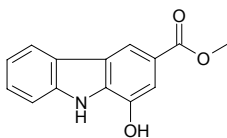


**3794 Clausine D**

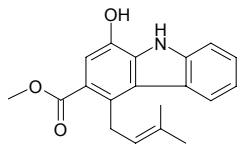
1-Hydroxy-4-(3-methyl-2-butenyl)-9*H*-carbazole-3-carboxaldehyde  
 [142846-95-5] C<sub>18</sub>H<sub>17</sub>NO<sub>2</sub> (279.34). **Pharm:** Platelet aggregation inhibitor (rbt, due to arachidonic acid, 1μg/mL, InRt = 53%, IC<sub>50</sub> = 9.0μmol/L, due to collagen, 10μg/mL InRt = 66%, IC<sub>50</sub> = 58.9μmol/L); inhibits formation of thromboxane A<sub>2</sub>; antispasmodic (rat, inhibits aortal contraction induced by KCl+CaCl<sub>2</sub>, InRt = 21.5%). **Source:** SHAN HUANG PI *Clausena excavata*. **Ref:** 703, 1650, 1651.

**3795 Clausine E**

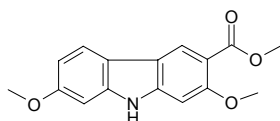
Clauszoline I [182261-83-2] C<sub>14</sub>H<sub>11</sub>NO<sub>3</sub> (241.25). mp 218~220°C. **Pharm:** Platelet aggregation inhibitor (rbt, 100μg/mL, due to arachidonic acid, InRt = 90%, due to collagen, InRt = 92%, due to PAF, InRt = 60%); vascular relaxant (rat, aorta, contraction by KCl+CaCl<sub>2</sub>, InRt = 87.0%, due to 3μmol/L arterenol, InRt for step-by-step contraction = 58.3%, InRt for tonic contraction = 89.3%). **Source:** SHAN HUANG PI *Clausena excavata*. **Ref:** 703.

**3796 Clausine F**

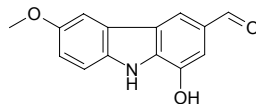
[142846-96-6] C<sub>19</sub>H<sub>19</sub>NO<sub>3</sub> (309.37). **Pharm:** Platelet aggregation inhibitor (rbt, due to arachidonic acid, 1μg/mL, InRt = 37%, due to collagen, 1μg/mL InRt = 48%). **Source:** SHAN HUANG PI *Clausena excavata*. **Ref:** 703, 1650.

**3797 Clausine H**

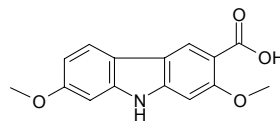
Clauszoline C [182261-90-1] C<sub>16</sub>H<sub>15</sub>NO<sub>4</sub> (285.31). mp 192~194°C. **Pharm:** Platelet aggregation inhibitor (rbt, 100μg/mL, due to arachidonic acid, InRt = 100%, due to collagen, InRt = 100%, due to PAF, InRt = 100%). **Source:** SHAN HUANG PI *Clausena excavata*. **Ref:** 703.

**3798 Clausine I**

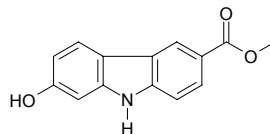
C<sub>14</sub>H<sub>11</sub>NO<sub>3</sub> (241.25). mp 222~224°C. **Pharm:** Platelet aggregation inhibitor (rbt, 100μg/mL, due to arachidonic acid, InRt = 94%, due to collagen, InRt = 87%, due to PAF, InRt = 17%). **Source:** SHAN HUANG PI *Clausena excavata*. **Ref:** 703.

**3799 Clausine K**

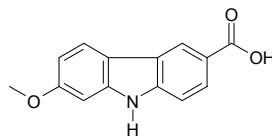
Clauszoline J [182261-96-7] C<sub>15</sub>H<sub>13</sub>NO<sub>4</sub> (271.28). mp 250~256°C. **Pharm:** Antibacterial (*Mycobacterium tuberculosis*, MIC = 100μg/mL, control Isoniazide, MIC = 0.040~0.090μg/mL, kanamycin sulfate, MIC = 2.0~5.0μg/mL)<sup>[5367]</sup>; antifungal inactive (*Candida albicans*, control Amphotericin, IC<sub>50</sub> = 0.01μg/mL)<sup>[5367]</sup>. **Source:** SHAN HUANG PI *Clausena excavata*. **Ref:** 703, 5367.

**3800 Clausine M**

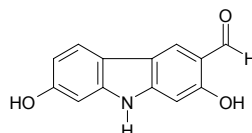
C<sub>14</sub>H<sub>11</sub>NO<sub>3</sub> (241.25). Yellowish needles, mp 200~203°C (EtOAc). **Source:** SHAN HUANG PI *Clausena excavata*. **Ref:** 2368.

**3801 Clausine N**

C<sub>14</sub>H<sub>11</sub>NO<sub>3</sub> (241.25). Yellowish powder, mp 215~218°C (acetone). **Source:** SHAN HUANG PI *Clausena excavata*. **Ref:** 2368.

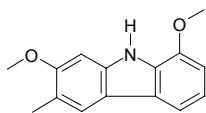
**3802 Clausine O**

C<sub>13</sub>H<sub>9</sub>NO<sub>3</sub> (227.22). Yellowish needles, mp > 280°C (acetone). **Source:** SHAN HUANG PI *Clausena excavata*. **Ref:** 2368.

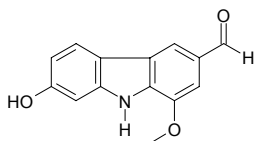


**3803 Clausine P**

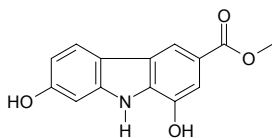
$C_{15}H_{15}NO_2$  (241.29). Yellow oil. Source: SHAN HUANG PI *Clausena excavata*. Ref: 2368.

**3804 Clausine Q**

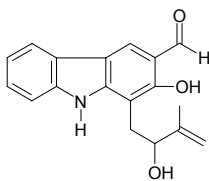
$C_{14}H_{11}NO_3$  (241.25). Brown powder, mp 85–87°C (acetone). Source: SHAN HUANG PI *Clausena excavata*. Ref: 2368.

**3805 Clausine R**

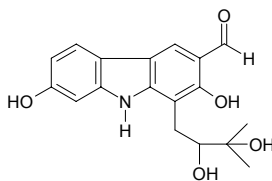
$C_{14}H_{11}NO_4$  (257.25). Yellowish needles, mp 178–181°C (acetone). Source: SHAN HUANG PI *Clausena excavata*. Ref: 2368.

**3806 Clausine S**

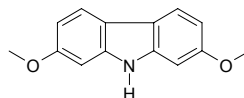
$C_{18}H_{17}NO_3$  (295.34). Yellowish oil,  $[\alpha]_D = +159.09^\circ$  ( $c = 0.0022$ , MeOH). Source: SHAN HUANG PI *Clausena excavata*. Ref: 2368.

**3807 Clausine U**

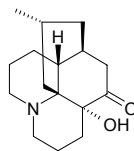
$C_{18}H_{19}NO_5$  (329.36). Yellowish powder, mp 255–257°C (acetone),  $[\alpha]_D = -159.09^\circ$  ( $c = 0.0151$ , MeOH). Source: SHAN HUANG PI *Clausena excavata*. Ref: 2368.

**3808 Clausine V**

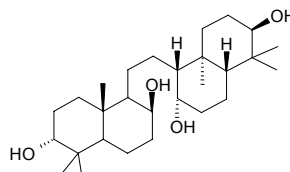
$C_{14}H_{13}NO_2$  (227.27). Colorless powder, mp 228–230°C (acetone). Source: SHAN HUANG PI *Clausena excavata*. Ref: 2368.

**3809 Clavatine**

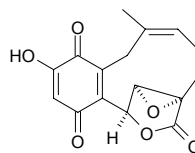
$C_{16}H_{25}NO_2$  (263.38). mp 212–213°C. Pharm: Antipyretic (rht, sc, fever caused by hay-infusion). Source: SHEN JIN CAO *Lycopodium japonicum* [Syn. *Lycopodium clavatum*]. Ref: 6, 658.

**3810 Clavatul**

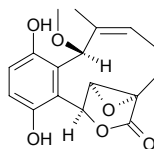
Lyclavatul; 26,27-Dinor-3,8,14,21-onoceranetetrol [33044-79-0]  $C_{28}H_{50}O_4$  (450.71). mp 277–279°C. Source: SHEN JIN CAO *Lycopodium japonicum* [Syn. *Lycopodium clavatum*]. Ref: 6.

**3811 Clavilactone D**

$C_{16}H_{14}O_6$  (302.29). Red powder, mp 172–175°C,  $[\alpha]_D = +376^\circ$  ( $c = 0.05$ , MeOH). Pharm: Tyrosine kinase inhibitor (EGFR autophosphorylation assay, A431 cell membranes,  $IC_{50} = 5\mu\text{mol/L}$ ). Source: BANG BING BEI SAN *Clitocybe clavipes*. Ref: 3940.

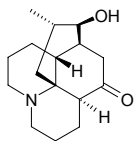
**3812 Clavilactone E**

$C_{17}H_{18}O_6$  (318.33). Yellow powder, mp 150–152°C,  $[\alpha]_D = +90^\circ$  ( $c = 0.1$ , MeOH). Source: BANG BING BEI SAN *Clitocybe clavipes*. Ref: 3940.

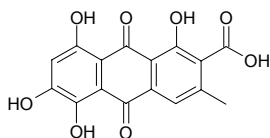


**3813 Clavolonine**

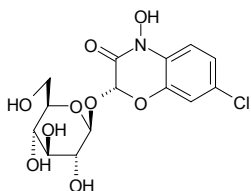
[466-62-6]  $C_{16}H_{25}NO_2$  (263.38). mp 238°C;  $[\alpha]_D^{25} = -11^\circ$  (MeOH). Source: DONG BEI SHI SHAN *Huperzia miyoshiana*, SHEN JIN CAO *Lycopodium japonicum* [Syn. *Lycopodium clavatum*]. Ref: 6, 5412.

**3814 Clavorubin**

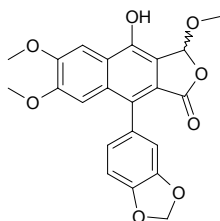
[2960-94-3]  $C_{16}H_{10}O_8$  (330.25). Source: MAI JIAO *Claviceps purpurea*. Ref: 6.

**3815 7-Cl-DIBOA-Glc**

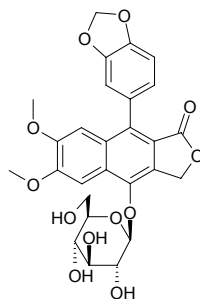
7-Chloro-(2*R*)-2-*O*- $\beta$ -*D*-glucopyranosyl-4-hydroxy-2*H*-1,4-benzoxazin-3(4*H*)-one  $C_{14}H_{16}ClNO_9$  (377.74). Amorphous powder,  $[\alpha]_D^{22} = +18.6^\circ$  ( $c = 0.86$ , DMSO). Source: XIAO HUA LAO SHU LE *Acanthus ebracteatus* (aerial parts). Ref: 5211.

**3816 Cleistanone**

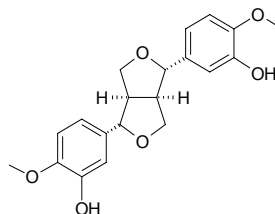
$C_{22}H_{18}O_8$  (410.38). Pale yellow crystals, mp 217~218°C (MeOH),  $[\alpha]_D^{25} = +4^\circ$  ( $c = 1.5$ , MeOH). Pharm: Cytotoxic (MT2 cell line, anti-proliferative activity using MTT colorimetric assay,  $LD_{50} = 38.1 \mu\text{mol/L}$ , control Etoposide,  $LD_{50} = 22.1 \mu\text{mol/L}$ ). Source: QIU SHENG BI HUA MU *Cleistanthus collinus* (aerial parts). Ref: 4399.

**3817 Cleistanthin B**

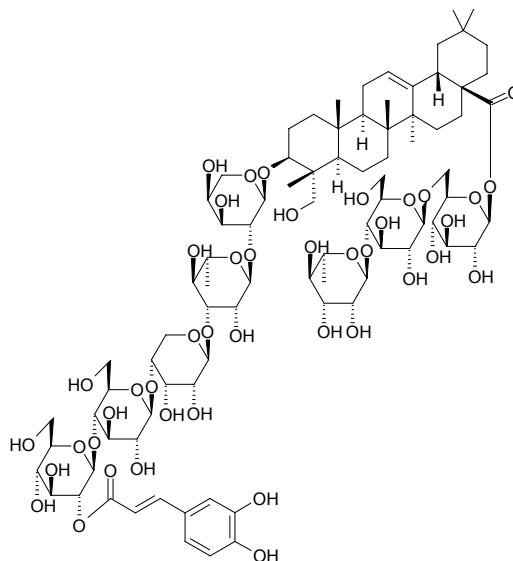
$C_{27}H_{26}O_{12}$  (542.50). Source: QIANG DAO YAO *Hypoestes purpurea* [Syn. *Justicia purpurea*; *Hypoestes sinica*] (whole herb: yield = 0.00055%dw). Ref: 4712.

**3818 Clemaphenol A**

Clemaphenol A  $C_{20}H_{22}O_6$  (358.39). Colorless oily liquid. Source: WEI LING XIAN *Clematis chinensis*. Ref: 871.

**3819 Clematibetoside A**

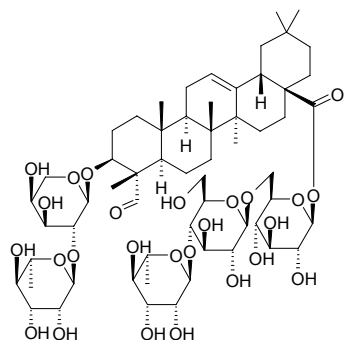
3-*O*-(2-*O*-Caffeoyl)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-ribosepyranosyl-(1 $\rightarrow$ 3)- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -*L*-arabinopyranosyl-1 hederagenin 28-*O*- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -*D*-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranoside  $C_{85}H_{130}O_{43}$  (1839.96). Yellowish amorphous powder,  $[\alpha]_D^{28} = -59.2^\circ$  ( $c = 0.33$ , MeOH). Source: XI ZANG TIE XIAN LIAN *Clematis tibetana* (aerial parts). Ref: 3530.



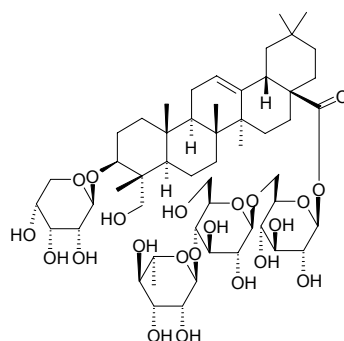


**3820 Clematibetoside B**

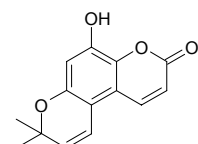
3-*O*- $\alpha$ -L-Rhamnopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -L-arabinopyranosyl gypsogenin 28-*O*- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranoside  
 $C_{59}H_{94}O_{26}$  (1219.39). White amorphous powder,  $[\alpha]_D^{28} = -13.0^\circ$  ( $c = 0.51$ , MeOH). Source: XI ZANG TIE XIAN LIAN *Clematis tibetana* (aerial parts). Ref: 3530.

**3821 Clematibetoside C**

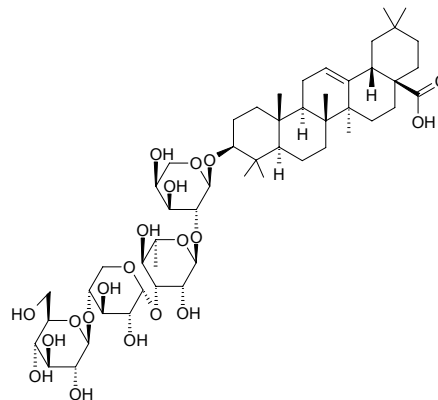
3-*O*- $\beta$ -D-Ribopyranosyl hederagenin 28-*O*- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranoside  $C_{53}H_{86}O_{22}$  (1075.26). White amorphous powder,  $[\alpha]_D^{28} = -25.7^\circ$  ( $c = 0.67$ , MeOH). Pharm: Cytotoxic (antiproliferative *in vitro*: J774.A1 cell line,  $IC_{50} = 0.85\mu\text{mol/L}$ , HEK-293 cell line,  $IC_{50} = 1.1\mu\text{mol/L}$ , WEHI-164 cell line,  $IC_{50} = 1.2\mu\text{mol/L}$ ; control 6-Mercaptopurine, J774.A1 cell line,  $IC_{50} = 0.003\mu\text{mol/L}$ , HEK-293 cell line,  $IC_{50} = 0.007\mu\text{mol/L}$ , WEHI-164 cell line,  $IC_{50} = 0.015\mu\text{mol/L}$ )<sup>[5036]</sup>. Source: XI ZANG TIE XIAN LIAN *Clematis tibetana* (aerial parts). Ref: 3530, 5036.

**3822 Clematichinenol**

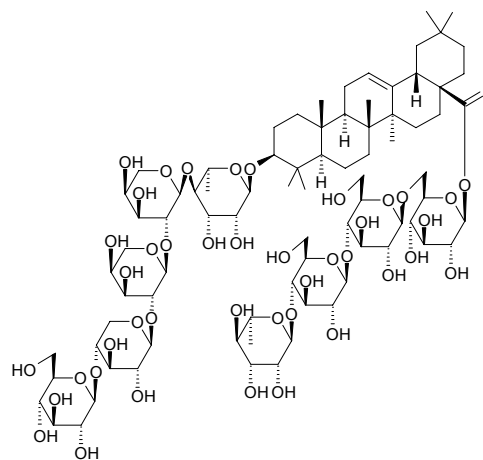
$C_{14}H_{12}O_4$  (244.25). mp 186–188°C. Source: WEI LING XIAN *Clematis chinensis*. Ref: 9.

**3823 Clematis prosapogenin, Cp7a**

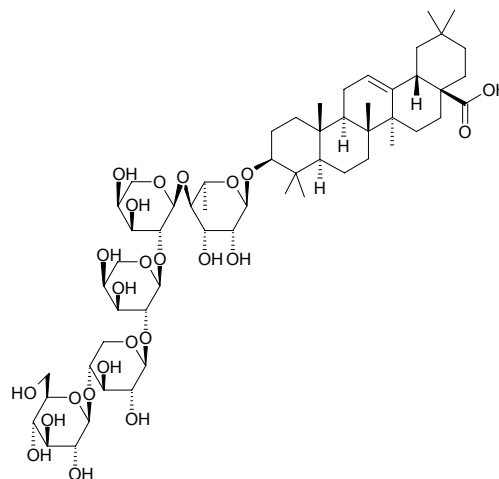
$C_{52}H_{84}O_{20}$  (1029.24). White powder,  $[\alpha]_D^{20} = -18^\circ$  ( $c = 0.8$ , methanol). Source: CI QIU SHU PI *Kalopanax septemlobus*. Ref: 457.

**3824 Clematoside A**

$C_{81}H_{132}O_{43}$  (1793.93). Source: WEI LING XIAN *Clematis chinensis*. Ref: 6.

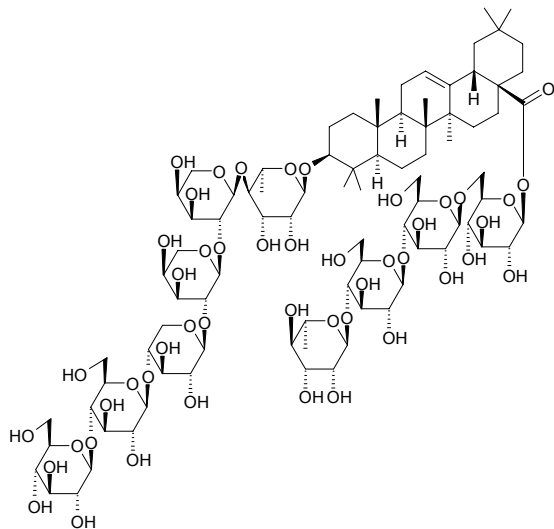
**3825 Clematoside A'**

$C_{57}H_{92}O_{24}$  (1161.35). mp 176–179°C. Source: WEI LING XIAN *Clematis chinensis*. Ref: 6.

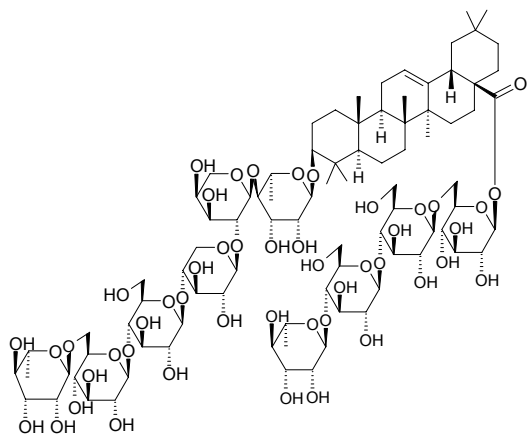


**3826 Clematocide B**

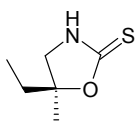
$C_{87}H_{142}O_{48}$  (1956.07). mp 200–202°C. Source: WEI LING XIAN *Clematis chinensis*. Ref: 6.

**3827 Clematocide C**

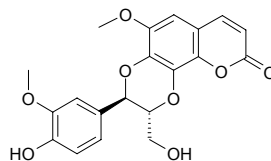
[18463-37-1]  $C_{88}H_{144}O_{48}$  (1970.11). mp 213–215°C. Source: WEI LING XIAN *Clematis chinensis*. Ref: 6.

**3828 Cleomin**

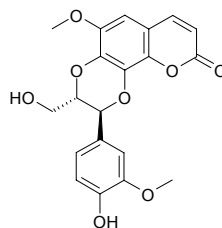
[75272-94-5]  $C_6H_{11}NOS$  (145.22). mp 52°C. Source: BAI HUA CAI ZI *Cleome gynandra* [Syn. *Gynandropsis gynandra*]. Ref: 6.

**3829 Cleomiscosin A**

Cleosandrin [76948-72-6]  $C_{20}H_{18}O_8$  (386.36). Nearly colorless rhombic crystals (methanol), mp 250–251°C; 250–252°C; 247–249°C,  $[\alpha]_D^{25} = 0^\circ$  ( $c = 0.5$ , methanol). Pharm: Cytotoxic ( $P_{388}$ ,  $ED_{50} = 0.4$  or  $2.8\mu\text{g/mL}$ , KB,  $ED_{50} = 4.9\mu\text{g/mL}$ )<sup>[900]</sup>; cytotoxic (hmn, A549  $EC_{50} > 20\mu\text{g/mL}$ , MCF7  $EC_{50} > 20\mu\text{g/mL}$ )<sup>[2529]</sup>. antihepatotoxin (rat liver cells, *in vitro*,  $0.1\text{mg/mL}$ , liver damage caused by *D*-galactosamine, GPT reduced from 100% of control to 68%,  $P < 0.001$ )<sup>[900]</sup>; tyrosinase inhibitor ( $IC_{50} = (18.69 \pm 0.68)\mu\text{mol/L}$ , control Kojic acid,  $IC_{50} = (16.67 \pm 0.52)\mu\text{mol/L}$ , *L*-Mimosine  $IC_{50} = (3.68 \pm 0.02)\mu\text{mol/L}$ )<sup>[2544]</sup>; antioxidant (*in vitro*, rat liver microsomes lipid peroxidation,  $IC_{50} = 9.0\mu\text{g/mL}$ )<sup>[3088]</sup>; MAO inhibitor inactive ( $70\mu\text{g/mL}$ )<sup>[3088]</sup>; anti-HIV (H9 lymphocytic cells, inhibits replication,  $IC_{50}$  (concentration that inhibits uninfected H9 cell growth by 50%) =  $18.63\mu\text{g/mL}$ )<sup>[2529]</sup>. Source: A FU HAN DU JUAN HUA *Rhododendron collettianum*, CHE SANG ZI YE *Dodonaea viscosa*, DUO RUI BAI HUA CAI *Cleome icosandra*, HUANG HUA CAO *Cleome viscosa*, LANG DANG ZI *Hyoscyamus niger* (seed: yield =  $0.024\%dw$ )<sup>[2096]</sup>, MU JIN HUA *Hibiscus syriacus*<sup>[3088]</sup>, RI BEN QI YE SHU *Aesculus turbinata*, TAI WAN FU RONG *Hibiscus taiwanensis*, YA DAN ZI *Brucea javanica* [Syn. *Brucea sumatrana*; *Rhus javanica*], *Matayba arborescens*, *Soulamea soulameoides*. Ref: 658, 900, 1521, 2096, 2529, 2544, 3088.

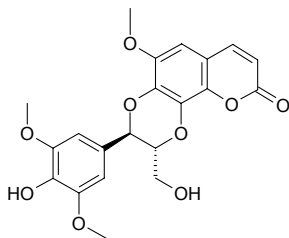
**3830 Cleomiscosin B**

[76985-93-8]  $C_{20}H_{18}O_8$  (386.36). Colorless thin rhombic crystals (methanol–ethyl acetate), mp 274°C,  $[\alpha]_D = 0^\circ$  ( $c = 0.12$ , methanol). Pharm: Antihepatotoxin (rat liver cells, *in vitro*,  $1.0\text{mg/mL}$ , liver damage caused by  $CCl_4$  and *D*-galactosamine, GPT reduced from 100% of control to 82% and 49% respectively,  $P < 0.001$ ). Source: LANG DANG ZI *Hyoscyamus niger* (seed: yield =  $0.010\%dw$ ), RI BEN QI YE SHU *Aesculus turbinata*. Ref: 900, 2096.

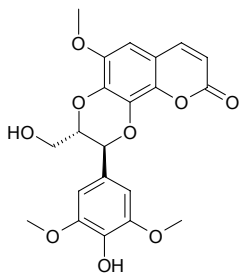


**3831 Cleomiscosin C**

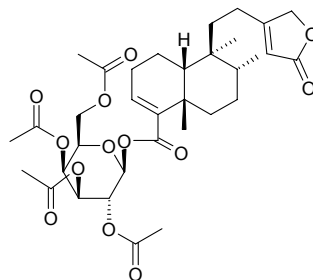
5'-Methoxy-cleomiscosin A; Aquillochin [84575-10-0] C<sub>21</sub>H<sub>20</sub>O<sub>9</sub> (416.39). Colorless rhombic crystals (methanol–ethyl acetate), mp 255°C, [ $\alpha$ ]<sub>D</sub> = 0° (*c* = 0.08, methanol). **Pharm:** Antihepatotoxin (rat liver cells, *in vitro*, 1.0mg/mL, liver damage caused by *D*-galactosamine, GPT reduced from 100% of control to 55%, *P* < 0.001); anti-HIV (H9 lymphocytic cells, inhibits HIV replication, IC<sub>50</sub> (concentration that inhibits uninfected H9 cell growth by 50%) > 25µg/mL)<sup>[2529]</sup>; cytotoxic (hmn, A549 EC<sub>50</sub> > 20µg/mL, MCF7 EC<sub>50</sub> > 20µg/mL)<sup>[2529]</sup>;  $\beta$ -hexosaminidase inhibitor inactive (RBL-2H3 cells, inhibits release of  $\beta$ -hexosaminidase, 100µmol/L, InRt = (-1.7±3.3)%)<sup>[4304]</sup>; antioxidant (*in vitro*, rat liver microsomes lipid peroxidation, IC<sub>50</sub> = 0.7µg/mL)<sup>[3088]</sup>; MAO inhibitor inactive (70µg/mL)<sup>[3088]</sup>; tyrosinase inhibitor (IC<sub>50</sub> = (15.69±0.69)µmol/L, control Kojic acid, IC<sub>50</sub> = (16.67±0.52)µmol/L, *L*-Mimosine IC<sub>50</sub> = (3.68±0.02)µmol/L)<sup>[2544]</sup>. **Source:** A FU HAN DU JUAN HUA *Rhododendron collettianum*, CHEN XIANG *Aquilaria agallocha*, CHE SANG ZI YE *Dodonaea viscosa*, MAO GUO QI *Acer nikoense* (stem cortex), MU JIN HUA *Hibiscus syriacus*<sup>[3088]</sup>, TAI WAN FU RONG *Hibiscus taiwanensis*. **Ref:** 660, 900, 2529, 2544, 3088, 4304.

**3832 Cleomiscosin D**

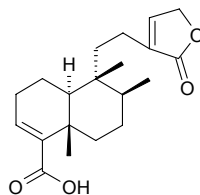
C<sub>21</sub>H<sub>20</sub>O<sub>9</sub> (416.39). **Pharm:** Antioxidant (*in vitro*, rat liver microsomes lipid peroxidation, IC<sub>50</sub> = 5.5µg/mL)<sup>[3088]</sup>; MAO inhibitor inactive (70µg/mL)<sup>[3088]</sup>;  $\beta$ -hexosaminidase inhibitor inactive (RBL-2H3 cells, inhibits release of  $\beta$ -hexosaminidase, 100µmol/L, InRt = (1.1±3.5)%)<sup>[4304]</sup>. **Source:** MAO GUO QI *Acer nikoense* (stem cortex), MU JIN HUA *Hibiscus syriacus*. **Ref:** 3088, 4304.

**3833 cis-Cleroda-3,13(14)-dien-15,16-olide-18-O-[\beta-D-galactopyranosyl]-peracetyllester**

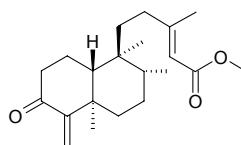
C<sub>34</sub>H<sub>46</sub>O<sub>13</sub> (662.74). Amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -31.6° (*c* = 0.88, CHCl<sub>3</sub>). **Source:** RI BEN LIU SHAN *Cryptomeria japonica*. **Ref:** 1933.

**3834 (+)-3,13-Clerodadien-16,15-olid-18-oic acid**

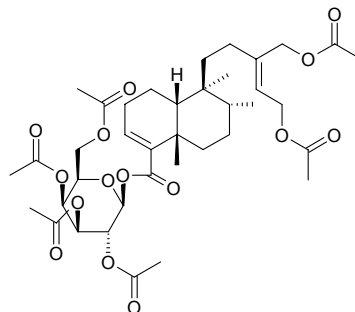
C<sub>20</sub>H<sub>28</sub>O<sub>4</sub> (332.44). **Source:** JIA LIAN QIAO YE *Duranta repens*. **Ref:** 4050.

**3835 4(18),13-Clerodadien-3-oxo-15-oic acid methyl ester**

C<sub>21</sub>H<sub>32</sub>O<sub>3</sub> (332.49). **Source:** GAO YI ZHI HUANG HUA *Solidago altissima*. **Ref:** 2366.

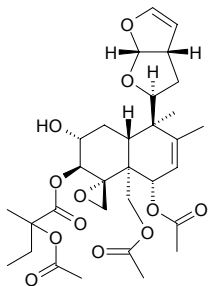
**3836 cis-Cleroda-15,16-dihydroxy-3,13(Z)-dien-18-O-[\beta-D-galactopyranosyl]-peracetyllester**

C<sub>38</sub>H<sub>54</sub>O<sub>15</sub> (750.85). Amorphous solid, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -27.8° (*c* = 0.28, CHCl<sub>3</sub>). **Source:** RI BEN LIU SHAN *Cryptomeria japonica*. **Ref:** 1933.

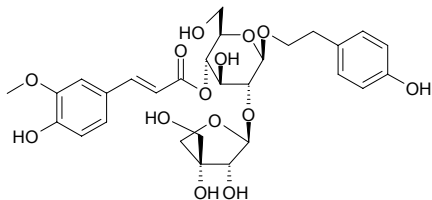


**3837 Clerodendrin A**

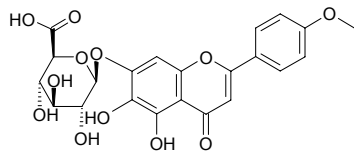
[35481-70-0] C<sub>31</sub>H<sub>42</sub>O<sub>12</sub> (606.67). **Pharm:** Insect antifeedant (*Spodoptera littoralis* larva). **Source:** CHOU WU TONG *Clerodendron trichotomum*. **Ref:** 6, 658.

**3838 Clerodendronoside**

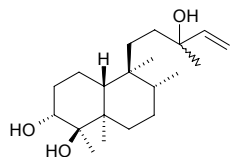
$\beta$ -(4-Hydroxyphenyl)ethyl-*O*- $\beta$ -D-apiofuranosyl-(1 $\rightarrow$ 2)-4-*O*-*trans*-feruloyl- $\beta$ -D-glucopyranoside C<sub>29</sub>H<sub>36</sub>O<sub>14</sub> (608.60). Yellow amorphous powder, mp 125~126°C,  $[\alpha]_D^{20} = +11^\circ$  ( $c = 0.02$ , MeOH). **Source:** CHOU MU DAN *Clerodendrum bungei* (aerial parts). **Ref:** 4873.

**3839 Clerodendroside A**

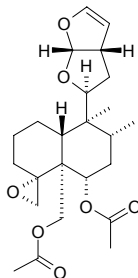
[64924-06-7] C<sub>22</sub>H<sub>20</sub>O<sub>12</sub> (476.40). Dihydrate: yellowish tiny acicular crystals (water-methanol), mp 208~211°C,  $[\alpha]_D^{20} = -142^\circ$  ( $c = 0.6$ , pyridine). **Pharm:** Antihypertensive (anesthetic rat, iv). **Source:** AI TONG ZI *Clerodendron trichotomum* var. *fargesii*. **Ref:** 661.

**3840 Clerod-14-ene-3 $\alpha$ ,4 $\beta$ ,13 $\xi$ -triol**

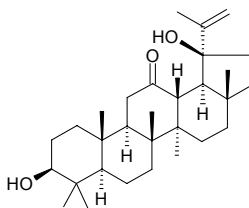
C<sub>20</sub>H<sub>36</sub>O<sub>3</sub> (324.51).  $[\alpha]_D^{25} = -9.9^\circ$  ( $c = 0.71$ , CHCl<sub>3</sub>). **Pharm:** Plant growth inhibitor (the strongest). **Source:** *Viguiera tucumanensis*. **Ref:** 1889.

**3841 Clerodin**

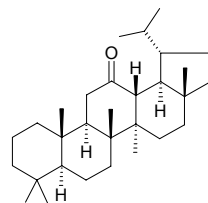
[464-71-1] C<sub>24</sub>H<sub>34</sub>O<sub>7</sub> (434.53). mp 161~162°C (dec). **Pharm:** Anthelmintic. **Source:** QIAN YU DA QING *Clerodendron infortunatum*, GUI DENG LONG *Clerodendron fortunatum*. **Ref:** 6, 658.

**3842 Clerodolone**

3,19-Dihydroxy-20(29)-lupen-12-one [10070-36-7] C<sub>30</sub>H<sub>48</sub>O<sub>3</sub> (456.72). mp 282~284°C. **Source:** CHOU WU TONG GEN *Clerodendron trichotomum*, GUI DENG LONG *Clerodendron fortunatum*, LU BIAN QING *Clerodendron cyrtophyllum*. **Ref:** 6, 660.

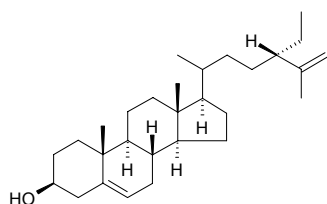
**3843 Clerodone**

12-Lupanone [10070-37-8] C<sub>30</sub>H<sub>50</sub>O (426.73). mp 260°C. **Source:** GUI DENG LONG *Clerodendron fortunatum*, CHOU WU TONG GEN *Clerodendron trichotomum*. **Ref:** 6.

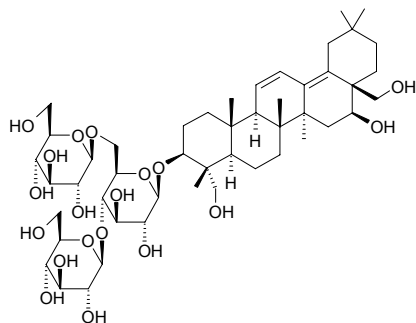


**3844 Clerosterol**

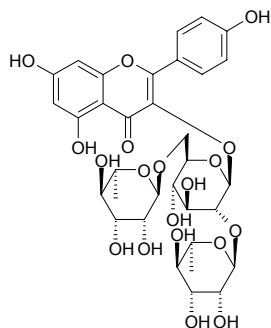
$\Delta^5,^{25}$ -Stigmastadienol [2364-23-0]  $C_{29}H_{48}O$  (412.70). White scale crystals (ethanol), mp 137.6~138.4°C, 147°C. **Pharm:** Promotes growth of white blood cells strongly (2.9mg/mL and 12.0mg/kg). **Source:** CHOU WU TONG GEN *Clerodendron trichotomum*, GUI DENG LONG *Clerodendron fortunatum*, HONG HUA *Carthamus tinctorius*, LU BIAN QING *Clerodendron cyrtophyllum*, SHUI SONG *Codium fragile*. **Ref:** 6, 660, 900.

**3845 Clinodiside A**

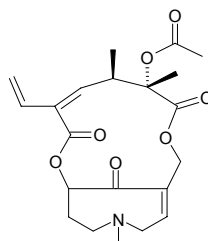
3-*O*- $\beta$ -D-Glucopyranosyl-(1 $\rightarrow$ 6)-[ $\beta$ -D-glucopyranosyl (1 $\rightarrow$ 4)] ( $\beta$ -D-glucopyranosyl-olean-11,13(18)-diene-3 $\beta$ ,16 $\beta$ ,23,28-tetrol  $C_{48}H_{78}O_{19}$  (959.15). White granular crystals, mp 249~251°C,  $[\alpha]_D^{25} = +10.7^\circ$  (ethanol). **Source:** FENG LUN CAI *Clinopodium chinense*. **Ref:** 224.

**3846 Clitorin**

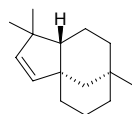
Kaempferol 3-*O*-(2'',6''-di-*O*- $\alpha$ -L-rhamnopyranosyl)- $\beta$ -D-glucopyranoside  $C_{33}H_{40}O_{19}$  (740.68). **Source:** LAO YA SHI *Diospyros rhombifolia* (leaf), LV DOU *Onobrychis viciifolia* (leaf). **Ref:** 4464, 5084.

**3847 Clivorine**

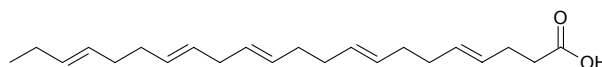
[33979-15-6]  $C_{21}H_{27}NO_7$  (405.45). mp 148~150°C. **Pharm:** Mutagen; carcinogen (causes liver cancer). **Source:** CHI YE TUO WU *Ligularia dentata*, HU LU QI *Ligularia fischeri*, SHAN GANG TUO WU *Ligularia clivorum*, YA ZHI TUO WU *Ligularia elegans*, YAO YONG NIU SHE CAO *Anchusa officinalis*. **Ref:** 6, 658.

**3848 Clovene**

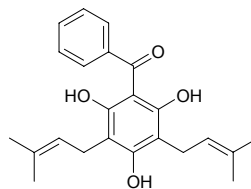
[469-92-1]  $C_{15}H_{24}$  (204.36). **Source:** WU WEI ZI *Schisandra chinensis*. **Ref:** 2.

**3849 Clupanodonic acid**

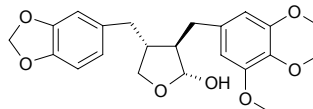
Docosapentenoic acid [2548-85-8]  $C_{22}H_{34}O_2$  (330.52). bp 174~175°C /0.018~0.02mmHg. **Source:** HAI REN CAO *Digenea simplex*, SHI CHUN *Ulva lactuca*. **Ref:** 6.

**3850 Clusiaphenone B**

[70219-84-0]  $C_{23}H_{26}O_4$  (366.46). **Pharm:** Antioxidant (DPPH scavenger, 10 $\mu$ mol/L, ScRt = 11%, control BHT, 10 $\mu$ mol/L, ScRt = 43%). **Source:** TIAN SHAN ZHU ZI *Garcinia dulcis* (fruit). **Ref:** 5319.

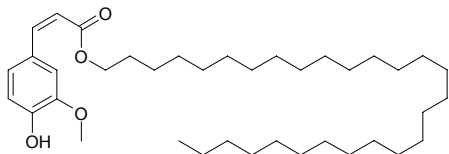
**3851 (-)-Clusin**

$C_{22}H_{26}O_7$  (402.45). **Pharm:** CYP3A4 inhibitor and CYP2D6 inhibitor (*in vitro*, CYP3A4,  $IC_{50} = 0.83\mu$ mol/L; CYP2D6,  $IC_{50} > 100\mu$ mol/L; control Ketoconazole, CYP3A4,  $IC_{50} = 0.72\mu$ mol/L; control Quinidine, CYP2D6,  $IC_{50} = 0.082\mu$ mol/L). **Source:** BI CHENG QIE *Piper cubeba* (fruit: yield = 0.0028%dw). **Ref:** 4797.

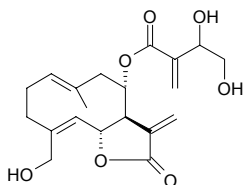


**3852 Cluytly ferulate**

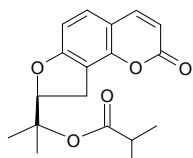
Octacosyl ferulate  $C_{38}H_{66}O_4$  (586.95). **Pharm:** Antimalarial inactive (antiplasmodial *in vitro*, *Plasmodium falciparum*, W2 strain,  $IC_{50} > 50 \mu\text{mol/L}$ , control Quinine,  $IC_{50} = (0.21 \pm 0.01) \mu\text{mol/L}$ ; D6 strain,  $IC_{50} > 50 \mu\text{mol/L}$ , Quinine,  $IC_{50} = (0.042 \pm 0.002) \mu\text{mol/L}$ ). **Source:** A BI XI NI YA CI TONG *Erythrina abyssinica* (root cortex), HOU PI SHU *Lannea grandis* [Syn. *Lannea coromandelica*]. **Ref:** 6, 5420.

**3853 Cnicin**

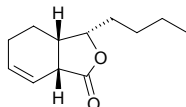
$C_{20}H_{26}O_7$  (378.43). **Pharm:** Antifungal (*Aspergillus niger*, MIC =  $0.125 \mu\text{g/mL}$ , control Miconazole, MIC =  $1.5 \mu\text{g/mL}$ ; *Aspergillus ochraceus*, MIC =  $0.06 \mu\text{g/mL}$ , Miconazole, MIC =  $1.5 \mu\text{g/mL}$ ; *Aspergillus versicolor*, MIC =  $0.125 \mu\text{g/mL}$ , Miconazole, MIC =  $2 \mu\text{g/mL}$ ; *Aspergillus flavus*, MIC =  $0.5 \mu\text{g/mL}$ , Miconazole, MIC =  $0.5 \mu\text{g/mL}$ ; *Penicillium ochrochloron*, MIC =  $0.25 \mu\text{g/mL}$ , Miconazole, MIC =  $2 \mu\text{g/mL}$ ; *Penicillium funiculosum*, MIC =  $0.5 \mu\text{g/mL}$ , Miconazole, MIC =  $2 \mu\text{g/mL}$ ; *Trichoderma viride*, MIC =  $0.5 \mu\text{g/mL}$ , Miconazole, MIC =  $2 \mu\text{g/mL}$ ; *Cladosporium cladosporioides*, MIC =  $0.125 \mu\text{g/mL}$ , Miconazole, MIC =  $0.03 \mu\text{g/mL}$ ; *Alternaria alternata*, MIC =  $0.25 \mu\text{g/mL}$ , Miconazole, MIC =  $0.5 \mu\text{g/mL}$ ). **Source:** *Centaurea thessala* ssp. *drakiensis* (aerial parts), *Centaurea attica* ssp. *attica* (aerial parts). **Ref:** 5115.

**3854 Cnidiadin**

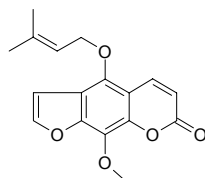
[41137-88-6]  $C_{18}H_{20}O_5$  (316.36). mp  $144\text{--}145^\circ\text{C}$ . **Source:** SHE CHUANG ZI *Cnidium monnieri*. **Ref:** 6.

**3855 Cnidilide**

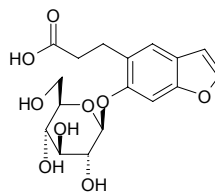
$C_{12}H_{18}O_2$  (194.28). bp  $145\text{--}146^\circ\text{C}/2.5\text{mmHg}$ . **Source:** DANG GUI *Angelica sinensis*, GAO BEN *Ligusticum sinense*, HAN QIN *Apium graveolens*. **Ref:** 6, 18, 19.

**3856 Cnidilin**

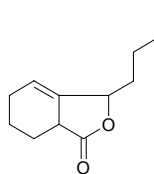
[14348-22-2]  $C_{17}H_{16}O_5$  (300.31). Yellow amorphous powder. **Pharm:** Antileishmanial (*Leishmania major* promastigote,  $10 \mu\text{mol/L}$ , survival =  $(74.6 \pm 5.5)\%$ ,  $1 \mu\text{mol/L}$ , survival =  $(92.7 \pm 5.2)\%$ , control Amphotericin B,  $10 \mu\text{mol/L}$ , survival =  $(0.2 \pm 0.04)\%$ ,  $1 \mu\text{mol/L}$ , survival =  $(71.9 \pm 4.4)\%$ )<sup>[3797]</sup>; antifungal inactive (silica gel TLC, *Cladosporium cucumerinum*, control Nystatin, MIA =  $0.2 \mu\text{g}$ )<sup>[3797]</sup>. **Source:** HANG BAI ZHI *Angelica taiwaniana*, *Niphogeton ternata*, *Thamnosma rhodesica* (root)<sup>[3797]</sup>. **Ref:** 2, 3797, 4156.

**3857 Cnidioside A**

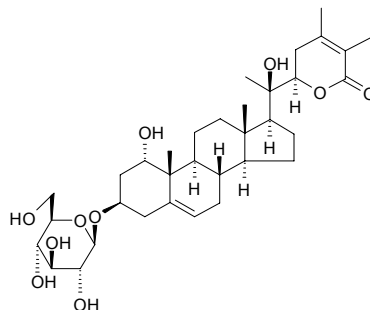
[141896-53-9]  $C_{17}H_{20}O_9$  (368.34). Amorphous powder. **Source:** CHOU CAO *Ruta graveolens* (dried aerial part), FEN CHA DANG GUI *Angelica furcijuga* (flower), SHE CHUANG ZI *Cnidium monnieri*. **Ref:** 1521, 3073, 4454.

**3858 Cnidium lactone**

$C_{12}H_{18}O_2$  (194.28). **Source:** CHUAN XIONG *Ligusticum chuanxiong* [Syn. *Ligusticum wallichii*]. **Ref:** 2.

**3859 Coagulin Q**

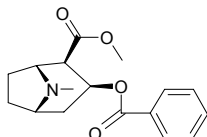
$C_{34}H_{52}O_{10}$  (620.79). **Pharm:** Neurite outgrowth activity (hmn neuroblastoma SH-SY5Y cell line,  $1 \mu\text{mol/L}$ )<sup>[4198]</sup>. **Source:** CUI MIAN SHUI QIE *Withania somnifera* (root), NING GU SHUI QIE *Withania coagulans*. **Ref:** 1521, 4198.



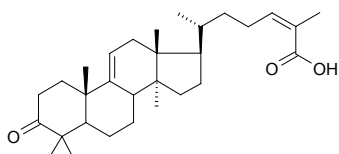
**3860 Cocaine**

Benzoyl methylecgonine [50-36-2]  $C_{17}H_{21}NO_4$  (303.36). Colorless plates, mp 98°C, bp 187~188°C (13.33Pa),  $[\alpha]_D^{20} = -16.3^\circ$  (chloroform), soluble in chloroform, ether, acetone, ethanol, acetic ester, slightly soluble in water.<sup>[5507]</sup>

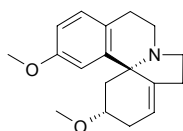
**Pharm:** Mydriatic; CNS activity (stimulates and focuses CNS). **Source:** GU KE *Erythroxylum coca*, BI LU GU KE *Erythroxylum novogranatense* (in 1858, isolated from the plant for the first time<sup>[5507]</sup>). **Ref:** 658, 5507.

**3861 Coccinic acid**

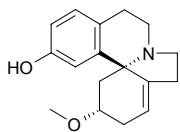
3-Oxolanosta-9(11),24-dien-26-oic acid  $C_{30}H_{46}O_3$  (454.70). **Pharm:** Antineoplastic<sup>[2523]</sup>, anti-HIV<sup>[2523]</sup>. **Source:** LENG FAN TUAN *Kadsura coccinea* [syn. *Kadsura chenensis*; *Kadsura hainanensis*]. **Ref:** 2436, 2523.

**3862 Cocculidine**

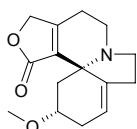
[25675-40-7]  $C_{18}H_{23}NO_2$  (285.39). mp 86~87°C. **Source:** HENG ZHOU WU YAO *Cocculus laurifolius*. **Ref:** 6.

**3863 Cocculine**

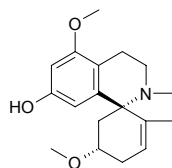
[25675-39-4]  $C_{17}H_{21}NO_2$  (271.36). mp 217~218°C. **Source:** HENG ZHOU WU YAO *Cocculus laurifolius*. **Ref:** 6.

**3864 Cocculolidine**

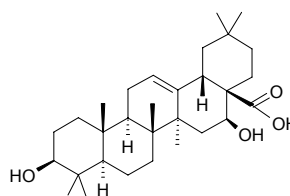
[13497-04-6]  $C_{15}H_{19}NO_3$  (261.32). mp 144~146°C. **Pharm:** Insecticidal; antihypertensive (dog). **Source:** MU FANG JI *Cocculus trilobus* [Syn. *Cocculus sarmentosus*], MEI GUO QING TENG *Cocculus carolinus*, QING TENG XIANG *Cocculus trilobus* [Syn. *Cocculus sarmentosus*]. **Ref:** 6, 658, 660.

**3865 Coccutrine**

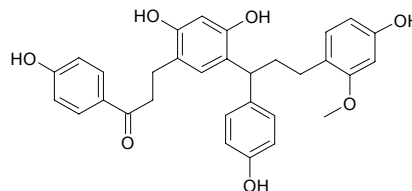
[59553-89-8]  $C_{18}H_{23}NO_3$  (301.39). Acicular crystals, mp 263~265°C,  $[\alpha]_D = +232^\circ$  **Source:** MU FANG JI *Cocculus trilobus* [Syn. *Cocculus sarmentosus*]. **Ref:** 2078.

**3866 Cochalic acid**

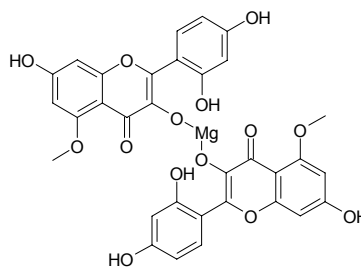
$C_{30}H_{48}O_4$  (472.71). **Source:** JIN ZHAN JU *Calendula officinalis* (flower). **Ref:** 3551.

**3867 Cochinchinenin**

$C_{31}H_{30}O_7$  (514.58). Yellow-brown amorphous powder. **Source:** JIAN YE LONG XUE SHU *Dracaena cochinchinensis*. **Ref:** 870.

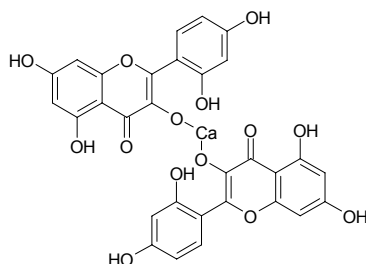
**3868 Cochinchinol A**

$C_{32}H_{22}MgO_{14}$  (654.84). Bright yellow powder. **Pharm:** Cytotoxic (Bel7402, ED<sub>50</sub> > 10µg/mL, control Camptothecin, ED<sub>50</sub> = 0.06µg/mL; BGC823, ED<sub>50</sub> > 10µg/mL, Camptothecin, ED<sub>50</sub> = 0.09µg/mL; HCT8, ED<sub>50</sub> > 10µg/mL, Camptothecin, ED<sub>50</sub> = 0.14µg/mL; A549, ED<sub>50</sub> > 10µg/mL, Camptothecin, ED<sub>50</sub> = 0.09µg/mL; MCF7, ED<sub>50</sub> > 10µg/mL, Camptothecin, ED<sub>50</sub> = 0.01µg/mL). **Source:** GOU JI *Cudrania cochinchinensis* (root). **Ref:** 5338.

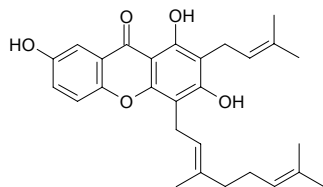


**3869 Cochinchinol B**

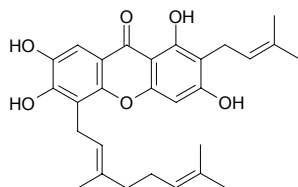
$C_{30}H_{18}CaO_{14}$  (642.55). Bright yellow powder. **Pharm:** Cytotoxic (Bel7402,  $ED_{50} > 10\mu\text{g/mL}$ , control Camptothecin,  $ED_{50} = 0.06\mu\text{g/mL}$ ; BGC823,  $ED_{50} > 10\mu\text{g/mL}$ , Camptothecin,  $ED_{50} = 0.09\mu\text{g/mL}$ ; HCT8,  $ED_{50} > 10\mu\text{g/mL}$ , Camptothecin,  $ED_{50} = 0.14\mu\text{g/mL}$ ; A549,  $ED_{50} > 10\mu\text{g/mL}$ , Camptothecin,  $ED_{50} = 0.09\mu\text{g/mL}$ ; MCF7,  $ED_{50} > 10\mu\text{g/mL}$ , Camptothecin,  $ED_{50} = 0.01\mu\text{g/mL}$ ). **Source:** GOU JI *Cudrania cochinchinensis* (root). **Ref:** 5338.

**3870 Cochinchinone A**

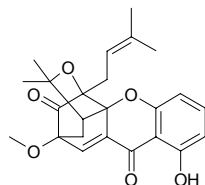
$C_{28}H_{32}O_5$  (448.56). Yellow solid, mp 119~120°C. **Pharm:** Antioxidant (DPPH scavenger, 50 $\mu\text{mol/L}$ , ScRt = 20.7%; control BHT, 50 $\mu\text{mol/L}$ , ScRt = 51.7%,  $IC_{50} = 28.9\mu\text{mol/L}$ ). **Source:** HUANG NIU MU *Cratoxylum cochinchinense* (root). **Ref:** 4423.

**3871 Cochinchinone B**

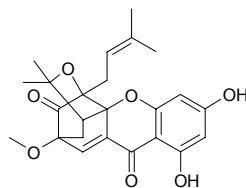
$C_{28}H_{32}O_6$  (464.56). Yellow solid, mp 221~222°C. **Pharm:** Antioxidant (DPPH scavenger, 50 $\mu\text{mol/L}$ , ScRt = 79.3%,  $IC_{50} = 9.4\mu\text{mol/L}$ ; control BHT, 50 $\mu\text{mol/L}$ , ScRt = 51.7%,  $IC_{50} = 28.9\mu\text{mol/L}$ ). **Source:** HUANG NIU MU *Cratoxylum cochinchinense* (root). **Ref:** 4423.

**3872 Cochinchinone C**

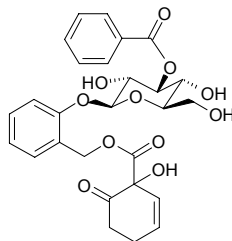
$C_{24}H_{26}O_6$  (410.47). Yellow solid, mp 147~148°C,  $[\alpha]_D^{29} = +50^\circ$  ( $c = 0.089$ ,  $\text{CHCl}_3$ ). **Pharm:** Antioxidant inactive (DPPH scavenger, 50 $\mu\text{mol/L}$ , ScRt = 1.7%; control BHT, 50 $\mu\text{mol/L}$ , ScRt = 51.7%,  $IC_{50} = 28.9\mu\text{mol/L}$ ). **Source:** HUANG NIU MU *Cratoxylum cochinchinense* (root). **Ref:** 4423.

**3873 Cochinchinone D**

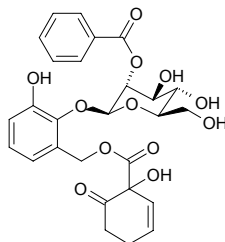
$C_{24}H_{26}O_7$  (426.47). Yellow solid, mp 218~219°C,  $[\alpha]_D^{29} = -58^\circ$  ( $c = 0.069$ ,  $\text{CHCl}_3$ ). **Pharm:** Antioxidant inactive (DPPH scavenger, 50 $\mu\text{mol/L}$ , ScRt = 5.2%; control BHT, 50 $\mu\text{mol/L}$ , ScRt = 51.7%,  $IC_{50} = 28.9\mu\text{mol/L}$ ). **Source:** HUANG NIU MU *Cratoxylum cochinchinense* (root). **Ref:** 4423.

**3874 Cochinchinide A**

$C_{27}H_{28}O_{11}$  (528.52). Pale yellow amorphous mass. **Source:** TIAN LIAO MU *Homalium cochinchinensis* (root cortex: yield = 0.009%). **Ref:** 4742.

**3875 Cochinchinide B**

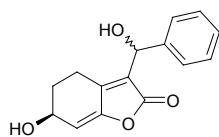
$C_{27}H_{28}O_{12}$  (544.52). Colorless amorphous mass. **Pharm:** Antiviral (HSV-1,  $EC_{50} = 76\mu\text{mol/L}$ ; HSV-2,  $EC_{50} = 76\mu\text{mol/L}$ ; HIV-1,  $EC_{50} > 18\mu\text{mol/L}$ ; control Acyclovir, HSV-1,  $EC_{50} = 1.1\mu\text{mol/L}$ ; HSV-2,  $EC_{50} = 1\mu\text{mol/L}$ ; control Azidothymidine, HIV-1,  $EC_{50} = 0.02\mu\text{mol/L}$ ). **Source:** TIAN LIAO MU *Homalium cochinchinensis* (leaf: yield = 0.0919%). **Ref:** 4742.



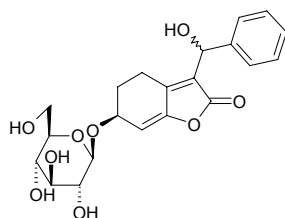


**3876 Cochinolide**

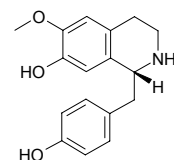
$C_{15}H_{14}O_4$  (258.28). Source: TIAN LIAO MU *Homalium cochinchinensis* (root cortex: yield = 0.038%). Ref: 4742.

**3877 Cochinolide  $\beta$ -glucopyranoside**

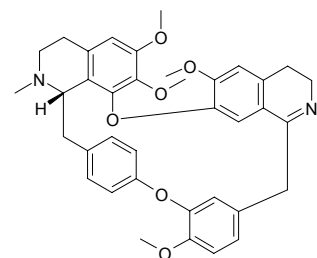
$C_{21}H_{24}O_9$  (420.42). Source: TIAN LIAO MU *Homalium cochinchinensis* (root cortex: yield = 0.327%). Ref: 4742.

**3878 D-Coclaurine**

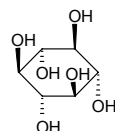
(+)-Coclaurine [486-39-5]  $C_{17}H_{19}NO_3$  (285.35). Foam form, mp 220.0–222.5°C (acetone),  $[\alpha]_D^{25} = +45.7^\circ$  ( $c = 0.44$ , ethanol). Pharm: Neuromuscular blocker (frog, MIC = 10  $\mu$ g/mL); sedative. Source: HENG ZHOU WU YAO *Cocculus laurifolius*, YIN BU HUAN *Cyclea barbata*. Ref: 6, 900.

**3879 Coclobine**

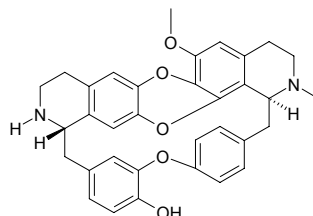
[24306-65-8]  $C_{37}H_{38}N_2O_6$  (606.73). Source: MU FANG JI *Cocculus trilobus* [Syn. *Cocculus sarmentosus*]. Ref: 6, 660.

**3880 Cocositol**

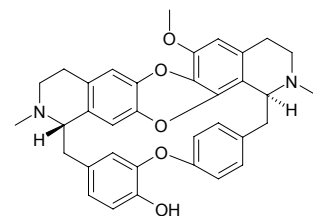
[488-59-5]  $C_6H_{12}O_6$  (180.16). mp 353°C (dec). Source: YE ZI PI *Cocos nucifera*. Ref: 6.

**3881 Cocsoline**

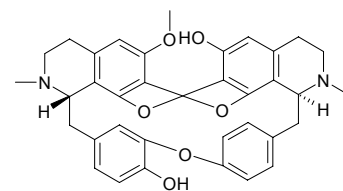
$C_{34}H_{32}N_2O_5$  (548.64). White amorphous powder,  $[\alpha]_D^{25} = +205^\circ$  ( $c = 0.15$ , MeOH). Pharm: AChE inhibitor (*in vitro*,  $IC_{50} = (47.5 \pm 1.5) \mu$ mol/L, control Galanthamine,  $IC_{50} = (0.5 \pm 0.001) \mu$ mol/L). Source: CHUI MU FANG JI *Cocculus pendulus*. Ref: 4051.

**3882 Cocsuline**

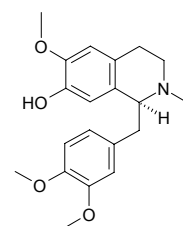
$C_{35}H_{34}N_2O_5$  (562.67). Yellow amorphous powder,  $[\alpha]_D^{25} = +275^\circ$  ( $c = 0.30$ , MeOH). Pharm: AChE inhibitor (*in vitro*,  $IC_{50} = (100.0 \pm 1.2) \mu$ mol/L, control Galanthamine,  $IC_{50} = (0.5 \pm 0.001) \mu$ mol/L). Source: CHUI MU FANG JI *Cocculus pendulus*. Ref: 4051.

**3883 Cocsulinine**

[54370-90-0]  $C_{35}H_{34}N_2O_6$  (578.67). mp 260–263°C (chloroform–methanol),  $[\alpha]_D^{25} = +312^\circ$  ( $c = 0.5$ ). Pharm: Antineoplastic (KB, IC = 4.7  $\mu$ g/mL). Source: CHUI MU FANG JI *Cocculus pendulus*. Ref: 661.

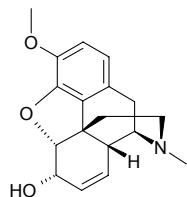
**3884 Codamine**

[21040-59-5]  $C_{20}H_{25}NO_4$  (343.43). mp (+) 126–127°C, (–) 127–128°C, ( $\pm$ ) 106–108°C. Source: YA PIAN *Papaver somniferum*. Ref: 6.

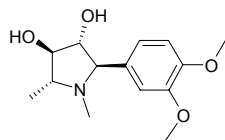


**3885 Codeine**

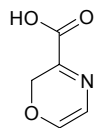
Methylmorphine; Paveral; Codicept; Morphine monomethyl ether [76-57-3]  $C_{18}H_{21}NO_3$  (299.37). mp 155°C; easily soluble in ethanol, acetone, chloroform<sup>[5507]</sup>. **Pharm:** Analgesic; antitussive (strongly inhibits medullary cough center). **Source:** BAI YAO ZI *Stephania cepharantha*, DA HONG YING SU *Papaver bracteatum*, YA PIAN *Papaver somniferum*, YING SU *Papaver somniferum* (seed: content scope = 0.7%~2.5%; in 1832, isolated from the plant for the first time)<sup>[5507]</sup>, YING SU KE *Papaver somniferum* (dried capsule: content = 0.070%(phosphate)<sup>[5508]</sup>). **Ref:** 6, 658, 5507, 5508.

**3886 Codonopsine**

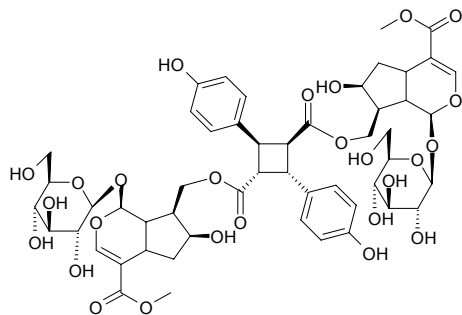
[26989-20-2]  $C_{14}H_{21}NO_4$  (267.33). **Pharm:** Antihypertensive (cat, iv, >20mg/kg); LD<sub>50</sub> (mus) = 666~778mg/kg. **Source:** XIN JIANG DANG SHEN *Codonopsis clematidea*. **Ref:** 658.

**3887 Codopiloic acid**

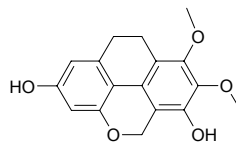
$C_5H_5NO_3$  (127.10). **Source:** DANG SHEN *Codonopsis pilosula*, CHUAN DANG SHEN *Codonopsis tangshen*. **Ref:** 2, 660.

**3888 Coelobillardin**

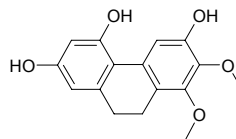
$C_{52}H_{64}O_{26}$  (1105.07). White amorphous solid,  $[\alpha]_D = -55.7^\circ$  ( $c = 1$ , MeOH). **Source:** XIN SU GE LAN XUE GUO MU *Coelospermum billardieri*. **Ref:** 1961.

**3889 Coelogin**

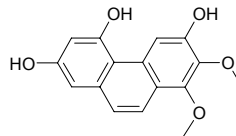
[82358-34-7]  $C_{17}H_{16}O_5$  (300.31). **Pharm:** Antispasmodic. **Source:** BEI MU LAN *Coelogyne ovalis*, MAO CHUN BEI MU LAN *Coelogyne cristata*. **Ref:** 658.

**3890 Coeloginanthridin**

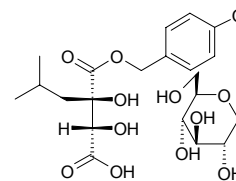
3,5,7-Trihydroxy-1,2-dimethoxy-9,10-dihydrophenanthrene  $C_{16}H_{16}O_5$  (288.30). **Source:** MAO CHUN BEI MU LAN *Coelogyne cristata* (whole herb). **Ref:** 5198.

**3891 Coeloginanthrin**

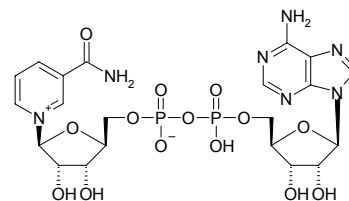
3,5,7-Trihydroxy-1,2-dimethoxyphenanthrene  $C_{16}H_{14}O_5$  (286.29). **Source:** MAO CHUN BEI MU LAN *Coelogyne cristata* (whole herb). **Ref:** 5198.

**3892 Coelovirin A**

$C_{21}H_{30}O_{12}$  (474.47). White amorphous powder,  $[\alpha]_D^{25} = -27.8^\circ$  ( $c = 0.115$ , MeOH). **Source:** AO SHE LAN *Coeloglossum viride* [Syn. *Coeloglossum viride* var. *bracteatum*]. **Ref:** 2225.

**3893 Coenzyme I**

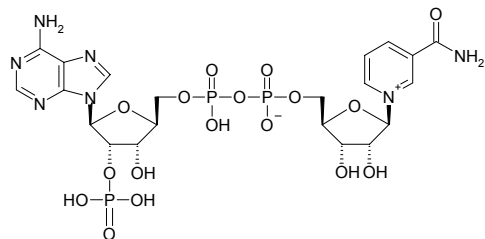
[53-84-9]  $C_{21}H_{27}N_7O_{14}P_2$  (663.44). **Source:** YUAN CAN ZI *Bombyx mori*. **Ref:** 6.



**3894 Coenzyme II**

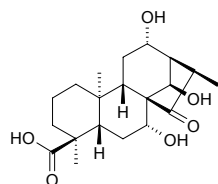
[53-59-8] C<sub>21</sub>H<sub>27</sub>N<sub>7</sub>O<sub>17</sub>P<sub>3</sub> (742.41). Source: YUAN CAN ZI *Bombyx mori*.

Ref: 6.

**3895 Coetsanoic acid**

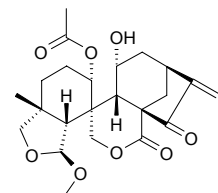
C<sub>20</sub>H<sub>30</sub>O<sub>6</sub> (366.46). mp > 300°C. Source: XI ZHUI XIANG CHA CAI

*Rabdosia coetsa*. Ref: 4067.

**3896 Coetsin A**

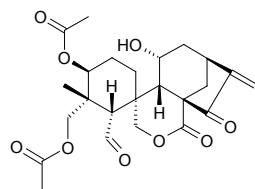
C<sub>23</sub>H<sub>30</sub>O<sub>8</sub> (434.49). mp 304~306°C, [α]<sub>D</sub><sup>10</sup> = -125° (c = 0.2, C<sub>5</sub>H<sub>5</sub>N). Source:

XI ZHUI XIANG CHA CAI *Rabdosia coetsa*. Ref: 4067.

**3897 Coetsin B**

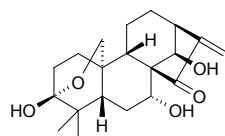
C<sub>24</sub>H<sub>30</sub>O<sub>9</sub> (462.50). mp 165~166°C, [α]<sub>D</sub><sup>17</sup> = -129° (c = 0.2, CHCl<sub>3</sub>). Source:

XI ZHUI XIANG CHA CAI *Rabdosia coetsa*. Ref: 4067.

**3898 Coetsoidin A(Huang)**

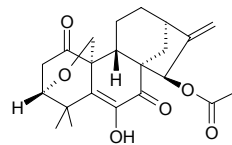
C<sub>20</sub>H<sub>28</sub>O<sub>5</sub> (348.44). mp 230~232°C, [α]<sub>D</sub><sup>21</sup> = -150.1° (c = 0.543, MeOH).

Source: JIA XI ZHUI XIANG CHA CAI *Rabdosia coetsoides*. Ref: 4067.

**3899 Coetsoidin A(Wang)**

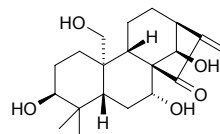
C<sub>22</sub>H<sub>26</sub>O<sub>6</sub> (386.45). Colorless columnar crystals, mp 180~181°C. Source: JIA

XI ZHUI XIANG CHA CAI *Rabdosia coetsoides*. Ref: 132, 4067.

**3900 Coetsoidin B**

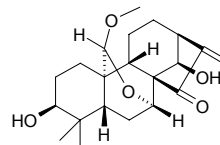
C<sub>20</sub>H<sub>30</sub>O<sub>5</sub> (350.46). mp 147~149°C, [α]<sub>D</sub><sup>21</sup> = -104.2° (c = 0.523, MeOH).

Source: JIA XI ZHUI XIANG CHA CAI *Rabdosia coetsoides*. Ref: 4067.

**3901 Coetsoidin C**

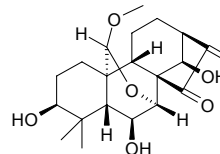
C<sub>21</sub>H<sub>30</sub>O<sub>5</sub> (362.47). mp 198~201°C, [α]<sub>D</sub><sup>24</sup> = -35.5° (c = 0.507, MeOH).

Source: JIA XI ZHUI XIANG CHA CAI *Rabdosia coetsoides*. Ref: 4067.

**3902 Coetsoidin D**

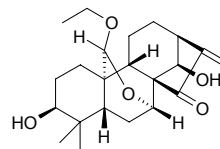
C<sub>21</sub>H<sub>30</sub>O<sub>6</sub> (378.47). mp 153~155°C, [α]<sub>D</sub><sup>24</sup> = -27.3° (c = 0.513, MeOH).

Source: JIA XI ZHUI XIANG CHA CAI *Rabdosia coetsoides*. Ref: 4067.

**3903 Coetsoidin E**

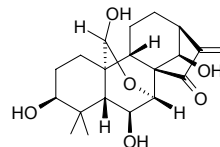
C<sub>22</sub>H<sub>32</sub>O<sub>5</sub> (376.50). mp 166~168°C, [α]<sub>D</sub><sup>24</sup> = -36.8° (c = 0.502, MeOH).

Source: JIA XI ZHUI XIANG CHA CAI *Rabdosia coetsoides*. Ref: 4067.

**3904 Coetsoidin F**

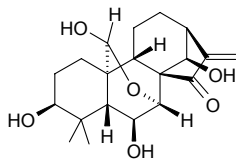
C<sub>20</sub>H<sub>28</sub>O<sub>6</sub> (364.44). Source: JIA XI ZHUI XIANG CHA CAI *Rabdosia*

*coetsoides*. Ref: 4067.

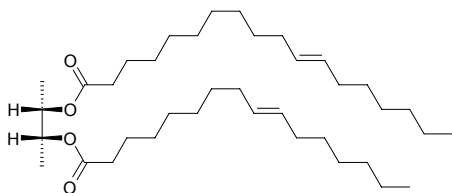


**3905 Coetsoidin G**

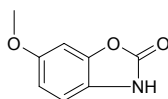
$C_{20}H_{28}O_6$  (364.44). Source: JIA XI ZHUI XIANG CHA CAI *Rabdosia coetsoides*. Ref: 4067.

**3906 Coixenolide**

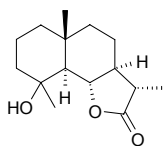
[29066-43-1]  $C_{38}H_{70}O_4$  (590.98). Pharm: Cytotoxic (mus, EAC); immunoenhancer (erythrocyte of mus with cancer, reduces activity of  $Na^+, K^+$ -ATPase in erythrocyte membrane). Source: YI YI REN *Coix lacryma-jobi* var. *ma-yuen*. Ref: 5, 6, 5501.

**3907 Coixol**

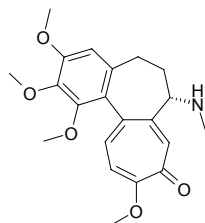
[53-91-2]  $C_8H_7NO_3$  (165.15). mp 151~153°C. Pharm: Antihypertensive (rbt, iv, in short time); analgesic; antipyretic; hypoglycemic (rbt, sc); inhibits intestinal movement (rbt, *in vitro*); CNS depressant (weak); inhibits heart (toad, *in vitro*); inhibits reaction of actomyosin-adenosine triphosphate system; inhibits skeletal muscles; low toxin. Source: BAI MAO GEN<sup>(1)</sup> *Imperata cylindrica* var. *major*, LU GEN *Phragmites communis*, YE GAN CAO *Scoparia dulcis*, YI MI *Coix lacryma-jobi*, YI YI REN *Coix lacryma-jobi* var. *ma-yuen*. Ref: 4, 6, 658, 5501.

**3908 Colartin**

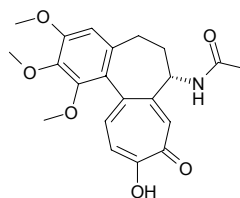
$C_{15}H_{24}O_3$  (252.36). Pharm: Cytotoxic (*in vitro*, HepG<sub>2</sub>, CD<sub>50</sub> > 100µg/mL; HeLa, CD<sub>50</sub> > 100µg/mL; OVCAR-3, CD<sub>50</sub> > 100µg/mL; control Cisplatin, HepG<sub>2</sub>, CD<sub>50</sub> = 2.8µg/mL; HeLa, CD<sub>50</sub> = 5.2µg/mL; OVCAR-3, CD<sub>50</sub> = 3µg/mL; without significant antibacterial effect)<sup>[4720]</sup>. Source: MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*] (root: yield = 0.0013%dw). Ref: 4720.

**3909 Colchamine**

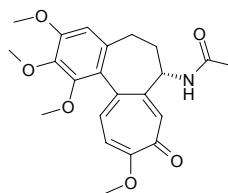
Demecolcine [477-30-5]  $C_{21}H_{25}NO_5$  (371.44). Pharm: Antiatherosclerotic; antineoplastic; antimitotic (inhibits granular cells selectively); anti-fertility agent; antiviral (Influenza virus); toxin. Source: QIU SHUI XIAN *Colchicum autumnale*. Ref: 658.

**3910 Colchicine**

[477-27-0]  $C_{21}H_{23}NO_6$  (385.42). Pharm: Antigout; LD<sub>50</sub> (mus, ip) = 84mg/kg. Source: QIU SHUI XIAN *Colchicum autumnale*. Ref: 658.

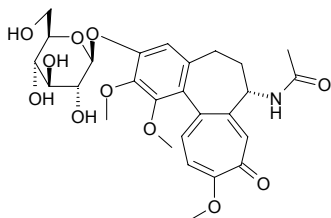
**3911 Colchicine**

[64-86-8]  $C_{22}H_{25}NO_6$  (399.45). mp 155~157°C,  $[\alpha]_D^{17} = -429^\circ$  ( $c = 1.72$ , water),  $[\alpha]_D^{17} = -121^\circ$  ( $c = 0.9$ , chloroform), easily soluble in cold water, ethanol, chloroform, slightly soluble in hot water, ether, very slightly soluble in benzene, insoluble in absolute ether, petroleum ether.<sup>[5507]</sup> Pharm: Anti-inflammatory (modulator of cytokine network: inhibits induction of VCAM-1 in both TNF- $\alpha$ - and IL-1 $\beta$ -stimulated HUVECs)<sup>[4416]</sup>; cytotoxic (*in vitro*, HL-60, IC<sub>50</sub> = 1.6µg/mL; Bel7402, IC<sub>50</sub> = 0.4µg/mL; HeLa, IC<sub>50</sub> = 0.1µg/mL; U937, IC<sub>50</sub> = 0.1µg/mL)<sup>[4746]</sup>; antineoplastic; estrogenic activity; toxin (inhibits bone marrow); phyto-growth inhibitor (*Raphanus sativus* seeds, IC<sub>50</sub> = 0.40µg/mL)<sup>[3949]</sup>, LD (hmn) = 10mg. Source: BAI HE *Lilium brownii* var. *viridulum* [Syn. *Lilium brownii* var. *colchesteri*], CAO BEI MU *Iphigenia indica*, GUANG CI GU *Tulipa edulis*, JIA DU XING CAI *Lepidium sativum*, JIA LAN *Gloriosa superba*, LI LU *Veratrum nigrum*, QIU SHUI XIAN *Colchicum autumnale* (corm: content scope = 0.3%~0.5%)<sup>[5507]</sup>, SHAN CI GU *Asarum sagittarioides*<sup>[5507]</sup>, WAN QU TIAN NAN XING *Arisaema curvatum*, XIAO XUAN CAO GEN *Hemerocallis minor*. Ref: 4, 5, 6, 658, 660, 3949, 4416, 4746, 5507.

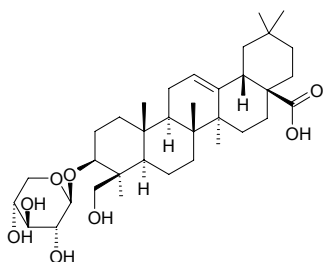


**3912 Colchicoside**

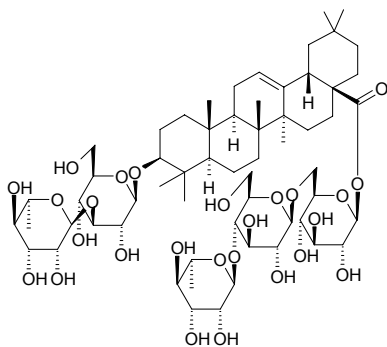
[477-29-2]  $C_{27}H_{33}NO_{11}$  (547.56). Long square prismatic or lamellar crystals (ethanol), mp 216–218°C, 192–195°C,  $[\alpha]_D^{15} = -360^\circ$  (water). Pharm: Low toxin; similar action with colchicine. Source: QIU SHUI XIAN *Colchicum autumnale*. Ref: 661.

**3913 Colchiside A**

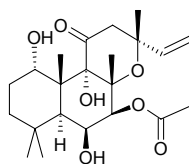
3-*O*-( $\beta$ -*D*-Xylopyranosyl)-hederagenin  $C_{38}H_{56}O_8$  (604.83). White powder,  $[\alpha]_D^{25} = +12.6^\circ$  (MeOH). Source: QIU SHUI XIAN CHANG CHUN TENG *Hedera colchica* (berry). Ref: 3538.

**3914 Colchiside B**

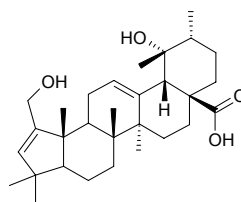
3-*O*-[ $\alpha$ -*L*-Rhamnopyranosyl-(1→3)- $\beta$ -*D*-glucuronopyranosyl]-28-*O*-[ $\alpha$ -*L*-rhamnopyranosyl-(1→4)- $\beta$ -*D*-glucopyranosyl-(1→6)- $\beta$ -*D*-glucopyranosyl]-oleonolate  $C_{60}H_{98}O_{26}$  (1235.43). White powder, mp 180°C,  $[\alpha]_D^{25} = +15^\circ$  (MeOH). Source: QIU SHUI XIAN CHANG CHUN TENG *Hedera colchica* (berry). Ref: 3538.

**3915 Coleonol**

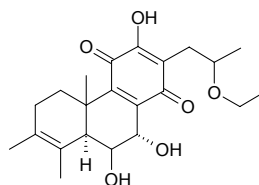
Forskolin [66575-29-9]  $C_{22}H_{34}O_7$  (410.51). mp 230–232°C,  $[\alpha]_D^{25} = -26.19^\circ$  ( $c = 1.68$ , chloroform). Pharm: Antispasmodic (gpg, gastrointestinal tract, nonspecific); CNS depressant (high dose); antihypertensive (cat, iv, 0.5mg/kg, the action lasts 80min). Source: MAO HOU QIAO RUI HUA *Coleus forskahlii*. Ref: 658, 661.

**3916 Coleonolic acid**

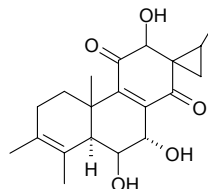
[128397-09-1]  $C_{30}H_{46}O_4$  (470.70). Source: SAN YE SHU WEI CAO *Salvia trijuga*. Ref: 570.

**3917 Coleon S**

$C_{22}H_{30}O_6$  (390.48). Yellow needles (petrol ether–acetone), mp 117–119°C,  $[\alpha]_D^{25} = +58.75^\circ$  (MeOH). Source: MAO HOU QIAO RUI HUA *Coleus forskahlii*. Ref: 2196.

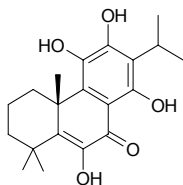
**3918 Coleon T**

$C_{20}H_{26}O_5$  (346.43). White needles (petrol ether–acetone), mp 171–173°C,  $[\alpha]_D^{25} = +225.56^\circ$  (MeOH). Source: MAO HOU QIAO RUI HUA *Coleus forskahlii*. Ref: 2196.

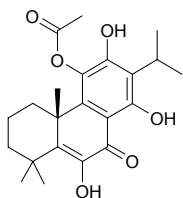


**3919 Coleon U**

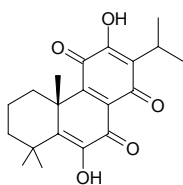
$C_{20}H_{26}O_5$  (346.43). Source: HUANG QIAO RUI HUA *Coleus xanthanthus* (aerial parts: yield = 0.00070%dw). Ref: 4625.

**3920 Coleon U 11-acetate**

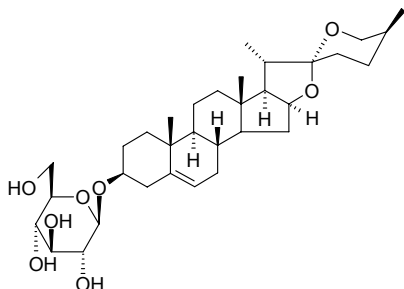
11-Acetoxy-6,12,14-trihydroxyabieta-5,8,11,13-tetraen-7-one  $C_{22}H_{28}O_6$  (388.46). Yellow cubic crystals (hexane– $Me_2CO$ ), mp 190.5–192°C,  $[\alpha]_D^{13.5} = +20.5^\circ$  ( $c = 0.88$ ,  $CHCl_3$ ). Pharm: Cytotoxic (*in vitro*, K562,  $IC_{50} = 2.2\mu g/mL$ ; control Mitoxantrone,  $IC_{50} = 2\mu g/mL$ ). Source: HUANG QIAO RUI HUA *Coleus xanthanthus* (aerial parts: yield = 0.031%dw). Ref: 4625.

**3921 Coleon U quinone**

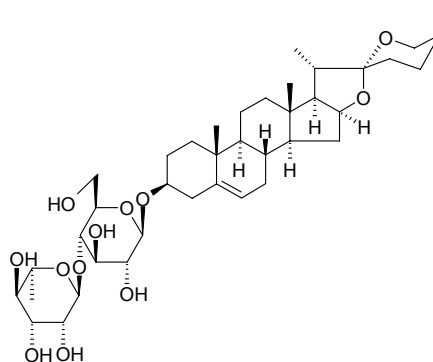
$C_{20}H_{24}O_5$  (344.41). Pharm: Cytotoxic (*in vitro*, K562,  $IC_{50} = 3\mu g/mL$ ; control Mitoxantrone,  $IC_{50} = 2\mu g/mL$ ). Source: HUANG QIAO RUI HUA *Coleus xanthanthus* (aerial parts: yield = 0.00058%dw). Ref: 4625.

**3922 Collettinside I**

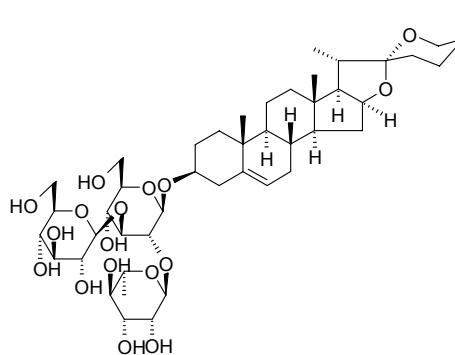
[14144-06-0]  $C_{33}H_{52}O_8$  (576.78). Source: CHA RUI SHU YU *Dioscorea collettii*. Ref: 10.

**3923 Collettinside II**

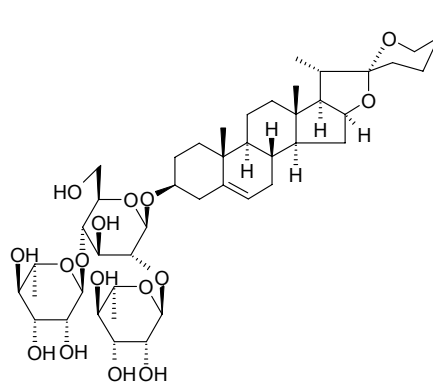
[88668-52-4]  $C_{39}H_{62}O_{12}$  (722.92). White acicular crystals, mp 214–216°C,  $[\alpha]_D^{20} = -97.9^\circ$  ( $c = 0.48$ , pyridine). Pharm: Anti-inflammatory; hypoglycemic. Source: CHA RUI SHU YU *Dioscorea collettii*. Ref: 10, 907.

**3924 Collettinside IV**

Zingiberenin B [88668-53-5]  $C_{45}H_{72}O_{17}$  (885.07). White powder crystals, mp 284–285°C,  $[\alpha]_D^{20} = -91.5^\circ$  ( $c = 0.40$ , pyridine). Pharm: Anti-inflammatory; hypoglycemic. Source: CHA RUI SHU YU *Dioscorea collettii*, DUN YE SHU YU *Dioscorea zingiberensis*. Ref: 10, 907, 1204.

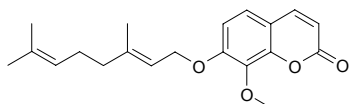
**3925 Collettinside III**

$C_{45}H_{72}O_{16}$  (869.07). Pharm: Antifungal (*Candida albicans*,  $1\mu g/mL$ ). Source: CHA RUI SHU YU *Dioscorea collettii*, LU GEN *Phragmites communis*. Ref: 10, 2165.

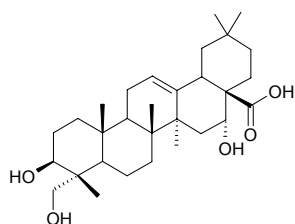


**3926 Collinin**

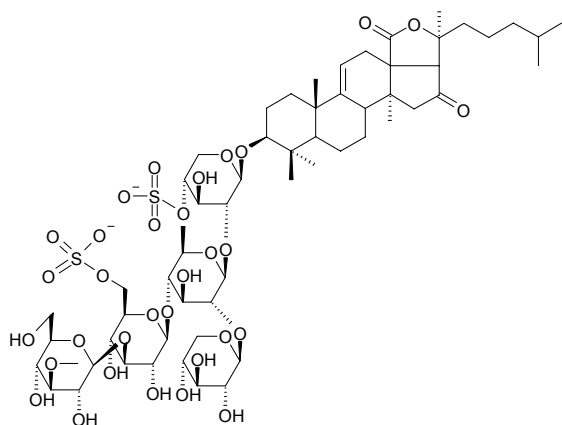
7-Geranyloxy-8-methoxycoumarin [34465-83-3]  $C_{20}H_{24}O_4$  (328.41). mp 67–68°C, 66.5–67.0°C. **Pharm:** Platelet aggregation inhibitor (rbt, *in vitro*, platelet aggregation caused by arachidonic acid, collagen, and PAF, 50µg/mL or 100µg/mL InRt = 100%). **Source:** QING JIAO *Zanthoxylum schinifolium*, SHAN QIU JU PAN MU *Flindersia collina*. **Ref:** 1098, 1521.

**3927 Collinsogenin**

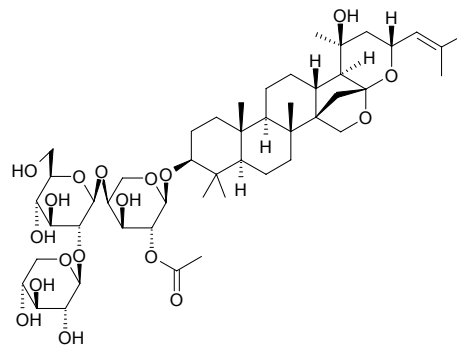
[52936-64-8]  $C_{30}H_{48}O_5$  (488.71). White powder (acetone), mp 312–315°C. **Source:** ER RUI ZI SU *Collinsonia Canadensis*, XIA CAO *Gypsophila oldhamiana* (root). **Ref:** 1521, 4803.

**3928 Colochiroside A**

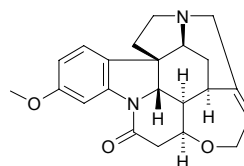
$C_{59}H_{92}O_{32}S_2$  (1377.50). White amorphous powder, mp 218–220°C,  $[\alpha]_D^{23} = -10.5^\circ$  ( $c = 0.5$ , pyridine). **Source:** KE YI YI SHOU SHEN *Colochirus anceps*. **Ref:** 4890.

**3929 Colubrin**

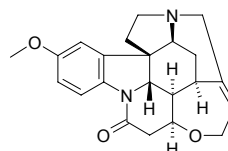
$C_{48}H_{76}O_{18}$  (941.13). **Pharm:** Sedative (mus). **Source:** SHE TENG *Colubrina asiatica*. **Ref:** 658.

**3930 α-Colubrine**

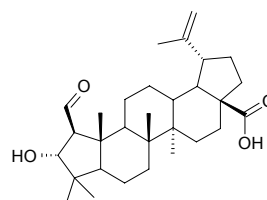
[509-44-4]  $C_{22}H_{24}N_2O_3$  (364.45). **Source:** MA QIAN ZI *Strychnos nux-vomica*. **Ref:** 2.

**3931 β-Colubrine**

[509-36-4]  $C_{22}H_{24}N_2O_3$  (364.45). **Source:** MA QIAN ZI *Strychnos nux-vomica*. **Ref:** 2, 542.

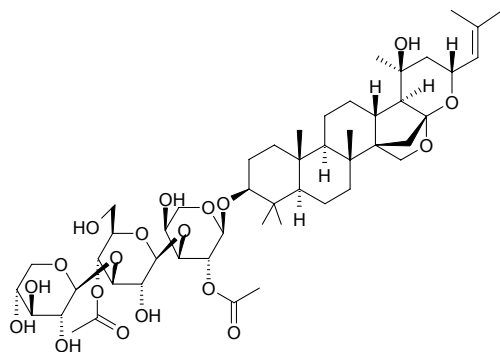
**3932 Colubrinic acid**

$C_{30}H_{46}O_4$  (470.70). White needles (MeOH), mp 262–264°C,  $[\alpha]_D^{18} = -17.0^\circ$  ( $c = 0.5$ , pyridine). **Pharm:** Cytotoxic inactive (K562,  $ED_{50} > 20\mu\text{mol/L}$ , control Adriamycin,  $ED_{50} = (0.09 \pm 0.03)\mu\text{mol/L}$ ; B-16 (F-10),  $ED_{50} > 20\mu\text{mol/L}$ , Adriamycin,  $ED_{50} = (0.06 \pm 0.10)\mu\text{mol/L}$ ; SK-MEL-2,  $ED_{50} > 20\mu\text{mol/L}$ , Adriamycin,  $ED_{50} = (0.09 \pm 0.3)\mu\text{mol/L}$ ; PC3,  $ED_{50} > 20\mu\text{mol/L}$ , Adriamycin,  $ED_{50} = (0.83 \pm 0.18)\mu\text{mol/L}$ ; LOX-IMVI,  $ED_{50} > 20\mu\text{mol/L}$ , Adriamycin,  $ED_{50} = (0.38 \pm 0.33)\mu\text{mol/L}$ ; A549,  $ED_{50} > 20\mu\text{mol/L}$ , Adriamycin,  $ED_{50} = (0.67 \pm 0.21)\mu\text{mol/L}$ ). **Source:** DA ZAO *Ziziphus jujuba*. **Ref:** 5479.

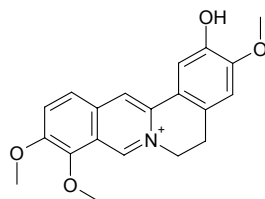


**3933 Colubrinoside**

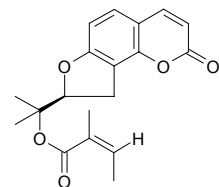
$C_{50}H_{78}O_{19}$  (983.17). **Pharm:** Sedative (mus). **Source:** SHE TENG *Colubrina asiatica*. **Ref:** 658.

**3934 Columbamine**

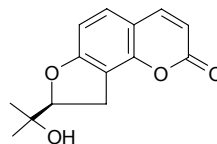
[3621-36-1]  $C_{20}H_{20}NO_4^+$  (338.39). **Pharm:** Uterine stimulant. **Source:** HUA NAN GONG LAO MU *Mahonia japonica*, HUA NAN GONG LAO YE *Mahonia japonica*, HUANG LIAN *Coptis chinensis*, JIN GUO LAN *Tinospora capillipes*, MA WEI LIAN *Thalictrum foliolosum*, RI BEN XIAO BO *Berberis thunbergii*, XIAO BO *Berberis amurensis*, YAN HU SUO *Corydalis yanhusuo* [Syn. *Corydalis turtschaninovii* f. *Yanhusuo*] (rhizome: mean content of 4 origins = 0.026%<sup>[5508]</sup>). **Ref:** 2, 658, 660, 5501, 5508.

**3935 Columbianadin**

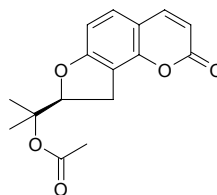
[5058-13-9]  $C_{19}H_{20}O_5$  (328.37). **Pharm:** Platelet aggregation inhibitor (rat, *in vitro*, due to ADP, final concentration 1mg/mL, InRt = (24.5±11.3)%); DNA topoisomerase II inhibitor (EC < 10μmol/L, ID<sub>50</sub> < 10μmol/L); calcium antagonist (rat hypophysial GH<sub>3</sub> cell, inhibits calcium absorption induced by depolarization with intension not lower than verapamil); anti-inflammatory (10mg/kg); analgesic (10mg/kg); inhibits release of galactin (rat hypophysial GH<sub>3</sub> cell). **Source:** DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*], SHE CHUANG ZI *Cnidium monnieri* (ripe seed: mean content of 6 origins = 0.118%<sup>[5508]</sup>). **Ref:** 2, 344, 1454, 1589, 1591, 1592, 1593, 5508.

**3936 Columbianetin**

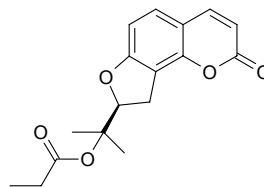
Dihydrooroselol [3804-70-4]  $C_{14}H_{14}O_4$  (246.27). mp 164–166°C. **Pharm:** Platelet aggregation inhibitor (rat, *in vitro*, due to ADP, final concentration 1mg/mL, InRt = (42.2±11.3)%); antifungal (pathogenic bacteria of celery); cytotoxic (P<sub>388</sub>). **Source:** DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*] (root: content scope of 10 origins = 0.018%–0.168%, mean content = 0.094%<sup>[5508]</sup>), KUAN YE QIANG HUO *Notopterygium forbesii* [Syn. *Notopterygium franchetii*], QIANG HUO *Notopterygium incisum*, RI BEN HUANG BAI *Phellodendron japonicum* (leaf), SHE CHUANG ZI *Cnidium monnieri*. **Ref:** 2, 6, 500, 660, 1589, 1594, 1595, 4502, 5508.

**3937 Columbianetin acetate**

*O*-Acetyl columbianetin [23180-65-6]  $C_{16}H_{16}O_5$  (288.30). mp 127.5–128.5°C. **Pharm:** Platelet aggregation inhibitor (rat, *in vitro*, due to ADP, final concentration 1mg/mL, InRt = (46.6±2.2)%); anti-inflammatory (10mg/kg); analgesic (10mg/kg); EBV-EA inhibitor (TPA-induced, IC<sub>50</sub> = 504 Mol ratio/32 pmol TPA, control β-Carotene, IC<sub>50</sub> = 400 Mol ratio/32 pmol TPA)<sup>[5255]</sup>. **Source:** DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*] (root: content scope of 10 origins = 0.038%–0.183%, mean content = 0.121%<sup>[5508]</sup>), SHE CHUANG ZI *Cnidium monnieri* (ripe seed: mean content of 6 origins = 0.415%<sup>[5508]</sup>), YUAN DONG JIU LI XIANG *Murraya siamensis* (leaf). **Ref:** 2, 6, 1589, 1592, 5255, 5508.

**3938 Columbianetin propionate**

$C_{17}H_{18}O_5$  (302.33). Colorless needles. **Source:** DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*]. **Ref:** 8.



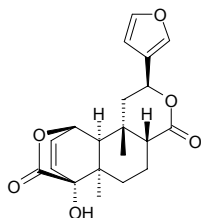


**3939 Columbin**

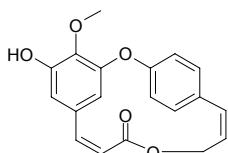
Tinosporin [546-97-4]  $C_{20}H_{22}O_6$  (358.39). Acicular crystals (methanol), mp 192–195°C (dec),  $[\alpha]_D = +52.5^\circ$  (pyridine). **Pharm:** Antifungal; hemolytic (rat red cells). **Source:** BAI MAO TENG *Solanum lyratum*, JIN GUO LAN

*Tinospora capillipes*, MIAN GEN TENG *Calystegia hederacea*, QIAN NIAN BU LAN XIN *Solanum dulcamara*, QING NIU DAN *Tinospora sagittata*.

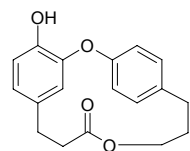
**Ref:** 6, 661.

**3940 Combretastatin D<sub>3</sub>**

$C_{19}H_{16}O_5$  (324.34). Colorless needles, mp 212.6–213.1°C. **Pharm:** Antitubercular (MIC = 100.0  $\mu\text{g}/\text{mL}$ , control Isoniazide, MIC = 0.040–0.090  $\mu\text{g}/\text{mL}$ , control Kanamycin sulfate, MIC = 2.0–5.0  $\mu\text{g}/\text{mL}$ ); antiplasmodial ( $IC_{50} > 20 \mu\text{g}/\text{mL}$ , control Artemisinin,  $IC_{50} = 0.001\text{--}0.002 \mu\text{g}/\text{mL}$ ); cytotoxic (NCI-H187,  $IC_{50} = (13.0 \pm 0.2) \mu\text{g}/\text{mL}$ , control Ellipticine,  $IC_{50} = 0.2\text{--}0.3 \mu\text{g}/\text{mL}$ ; KB,  $IC_{50} > 20 \mu\text{g}/\text{mL}$ , Ellipticine,  $IC_{50} = 0.2\text{--}0.3 \mu\text{g}/\text{mL}$ ; BC-1,  $IC_{50} > 20 \mu\text{g}/\text{mL}$ , Ellipticine,  $IC_{50} = 0.2\text{--}0.3 \mu\text{g}/\text{mL}$ ; Vero cell,  $IC_{50} > 50 \mu\text{g}/\text{mL}$ , Ellipticine,  $IC_{50} = 0.2\text{--}0.3 \mu\text{g}/\text{mL}$ ). **Source:** *Getonia floribunda*. **Ref:** 5062.

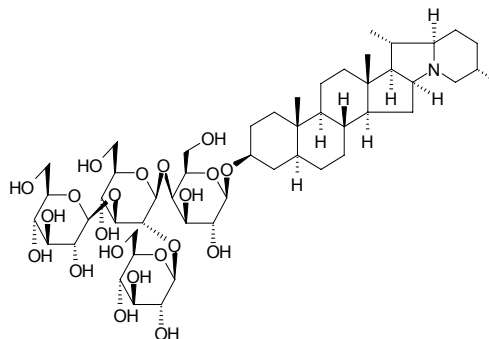
**3941 Combretastatin D<sub>4</sub>**

$C_{18}H_{18}O_4$  (298.34). White solid, mp 155.4–156.3°C. **Pharm:** Antitubercular (MIC > 200.0  $\mu\text{g}/\text{mL}$ , control Isoniazide, MIC = 0.040–0.090  $\mu\text{g}/\text{mL}$ , control Kanamycin sulfate, MIC = 2.0–5.0  $\mu\text{g}/\text{mL}$ ); antiplasmodial ( $IC_{50} > 20 \mu\text{g}/\text{mL}$ , control Artemisinin,  $IC_{50} = 0.001\text{--}0.002 \mu\text{g}/\text{mL}$ ); cytotoxic (NCI-H187,  $IC_{50} > 20 \mu\text{g}/\text{mL}$ , control Ellipticine,  $IC_{50} = 0.2\text{--}0.3 \mu\text{g}/\text{mL}$ ; KB,  $IC_{50} > 20 \mu\text{g}/\text{mL}$ , Ellipticine,  $IC_{50} = 0.2\text{--}0.3 \mu\text{g}/\text{mL}$ ; BC-1,  $IC_{50} > 20 \mu\text{g}/\text{mL}$ , Ellipticine,  $IC_{50} = 0.2\text{--}0.3 \mu\text{g}/\text{mL}$ ; Vero cell,  $IC_{50} > 50 \mu\text{g}/\text{mL}$ , Ellipticine,  $IC_{50} = 0.2\text{--}0.3 \mu\text{g}/\text{mL}$ ). **Source:** *Getonia floribunda*. **Ref:** 5062.

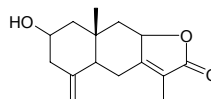
**3942 Commersonine**

[60776-42-3]  $C_{51}H_{85}NO_{21}$  (1048.24). **Pharm:** Cardiotonic (frog heart, *in vitro*).

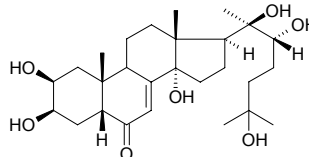
**Source:** CHA QIE *Solanum chacoense*, KE MO SEN QIE *Solanum commersonii*. **Ref:** 658.

**3943 Commiferin**

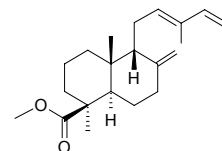
[39007-92-6]  $C_{15}H_{20}O_3$  (248.32). mp 170°C. **Source:** MO YAO *Commiphora myrrha* [Syn. *Commiphora molmol*]. **Ref:** 6.

**3944 Commisterone**

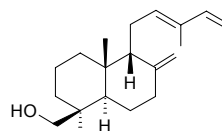
[5289-74-7]  $C_{27}H_{44}O_7$  (480.65). mp 146–151°C. **Source:** LU SHUI CAO *Cyanotis vaga*. **Ref:** 6.

**3945 trans-Communic acid methyl ester**

$C_{21}H_{32}O_2$  (316.49). mp 104–105°C,  $[\alpha]_D^{19} = -48.0^\circ$  ( $c = 1.0$ ,  $\text{CHCl}_3$ ). **Source:** ZHE BEI MU *Fritillaria verticillata* var. *thunbergii* [Syn. *Fritillaria thunbergii*]. **Ref:** 2182.

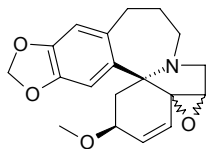
**3946 trans-Communol**

$C_{20}H_{32}O$  (288.48). mp 136–137°C,  $[\alpha]_D^{19.1} = +14.5^\circ$  ( $c = 0.18$ ,  $\text{CHCl}_3$ ). **Source:** ZHE BEI MU *Fritillaria verticillata* var. *thunbergii* [Syn. *Fritillaria thunbergii*]. **Ref:** 2182.

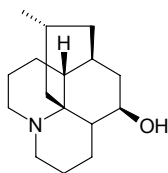


**3947 Comosimine**

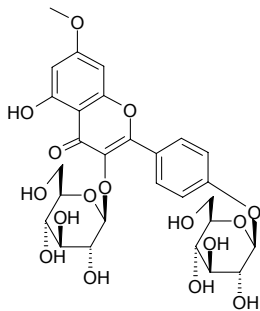
[31690-01-4] C<sub>19</sub>H<sub>21</sub>NO<sub>4</sub> (327.38). Source: SAN JIAN SHAN *Cephalotaxus fortunei*. Ref: 2.

**3948 Complanatine**

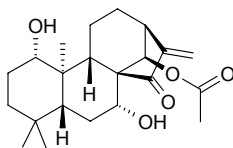
C<sub>16</sub>H<sub>27</sub>NO (249.40). mp 169°C. Source: GUO JIANG LONG *Lycopodium complanatum*. Ref: 6.

**3949 Complanatuside**

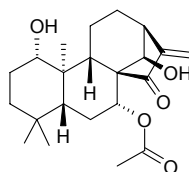
Rhamnocitrin-3,4'-*O*-β-*D*-diglucoside [116183-66-5] C<sub>28</sub>H<sub>32</sub>O<sub>16</sub> (624.56). Yellowish acicular crystals, mp 279~280°C, easily soluble in 50% ethanol, hardly soluble in water, insoluble in ether, chloroform and acetic ester, [α]<sub>D</sub><sup>19</sup> = -50.83° (*c* = 0.02, DMSO). Source: BIAN JING HUANG QI *Astragalus complanatus* (dried ripe seed: content scope of 11 origins = 0.0143%~0.0918%, mean content = 0.0525%<sup>[5508]</sup>). Ref: 99, 5508.

**3950 Compound 1 (*Isodon umbrosa*)**

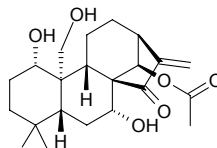
14-Acetyl kamebanin C<sub>22</sub>H<sub>32</sub>O<sub>5</sub> (376.50). Amorphous powder, [α]<sub>D</sub><sup>22</sup> = -94.0° (*c* = 0.47, MeOH). Source: YIN DI XIANG CHA CAI *Isodon umbrosa*. Ref: 4067.

**3951 Compound 2 (*Isodon umbrosa*)**

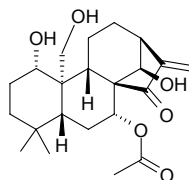
7-Acetyl kamebanin C<sub>22</sub>H<sub>32</sub>O<sub>5</sub> (376.50). mp 201~202°C, [α]<sub>D</sub><sup>22</sup> = -121.8° (*c* = 0.63, MeOH). Source: XIANG JIA PI *Periploca sepium*. Ref: 4067.

**3952 Compound 3 (*Isodon umbrosa*)**

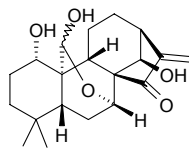
14-Acetyl kamebakaurin C<sub>22</sub>H<sub>32</sub>O<sub>6</sub> (392.50). Amorphous powder, [α]<sub>D</sub><sup>22</sup> = -109.7° (*c* = 0.52, MeOH). Source: YIN DI XIANG CHA CAI *Isodon umbrosa*. Ref: 4067.

**3953 Compound 4 (*Isodon umbrosa*)**

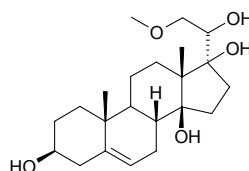
7-Acetyl kamebakaurin C<sub>22</sub>H<sub>32</sub>O<sub>6</sub> (392.50). Amorphous powder, [α]<sub>D</sub><sup>22</sup> = -110.9° (*c* = 0.83, MeOH). Source: XIANG JIA PI *Periploca sepium*. Ref: 4067.

**3954 Compound 9 (*Isodon umbrosa*)**

C<sub>20</sub>H<sub>28</sub>O<sub>5</sub> (348.44). Amorphous powder, [α]<sub>D</sub><sup>22</sup> = -55.8° (*c* = 1.54, MeOH). Source: YIN DI XIANG CHA CAI *Isodon umbrosa*. Ref: 4067.

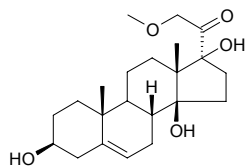
**3955 Compound 1 (*Periploca sepium*)**

C<sub>22</sub>H<sub>36</sub>O<sub>5</sub> (380.53). mp 254~257°C, [α]<sub>D</sub> = -26.88°. Source: YIN DI XIANG CHA CAI *Isodon umbrosa*. Ref: 2498.

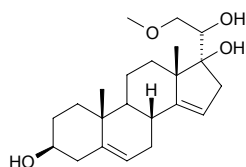


**3956 Compound 1a (*Periploca sepium*)**

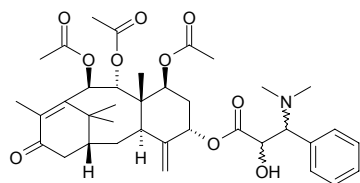
$C_{22}H_{34}O_5$  (378.51). mp 239°C,  $[\alpha]_D = -46.5^\circ$ . Source: XIANG JIA PI  
*Periploca sepium*. Ref: 2498.

**3957 Compound 2 (*Periploca sepium*)**

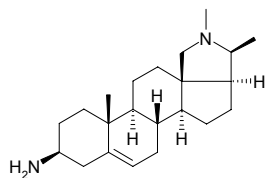
$C_{22}H_{34}O_4$  (362.51). mp 157~159°C,  $[\alpha]_D = +66.1^\circ$ . Source: YIN DI XIANG  
CHA CAI *Isodon umbrosa*. Ref: 2498.

**3958 Comptonine**

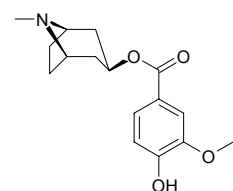
[126585-69-1]  $C_{37}H_{49}NO_{10}$  (667.80).  $[\alpha]_D = +85^\circ$  ( $c = 0.082$ ,  $CHCl_3$ ). Source:  
AO DA LI YA HONG DOU SHAN *Austrotaxus spicata*. Ref: 662.

**3959 Conamine**

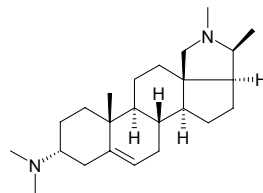
Con-5-enin-3β-amine [468-34-8]  $C_{22}H_{36}N_2$  (328.55). mp 130°C. Source: ZHI  
XIE MU PI *Holarhena antidysenterica*. Ref: 6.

**3960 Concneorine**

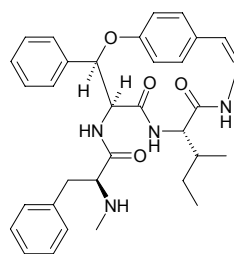
3β-Acyloxytropane  $C_{16}H_{21}NO_4$  (291.35). Oil. Source: *Convolvulus cneorum*.  
Ref: 5292.

**3961 Concuressine**

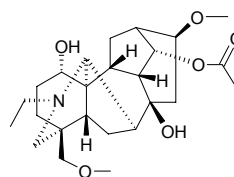
$C_{24}H_{40}N_2$  (356.60). mp 86.5~87.5°C. Source: ZHI XIE MU PI *Holarhena*  
*antidysenterica*. Ref: 6.

**3962 Condaline A**

$C_{33}H_{38}N_4O_4$  (554.70). Pharm: Antibacterial (gram-positive: *Staphylococcus aureus*, MIA = 12.5μg, control Chloramphenicol, MIA = 0.7μg; *Staphylococcus epidermidis*, MIA = 3.12μg, Chloramphenicol, MIA = 0.7μg; *Micrococcus luteus*, MIA = 12.5μg, Chloramphenicol, MIA = 0.7μg; gram-negative: *Salmonella setubal*, MIA = 6.25μg, Chloramphenicol, MIA = 0.7μg; *Escherichia coli*, MIA = 6.25μg, Chloramphenicol, MIA = 0.5μg; *Klebsiella pneumoniae*, MIA = 3.12μg, Chloramphenicol, MIA = 0.5μg); antifungal inactive (*Candida albicans* and *Saccharomyces cerevisiae*, 100μg). Source: HUANG YANG YE DUI CI TENG *Scutia buxifolia* (root cortex). Ref: 5323.

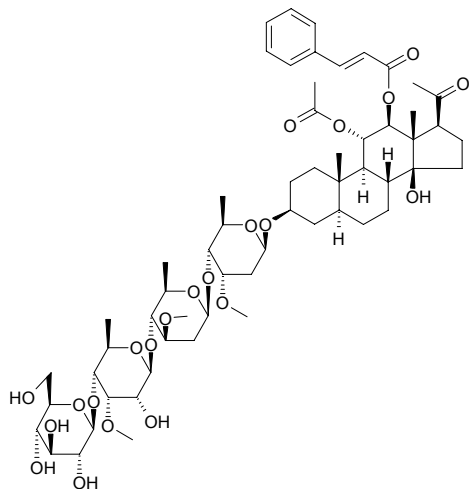
**3963 Condelphine**

$C_{25}H_{39}NO_6$  (449.59). Pharm: Antihypertensive; neuromuscular blocker; similar action with methyllycaconitine. Source: YI SI CUI QUE *Delphinium confusum*, LU CUI QUE *Delphinium denudatum*. Ref: 658.

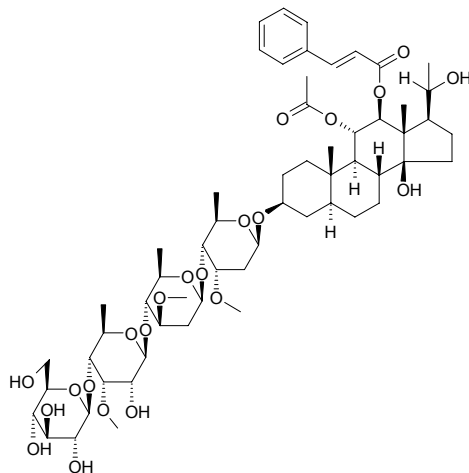


**3964 Conduranglycoside A<sub>0</sub>**

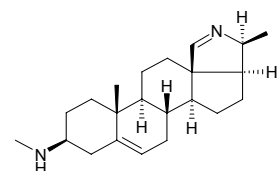
$C_{59}H_{88}O_{22}$  (1149.35). Amorphous white powder, mp 170~174°C,  $[\alpha]_D +43.9$  ( $c = 0.62$ , methanol). Pharm: Antineoplastic (S<sub>180</sub>, ICR mus Ehrlich's cancer); LD<sub>50</sub> (mus) = 75mg/kg. Source: NAN MEI NIU NAI CAI *Marsdenia condurango*. Ref: 661.

**3965 Conduranglycoside C<sub>0</sub>**

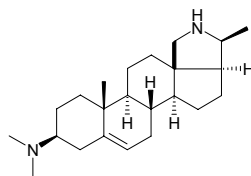
$C_{59}H_{90}O_{22}$  (1151.36). Amorphous powder, mp 160~170°C,  $[\alpha]_D = +25.9^\circ$  ( $c = 1.28$ , methanol). Pharm: Antineoplastic (S<sub>180</sub>, ICR mus, Ehrlich's cancer); LD<sub>50</sub> (mus) = 375mg/kg. Source: NAN MEI NIU NAI CAI *Marsdenia condurango*. Ref: 661.

**3966 Conessidine**

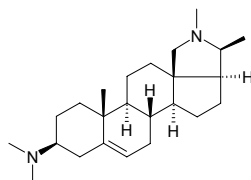
[6877-20-9]  $C_{22}H_{34}N_2$  (326.53). mp 123°C. Source: ZHI XIE MU PI *Holarrhena antidysenterica*. Ref: 6.

**3967 Conessimine**

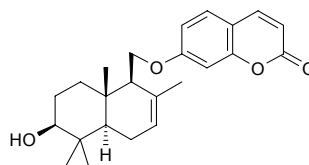
[631-05-0]  $C_{23}H_{38}N_2$  (342.57). mp 100°C, bp 230°C/1.8mmHg. Source: ZHI XIE MU PI *Holarrhena antidysenterica*. Ref: 6.

**3968 Conessine**

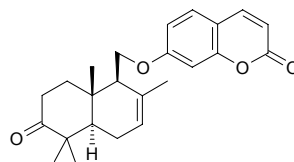
Neriine [546-06-5]  $C_{24}H_{40}N_2$  (356.60). mp 123~128°C. Pharm: Antiprotozoal; digestive enzymes inhibitor; local anesthetic (gpg, rbt, sc); paralysis (frog CNS). Source: DUAN ROU MAO ZHI XIE MU *Holarrhena pubescens*, FAN HUA ZHI XIE MU *Holarrhena floribunda*, FEI ZHOU ZHI XIE MU *Holarrhena africana*, GANG GUO HE ZHI XIE MU *Holarrhena congolensis*, TUI RE ZHI XIE MU *Holarrhena febrifuga*, WEN ROU ZHI XIE MU *Holarrhena mitis*, WO SHI ZHI XIE MU *Holarrhena waltsbergii*, ZHI XIE MU PI *Holarrhena antidysenterica*. Ref: 4, 6, 658.

**3969 Conferol**

[41743-46-8]  $C_{24}H_{30}O_4$  (382.50). Source: A WEI *Ferula assafoetida*. Ref: 6.

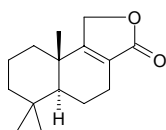
**3970 Conferone**

[41743-47-9]  $C_{24}H_{28}O_4$  (380.49). mp 142.0~142.5°C. Source: A WEI *Ferula assafoetida*. Ref: 6.

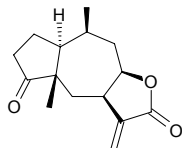


**3971 Confertifolin**

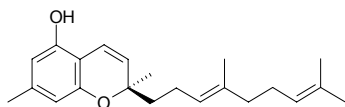
[1811-23-0] C<sub>15</sub>H<sub>22</sub>O<sub>2</sub> (234.34). mp 152°C. Source: SHUI LIAO *Polygonum hydropiper*. Ref: 6.

**3972 Confertin**

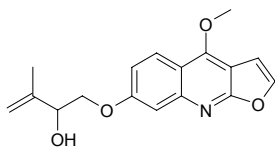
[19908-69-1] C<sub>15</sub>H<sub>20</sub>O<sub>3</sub> (248.32). Pharm: Insect growth inhibitor. Source: MI HUA TUN CAO *Ambrosia confertiflora*, BAI CI GUO TUN CAO *Ambrosia dumosa*. Ref: 658.

**3973 Confluentin**

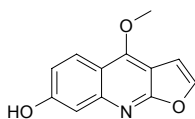
C<sub>22</sub>H<sub>30</sub>O<sub>2</sub> (326.5). Pharm: Antihistamine (inhibits histamine release, rat peritoneal mast cells, compound 48/80-induced). Source: MAN SHAN HONG *Rhododendron dauricum* (twig and leaf: yield = 0.040%) Ref: 4755.

**3974 Confusadine**

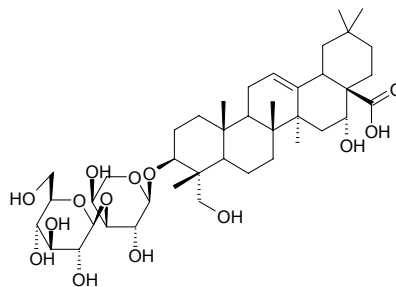
C<sub>17</sub>H<sub>17</sub>NO<sub>4</sub> (299.33). Pharm: Cytotoxic (P<sub>388</sub> cell line, ED<sub>50</sub> = 12.9 μg/mL, control Mithramycin, ED<sub>50</sub> = 0.06 μg/mL; HT29, ED<sub>50</sub> = 18.6 μg/mL, Mithramycin, ED<sub>50</sub> = 0.07 μg/mL; A549, ED<sub>50</sub> = 4.3 μg/mL, Mithramycin, ED<sub>50</sub> = 0.08 μg/mL). Source: SI ROU TUO GUO YE MI ZHU YU *Melicope semecarpifolia*. Ref: 5405.

**3975 Confusameline**

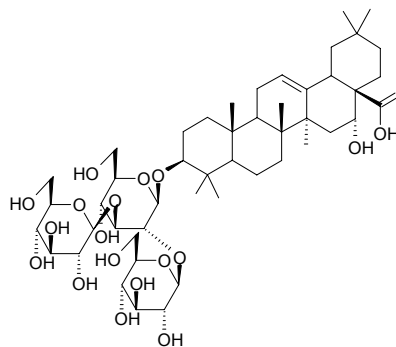
C<sub>12</sub>H<sub>9</sub>NO<sub>3</sub> (259.21). Pharm: Cytotoxic (P<sub>388</sub> cell line, ED<sub>50</sub> = 0.03 μg/mL, control Mithramycin, ED<sub>50</sub> = 0.06 μg/mL; HT29, ED<sub>50</sub> = 2.3 μg/mL, Mithramycin, ED<sub>50</sub> = 0.07 μg/mL; A549, ED<sub>50</sub> = 0.24 μg/mL, Mithramycin, ED<sub>50</sub> = 0.08 μg/mL). Source: SI ROU TUO GUO YE MI ZHU YU *Melicope semecarpifolia*. Ref: 5405.

**3976 Congmuyanoside A**

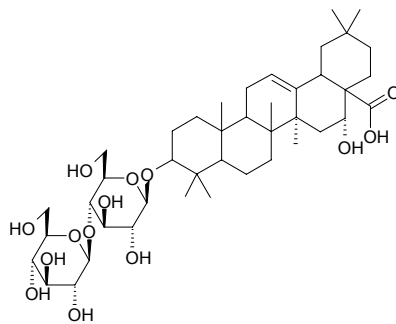
Elatoside J; 3-*O*-[β-*D*-Glucopyranosyl-(1→3)]-α-*L*-arabinopyranosyl]caulophyllogenin C<sub>41</sub>H<sub>66</sub>O<sub>14</sub> (782.97). White amorphous powder, [α]<sub>D</sub><sup>25</sup> = +0.024° (*c* = 1.06g/L, MeOH). Source: LIAO DONG CONG MU *Aralia elata* (bud). Ref: 4892.

**3977 Congmuyanoside B**

3-*O*-[β-*D*-Glucopyranosyl-(1→2)]-[β-*D*-glucopyranosyl-(1→3)] β-*D*-glucopyranosyl echinostic acid C<sub>48</sub>H<sub>78</sub>O<sub>19</sub> (959.15). White amorphous powder, [α]<sub>D</sub><sup>25</sup> = +0.008° (*c* = 0.64g/L, MeOH). Source: LIAO DONG CONG MU *Aralia elata* (bud). Ref: 4892.

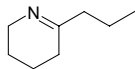
**3978 Congmuyanoside C**

3-*O*-β-*D*-Glucopyranosyl (1→4)-β-*D*-glucopyranosyl echinocystic acid C<sub>42</sub>H<sub>68</sub>O<sub>14</sub> (797.00). White amorphous powder. Source: LIAO DONG CONG MU *Aralia elata* (bud). Ref: 4901.

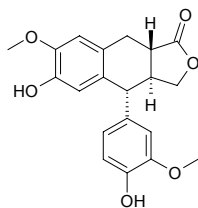


**3979  $\gamma$ -Coniceine**

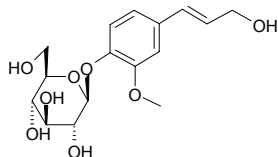
[1604-01-9] C<sub>8</sub>H<sub>15</sub>N (125.22). **Pharm:** Teratogen; supertoxic agent. **Source:** DU SHEN *Conium maculatum*, JI SHI LU HUI *Aloe gililandii*, BEI LI LU HUI *Aloe ballyi*, LA SHI LU HUI *Aloe ruspoliana*, SA BA LU HUI *Aloe sabaea*. **Ref:** 658, 728.

**3980  $\alpha$ -Conidendrin**

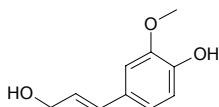
[85699-62-3] C<sub>20</sub>H<sub>20</sub>O<sub>6</sub> (356.38). **Pharm:** Cytotoxic (*in vitro*, 26-L5, EC<sub>50</sub> > 100  $\mu$ g/mL; HT1080, EC<sub>50</sub> > 100  $\mu$ g/mL; control 5-FU, Colon26-L5, EC<sub>50</sub> = 0.29  $\mu$ g/mL; HT1080, EC<sub>50</sub> = 0.07  $\mu$ g/mL)<sup>[4661]</sup>; antioxidant (DPPH scavenger, IC<sub>50</sub> = 65.8  $\mu$ mol/L, control Caffeic acid, IC<sub>50</sub> = 25.5  $\mu$ mol/L)<sup>[5407]</sup>; NO production inhibitor (IC<sub>50</sub> = 161  $\mu$ mol/L, control *L*-NMMA, IC<sub>50</sub> = 28.5  $\mu$ mol/L)<sup>[5407]</sup>. **Source:** YUN NAN HONG DOU SHAN *Taxus yunnanensis* (wood; yield = 0.0044%dw). **Ref:** 4661, 5407.

**3981 Coniferin**

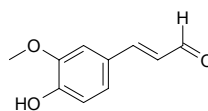
[531-29-3] C<sub>16</sub>H<sub>22</sub>O<sub>8</sub> (342.35). **Pharm:** Precursor to biosynthesis of lignin; anti-inflammatory (calcium-stimulated mouse peritoneal macrophages and hmn platelets, inhibits COX metabolite PGE<sub>2</sub>, IC<sub>50</sub> = 75.2  $\mu$ mol/L; inhibits COX metabolite TXB<sub>2</sub>, IC<sub>50</sub> = 619  $\mu$ mol/L); inhibits 5-LOX metabolites especially LTC<sub>4</sub>, IC<sub>50</sub> = 63.6  $\mu$ mol/L)<sup>[4415]</sup>. **Source:** XI JUAN YA CONG *Scorzonera hispanica*, SI LENG LA SHU *Fraxinus quadrangulata*, DU ZHONG *Eucommia ulmoides*, MAO PAO TONG *Paulownia tomentosa*, *Larix* sp., *Abies* sp., *Asparagus* sp., *Lonicera* sp. **Ref:** 2, 658, 660, 4415.

**3982 *trans*-Coniferyl alcohol**

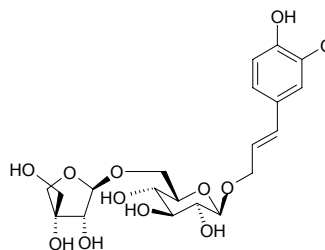
3-(4-Hydroxy-3-methoxyphenyl)-prop-2-enol C<sub>10</sub>H<sub>12</sub>O<sub>3</sub> (180.21). **Pharm:** Cytotoxic inactive (KB, Col2, LNCaP, Lu1, HUVEC, IC<sub>50</sub> > 20  $\mu$ g/mL)<sup>[3009]</sup>. **Source:** TIAN MEN DONG *Asparagus cochinchinensis* [Syn. *Asparagus lucidus*] (dried root; yield = 0.00007%dw)<sup>[3009]</sup>, YI ZHU QIAN MA *Urtica dioica*. **Ref:** 660, 3009.

**3983 Coniferyl aldehyde**

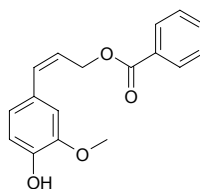
4-Hydroxy-3-methoxy-*trans*-cinnamaldehyde [458-36-6] C<sub>10</sub>H<sub>10</sub>O<sub>3</sub> (178.39). **Pharm:** Antifungal; prostaglandin biosynthesis inhibitor; detumescent (rat ears); antioxidant (DPPH free radical scavenger, IC<sub>50</sub> = 195  $\mu$ mol/L, control Caffeic acid, IC<sub>50</sub> = 25.5  $\mu$ mol/L)<sup>[5407]</sup>; NO production inhibitor (IC<sub>50</sub> = 18.0  $\mu$ mol/L, control *L*-NMMA, IC<sub>50</sub> = 28.5  $\mu$ mol/L)<sup>[5407]</sup>. **Source:** HUI HUI TAO *Juglans cinerea*, TAI WAN PU GONG YING *Taraxacum formosanum* (fresh root), YIN BAI QI *Acer saccharinum*, YUN NAN HONG DOU SHAN *Taxus yunnanensis* (wood), *Quercus* sp., *Sequoia* sp. **Ref:** 658, 4488, 5407.

**3984 Coniferyl 9-O-[ $\beta$ -D-apiofuranosyl(1 $\rightarrow$ 6)]-O- $\beta$ -D-glucopyranoside**

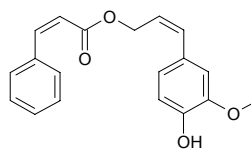
C<sub>21</sub>H<sub>30</sub>O<sub>12</sub> (474.47). White powder, mp 276–278°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = +8.7° (c = 0.50, H<sub>2</sub>O). **Pharm:** Antioxidant (*in vitro*, effect on conjugated diene formation of LDL or MDA level in rat brain)<sup>[4792]</sup>. **Source:** SHI LIU ZHONG ZI *Punica granatum* (seed; yield = 0.00093%). **Ref:** 4792.

**3985 Coniferyl benzoate**

C<sub>17</sub>H<sub>16</sub>O<sub>4</sub> (281.31). mp 158–159°C. **Source:** YUE NAN AN XI XIANG *Styrax tonkinensis*. **Ref:** 6, 660.

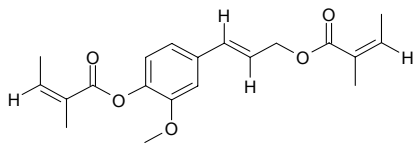
**3986 Coniferyl cinnamate**

C<sub>19</sub>H<sub>18</sub>O<sub>4</sub> (310.35). **Source:** AN XI XIANG *Styrax benzoin*. **Ref:** 6.

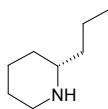


**3987 Coniferyl diangelate**

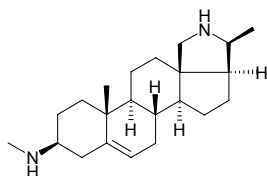
$C_{20}H_{24}O_5$  (344.41). bp 130°C/0.01mmHg. Source: HONG TOU CAO *Blumea lacera*. Ref: 6.

**3988 Coniine**

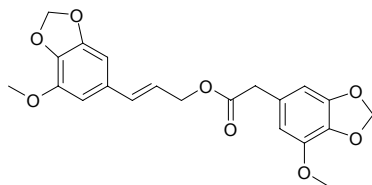
[458-88-8]  $C_8H_{17}N$  (127.23). bp 166~167°C,  $[\alpha]_D^{19} = +16^\circ$ , slightly soluble in hot water, chloroform, soluble in ethanol, ether, acetone, benzene.<sup>[5507]</sup> Pharm: Teratogen (cattle and pig in gestational period); Toxin (paralyses motor nerve ending). Source: DU SHEN *Conium maculatum*, DU QIN GEN *Cicuta virosa*<sup>[5507]</sup>, HUANG PING ZI CAO *Sarracenia flava*, BAN XIA *Pinellia ternata*. Ref: 2, 658, 5507.

**3989 Conimine**

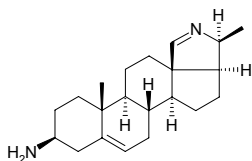
$C_{22}H_{36}N_2$  (328.55). mp 134°C. Source: ZHI XIE MU PI *Holarrhena antidysenterica*. Ref: 6.

**3990 Coniselin**

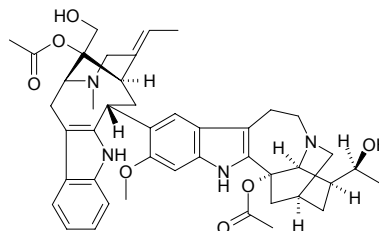
Conioselin  $C_{21}H_{20}O_8$  (400.39). White acicular crystals, mp 119~120°C. Source: GAO BEN *Ligusticum sinense*, XIN JIANG GAO BEN *Conioselinum vaginatum*. Ref: 9, 333.

**3991 Konkurchine**

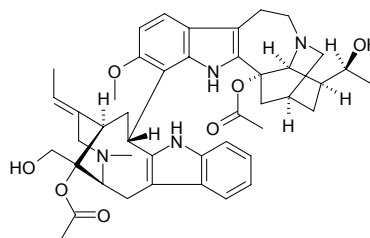
[3792-62-9]  $C_{21}H_{32}N_2$  (312.50). mp 153°C. Source: ZHI XIE MU PI *Holarrhena antidysenterica*. Ref: 6.

**3992 Conodiparine A**

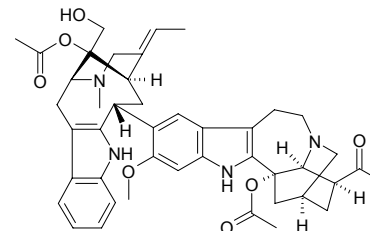
$C_{44}H_{54}N_4O_7$  (750.94). Light yellow amorphous powder,  $[\alpha]_D = -34^\circ$  ( $c = 0.71$ ,  $CHCl_3$ ). Source: SAN FANG HUA XU HONG YUE GUI *Tabernaemontana corymbosa* (leaf: yield = 0.0581%). Ref: 4673.

**3993 Conodiparine B**

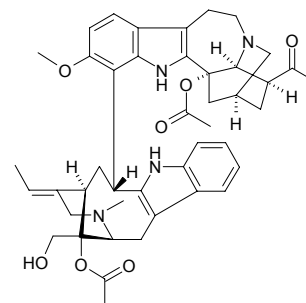
$C_{44}H_{54}N_4O_7$  (750.94). Light yellow amorphous powder,  $[\alpha]_D = -64^\circ$  ( $c = 0.93$ ,  $CHCl_3$ ). Source: SAN FANG HUA XU HONG YUE GUI *Tabernaemontana corymbosa* (leaf: yield = 0.168%). Ref: 4673.

**3994 Conodiparine C**

$C_{44}H_{52}N_4O_7$  (748.93). Light yellow amorphous powder,  $[\alpha]_D = -27^\circ$  ( $c = 0.50$ ,  $CHCl_3$ ). Source: SAN FANG HUA XU HONG YUE GUI *Tabernaemontana corymbosa* (leaf: yield = 0.0012%). Ref: 4673.

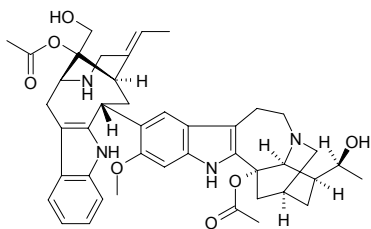
**3995 Conodiparine D**

$C_{44}H_{52}N_4O_7$  (748.93). Light yellow amorphous powder,  $[\alpha]_D = -42^\circ$  ( $c = 0.90$ ,  $CHCl_3$ ). Source: SAN FANG HUA XU HONG YUE GUI *Tabernaemontana corymbosa* (leaf: yield = 0.0028%). Ref: 4673.

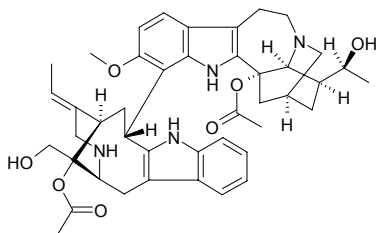


**3996 Conodiparine E**

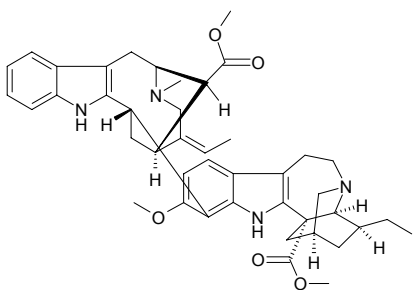
$C_{43}H_{52}N_4O_7$  (736.92). Light yellow amorphous powder,  $[\alpha]_D = -101^\circ$  ( $c = 0.07$ ,  $CHCl_3$ ). Source: SAN FANG HUA XU HONG YUE GUI *Tabernaemontana corymbosa* (leaf: yield = 0.0022%). Ref: 4673.

**3997 Conodiparine F**

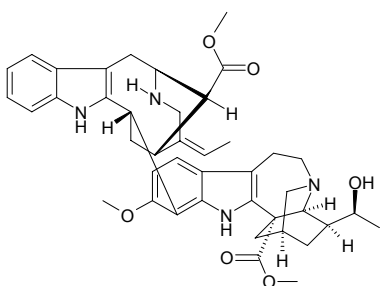
$C_{43}H_{52}N_4O_7$  (736.92). Light yellow amorphous powder,  $[\alpha]_D = -73^\circ$  ( $c = 0.32$ ,  $CHCl_3$ ). Source: SAN FANG HUA XU HONG YUE GUI *Tabernaemontana corymbosa* (leaf: yield = 0.0089%). Ref: 4673.

**3998 Conodurine**

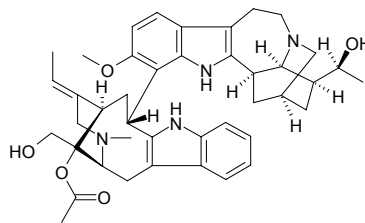
$C_{43}H_{52}N_4O_5$  (704.92). Source: SAN FANG HUA XU HONG YUE GUI *Tabernaemontana corymbosa*. Ref: 3403.

**3999 Conodurinine**

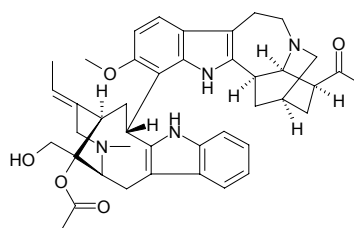
$C_{42}H_{50}N_4O_6$  (706.89). Light yellowish oil,  $[\alpha]_D = -55^\circ$  ( $c = 0.47$ ,  $CHCl_3$ ). Source: SAN FANG HUA XU HONG YUE GUI *Tabernaemontana corymbosa*. Ref: 3403.

**4000 Conodutarine A**

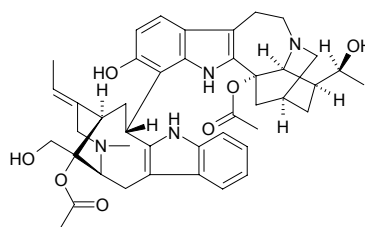
$C_{42}H_{52}N_4O_5$  (692.91). Light yellowish oil,  $[\alpha]_D = -51^\circ$  ( $c = 0.18$ ,  $CHCl_3$ ). Source: SAN FANG HUA XU HONG YUE GUI *Tabernaemontana corymbosa* (leaf: yield = 0.0007%). Ref: 4673.

**4001 Conodutarine B**

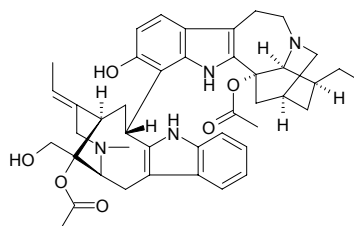
$C_{42}H_{50}N_4O_5$  (690.89). Light yellowish oil,  $[\alpha]_D = -45^\circ$  ( $c = 0.14$ ,  $CHCl_3$ ). Source: SAN FANG HUA XU HONG YUE GUI *Tabernaemontana corymbosa* (leaf: yield = 0.0008%). Ref: 4673.

**4002 Cononitarine A**

$C_{43}H_{52}N_4O_7$  (736.92). Light yellowish oil,  $[\alpha]_D = -52^\circ$  ( $c = 0.11$ ,  $CHCl_3$ ). Source: SAN FANG HUA XU HONG YUE GUI *Tabernaemontana corymbosa* (leaf: yield = 0.0002%). Ref: 4673.

**4003 Cononitarine B**

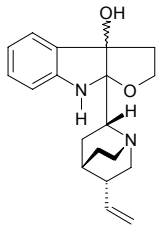
$C_{43}H_{52}N_4O_6$  (720.92). Light yellowish oil,  $[\alpha]_D = -43^\circ$  ( $c = 0.10$ ,  $CHCl_3$ ). Source: SAN FANG HUA XU HONG YUE GUI *Tabernaemontana corymbosa* (leaf: yield = 0.0001%). Ref: 4673.



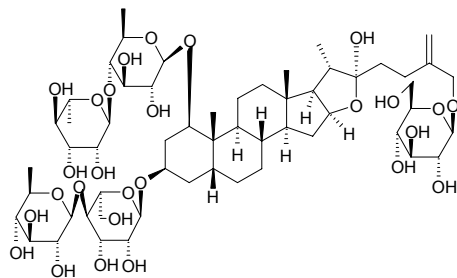


**4004 Conquinamine**

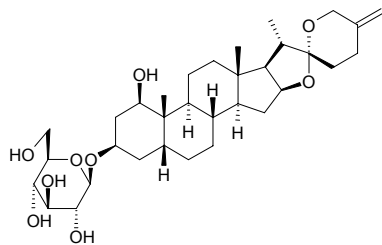
Epiquinamine [464-86-8]  $C_{19}H_{24}N_2O_2$  (312.42). mp 121°C. Source: JIN JI LE *Cinchona ledgeriana*. Ref: 6.

**4005 Convallamarin**

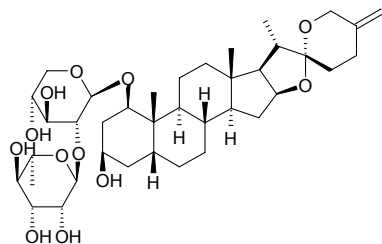
[52591-05-6]  $C_{57}H_{94}O_{27}$  (1211.37). Pharm: Antibacterial; antifungal; cardiotoxic (cardiac glycoside); hemolytic. Source: LING LAN *Convallaria keiskei* [Syn. *Convallaria majalis*], YU ZHU *Polygonatum odoratum* [Syn. *Polygonatum officinale*]. Ref: 6, 658.

**4006 Convallamarogen-3-O-β-D-glucopyranoside**

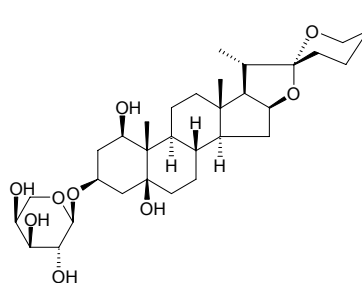
$C_{33}H_{52}O_9$  (592.78). Source: WAN NIAN QING GEN *Rohdea japonica* [Syn. *Orontium japonicum*]. Ref: 660.

**4007 Convallamarogen-1-O-α-L-rhamnopyranosyl(1→2)-β-D-xylopyranoside**

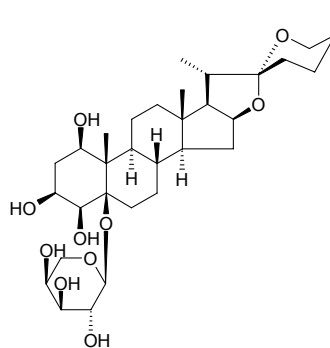
$C_{38}H_{60}O_{12}$  (708.89). Source: WAN NIAN QING GEN *Rohdea japonica* [Syn. *Orontium japonicum*]. Ref: 660.

**4008 Convallasaponin A**

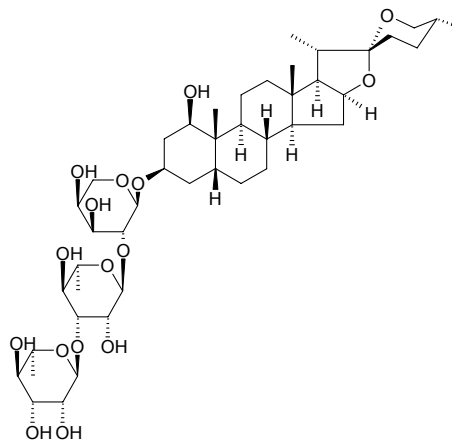
[19316-94-0]  $C_{32}H_{52}O_9$  (580.77). mp 238–240°C. Source: LING LAN *Convallaria keiskei* [Syn. *Convallaria majalis*]. Ref: 6.

**4009 Convallasaponin B**

[19317-00-1]  $C_{32}H_{52}O_{10}$  (596.77). mp 273–274°C. Source: LING LAN *Convallaria keiskei* [Syn. *Convallaria majalis*]. Ref: 6.

**4010 Convallasaponin C**

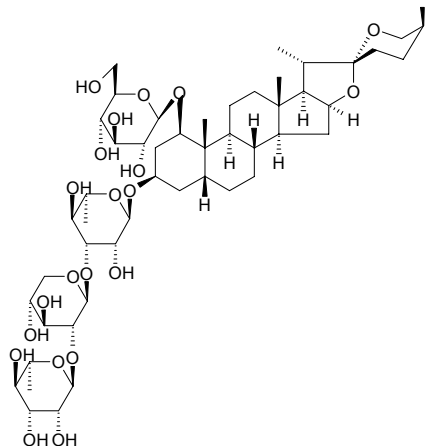
$C_{44}H_{72}O_{16}$  (857.05). Source: LING LAN *Convallaria keiskei* [Syn. *Convallaria majalis*]. Ref: 6.



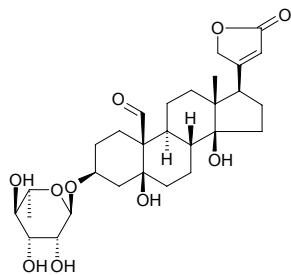
**4011 Convallasaponin D**

[16962-99-5] C<sub>50</sub>H<sub>82</sub>O<sub>21</sub> (1019.20). mp 264–265°C. Source: LING LAN

*Convallaria keiskei* [Syn. *Convallaria majalis*]. Ref: 6.

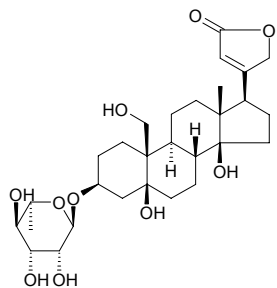
**4012 Convallatoxin**

Convallaton; Corglykon [508-75-8] C<sub>29</sub>H<sub>42</sub>O<sub>10</sub> (550.65). mp 235–242°C(dec), [α]<sub>D</sub><sup>22</sup> = -1.7°±3° (MeOH), [α]<sub>D</sub><sup>25</sup> = -9.4°±3° (dioxane), soluble in ethanol, acetone, slightly soluble in chloroform, acetic ester, water, almost insoluble in ether, petroleum ether.<sup>[5507]</sup> Source: FU SHOU CAO *Adonis amurensis* (root: content = 0.094%<sup>[5508]</sup>), HEI GANG LIU *Periploca nigrescens*, LING LAN *Convallaria keiskei* [Syn. *Convallaria majalis*]. Ref: 4, 6, 2498, 5507, 5508.

**4013 Convallatoxol**

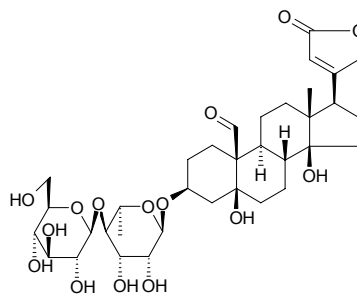
Perconval [3253-62-1] C<sub>29</sub>H<sub>44</sub>O<sub>10</sub> (552.67). mp 171–175°C. Source: LING

LAN *Convallaria keiskei* [Syn. *Convallaria majalis*]. Ref: 4, 6.

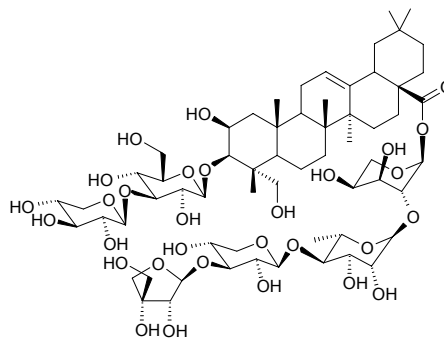
**4014 Convallaside**

Bogoroside [13473-51-3] C<sub>35</sub>H<sub>52</sub>O<sub>15</sub> (712.80). mp 201–204°C. Source: LING

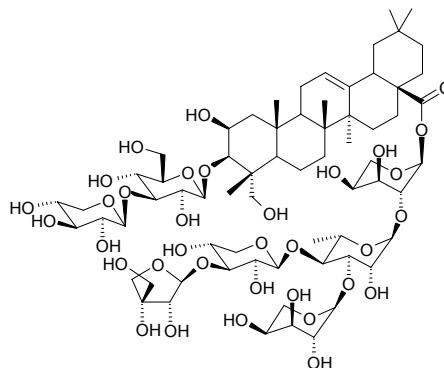
LAN *Convallaria keiskei* [Syn. *Convallaria majalis*]. Ref: 4, 6.

**4015 Conyzasaponin A**

3-*O*-β-*D*-Xylopyranosyl-(1→3)-β-*D*-glucopyranosyl bayogenin 28-*O*-β-*D*-apiofuranosyl-(1→3)-β-*D*-xylopyranosyl-(1→4)-α-*L*-rhamnopyranosyl-(1→2)-α-*L*-arabinopyranosylester C<sub>62</sub>H<sub>100</sub>O<sub>30</sub> (1325.47). White amorphous powder (MeOH), mp 219–220°C, [α]<sub>D</sub><sup>25</sup> = -13° (c = 0.94, MeOH). Source: KU HAO *Conyza blinii* (aerial parts: yield = 0.0025%dw). Ref: 3024.

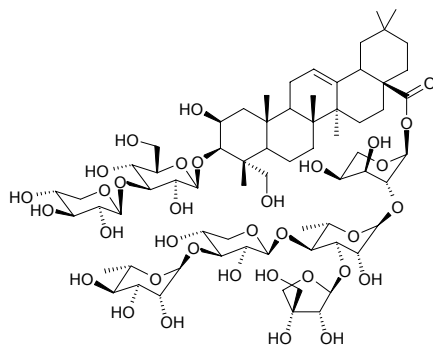
**4016 Conyzasaponin B**

3-*O*-β-*D*-Xylopyranosyl-(1→3)-β-*D*-glucopyranosyl bayogenin 28-*O*-β-*D*-apiofuranosyl-(→3)-β-*D*-xylopyranosyl-(1→4)-[α-*L*-arabinopyranosyl-(1→3)]-α-*L*-rhamnopyranosyl-(1→2)-α-*L*-arabinopyranosylester C<sub>67</sub>H<sub>108</sub>O<sub>34</sub> (1457.59). White needles (MeOH), mp 233–234°C, [α]<sub>D</sub><sup>25</sup> = +6° (c = 0.63, MeOH). Source: KU HAO *Conyza blinii* (aerial parts: yield = 0.00020%dw). Ref: 3024.

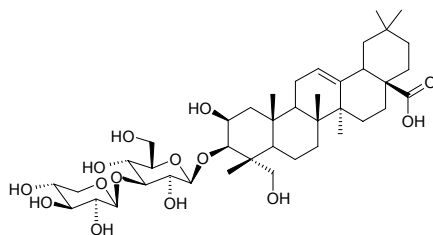


**4017 Conyzasaponin C**

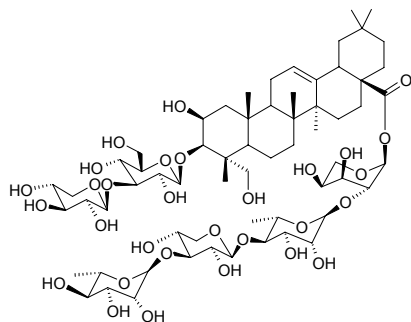
3-*O*- $\beta$ -*D*-Xylopyranosyl-(1 $\rightarrow$ 3)- $\beta$ -*D*-glucopyranosyl bayogenin 28-*O*- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 3)- $\beta$ -*D*-xylopyranosyl-(1 $\rightarrow$ 4)-[ $\beta$ -*D*-apiofuranosyl-(1 $\rightarrow$ 3)]- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -*L*-arabinopyranosyl ester C<sub>68</sub>H<sub>110</sub>O<sub>34</sub> (1471.61). White needles (MeOH), mp 225–226°C,  $[\alpha]_D^{25} = -20^\circ$  ( $c = 0.59$ , MeOH). Source: KU HAO *Conyza blinii* (aerial parts: yield = 0.00018%dw). Ref: 3024.

**4018 Conyzasaponin G**

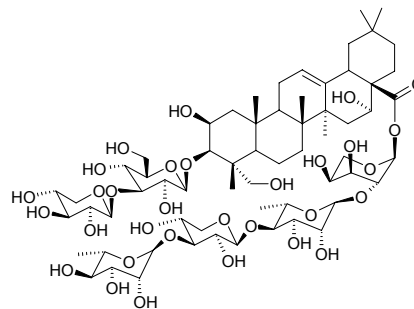
Bayogenin 3-*O*- $\beta$ -*D*-xylopyranosyl- (1 $\rightarrow$ 3)- $\beta$ -*D*-glucopyranoside C<sub>41</sub>H<sub>66</sub>O<sub>14</sub> (782.97). White amorphous powder (MeOH), mp 214–216°C. Source: KU HAO *Conyza blinii* (aerial parts: yield = 0.00008%dw). Ref: 3024.

**4019 Conyzasaponin I**

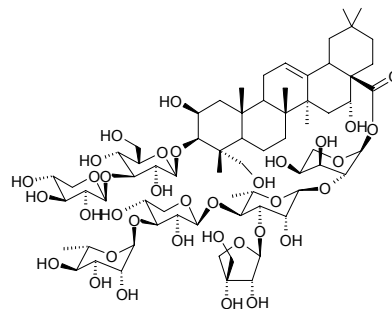
3-*O*- $\beta$ -*D*-Xylopyranosyl-(1 $\rightarrow$ 3)- $\beta$ -*D*-glucopyranosylbayogenin 28-*O*- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 3)- $\beta$ -*D*-xylopyranosyl-(1 $\rightarrow$ 4)- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -*L*-arabinopyranosyl ester C<sub>65</sub>H<sub>102</sub>O<sub>30</sub> (1339.5). White amorphous solid, mp 240–242,  $[\alpha]_D^{23} = -26.7^\circ$  ( $c = 1.14$ , methanol). Source: KU HAO *Conyza blinii* (aerial parts). Ref: 4738.

**4020 Conyzasaponin J**

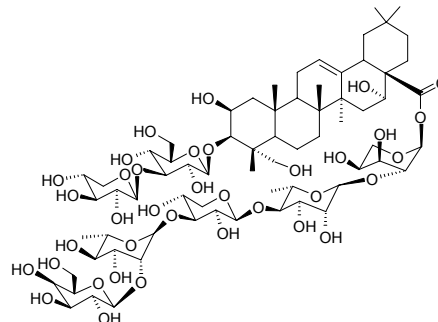
3-*O*- $\beta$ -*D*-Xylopyranosyl-(1 $\rightarrow$ 3)- $\beta$ -*D*-glucopyranosylpolygalacic acid 28-*O*- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 3)- $\beta$ -*D*-xylopyranosyl-(1 $\rightarrow$ 4)- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -*L*-arabinopyranosyl ester C<sub>63</sub>H<sub>102</sub>O<sub>31</sub> (1355.5). White amorphous solid, mp 236–238,  $[\alpha]_D^{20} = -41.4^\circ$  ( $c = 0.86$ , methanol). Source: KU HAO *Conyza blinii* (aerial parts). Ref: 4738.

**4021 Conyzasaponin K**

3-*O*- $\beta$ -*D*-Xylopyranosyl-(1 $\rightarrow$ 3)- $\beta$ -*D*-glucopyranosylpolygalacic acid 28-*O*- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 3)- $\beta$ -*D*-xylopyranosyl-(1 $\rightarrow$ 4)-[ $\beta$ -*D*-apiofuranosyl-(1 $\rightarrow$ 3)]- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -*L*-arabinopyranosyl ester C<sub>68</sub>H<sub>110</sub>O<sub>35</sub> (1487.61). White amorphous solid, mp 237–239,  $[\alpha]_D^{20} = -56.5^\circ$  ( $c = 0.76$ , methanol). Source: KU HAO *Conyza blinii* (aerial parts). Ref: 4738.

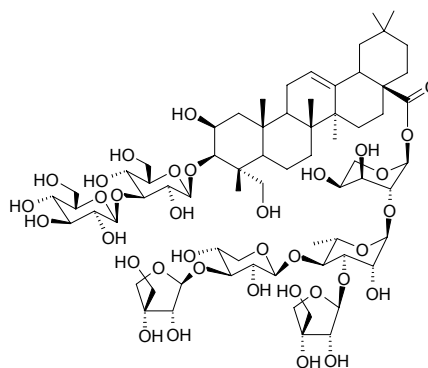
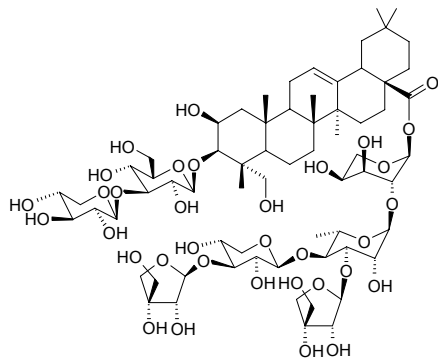
**4022 Conyzasaponin L**

3-*O*- $\beta$ -*D*-Xylopyranosyl-(1 $\rightarrow$ 3)- $\beta$ -*D*-glucopyranosylpolygalacic acid 28-*O*- $\beta$ -*D*-galactopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 3)- $\beta$ -*D*-xylopyranosyl-(1 $\rightarrow$ 4)- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -*L*-arabinopyranosyl ester C<sub>69</sub>H<sub>112</sub>O<sub>36</sub> (1517.64). White amorphous solid, mp 236–238,  $[\alpha]_D^{20} = -33.6^\circ$  ( $c = 1.08$ , methanol). Source: KU HAO *Conyza blinii* (aerial parts). Ref: 4738.



**4023 Conyzasaponin M**

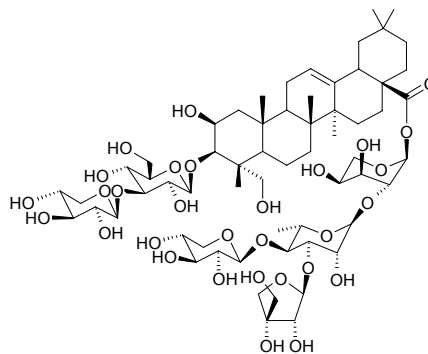
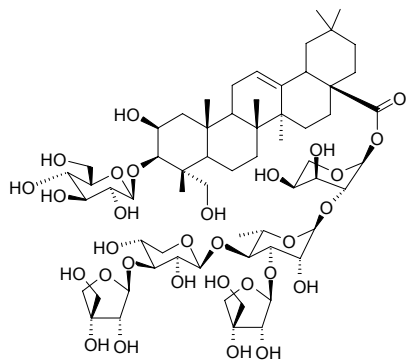
3-*O*- $\beta$ -*D*-Xylopyranosyl-(1 $\rightarrow$ 3)- $\beta$ -*D*-glucopyranosylbayogenin 28-*O*- $\beta$ -*D*-apiofuranosyl-(1 $\rightarrow$ 3)- $\beta$ -*D*-xylopyranosyl-(1 $\rightarrow$ 4)-[ $\beta$ -*D*-apiofuranosyl-(1 $\rightarrow$ 3)]- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -*L*-arabinopyranosyl ester C<sub>67</sub>H<sub>108</sub>O<sub>34</sub> (1457.59). White needles (MeOH), mp 236–238, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -42.5° (*c* = 0.36, methanol). Source: KU HAO *Conyza blinii* (aerial parts). Ref: 4738.

**4026 Conyzasaponin P**

3-*O*- $\beta$ -*D*-Xylopyranosyl-(1 $\rightarrow$ 3)- $\beta$ -*D*-glucopyranosylbayogenin 28-*O*- $\beta$ -*D*-apiofuranosyl-(1 $\rightarrow$ 3)-[ $\beta$ -*D*-xylopyranosyl-(1 $\rightarrow$ 4)]- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -*L*-arabinopyranosyl ester C<sub>62</sub>H<sub>100</sub>O<sub>30</sub> (1325.47). White amorphous solid, mp 243–245, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -30.4° (*c* = 0.51, methanol). Source: KU HAO *Conyza blinii* (aerial parts). Ref: 4738.

**4024 Conyzasaponin N**

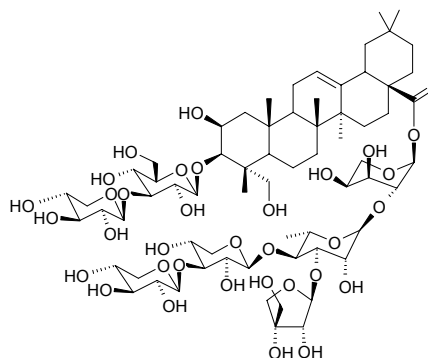
3-*O*- $\beta$ -*D*-Glucopyranosylbayogenin 28-*O*- $\beta$ -*D*-apiofuranosyl-(1 $\rightarrow$ 3)- $\beta$ -*D*-xylopyranosyl-(1 $\rightarrow$ 4)-[ $\beta$ -*D*-apiofuranosyl-(1 $\rightarrow$ 3)]- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -*L*-arabinopyranosyl ester C<sub>62</sub>H<sub>100</sub>O<sub>30</sub> (1325.47). White needles (MeOH), mp 231–233, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -42.3° (*c* = 0.36, methanol). Source: KU HAO *Conyza blinii* (aerial parts). Ref: 4738.

**4027 Conyzasaponin Q**

3-*O*- $\beta$ -*D*-Xylopyranosyl-(1 $\rightarrow$ 3)- $\beta$ -*D*-glucopyranosylbayogenin 28-*O*- $\beta$ -*D*-xylopyranosyl-(1 $\rightarrow$ 3)- $\beta$ -*D*-xylopyranosyl-(1 $\rightarrow$ 4)-[ $\beta$ -*D*-apiofuranosyl-(1 $\rightarrow$ 3)]- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -*L*-arabinopyranosyl ester C<sub>67</sub>H<sub>108</sub>O<sub>34</sub> (1457.59). White needles (MeOH), mp 242–244, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -34.2° (*c* = 1.26, methanol). Source: KU HAO *Conyza blinii* (aerial parts). Ref: 4738.

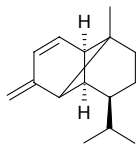
**4025 Conyzasaponin O**

3-*O*- $\beta$ -*D*-Glucopyranosyl-(1 $\rightarrow$ 3)- $\beta$ -*D*-glucopyranosylbayogenin 28-*O*- $\beta$ -*D*-apiofuranosyl-(1 $\rightarrow$ 3)- $\beta$ -*D*-xylopyranosyl-(1 $\rightarrow$ 4)-[ $\beta$ -*D*-apiofuranosyl-(1 $\rightarrow$ 3)]- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -*L*-arabinopyranosyl ester C<sub>68</sub>H<sub>110</sub>O<sub>35</sub> (1487.61). White needles (MeOH), mp 245–247, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -38.6° (*c* = 0.17, methanol). Source: KU HAO *Conyza blinii* (aerial parts). Ref: 4738.

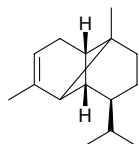


**4028 Copadiene**

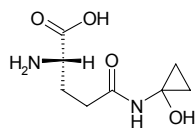
[27597-38-2] C<sub>15</sub>H<sub>22</sub> (202.34). bp (+) 130–140°C/1mmHg. Source: XIANG FU *Cyperus rotundus*. Ref: 6.

**4029 α-Copaene**

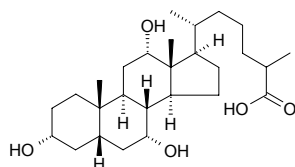
[3856-25-5] C<sub>15</sub>H<sub>24</sub> (204.36). Pharm: Antibacterial; antifungal; cardiotoxic (cardiac glycoside); diuretic (rat, amount of urine up to 300%); hemolytic (strongest); sedative (rat, inhibits spontaneous movement); MLD (frog iv) = 0.3mg/kg. Source: DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*], FU JU *Citrus tangemna*, HONG CHAI HU *Bupleurum scorzonrifolium*, HOU PO *Magnolia officinalis*, HUANG HUA HAO *Artemisia annua*, LV CAO *Humulus japonicus* [Syn. *Humulus scandens*], MU HAO *Artemisia japonica*, QING HAO *Artemisia apiacea* [Syn. *Artemisia carvifolia*; *Artemisia caruifolia*], SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*], SHENG JIANG *Zingiber officinale*, ZHU JU *Citrus erythroa*. Ref: 2, 658, 660.

**4030 Coprine**

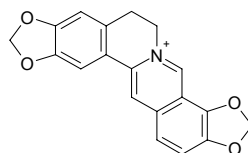
[58919-61-2] C<sub>8</sub>H<sub>14</sub>N<sub>2</sub>O<sub>4</sub> (202.21). Pharm: Interferes in metabolism of alcohol. Source: GUI GAI *Coprinus atramentarius*. Ref: 658.

**4031 Coprocholic acid**

3α,7α,12α-Trihydroxy coprostanic acid [23740-14-9] C<sub>27</sub>H<sub>46</sub>O<sub>5</sub> (450.66). mp 180–182°C, mp 174–176°C. Source: CHEN DONG CAI LU ZHI *Brassica chinensis*, QING WA DAN *Rana nigromaculata*; *Rana plancyi*. Ref: 6.

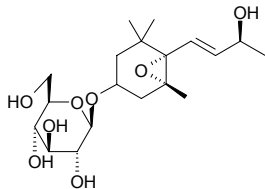
**4032 Coptisine**

[3486-66-6] C<sub>19</sub>H<sub>14</sub>NO<sub>4</sub><sup>+</sup> (320.33). Pharm: Antimicrobial. Source: BAI QU CAI *Chelidonium majus* (whole herb: mean content of 5 origins = 0.332%)<sup>[5508]</sup>, BAN RUI TANG SONG CAO *Thalictrum petaloideum* (root: content < 0.001%)<sup>[5508]</sup>, CHANG JU YAN HU SUO *Corydalis longicalcarata* (rhizome: content = 0.057%)<sup>[5508]</sup>, CHI BAN YAN HU SUO *Corydalis remota* [Syn. *Corydalis bulbosa* var. *typica*] (rhizome: content = 0.01%)<sup>[5508]</sup>, DA YE TANG SONG CAO *Thalictrum faberi* (root: content < 0.001%)<sup>[5508]</sup>, DI TANG CAO *Hypecoum japonicum*, DONG BEI YAN HU SUO *Corydalis ambigua* var. *amurensis* [Syn. *Corydalis ambigua*] (rhizome: content = 0.02%)<sup>[5508]</sup>, DUAN E HUANG LIAN *Coptis chinensis* var. *brevisepala* (rhizome: content = 1.31%)<sup>[5508]</sup>, DUI YE YUAN HU *Corydalis ledebouriana* (rhizome: content = 0.013%)<sup>[5508]</sup>, E MEI YE HUANG LIAN *Coptis omeiensis* (rhizome: content = 1.97%)<sup>[5508]</sup>, GU LIN YE LIAN *Coptis gulinensis* (rhizome: content = 1.11%)<sup>[5508]</sup>, HE BAO MU DAN GEN *Dicentra spectabilis*, HUA NAN GONG LAO MU *Mahonia japonica*, HUA NAN GONG LAO YE *Mahonia japonica*, HUANG LIAN *Coptis chinensis* (rhizome: content scope = 1.5%–2.2%)<sup>[5501]</sup>, mean content = 2.06%<sup>[5508]</sup>, HUI LV YAN HU SUO *Corydalis adunca* (rhizome: content = 0.031%)<sup>[5508]</sup>, JIN SI MA WEI LIAN *Thalictrum glandulosissimum* (root: content = 0.10%)<sup>[5508]</sup>, JU HUA HUANG LIAN *Corydalis pallida*, MA WEI LIAN *Thalictrum foliolosum* (root: content < 0.001%)<sup>[5508]</sup>, QUAN YE YAN HU SUO *Corydalis repens* (rhizome: content = 0.02%)<sup>[5508]</sup>, RI BEN HUANG LIAN *Coptis japonica*, SAN JIAO YE HUANG LIAN *Coptis deltoidea* (rhizome: mean content = 1.60%)<sup>[5508]</sup>, XI GUO JIAO HUI XIANG *Hypecoum leptocarpum*, XIA TIAN WU *Corydalis decumbens* [Syn. *Corydalis amabilis*] (rhizome: content = 0.01%)<sup>[5508]</sup>, XIA XU TANG SONG CAO *Thalictrum atriplex* (root: content < 0.001%)<sup>[5508]</sup>, XIAN E HUANG LIAN *Coptis linearisepala* (rhizome: content = 1.73%)<sup>[5508]</sup>, XIAO GUO TANG SONG CAO *Thalictrum microgynum* (root: content < 0.001%)<sup>[5508]</sup>, YAN GUO CAO *Thalictrum thunbergii* (root: content < 0.001%)<sup>[5508]</sup>, YAN HU SUO *Corydalis yanhusuo* [Syn. *Corydalis turtschaninovii* f. *yanhusuo*] (rhizome: mean content of 2 origins = 0.044%)<sup>[5508]</sup>, YING SHUI HUANG LIAN *Thalictrum simplex* [Syn. *Thalictrum simplex* var. *brevipes*] (root: content < 0.001%)<sup>[5508]</sup>, YUN NAN HUANG LIAN *Coptis teetoides* [Syn. *Coptis teeta*] (rhizome: mean content = 1.54%)<sup>[5508]</sup>, ZI HUA YU DENG CAO *Corydalis incisa*. Ref: 2, 658, 660, 5501, 5508.

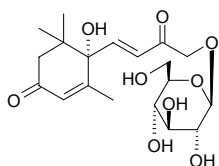


**4033 Corchoionoside A**

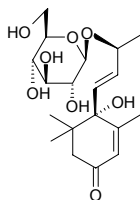
$C_{19}H_{32}O_8$  (388.46). Amorphous powder,  $[\alpha]_D^{24} = -55^\circ$ . Source: BEI SHA SHEN *Glehnia littoralis* (fruit). Ref: 3525.

**4034 Corchoionoside B**

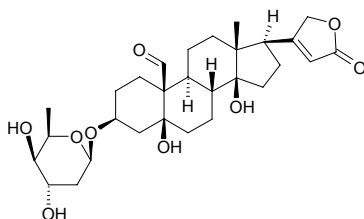
$C_{19}H_{28}O_9$  (400.43). Source: HUANAN WU ZHU YU *Evodia austrosinensis*. Ref: 5052.

**4035 Corchoionoside C**

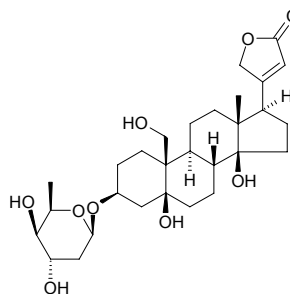
$C_{19}H_{30}O_8$  (386.45). Amorphous substance,  $[\alpha]_D^{20} = +31.2^\circ$  ( $c = 2.0$ , MeOH). Pharm: Antibacterial inactive (*Helicobacter pylori* NCTC11637, MIC > 200  $\mu\text{g/mL}$ ; NCTC11916, MIC > 200  $\mu\text{g/mL}$ ; OCO1, MIC > 200  $\mu\text{g/mL}$ ; control Hinokitiol (Nat. or Syn.), MIC = 100, 100, 50  $\mu\text{g/mL}$ , respectively) [4477]. Source: LAO SHU GUA *Capparis spinosa*, OU ZHOU CI BAI BIAN ZHONG *Juniperus communis* var. *depressa* (twig with leaf). Ref: 1998, 4477.

**4036 Corchoroside A**

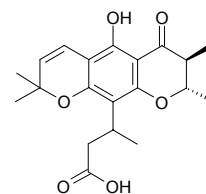
[508-76-9]  $C_{29}H_{42}O_9$  (534.65). mp 188~190°C. Pharm: Cardiotonic (cardiac glycoside); bidirectional action to blood vessel (rbt ear, dilates at low concentration and contracts at high concentration); diuretic (rbt); low toxin; reduces symptoms of myocarditis (rbt) and prevents development of cardiac muscle sclerosis; sedative. Source: FU SHOU CAO *Adonis amurensis*, GUI ZHU TANG JIE *Erysimum cheiranthoides*, HUANG MA YE *Corchorus capsularis*, HUANG MA ZI *Corchorus capsularis*, MENG GU CE JIN ZHAN HUA *Adonis mongolica*. Ref: 4, 6, 658.

**4037 Corchorosol A**

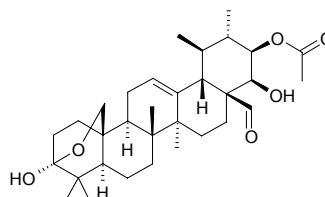
$C_{29}H_{44}O_9$  (536.67). mp 199~201°C. Source: HUANG MA YE *Corchorus capsularis*. Ref: 6.

**4038 Cordato-oblongic acid**

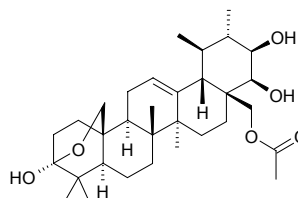
$C_{20}H_{24}O_6$  (360.41). Source: CHANG YUAN XIN XING HU TONG *Calophyllum cordato-oblongum*. Ref: 2280.

**4039 Cordiaketal A**

3 $\beta$ ,25-Epoxy-21 $\beta$ -acetoxo-3 $\alpha$ ,22 $\beta$ -dihydroxyurs-12-en-28-al  $C_{32}H_{48}O_6$  (528.74). Colorless needles, mp 204~208°C,  $[\alpha]_D = +181.7^\circ$  ( $c = 0.5$ , MeOH). Pharm: Anti-androgenic (testosterone 5 $\alpha$ -reductase inhibitor, 50  $\mu\text{g/mL}$ , InRt = 70.57%, control Glabridine, 50  $\mu\text{g/mL}$ , InRt = 48.20%) [4106]. Source: DUO SUI PO BU MU *Cordia multispicata* (leaf). Ref: 4106.

**4040 Cordiaketal B**

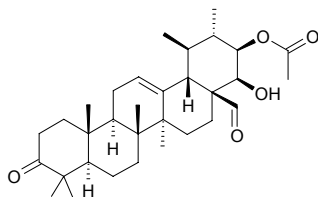
3 $\beta$ ,25-Epoxy-28-acetoxo-3 $\alpha$ ,21 $\beta$ ,22 $\beta$ -trihydroxyurs-12-ene  $C_{32}H_{50}O_6$  (530.75). Amorphous powder,  $[\alpha]_D = +120.0^\circ$  ( $c = 0.8$ , MeOH). Pharm: Anti-androgenic (testosterone 5 $\alpha$ -reductase inhibitor, 50  $\mu\text{g/mL}$ , InRt = 70.75%, control Glabridine, 50  $\mu\text{g/mL}$ , InRt = 48.20%) [4106]. Source: DUO SUI PO BU MU *Cordia multispicata* (leaf). Ref: 4106.



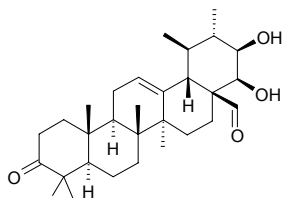
**4041 Cordianal A**

21 $\beta$ -Acetoxy-22 $\beta$ -hydroxy-3-oxours-12-en-28-al C<sub>32</sub>H<sub>48</sub>O<sub>5</sub> (512.74).

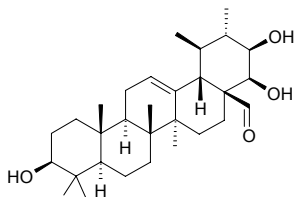
Amorphous powder. **Pharm:** Anti-androgenic (testosterone 5 $\alpha$ -reductase inhibitor, 100 $\mu$ g/mL, InRt = 67.57%, control Glabridine, 100 $\mu$ g/mL, InRt = 90.50%). **Source:** DUO SUI PO BU MU *Cordia multispicata* (leaf). **Ref:** 4106.

**4042 Cordianal B**

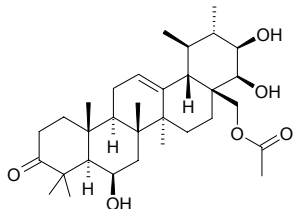
21 $\beta$ ,22 $\beta$ -Dihydroxy-3-oxours-12-en-28-al C<sub>30</sub>H<sub>46</sub>O<sub>4</sub> (470.70). Colorless needles, mp 251–254°C (MeOH). **Pharm:** Anti-androgenic (testosterone 5 $\alpha$ -reductase inhibitor, 100 $\mu$ g/mL, InRt = 18.87%, control Glabridine, 100 $\mu$ g/mL, InRt = 90.50%). **Source:** DUO SUI PO BU MU *Cordia multispicata* (leaf). **Ref:** 4106.

**4043 Cordianal C**

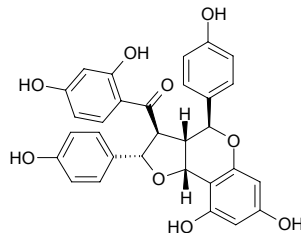
3 $\beta$ ,21 $\beta$ ,22 $\beta$ -Trihydroxyurs-12-en-28-al C<sub>30</sub>H<sub>48</sub>O<sub>4</sub> (472.71). Amorphous powder. **Source:** DUO SUI PO BU MU *Cordia multispicata* (leaf). **Ref:** 4106.

**4044 Cordianone**

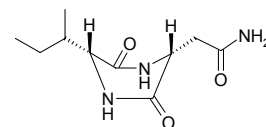
28-Acetoxy-6 $\beta$ ,21 $\beta$ ,22 $\beta$ -trihydroxy-3-oxours-12-ene C<sub>32</sub>H<sub>50</sub>O<sub>6</sub> (530.75). Amorphous powder. **Source:** DUO SUI PO BU MU *Cordia multispicata* (leaf). **Ref:** 4106.

**4045 Cordigol**

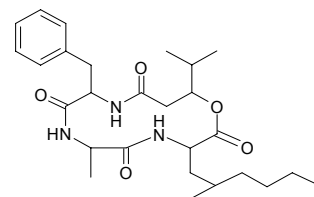
[117458-38-5] C<sub>30</sub>H<sub>24</sub>O<sub>9</sub> (528.52). **Source:** CHANG E JIN LIAN MU PI *Ochna macrocalyx*, SANG DAO BU SHI MU *Brackenridgea zanguebarica*. **Ref:** 5372.

**4046 Cordycedipeptide A**

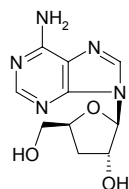
3-Acetamino-6-isobutyl-2,5-dioxopiperazine C<sub>10</sub>H<sub>17</sub>N<sub>3</sub>O<sub>3</sub> (227.27). White amorphous powder (MeOH), mp 126°C, [ $\alpha$ ]<sub>D</sub><sup>20</sup> = -70.25° (c = 0.8, MeOH). **Pharm:** Cytotoxic (L-929, IC<sub>50</sub> = 6.30 $\mu$ g/mL, A375, IC<sub>50</sub> = 9.16 $\mu$ g/mL, HeLa, IC<sub>50</sub> = 61.10 $\mu$ g/mL, control 5-FU, IC<sub>50</sub> = 6.37 $\mu$ g/mL, 4.69 $\mu$ g/mL, 12.71 $\mu$ g/mL, respectively). **Source:** DONG CHONG XIA CAO *Cordyceps sinensis* (whole herb). **Ref:** 4462.

**4047 Cordyceptide A**

C<sub>27</sub>H<sub>41</sub>N<sub>3</sub>O<sub>5</sub> (487.64). White acicular crystals mp 273–274°C. **Source:** REN GONG YONG CHONG CAO *Cordyceps militaris* cv. **Ref:** 858.

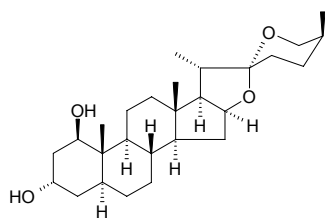
**4048 Cordycepin**

[73-03-0] C<sub>10</sub>H<sub>13</sub>N<sub>5</sub>O<sub>3</sub> (251.25). mp 225–226°C. **Pharm:** Antineoplastic (mus, EAC, 15–20mg/kg ip, extends survival time); cytotoxic (KB, L<sub>1210</sub>); antimalarial (*Plasmodium falciparum* K1, IC<sub>50</sub> = 4.5 $\mu$ g/mL; control Dihydroartemisinin, IC<sub>50</sub> = 1.2ng/mL)<sup>[4784]</sup>; antibacterial (*Bacillus subtilis* and *Mycobacterium tuberculosis*); antiviral (inhibits biosynthesis of RNA). **Source:** DONG CHONG XIA CAO *Cordyceps sinensis*, YANG CONG *Allium cepa*, REN GONG YONG CHONG CAO *Cordyceps militaris* cv. (sclerotium and stroma: content = 0.458%)<sup>[5512]</sup>, YONG CHONG CAO *Cordyceps militaris*. **Ref:** 6, 658, 4784, 5512.

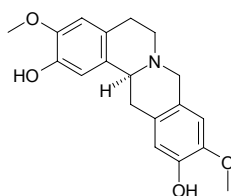


**4049 Cordylagenin**

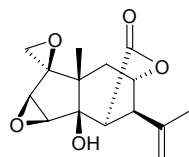
[54165-35-4]  $C_{27}H_{44}O_4$  (432.65). mp (-) 216°C. Source: JIAN YE TIE SHU YE *Cordyline stricta*. Ref: 6.

**4050 Coreximine**

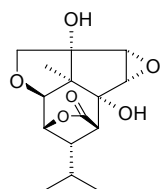
[483-45-4]  $C_{19}H_{21}NO_4$  (327.38). mp (-) 262°C, (±) 233–240°C. Source: ZI HUA YU DENG CAO *Corydalis incisa*, YA PIAN *Papaver somniferum*. Ref: 6.

**4051 Coriamyrtin**

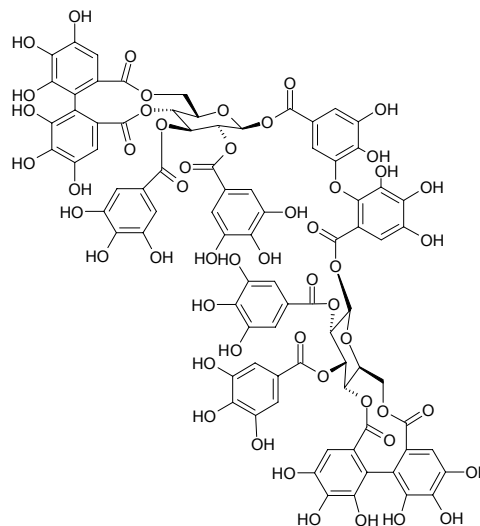
[2571-86-0]  $C_{15}H_{18}O_5$  (278.31). mp 229–230°C. Pharm: Causes epilepsy (rat, 1mg/kg, im for 5.5–6.5 months, epilepsy persistent); eclamptogenic (rbt or rat, 3mg/kg im). Source: BAI LI XIANG YE MA SANG *Coriaria thymifolia*, DI ZHONG HAI MA SANG *Coriaria myrtifolia* (the compound was first isolated from the plant by Riban in 1863)<sup>[5505]</sup>, MA SANG *Coriaria sinica* [Syn. *Coriaria nepalensis*], MA SANG YE *Coriaria sinica* [Syn. *Coriaria nepalensis*], RI BEN MA SANG *Coriaria japonica*. Ref: 4, 6, 413, 658, 5505.

**4052 Corianin**

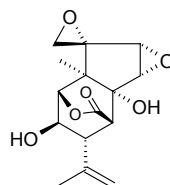
$C_{15}H_{20}O_6$  (296.32). Source: RI BEN MA SANG *Coriaria japonica* (seed). Ref: 4497.

**4053 Coriariin A**

[89871-78-3]  $C_{82}H_{58}O_{52}$  (1875.35). Pharm: Antineoplastic. Source: RI BEN MA SANG *Coriaria japonica*. Ref: 658.

**4054 Coriarin**

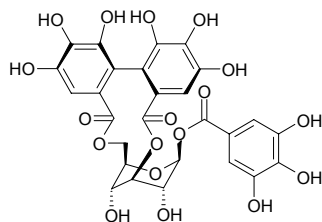
$C_{15}H_{18}O_6$  (294.31). Colorless prisms (MeOH), mp 203–204°C,  $[\alpha]_D^{22} = -34.5^\circ$  ( $c = 0.116$ , MeOH). Source: RI BEN MA SANG *Coriaria japonica* (seed). Ref: 4497.

**4055 Corilagin**

[23094-69-1]  $C_{27}H_{22}O_{18}$  (634.47). Yellow, mp 211°C, mp 204–205°C. Pharm: Antihepatotoxin (*in vitro*); inhibits lipolysis (rat, fat cells, induced by adrenalin, hepatic cell microsome); TNF- $\alpha$  release inhibitor (BALB/3T3 cells, okadaic acid-stimulated, mean  $IC_{50} = 76\mu\text{mol/L}$ )<sup>[4416]</sup>; thrombolytic (rats, dose-dependent manner, 5mg/kg corilagin produces a nearly similar reperfusion rate to that of 20000U/kg of urokinase, whereas it produces a lower reocclusion rate than urokinase, inhibits PAI-1 activity and increases tPA activity)<sup>[5500]</sup>; antibacterial (*Erwinia carotovora*, IZD = 20mm/100 $\mu\text{g}$ , control Quercetin sulfate, IZD = 21mm/10 $\mu\text{g}$ ; *Staphylococcus aureus*, IZD = 12mm/100 $\mu\text{g}$ , Quercetin sulfate, IZD = 14mm/10 $\mu\text{g}$ ; *Corynebacterium accolens*, IZD = 12mm/100 $\mu\text{g}$ , Quercetin sulfate, IZD = 28mm/10 $\mu\text{g}$ )<sup>[5250]</sup>; antifungal (*Candida albicans*, IZD = 12mm/100 $\mu\text{g}$ , control Nystatin, IZD = 11mm/20 $\mu\text{g}$ )<sup>[5250]</sup>; xanthine oxidase inhibitor ( $IC_{50} = 72.9\mu\text{g/mL}$ ,  $IC_{50} > 100\mu\text{mol/L}$ ; control Quercetin,  $IC_{50} = 3.4\mu\text{g/mL}$ ,  $IC_{50} = 10\mu\text{mol/L}$ )<sup>[5250]</sup>. Source: AN MO LE *Phyllanthus emblica* (fruit juice, branch and leaf)<sup>[3094]</sup>, BAI MU WU JIU *Sapium japonicum*, BI MA ZI *Ricinus communis*, DA YE

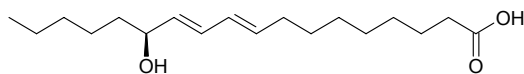


KU NUO NI *Cunonia macrophylla* (leaf), HE ZI *Terminalia chebula*, TONG YOU *Aleurites cordata* [Syn. *Aleurites fordii*], WU JIU MU GEN PI *Sapium sebiferum*, YOU GAN MU PI *Phyllanthus emblica*, YOU GAN YE *Phyllanthus emblica*, MAO GUO QI *Acer nikoense*, YE XIA ZHU *Phyllanthus urinaria*, *Acer* sp. Ref: 6, 658, 4416, 5250, 5500.



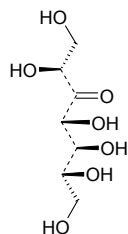
#### 4056 (S)-Coriolic acid

$C_{18}H_{32}O_3$  (296.45).  $[\alpha]_D^{20} = +4.7^\circ$  ( $c = 0.1$ ,  $CHCl_3$ ). Pharm: COX-1 inhibitor ( $IC_{50} = 2.1\mu g/mL$ , control *trans*-Resveratrol,  $IC_{50} = 0.25\mu g/mL$ )<sup>[5030]</sup>; COX-2 inhibitor ( $IC_{50} = 0.14\mu g/mL$ , control *trans*-Resveratrol,  $IC_{50} = 0.30\mu g/mL$ )<sup>[5030]</sup>. Source: LIAN YE TONG *Hernandia Sonora* [Syn. *Hernandia ovigera*] (seed). Ref: 5030.



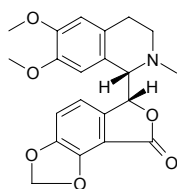
#### 4057 Coriiose

[13059-96-6]  $C_7H_{14}O_7$  (210.19). mp 169~171°C. Source: MA SANG YE *Coriaria sinica* [Syn. *Coriaria nepalensis*]. Ref: 6.



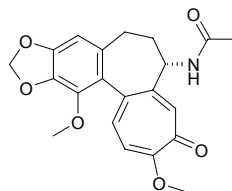
#### 4058 Corlumine

[485-51-5]  $C_{21}H_{21}NO_6$  (383.40). mp 159°C,  $[\alpha]_D = +77^\circ$  (chloroform). Pharm: Uterine stimulant. Source: BEI ZI JIN *Corydalis sibirica*, XIE SHI ZI JIN *Corydalis sewerzowi*. Ref: 661.



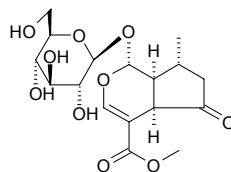
#### 4059 Cornigerine

[6877-25-4]  $C_{21}H_{21}NO_6$  (383.40). mp 268~270°C. Source: CAO BEI MU *Iphigenia indica*. Ref: 6.



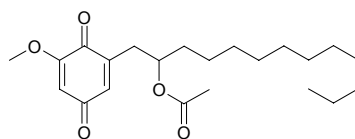
#### 4060 Cornin

Verbenalin [548-37-8]  $C_{17}H_{24}O_{10}$  (388.37). mp 182.2~182.8°C. Source: MA BIAN CAO *Verbena officinalis*, SHAN ZHU YU *Cornus officinalis* [Syn. *Macrocarpium officinale*]. Ref: 2, 6.



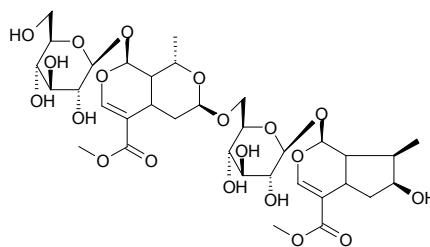
#### 4061 Cornudentanone

$C_{22}H_{34}O_5$  (378.51). Pharm: Inhibits combination of leucocyte and its receptor. Source: XIAN CHI ZI JIN NIU *Ardisia cornudentata*. Ref: 658.



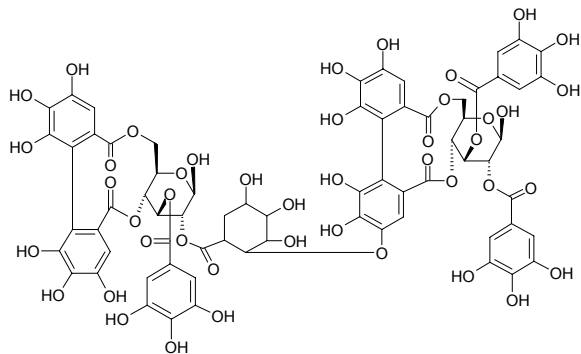
#### 4062 Cornuside

$C_{34}H_{50}O_{20}$  (778.77). White amorphous powder, mp 135~138°C,  $[\alpha]_D^{16.5} = -83.7^\circ$  ( $c = 0.2$ , methanol). Source: SHAN ZHU YU *Cornus officinalis* [Syn. *Macrocarpium officinale*]. Ref: 247.

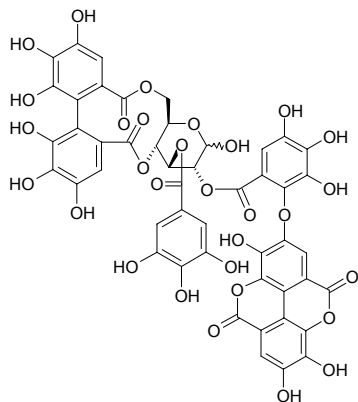


**4063 Cornusiin A**

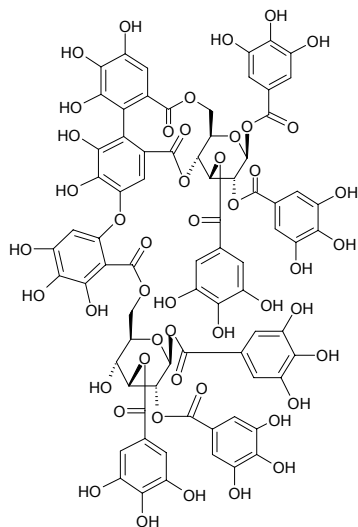
[95263-69-7] C<sub>68</sub>H<sub>56</sub>O<sub>44</sub> (1577.18). Source: SHAN ZHU YU *Cornus officinalis* [Syn. *Macrocarpum officinale*]. Ref: 2.

**4064 Cornusiin B**

[95263-70-0] C<sub>48</sub>H<sub>30</sub>O<sub>30</sub> (1086.76). Source: SHAN ZHU YU *Cornus officinalis* [Syn. *Macrocarpum officinale*]. Ref: 2.

**4065 Cornusiin G**

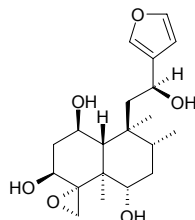
[131189-58-7] C<sub>75</sub>H<sub>56</sub>O<sub>48</sub> (1725.25). Source: SHAN ZHU YU *Cornus officinalis* [Syn. *Macrocarpum officinale*]. Ref: 2.

**4066 Cornutin C**

C<sub>20</sub>H<sub>30</sub>O<sub>6</sub> (366.46). Amorphous white solid,  $[\alpha]_D^{20} = -4^\circ$  ( $c = 0.12$ , MeOH).

Pharm: Antimalarial (antiplasmodial, poW strain of *Plasmodium falciparum*, IC<sub>50</sub> = 36.9 μmol/L, Dd2 strain of *Plasmodium falciparum*, IC<sub>50</sub> = 58.7 μmol/L).

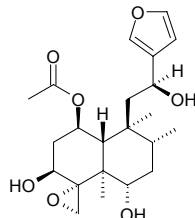
Source: ZHONG JIAN DA YE KE NU CAO *Cornutia grandifolia* var. *intermedia*. Ref: 3457.

**4067 Cornutin D**

C<sub>22</sub>H<sub>32</sub>O<sub>7</sub> (408.50). Colorless oil,  $[\alpha]_D^{20} = -5^\circ$  ( $c = 0.08$ , MeOH). Pharm:

Antimalarial (antiplasmodial, poW strain of *Plasmodium falciparum*, IC<sub>50</sub> = 56.6 μmol/L, Dd2 strain of *Plasmodium falciparum*, IC<sub>50</sub> = 96.8 μmol/L).

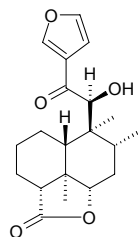
Source: ZHONG JIAN DA YE KE NU CAO *Cornutia grandifolia* var. *intermedia*. Ref: 3457.

**4068 Cornutin E**

C<sub>20</sub>H<sub>26</sub>O<sub>5</sub> (346.43). Colorless crystals,  $[\alpha]_D^{20} = -75^\circ$  ( $c = 0.30$ , CHCl<sub>3</sub>). Pharm:

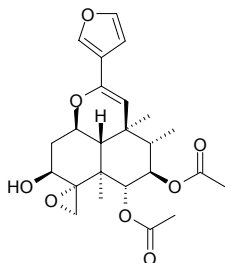
Antimalarial inactive (antiplasmodial, poW strain of *Plasmodium falciparum*, Dd2 strain of *Plasmodium falciparum*). Source: ZHONG JIAN DA YE KE

NU CAO *Cornutia grandifolia* var. *intermedia*. Ref: 3457.

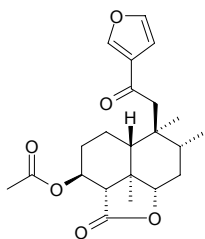


**4069 Cornutin F**

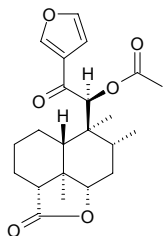
$C_{24}H_{30}O_8$  (446.50). Colorless crystals,  $[\alpha]_D^{20} = +17^\circ$  ( $c = 0.34$ ,  $CHCl_3$ ). **Pharm:** Antimalarial inactive (antiplasmodial, poW strain of *Plasmodium falciparum*, Dd2 strain of *Plasmodium falciparum*). **Source:** ZHONG JIAN DA YE KE NU CAO *Cornutia grandifolia* var. *intermedia*. **Ref:** 3457.

**4070 Cornutin G**

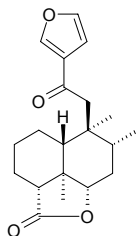
$C_{22}H_{28}O_6$  (388.46). Colorless oil,  $[\alpha]_D^{20} = -2^\circ$  ( $c = 0.29$ ,  $CHCl_3$ ). **Source:** ZHONG JIAN DA YE KE NU CAO *Cornutia grandifolia* var. *intermedia*. **Ref:** 3457.

**4071 Cornutin H**

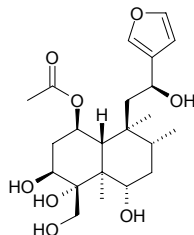
$C_{22}H_{28}O_6$  (388.46). Yellow crystals,  $[\alpha]_D^{20} = -10^\circ$  ( $c = 0.73$ ,  $CHCl_3$ ). **Source:** ZHONG JIAN DA YE KE NU CAO *Cornutia grandifolia* var. *intermedia*. **Ref:** 3457.

**4072 Cornutin I**

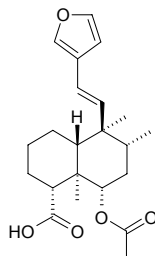
$C_{20}H_{26}O_4$  (330.43). Colorless crystals,  $[\alpha]_D^{20} = +4^\circ$  ( $c = 0.31$ ,  $CHCl_3$ ). **Source:** ZHONG JIAN DA YE KE NU CAO *Cornutia grandifolia* var. *intermedia*. **Ref:** 3457.

**4073 Cornutin J**

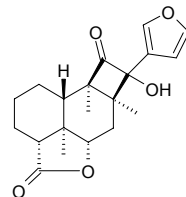
$C_{22}H_{30}O_8$  (426.51). White amorphous solid,  $[\alpha]_D^{20} = +13^\circ$  ( $c = 0.35$ ,  $CHCl_3$ ). **Source:** ZHONG JIAN DA YE KE NU CAO *Cornutia grandifolia* var. *intermedia*. **Ref:** 3457.

**4074 Cornutin K**

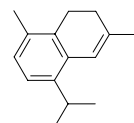
$C_{22}H_{30}O_5$  (374.48). Colorless oil. **Source:** ZHONG JIAN DA YE KE NU CAO *Cornutia grandifolia* var. *intermedia*. **Ref:** 3457.

**4075 Cornutin L**

$C_{20}H_{24}O_5$  (344.41). White amorphous solid,  $[\alpha]_D^{20} = +35^\circ$  ( $c = 0.39$ ,  $CHCl_3$ ). **Source:** ZHONG JIAN DA YE KE NU CAO *Cornutia grandifolia* var. *intermedia*. **Ref:** 3457.

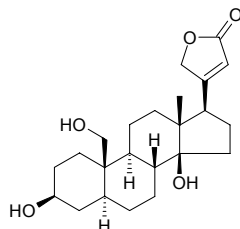
**4076  $\alpha$ -Corocalene**

1,6-Dimethyl-4-isopropyl-7,8-dihydro-naphthalene [20129-39-9]  $C_{15}H_{20}$  (200.33). **Source:** PI JIU HUA *Humulus lupulus*, ZHANG MU *Cinnamomum camphora*. **Ref:** 6.

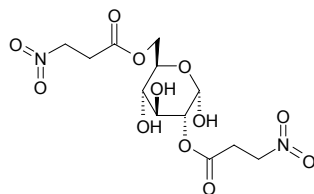


**4077 Coroglaucigenin**

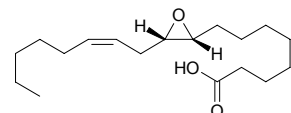
[468-19-9]  $C_{23}H_{34}O_5$  (390.52). mp 249°C. Source: LIAN SHENG GUI ZI HUA *Asclepias curassavica*. Ref: 6.

**4078 Coronarin**

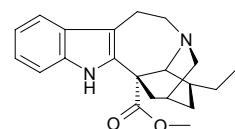
[63505-68-0]  $C_{12}H_{18}N_2O_{12}$  (382.28). Pharm: Toxin. Source: SHI YONG HUANG QI *Astragalus cibarius*, LIAN XING HUANG QI *Astragalus falcatus*, WAN YAN HUANG QI *Astragalus flexuosus*. Ref: 658.

**4079 Coronaric acid**

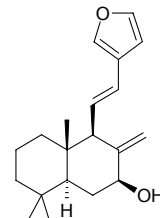
[16833-56-0]  $C_{18}H_{32}O_3$  (296.45). Source: TONG HAO *Chrysanthemum coronarium*. Ref: 1521.

**4080 Coronaridine**

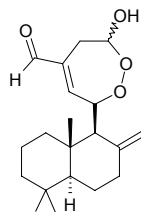
[467-77-6]  $C_{21}H_{26}N_2O_2$  (338.45). Pharm: Analgesic; diuretic; estrogenic activity (very strong); inhibits flap and quiver (mus, caused by stress); anti-addictive (with side effects: tremor, cerebellar neurotoxicity and bradycardia; its congener 18-Methoxycoronaridine has anti-HIV-1 activity and anti-retroviral activity)<sup>[4417]</sup>; antileishmanial (*Leishmania amazonensis*)<sup>[4417]</sup>. Source: CHANG CHUN HUA *Catharanthus roseus* [Syn. *Vinca rosea*; *Lochera rosea*], DAN BAN GOU YA HUA *Ervatamia divaricata*, ER QI GOU YA HUA *Ervatamia dichotoma*, GUAN ZHUANG GOU YA HUA *Ervatamia coronaria*. Ref: 2, 658, 4417.

**4081 Coronarin A**

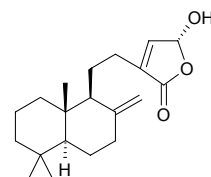
[119188-33-9]  $C_{20}H_{28}O_2$  (300.44). Colorless acicular crystals, mp 100~101°C,  $[\alpha]_D = +25.4^\circ$  ( $c = 0.28$ , chloroform). Pharm: Cytotoxic (V-79,  $IC_{50} = 1.65\mu\text{g/mL}$ ). Source: TU QIANG HUO *Hedychium coronarium*, YUAN BAN JIANG HUA *Hedychium forrestii*. Ref: 322, 1133.

**4082 Coronarin B**

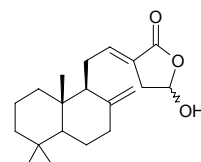
[119188-38-4]  $C_{20}H_{30}O_4$  (334.46). Colorless oil,  $[\alpha]_D = -43.1^\circ$  ( $c = 0.14$ , chloroform). Pharm: Cytotoxic (V-79,  $IC_{50} = 2.70\mu\text{g/mL}$ ). Source: TU QIANG HUO *Hedychium coronarium*. Ref: 1133.

**4083 Coronarin C**

[119188-35-1]  $C_{20}H_{30}O_3$  (318.46). Colorless oil,  $[\alpha]_D = +34.9^\circ$  ( $c = 0.13$ , chloroform). Pharm: Cytotoxic (V-79,  $IC_{50} = 17.5\mu\text{g/mL}$ ). Source: TU QIANG HUO *Hedychium coronarium*. Ref: 1133.

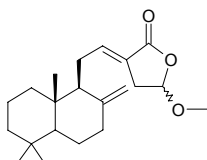
**4084 Coronarin D**

[119188-37-3]  $C_{20}H_{30}O_3$  (318.46). Colorless solid,  $[\alpha]_D = +10^\circ$  ( $c = 0.83$ , chloroform). Pharm: Cytotoxic (V-79,  $IC_{50} = 17.0\mu\text{g/mL}$ );  $\beta$ -hexosaminidase inhibitor (RBL-2H3 cells,  $100\mu\text{mol/L}$ ,  $\text{InRt} = (93.5 \pm 0.4)\%$ ,  $p < 0.01$ )<sup>[4221]</sup>. Source: TU QIANG HUO *Hedychium coronarium*. Ref: 931, 1133, 4221.

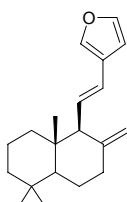


**4085 Coronarin D methyl ether**

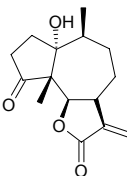
$C_{21}H_{32}O_3$  (332.49). Source: TU QIANG HUO *Hedychium coronarium* (rhizome). Ref: 4221.

**4086 Coronarin E**

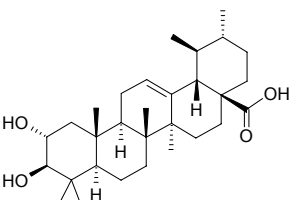
$C_{20}H_{28}O$  (284.45). Source: TU QIANG HUO *Hedychium coronarium* (rhizome). Ref: 4221.

**4087 Coronopilin**

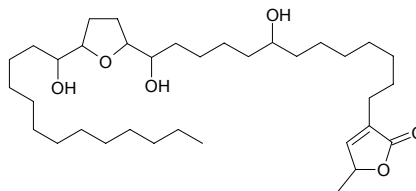
[2571-81-5]  $C_{15}H_{20}O_4$  (264.32). Pharm: Dermatitic (causes contact dermatitis); insect antifeedant. Source: GUAN LUO SUI TUN CAO *Ambrosia psilostachya* var. *coronopifolia*, MEI GUO HAI MO JU *Hymenoclea salsola*, YIN JIAO JU *Parthenium hysterophorus* (flower), *Iva* sp. Ref: 658, 4489.

**4088 Corosolic acid**

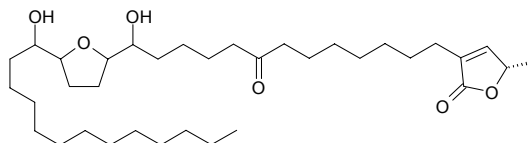
2 $\alpha$ -Hydroxyursolic acid [4547-24-4]  $C_{30}H_{48}O_4$  (472.71). mp 242~245°C. Pharm: Antitrypanosomal (epimastigotes of *Trypanosoma cruzi*, MLC = 6.2  $\mu$ mol/L, control Gentian violet, MLC = 6.2  $\mu$ mol/L)<sup>[2579]</sup>. Source: CU YE XUAN GOU ZI *Rubus alceaefolius*, HONG KUAI ZI *Chamaenerion angustifolium* [Syn. *Epilobium angustifolium*], SAN YE SHU WEI CAO *Salvia trijuga*, YI LANG QING LAN *Dracocephalum kotschyi*. Ref: 6, 420, 570, 2579.

**4089 Corosoline**

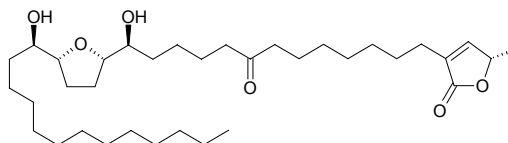
$C_{35}H_{64}O_6$  (580.90). Waxy solid,  $[\alpha]_D^{25} = +82.8^\circ$  ( $c = 0.34$ ,  $CHCl_3$ ); white amorphous solid,  $[\alpha]_D^{25} = +19^\circ$  ( $c = 0.2$ , MeOH). Pharm: Cytotoxic (*in vitro*, HepG<sub>2</sub>, IC<sub>50</sub> = 0.353  $\mu$ g/mL, Hep2,2,15, IC<sub>50</sub> = 0.234  $\mu$ g/mL; control Adriamycin, HepG<sub>2</sub>, IC<sub>50</sub> = 0.241  $\mu$ g/mL, Hep2,2,15, IC<sub>50</sub> = 0.45  $\mu$ g/mL)<sup>[3067]</sup>. Source: CI GUO FAN LI ZHI *Annona muricata* (seed)<sup>[3067]</sup>, JIN PING GE NA XIANG *Goniothalamus leiocarpus*. Ref: 420, 3067.

**4090 Corosolone**

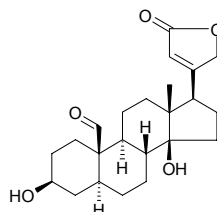
$C_{35}H_{62}O_6$  (578.88). Waxy solid,  $[\alpha]_D^{25} = +11.7^\circ$  ( $c = 0.19$ ,  $CHCl_3$ ). Pharm: Cytotoxic (*in vitro*, Hep = G<sub>2</sub>, IC<sub>50</sub> = 0.48  $\mu$ g/mL, Hep2,2,15, IC<sub>50</sub> = 0.284  $\mu$ g/mL; control Adriamycin, HepG<sub>2</sub>, IC<sub>50</sub> = 0.241  $\mu$ g/mL, Hep2,2,15, IC<sub>50</sub> = 0.45  $\mu$ g/mL)<sup>[3067]</sup>. Source: CI GUO FAN LI ZHI *Annona muricata* (leaf; yield = 0.00015%dw)<sup>[4617]</sup>, CI GUO FAN LI ZHI *Annona muricata* (seed). Ref: 3067, 4617.

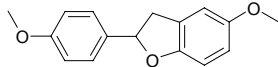
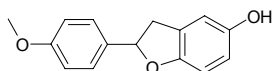
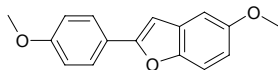
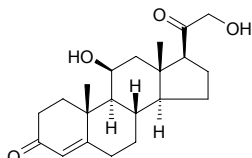
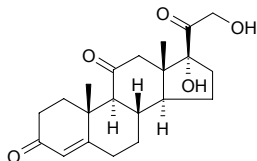
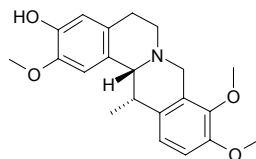
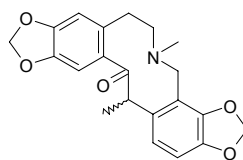
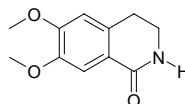
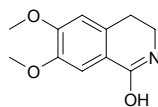
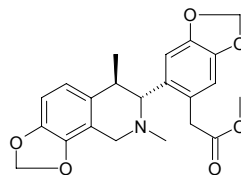
**4091 cis-Corosolone**

$C_{35}H_{62}O_6$  (578.88). White waxy solid,  $[\alpha]_D^{25} = +13.6^\circ$  ( $c = 0.10$ , MeOH). Pharm: Cytotoxic (*in vitro*, HepG<sub>2</sub>, IC<sub>50</sub> = 0.165  $\mu$ g/mL, control Adriamycin, IC<sub>50</sub> = 0.241  $\mu$ g/mL; Hep2,2,15, IC<sub>50</sub> = 0.0476  $\mu$ g/mL, Adriamycin, IC<sub>50</sub> = 0.45  $\mu$ g/mL). Source: CI GUO FAN LI ZHI *Annona muricata* (leaf; yield = 0.00013%dw). Ref: 4617.

**4092 Corotoxigenin**

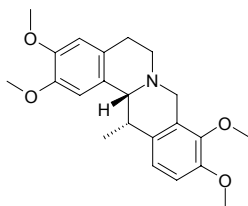
[468-20-2]  $C_{23}H_{32}O_5$  (388.51). mp 221°C. Source: LIAN SHENG GUI ZI HUA *Asclepias curassavica*. Ref: 6.



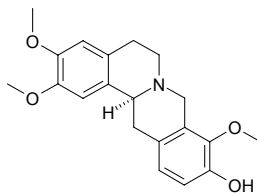
**4093 Corsifuran A**5-Methoxy-2-(4-methoxyphenyl)-2,3-dihydrobenzofuran C<sub>16</sub>H<sub>16</sub>O<sub>3</sub> (256.30).White solid. Source: GE ZHI HUA DI QIAN *Corsinia coriandrina*. Ref: 3888.**4094 Corsifuran B**5-Hydroxy-2-(4-methoxyphenyl)-2,3-dihydrobenzofuran C<sub>15</sub>H<sub>14</sub>O<sub>3</sub> (242.28).White solid. Source: GE ZHI HUA DI QIAN *Corsinia coriandrina*. Ref: 3888.**4095 Corsifuran C**5-Methoxy-2-(4-methoxyphenyl)-benzofuran C<sub>16</sub>H<sub>14</sub>O<sub>3</sub> (254.29). Off-whitesolid. Source: GE ZHI HUA DI QIAN *Corsinia coriandrina*. Ref: 3888.**4096 Corticosterone**11β,21-Dihydroxypregn-4-ene-3,20-dione [50-22-6] C<sub>21</sub>H<sub>30</sub>O<sub>4</sub> (346.47). mp177~179°C. Source: NIU SHEN *Bos taurus domesticus*; *Bubalus bubalis*.Ref: 6.**4097 Cortisone**11-Dehydro-17-hydroxycorticosterone [53-06-5] C<sub>22</sub>H<sub>30</sub>O<sub>5</sub> (374.48). mp230~231°C. Pharm: Antiallergic; anti-inflammatory (reduces permeability of capillary and blood cell walls); inhibits proliferation of neuroglia; promotes decomposition of protein to be converted to sugar; gastric secretion promotor.Source: NIU SHEN *Bos taurus domesticus*; *Bubalus bubalis*, ZI HE CHE*Homo sapiens*. Ref: 6, 658.**4098 (+)-Corybulbine**[518-77-4] C<sub>21</sub>H<sub>25</sub>NO<sub>4</sub> (355.44). Source: YAN HU SUO *Corydalis yanhusuo*[Syn. *Corydalis turtschaninovii* f. *Yanhusuo*]. Ref: 2.**4099 Corycavine**[521-87-9] C<sub>21</sub>H<sub>21</sub>NO<sub>5</sub> (367.41). mp (±) 218~219°C. Source: ZI HUA YUDENG CAO *Corydalis incisa*. Ref: 6.**4100 Corydaldine (tautomeric structure 1)**C<sub>11</sub>H<sub>13</sub>NO<sub>3</sub> (207.23). Source: BIAN FU GE GEN *Menispermum dauricum*, BILU ZHI XIAO BO *Berberis baluchistanica*, DUO GUO YI NAN MU*Enantia polycarpa*. Ref: 1521, 3792.**4101 Corydaldine (tautomeric structure 2)**C<sub>11</sub>H<sub>13</sub>NO<sub>3</sub> (207.23). Source: BIAN FU GE GEN *Menispermum dauricum*, BILU ZHI XIAO BO *Berberis baluchistanica*, DUO GUO YI NAN MU*Enantia polycarpa*. Ref: 1521, 3792.**4102 Corydalic acid methyl ester**C<sub>22</sub>H<sub>23</sub>NO<sub>6</sub> (397.43). mp 140~141°C. Source: ZI HUA YU DENG CAO*Corydalis incisa*. Ref: 6.

**4103 (+)-Corydaline**

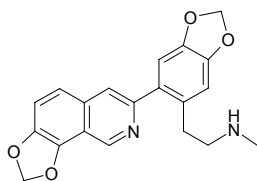
[518-69-4]  $C_{22}H_{27}NO_4$  (369.46). mp (+) 135°C,  $[\alpha]_D^{20} = +311^\circ$  ( $c = 0.8$ , ethanol), soluble in chloroform, moderate soluble in ether, slightly soluble in methanol, ethanol, insoluble in water.<sup>[5507]</sup> **Pharm:** Analgesic (mus, hot plate model); uterine stimulant (rat, *in vitro*, *in vivo*); LD<sub>50</sub> (mus, iv) = 146mg/kg. **Source:** CHANG JU YAN HU SUO *Corydalis longicalcarata* (rhizome: content = 0.06%<sup>[5508]</sup>), CHI BAN YAN HU SUO *Corydalis remota* [Syn. *Corydalis bulbosa* var. *typica*] (rhizome: content = 0.06%<sup>[5508]</sup>), DONG BEI YAN HU SUO *Corydalis ambigua* var. *amurensis* [Syn. *Corydalis ambigua*] (rhizome: content = 0.02%<sup>[5508]</sup>), DUI YE YUAN HU SUO *Corydalis ledebouriana* (rhizome: content = 0.07%<sup>[5508]</sup>), HUI LV YAN HU SUO *Corydalis adunca* (rhizome: content = 0.06%<sup>[5508]</sup>), XIA TIAN WU *Corydalis decumbens* [Syn. *Corydalis amabilis*] (rhizome: content = 0.01%<sup>[5508]</sup>), YAN HU SUO *Corydalis yanhusuo* [Syn. *Corydalis turtschaninovii* f. *Yanhusuo*] (rhizome: mean content of 8 origins = 0.103%<sup>[5508]</sup>; content 0.049%<sup>[5507]</sup>). **Ref:** 2, 4, 5501, 5507, 5508.

**4104 Corydalmine**

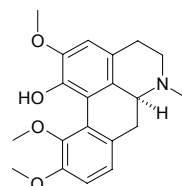
Kikemanine [30413-84-4]  $C_{20}H_{23}NO_4$  (341.41). mp 177~178°C. **Pharm:** Antimalarial (*Plasmodium falciparum*, chloroquine-sensitive strain D6, ED<sub>50</sub> = 2840ng/mL, ED<sub>50</sub> of chloroquine control = 1.3ng/mL, chloroquine-endured strain W2, ED<sub>50</sub> = 840ng/mL, ED<sub>50</sub> of chloroquine control = 11.2ng/mL). **Source:** JU HUA HUANG LIAN *Corydalis pallida*, YAN HU SUO *Corydalis yanhusuo* [Syn. *Corydalis turtschaninovii* f. *Yanhusuo*]. **Ref:** 6, 1756.

**4105 Corydamine**

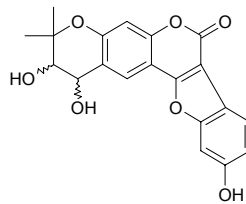
[49870-84-0]  $C_{20}H_{18}N_2O_4$  (350.38). **Source:** ZI HUA YU DENG CAO *Corydalis incisa*. **Ref:** 6.

**4106 Corydine**

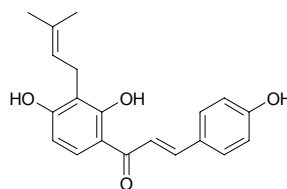
[476-69-7]  $C_{20}H_{23}NO_4$  (341.41). mp (+) 149°C, (-) 149°C, (±) 165~167°C. **Pharm:** Antineoplastic; selective DNA-damaging activity (yeast assay: RS321NYCp50(gal), IC<sub>50</sub> = 27.5μg/mL; RS321NpRAD52(gal), IC<sub>50</sub> = 73.9μg/mL, control Camptothecin, IC<sub>50</sub> = 100μg/mL; RS321NpRAD52(glu), IC<sub>50</sub> = 22.5μg/mL, Camptothecin, IC<sub>50</sub> = 0.6μg/mL)<sup>[5457]</sup>. **Source:** CHI BAN YAN HU SUO *Corydalis remota* [Syn. *Corydalis bulbosa* var. *typica*], DING KE LA QIAN JIN TENG *Stephania dinklagei*, HAI YING SU *Glaucium fimbrilligerum*, LUO BO HUA LING CAO *Eschscholzia lobbii*, MA CHANG LI ZI JIN *Corydalis marschalliana*, XIAO JIAO HAI YING SU *Glaucium corniculatum*, YAN HU SUO *Corydalis yanhusuo* [Syn. *Corydalis turtschaninovii* f. *Yanhusuo*]. **Ref:** 5, 6, 658, 5457.

**4107 Corylidin**

[63109-31-9]  $C_{20}H_{16}O_7$  (368.35). **Source:** BU GU ZHI *Psoralea corylifolia*. **Ref:** 2.

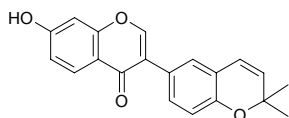
**4108 Corylifolinin**

[20784-50-3]  $C_{20}H_{20}O_4$  (324.38). mp 154~156°C; 166~167°C. **Pharm:** Against heart failure (frog heart, caused by lactic acid); coronary vasodilator (gpg, rbt, cat and rat, *in vitro*, with high selectivity); stimulates heart (frog); enhances myocardial contractility (gpg, rat); cytotoxic (estrogen  $\alpha$  receptor-binding assay)<sup>[5038]</sup>; cytotoxic (estrogen  $\beta$  receptor-binding assay)<sup>[5038]</sup>; aromatase inhibitor inactive (*in vitro*, IC<sub>50</sub> > 40μmol/L; control Aminoglutethimide, IC<sub>50</sub> = 6.4μmol/L)<sup>[3090]</sup>. **Source:** BU GU ZHI *Psoralea corylifolia*, GAN CAO *Glycyrrhiza uralensis*, GOU SHU *Broussonetia papyrifera*<sup>[3090]</sup>. **Ref:** 4, 660, 2431, 3090, 5038.

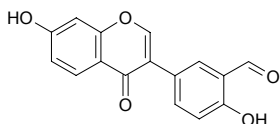


**4109 Corylin**

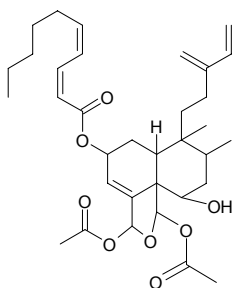
[53947-92-5] C<sub>20</sub>H<sub>16</sub>O<sub>4</sub> (320.35). Source: BU GU ZHI *Psoralea corylifolia* (dried ripe fruit: mean content of 7 origins = 1.032%<sup>[5508]</sup>). Ref: 2, 5508.

**4110 Corylinal**

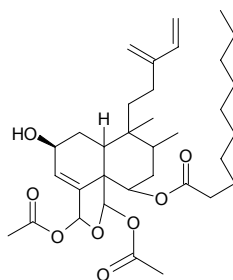
[65615-46-5] C<sub>16</sub>H<sub>10</sub>O<sub>5</sub> (282.26). Source: BU GU ZHI *Psoralea corylifolia*. Ref: 2, 545.

**4111 Corymbulosin A**

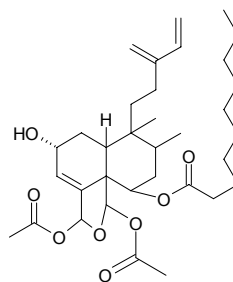
C<sub>34</sub>H<sub>48</sub>O<sub>8</sub> (584.76). Oily solid, [α]<sub>D</sub> = -111° (c = 1.0, CHCl<sub>3</sub>). Pharm: Cytotoxic (SF539, IC<sub>50</sub> = 0.6 μmol/L, LOX melanoma, IC<sub>50</sub> = 8 μmol/L). Source: *Laetia corymbulosa* (fruit). Ref: 5089.

**4112 Corymbulosin B**

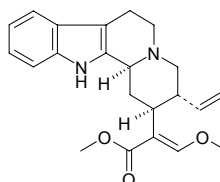
C<sub>34</sub>H<sub>52</sub>O<sub>8</sub> (588.79). [α]<sub>D</sub> = +0.7° (c = 1.0, CHCl<sub>3</sub>). Pharm: Cytotoxic (SF539, LOX melanoma). Source: *Laetia corymbulosa* (fruit). Ref: 5089.

**4113 Corymbulosin C**

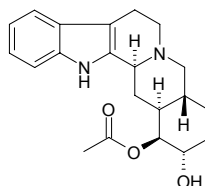
C<sub>34</sub>H<sub>52</sub>O<sub>8</sub> (588.79). [α]<sub>D</sub> = -51° (c = 1.0, CHCl<sub>3</sub>). Pharm: Cytotoxic (SF539, LOX melanoma). Source: *Laetia corymbulosa* (fruit). Ref: 5089.

**4114 Corynantheine**

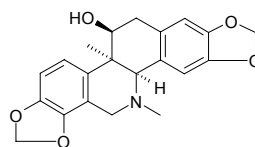
[18904-54-6] C<sub>22</sub>H<sub>26</sub>N<sub>2</sub>O<sub>3</sub> (366.46). [α]<sub>D</sub><sup>20</sup> = +28.8° (MeOH). Source: GOU TENG *Uncaria rhynchophylla* [Syn. *Nauclea rhynchophylla*]. Ref: 2, 1521.

**4115 Corynanthine**

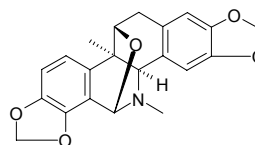
[483-10-3] C<sub>21</sub>H<sub>26</sub>N<sub>2</sub>O<sub>3</sub> (354.45). Thick prismatic crystals (acetone), 225–226°C (dec), [α]<sub>D</sub><sup>19</sup> = -85° (c = 0.5, pyridine). Pharm: Uterine stimulant. Source: YIN DU LUO FU MU *Rauwolfia serpentina*. Ref: 661.

**4116 Corynoline**

[18797-79-0] C<sub>21</sub>H<sub>21</sub>NO<sub>5</sub> (367.41). mp 216–217°C. Pharm: Antispirochetic; sedative (remarkable, using sulfate). Source: JIAN JU ZI JIN *Corydalis suaveolens* [Syn. *Corydalis sheareri*], KU DI DING *Corydalis bungeana* (whole herb with root: content scope of 8 origins = 0.051%–0.261%, mean content = 0.150%<sup>[5508]</sup>), ZI HUA YU DENG CAO *Corydalis incisa*. Ref: 6, 658, 5501, 5508.

**4117 Corynoloxine**

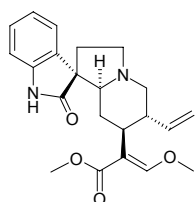
[31470-65-2] C<sub>21</sub>H<sub>19</sub>NO<sub>5</sub> (365.39). mp 209–210°C. Source: ZI HUA YU DENG CAO *Corydalis incisa*. Ref: 6.



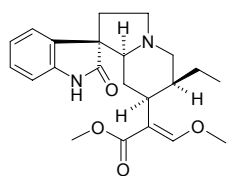


**4118 Corynoxine**

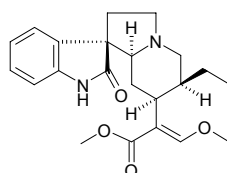
[630-94-4]  $C_{22}H_{26}N_2O_4$  (382.46). mp 212~214°C. **Pharm:** CNS activity (significantly depresses locomotion response)<sup>[5341]</sup>. **Source:** CHANG HUA GOU TENG *Uncaria longiflora*, GOU TENG *Uncaria rhynchophylla* [Syn. *Nauclea rhynchophylla*], HUA GOU TENG *Uncaria sinensis*, PO LUO ZHOU GOU TENG *Uncaria borneensis*, SUAN GOU TENG *Uncaria acida*, XIA GOU TENG *Uncaria attenuata*. **Ref:** 2, 6, 5341.

**4119 Corynoxine**

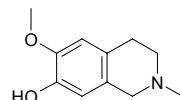
[6877-32-3]  $C_{22}H_{28}N_2O_4$  (384.48). mp 166~168°C. **Pharm:** Hypnosis (100mg/kg, prolongation of thiopental-induced hypnosis)<sup>[5341]</sup>. **Source:** BAI GOU TENG *Uncaria sessilifructus* [Syn. *Nauclea sessilifructus*], DA YE GOU TENG *Uncaria macrophylla*, XIA GOU TENG *Uncaria attenuata*, XIN XING GOU TENG *Uncaria cordata*, *Uncaria kunstleri*, *Uncaria sterrophylla*. **Ref:** 2, 6, 660, 5341.

**4120 Corynoxine B**

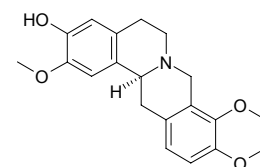
[17391-18-3]  $C_{22}H_{28}N_2O_4$  (384.48). **Pharm:** Hypnosis (100mg/kg, prolongation of thiopental-induced hypnosis)<sup>[5341]</sup>; CNS activity (significantly depresses locomotion response, may be central dopaminergic receptor antagonist)<sup>[5341]</sup>. **Source:** BAI GOU TENG *Uncaria sessilifructus* [Syn. *Nauclea sessilifructus*], DA YE GOU TENG *Uncaria macrophylla*, XIA GOU TENG *Uncaria attenuata*, XIN XING GOU TENG *Uncaria cordata*, *Uncaria kunstleri*, *Uncaria sterrophylla*. **Ref:** 2, 6, 660, 5341.

**4121 Corypalline**

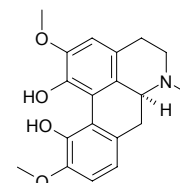
1,2,3,4-Tetrahydro-6-methoxy-7-hydroxy-2-methylisoquinoline [450-14-6]  $C_{11}H_{15}NO_2$  (193.25). **Source:** CU GUO TANG SONG CAO *Thalictrum dasycarpum*, DA HONG YING SU *Papaver bracteatum*, JIN HUANG JIN *Corydalis aurea*, JU HUA HUANG LIAN *Corydalis pallida*, SHE GUO HUANG JIN *Corydalis ophiocarpa*, ZOU WEN TANG SONG CAO *Thalictrum rugosum*. **Ref:** 1521.

**4122 Corypalmine**

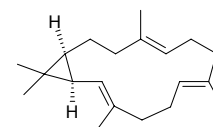
Tetrahydrojatrorrhizine [6018-40-2]  $C_{20}H_{23}NO_4$  (341.41). mp (+) 235~236°C, (-) 230°C, (±) 215~217°C. **Source:** TU HUANG LIAN *Berberis julianae*, TU YE HUANG PI SHU *Phellodendron chinense* var. *glabriusculum*, YAN HU SUO *Corydalis yanhusuo* [Syn. *Corydalis turtschaninovii* f. *Yanhusuo*], ZI HUA YU DENG CAO *Corydalis incisa*. **Ref:** 6, 660.

**4123 Corytuberine**

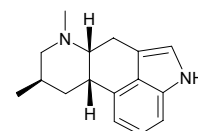
[517-56-6]  $C_{19}H_{21}NO_4$  (327.38). mp (+) 240°C, (±) 242°C. **Source:** YA PIAN *Papaver somniferum*, MA TI YE *Caltha palustris*. **Ref:** 6, 660.

**4124 Cosbene**

$C_{20}H_{32}$  (272.48). **Pharm:** Antifungal. **Source:** BI MA ZI *Ricinus communis*. **Ref:** 658.

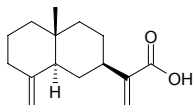
**4125 Costaclavine**

[436-41-9]  $C_{16}H_{20}N_2$  (240.35). mp 182~184°C. **Source:** MAI JIAO *Claviceps purpurea*. **Ref:** 6.

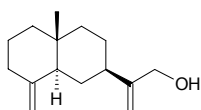


**4126 Costic acid**

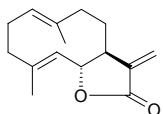
[3650-43-9]  $C_{15}H_{22}O_2$  (234.34). Source: LIU LENG JU *Laggera alata* (aerial parts: yield = 0.0006%dw)<sup>[4709]</sup>, MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*], XIN JIANG LAN CI TOU *Echinops ritro*. Ref: 2, 660, 4709.

**4127 Costol**

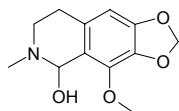
[65018-15-7]  $C_{15}H_{24}O$  (220.36). bp (+) 145°C/0.5mm (±) 90°C/0.2mmHg. Source: MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*], MU BIE GEN *Momordica cochinchinensis*. Ref: 6.

**4128 Costunolide**

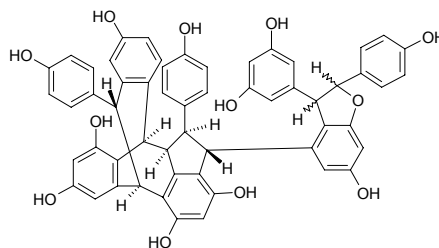
[553-21-9]  $C_{15}H_{20}O_2$  (232.33). bp (+) 105–106°C. Pharm: Cytotoxic (*in vitro*, HepG<sub>2</sub>, CD<sub>50</sub> = 1.6μg/mL; HeLa, CD<sub>50</sub> = 2μg/mL; OVCAR-3, CD<sub>50</sub> = 2μg/mL; control Cisplatin, HepG<sub>2</sub>, CD<sub>50</sub> = 2.8μg/mL; HeLa, CD<sub>50</sub> = 5.2μg/mL; OVCAR-3, CD<sub>50</sub> = 3μg/mL; without significant antibacterial effect)<sup>[4720]</sup>; antineoplastic; dermatitic (causes contact dermatitis); schistosomacide (against *martensite schistosome*); anti-inflammatory (NO production inhibitor)<sup>[4415]</sup>. Source: CHUAN MU XIANG *Vladimiria souliei* [Syn. *Jurinea souliei*] (root: content scope of 4 origins = 0.158%~1.344%, mean content of = 0.864%<sup>[5508]</sup>), MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*] (root: mean content of 13 origins = 0.92%<sup>[5508]</sup>; 0.017%dw<sup>[4720]</sup>), YUE GUI ZI *Laurus nobilis*, YUE XI MU XIANG *Vladimiria denticulata*. Ref: 2, 5, 658, 4415, 4720, 5501, 5508.

**4129 Cotarnine**

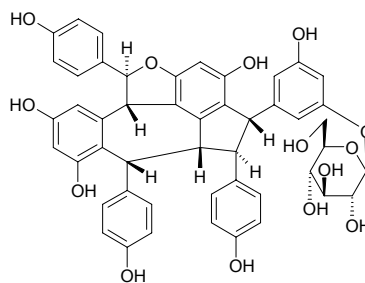
[82-54-2]  $C_{12}H_{15}NO_4$  (237.26). mp 132–133°C. Source: YA PIAN *Papaver somniferum*. Ref: 6.

**4130 Cotylephenol C**

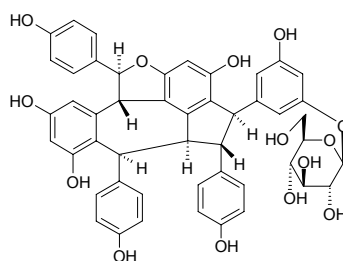
$C_{56}H_{42}O_{12}$  (906.95). Pale yellow solid,  $[\alpha]_D = +78^\circ$  ( $c = 0.1$ , MeOH). Source: *Cotylelobium lanceolatum* (stem: yield = 0.003%dw). Ref: 1819.

**4131 Cotyleloside A**

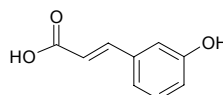
$C_{48}H_{42}O_{14}$  (842.86). Yellow solid,  $[\alpha]_D = +106^\circ$  ( $c = 0.1$ , MeOH). Source: *Cotylelobium lanceolatum* (stem: yield = 0.0008%dw). Ref: 1819.

**4132 Cotyleloside B**

$C_{48}H_{42}O_{14}$  (842.86). Yellow solid,  $[\alpha]_D = -21^\circ$  ( $c = 0.1$ , MeOH). Source: *Cotylelobium lanceolatum* (stem: yield = 0.0006%dw). Ref: 1819.

**4133 m-Coumaric acid**

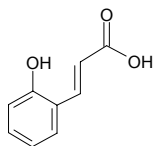
*m*-Hydroxycinnamic acid [14755-02-3]  $C_9H_8O_3$  (164.16). mp 193°C. Source: LI MENG GEN *Citrus limonia*. Ref: 6.



**4134 *o*-Coumaric acid**

*trans-o*-Hydroxycinnamic acid [614-60-8] C<sub>9</sub>H<sub>8</sub>O<sub>3</sub> (164.16). mp 217°C (dec).

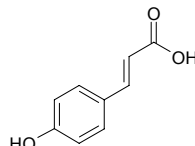
**Source:** HUI XIANG JING YE *Foeniculum vulgare*, NING MENG GEN *Citrus limon*, NING MENG YE *Citrus limon*, PEI LAN *Eupatorium fortunei*, PI HAN CAO *Melilotus suaveolens*, PI HAN CAO GEN *Melilotus suaveolens*, YANG CONG *Allium cepa*. **Ref:** 6.

**4135 *p*-Coumaric acid**

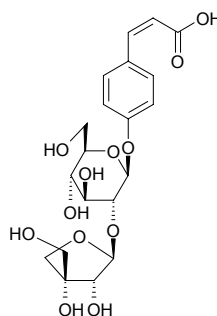
4-Hydroxycinnamic acid [501-98-4] C<sub>9</sub>H<sub>8</sub>O<sub>3</sub> (164.16). mp 171°C (dec).

**Pharm:** Antibacterial (gram-positive: *Staphylococcus aureus* ATCC25923, MIC = 6.4mg/mL; *Staphylococcus epidermidis* ATCC12228, MIC = 3.2mg/mL; *Streptococcus pyogenes* ATCC19615, MIC = 1.6mg/mL; *Streptococcus mutans* ATCC25175, MIC = 6.4mg/mL; *Enterococcus faecalis* ATCC33186, MIC = 6.4mg/mL; *Enterococcus gallinarum* CDC-42, MIC > 12.8mg/mL; gram-negative: *Salmonella typhimurium* ATCC14028, MIC > 12.8mg/mL; *Escherichia coli* ATCC25922, MIC = 6.4mg/mL; *Escherichia coli* O157:H7 ATCC43894, MIC = 1.6mg/mL; *Enterobacter cloacae* ATCC23350, MIC > 12.8mg/mL; *Klebsiella pneumoniae* ATCC13883, MIC > 12.8mg/mL; *Pseudomonas aeruginosa* ATCC27853, MIC > 12.8mg/mL; *Vibrio vulnificus* ATCC29307, MIC = 0.4mg/mL; *Citrobacter freundii* ATCC8090, MIC > 12.8mg/mL)<sup>[5373]</sup>; antifungal; antihepatotoxin; cytotoxic (*in vitro*, P<sub>815</sub> and P<sub>388</sub>); cytotoxic inactive (Colon26-L5, HT1080, 100μmol/L)<sup>[3042]</sup>; antihypercholesterolemic; neuroprotectant (primary cultures of rat cortical cells injured by glutamate, 10.0μmol/L, cell viability = (48.5±3.3)%, *p*<0.01, control MK-801, 10.0μmol/L, cell viability = (83.6±4.2)%, APV, 10.0μmol/L, cell viability = (43.6±3.2)%, XNQX, 10.0μmol/L, cell viability = (61.6±2.7)%)<sup>[3967]</sup>; choleric (bile secretion promotor); phytoalexin<sup>[4727]</sup>; LD<sub>50</sub> (mus, orl) = (1.1±0.3)g/kg. **Source:** BEI XUAN SHEN *Scrophularia buergeriana* (root), BEI YE JU *Chrysanthemum boreale*, BAN WEN AN *Eucalyptus maculata*, CI GUO FAN LI ZHI *Annona muricata*, DA CHE QIAN *Plantago major*, GUAN MU TONG *Aristolochia manshuriensis* (stem: yield = 0.00056%)<sup>[4706]</sup>, HAI JIN SHA *Lygodium japonicum*, HONG CHE ZHOU CAO *Trifolium pratense*, HUANG GUA *Cucumis sativus* (leaf)<sup>[4727]</sup>, JIA BAI HE *Notholirion hyacinthinum* [Syn. *Notholirion bulbiferum*], LU HUI *Aloe vera* [Syn. *Aloe barbadensis*], MA LING SHU *Solanum tuberosum*, DUAN CHI HUANG QI *Ephedra equisetina*, NAN FANG TU SI ZI *Cuscuta australis*, NING MENG *Citrus limon*, RI BEN HUANG BAI *Phellodendron japonicum* (leaf), TAI WAN FU RONG *Hibiscus taiwanensis*, XUAN FU HUA *Inula britannica*,

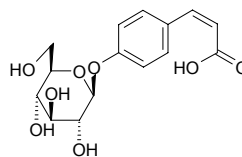
YE HEI YING *Prunus serotina* (peel), YUN NAN CAO KOU *Alpinia blepharocalyx* (seed: yield = 0.00124%)<sup>[3042]</sup>, ZI BAI PI *Catalpa ovata*, ZI DING XIANG *Syringa oblata*, occurs in many plants (as many glycosides. found by Bate-Smith in 48% of investigated dicotyledonous and 55% of monocotyledonous plants). **Ref:** 2, 589, 658, 660, 2529, 3042, 3967, 4502, 4706, 4727, 5373, 5501.

**4136 (Z)-4-Coumaric acid 4-O-β-D-apiofuranosyl-(1'→2')-O-β-D-glucopyranoside**

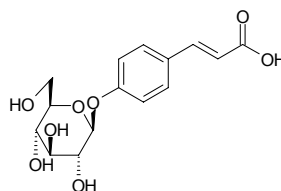
C<sub>20</sub>H<sub>26</sub>O<sub>12</sub> (458.42). Amorphous powder, [α]<sub>D</sub><sup>25</sup> = -68° (*c* = 0.8, H<sub>2</sub>O). **Source:** LAO SHU LE *Acanthus ilicifolius* (aerial parts). **Ref:** 4392.

**4137 *cis-p*-Coumaric acid 4-O-β-D-glucopyranoside**

C<sub>15</sub>H<sub>18</sub>O<sub>8</sub> (326.31). Amorphous powder, [α]<sub>D</sub><sup>25</sup> = -52° (*c* = 0.7, H<sub>2</sub>O). **Source:** LAO SHU LE *Acanthus ilicifolius* (aerial parts), SAN XIAO CAO *Trifolium repens* (flower). **Ref:** 3970, 4392.

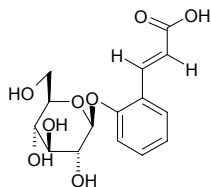
**4138 *trans-p*-Coumaric acid 4-O-β-D-glucopyranoside**

C<sub>15</sub>H<sub>18</sub>O<sub>8</sub> (326.31). **Source:** LV DOU *Onobrychis viciifolia* (leaf), SAN XIAO CAO *Trifolium repens* (flower). **Ref:** 3970, 5084.

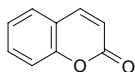


**4139 *o*-Coumaric acid- $\beta$ -D-glucoside**

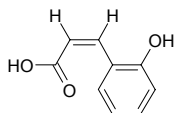
$C_{15}H_{18}O_8$  (326.31). mp 241°C. Source: PI HAN CAO *Melilotus suaveolens*. Ref: 6.

**4140 Coumarin**

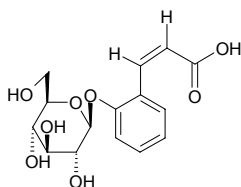
1,2-Benzopyrone [91-64-5]  $C_9H_6O_2$  (146.15). Pharm: Antibacterial (*Bacillus coli*); antineoplastic; antifungal; causes bleeding and liver injury (rat and dog); hypoglycemic (rat); larvicide (housefly larva). Source: CU YE RONG *Ficus simplicissima*, DI ER CAO *Hypericum japonicum*, FEI JI CAO *Eupatorium odoratum*, GUI ZHI *Cinnamomum cassia* [Syn. *Cinnamomum aromaticum*] (twig: content scope of 40 origins = 0.0103%~0.130%, mean content = 0.039%<sup>[5508]</sup>), HUANG HUA HAO *Artemisia annua*, HUANG JIN FENG *Impatiens sicutifer*, MAO RUI HUA *Verbascum thapsus*, MU GUI *Cinnamomum loureirii*, NAN HE SHI *Daucus carota*, OU ZHOU YUN *Picea abies*, ROU GUI *Cinnamomum cassia* [Syn. *Cinnamomum aromaticum*] (bark: content scope of 6 origins = 0.14%~0.70%, mean content = 0.45%<sup>[5508]</sup>), TIAN HU SUI *Hydrocotyle sibthorpioides*, XIAO BAI BU *Asparagus officinalis*. Ref: 2, 548, 658, 660, 5508.

**4141 Coumarinic acid**

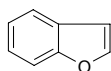
[495-79-4]  $C_9H_8O_3$  (164.16). Source: PI HAN CAO *Melilotus suaveolens*. Ref: 6.

**4142 Coumarinic acid- $\beta$ -D-glucoside**

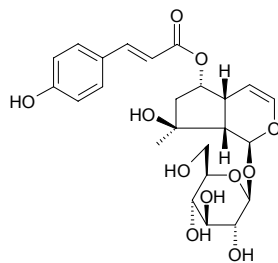
$C_{15}H_{18}O_8$  (326.31). mp 216°C. Source: MAO XIANG HUA *Hierochloe odorata*, PI HAN CAO *Melilotus suaveolens*. Ref: 6.

**4143 Coumarone**

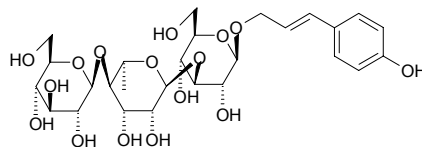
2,3-Benzofuran [271-89-6]  $C_8H_6O$  (118.14). bp 174°C. Source: JIU JIE CHA *Sarcandra glabra* [Syn. *Chloranthus glaber*], SHUI HUANG YANG MU *Polygala caudata*. Ref: 6.

**4144 6-*O*-*p*-Coumaroylajugol**

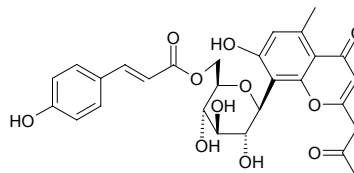
$C_{24}H_{30}O_{11}$  (494.50). Source: GAN DI HUANG *Rehmannia glutinosa* [Syn. *Rehmannia glutinosa* f. *Huechingensis*]. Ref: 2.

**4145 *trans-p*-Coumaroyl alcohol 1-*O*- $\beta$ -D-glucopyranosyl(1 $\rightarrow$ 4)- $\alpha$ -L-rhamnopyranosyl(1 $\rightarrow$ 3)- $\beta$ -D-glucopyranoside**

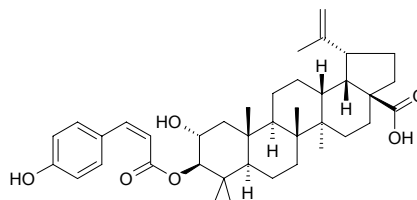
$C_{27}H_{40}O_{16}$  (620.61). Brown syrup. Source: CAO CONG RONG *Boschniakia rossica* (whole herb: yield = 0.0020%). Ref: 1559.

**4146 6'-*O*-*p*-Coumaroylaloetin**

$C_{28}H_{28}O_{11}$  (540.53). Source: LU HUI *Aloe vera* [Syn. *Aloe barbadensis*]. Ref: 2.

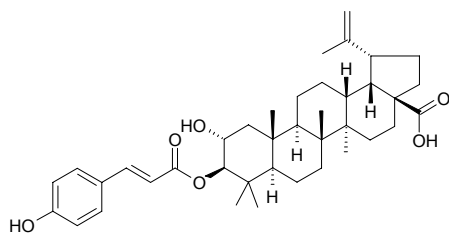
**4147 3-*O*-(*cis-p*-Coumaroyl)-aliphilic acid**

$C_{39}H_{54}O_6$  (618.86). White powder, mp 208~210°C,  $[\alpha]_D^{20} = +0.9^\circ$  ( $c = 1.0$ , pyridine). Pharm: Cytotoxic (K562,  $ED_{50} = (10.7 \pm 0.1) \mu\text{mol/L}$ , control Adriamycin,  $ED_{50} = (0.09 \pm 0.03) \mu\text{mol/L}$ ; B-16 (F-10),  $ED_{50} = (10.2 \pm 0.2) \mu\text{mol/L}$ , Adriamycin,  $ED_{50} = (0.06 \pm 0.10) \mu\text{mol/L}$ ; SK-MEL-2,  $ED_{50} = (8.9 \pm 1.4) \mu\text{mol/L}$ , Adriamycin,  $ED_{50} = (0.09 \pm 0.30) \mu\text{mol/L}$ ; PC3,  $ED_{50} = (7.3 \pm 0.2) \mu\text{mol/L}$ , Adriamycin,  $ED_{50} = (0.83 \pm 0.18) \mu\text{mol/L}$ ; LOX-IMVI,  $ED_{50} = (5.5 \pm 0.4) \mu\text{mol/L}$ , Adriamycin,  $ED_{50} = (0.38 \pm 0.33) \mu\text{mol/L}$ ; A549,  $ED_{50} = (4.7 \pm 1.8) \mu\text{mol/L}$ , Adriamycin,  $ED_{50} = (0.67 \pm 0.21) \mu\text{mol/L}$ )<sup>[5479]</sup>. Source: DA ZAO *Ziziphus jujuba*. Ref: 2, 5479.

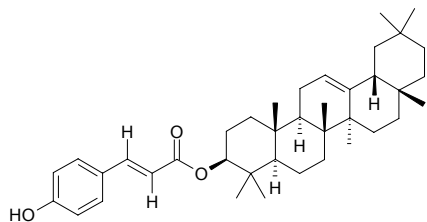


**4148 3-O-(trans-p-Coumaroyl)-alphitolic acid**

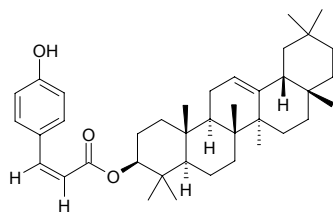
$C_{39}H_{54}O_6$  (618.86). White powder, mp 279~280°C,  $[\alpha]_D^{25} = +44.1^\circ$  ( $c = 0.8$ , pyridine). **Pharm:** Cytotoxic (K562,  $ED_{50} = (9.4 \pm 1.0) \mu\text{mol/L}$ , control Adriamycin,  $ED_{50} = (0.09 \pm 0.03) \mu\text{mol/L}$ ; B-16 (F-10),  $ED_{50} = (7.3 \pm 2.0) \mu\text{mol/L}$ , Adriamycin,  $ED_{50} = (0.06 \pm 0.10) \mu\text{mol/L}$ ; SK-MEL-2,  $ED_{50} = (6.9 \pm 0.9) \mu\text{mol/L}$ , Adriamycin,  $ED_{50} = (0.09 \pm 0.30) \mu\text{mol/L}$ ; PC3,  $ED_{50} = (4.0 \pm 0.4) \mu\text{mol/L}$ , Adriamycin,  $ED_{50} = (0.83 \pm 0.18) \mu\text{mol/L}$ ; LOX-IMVI,  $ED_{50} = (4.3 \pm 1.3) \mu\text{mol/L}$ , Adriamycin,  $ED_{50} = (0.38 \pm 0.33) \mu\text{mol/L}$ ; A549,  $ED_{50} = (12 \pm 1.7) \mu\text{mol/L}$ , Adriamycin,  $ED_{50} = (0.67 \pm 0.21) \mu\text{mol/L}$ ). **Source:** DA ZAO *Ziziphus jujuba*. **Ref:** 5479.

**4149 3-O-(E)-Coumaroyl-β-amyirin**

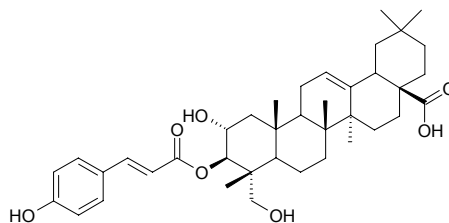
$C_{39}H_{56}O_3$  (572.88). Colorless prisms, mp 188.5~190.0°C,  $[\alpha]_D^{25.9} = +60.8^\circ$  ( $c = 1.42$ ,  $\text{CHCl}_3$ ). **Source:** MU MA HUANG *Casuarina equisetifolia*. **Ref:** 2300.

**4150 3-O-(Z)-Coumaroyl-β-amyirin**

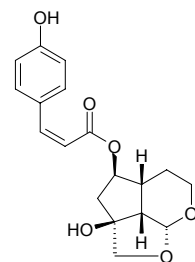
$C_{39}H_{56}O_3$  (572.88). Colorless prisms, mp 106.0~109.0°C,  $[\alpha]_D^{25.9} = +38.6^\circ$  ( $c = 0.89$ ,  $\text{CHCl}_3$ ). **Source:** MU MA HUANG *Casuarina equisetifolia*. **Ref:** 2300.

**4151 (3E)-Coumaroylarjunolic acid**

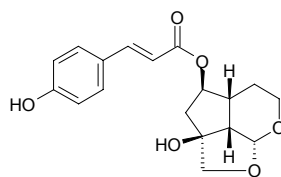
$C_{39}H_{54}O_7$  (634.86). Pale yellowish amorphous powder ( $\text{CHCl}_3$ -MeOH), mp 252°C (dec),  $[\alpha]_D^{20} = +25.5^\circ$  ( $c = 0.047$ , MeOH). **Pharm:** Cytotoxic (mouse mammary organ culture assay, 79% at  $10 \mu\text{g/mL}$ )<sup>[5038]</sup>; cytotoxic (mouse mammary gland organ culture, DMBA-induced preneoplastic lesion,  $4 \mu\text{g/mL}$ , InRt = 79.2%)<sup>[5178]</sup>. **Source:** SAN WEI ZHI FAN YING TAO *Eugenia sandwicensis*(stem). **Ref:** 5038, 5178.

**4152 6-O-cis-p-Coumaroyl-7-deoxyrehmaglutin A**

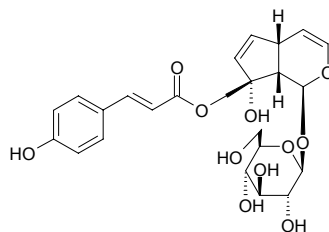
$C_{18}H_{20}O_6$  (332.36). Amorphous powder,  $[\alpha]_D^{26} = -15.4^\circ$  ( $c = 0.2$ , MeOH). **Source:** ZI YE *Catalpa ovata* (fallen leaf). **Ref:** 4290.

**4153 6-O-trans-p-Coumaroyl-7-deoxyrehmaglutin A**

$C_{18}H_{20}O_6$  (332.36). Amorphous powder,  $[\alpha]_D^{26} = -17.7^\circ$  ( $c = 0.2$ , MeOH). **Source:** ZI YE *Catalpa ovata* (fallen leaf). **Ref:** 4290.

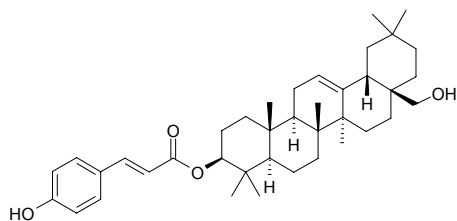
**4154 10-O-trans-Coumaroyl-eranthemoside**

$C_{24}H_{28}O_{11}$  (492.48). Amorphous powder,  $[\alpha]_D^{27} = -33.3^\circ$  ( $c = 1.35$ , MeOH). **Source:** CAO MAO JIA DU JUAN *Barleria strigosa*. **Ref:** 4288.

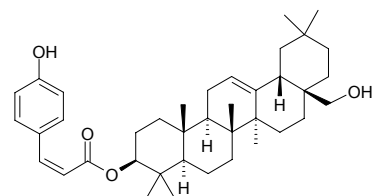


**4155 3-O-(E)-Coumaroylerythrodiol**

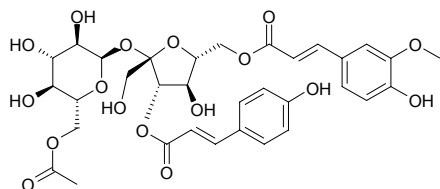
$C_{39}H_{56}O_4$  (588.88). Colorless prisms, mp 241~244°C,  $[\alpha]_D^{20.2} = +64.7^\circ$  ( $c = 1.75$ , dioxane). Source: MU MA HUANG *Casuarina equisetifolia*. Ref: 2300.

**4156 3-O-(Z)-Coumaroylerythrodiol**

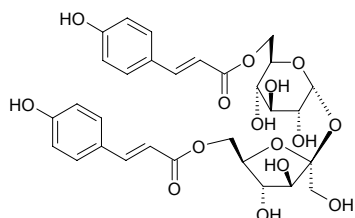
$C_{39}H_{56}O_4$  (588.88). Colorless prisms, mp 106.0~109.0°C,  $[\alpha]_D^{20.2} = +41.9^\circ$  ( $c = 2.44$ , acetone). Source: MU MA HUANG *Casuarina equisetifolia*. Ref: 2300.

**4157 3-O-p-Coumaroyl-6-O-feruloyl-β-D-fructofuranosyl 6-O-acetyl-α-D-glucopyranoside**

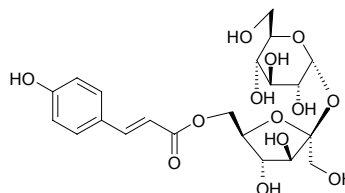
$C_{33}H_{38}O_{17}$  (706.66). Light yellow amorphous solid,  $[\alpha]_D^{23} = +23.8^\circ$  ( $c = 0.3$ , MeOH). Source: JIAO YU *Canna edulis* (rhizome). Ref: 3836.

**4158 (6-O-(E)-p-Coumaroyl)-β-D-fructofuranosyl-(2→1)-(6-O-(E)-p-coumaroyl)-α-D-glucopyranoside**

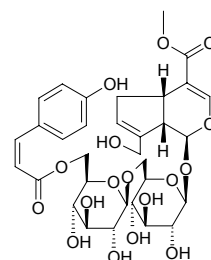
$C_{30}H_{34}O_{15}$  (634.60). White powder. Pharm: Antihistamine (inhibits histamine release, rat mast cell, induced by antigen-antibody reaction,  $IC_{50} = 23.5\mu\text{g/mL}$ , control Indomethacin,  $IC_{50} = 89.5\mu\text{g/mL}$ )<sup>[3364]</sup>;  $PGE_2$  production inhibitor inactive ( $30\mu\text{g/mL}$ ,  $\text{InRt} = -0.10\%$ )<sup>[3364]</sup>. Source: XIAO HUA GUI ZHEN *Bidens parviflora* Ref: 3364.

**4159 (6-O-(E)-p-Coumaroyl)-β-D-fructofuranosyl-(2→1)-α-D-glucopyranoside**

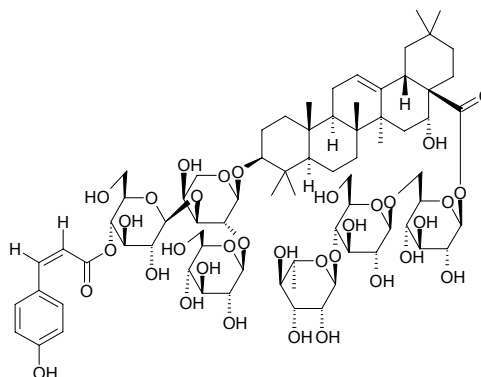
$C_{21}H_{28}O_{13}$  (488.45). Amorphous powder. Pharm: Antihistamine (inhibits histamine release, rat mast cell, induced by antigen-antibody reaction,  $IC_{50} = 21.7\mu\text{g/mL}$ , control Indomethacin,  $IC_{50} = 89.5\mu\text{g/mL}$ );  $PGE_2$  production inhibitor ( $30\mu\text{g/mL}$ ,  $\text{InRt} = 58.1\%$ ). Source: XIAO HUA GUI ZHEN *Bidens parviflora* Ref: 3364.

**4160 6''-O-p-Coumaroylgenipeningentiobioside**

$C_{32}H_{40}O_{17}$  (696.67). Source: ZHI ZI *Gardenia jasminoides* [Syn. *Gardenia florida*]. Ref: 2, 626.

**4161 3-O-[β-D-3-O-cis-p-Coumaroyl-glucofuranosyl-(1→3)]-[β-D-glucopyranosyl-(1→2)]-α-L-arabinopyranosyl echinocystic acid 28-O-[α-L-rhamnopyranosyl-(1→4)-β-D-glucopyranosyl-(1→6)-β-D-glucopyranosyl] ester**

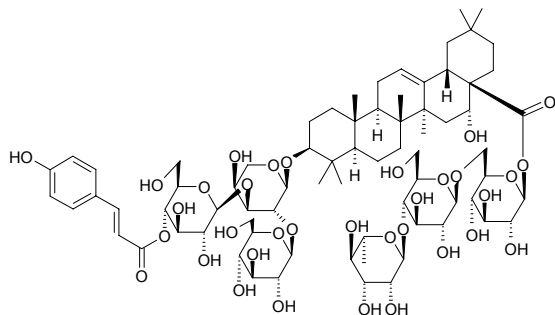
$C_{74}H_{112}O_{34}$  (1545.70). Amorphous powder,  $[\alpha]_D^{23} = -14.9^\circ$  ( $c = 0.84$ , MeOH). Source: *Dizygotheca kerchoviana* (leaf and stem of branch). Ref: 3885.



**4162 3-O-[ $\beta$ -D-3-O-*trans*-*p*-Coumaroyl-glucopyranosyl-(1 $\rightarrow$ 3)]-[ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)]- $\alpha$ -L-arabinopyranosyl echinocystic acid 28-O-[ $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl] ester**

C<sub>74</sub>H<sub>112</sub>O<sub>34</sub> (1545.70). Amorphous powder,  $[\alpha]_D^{23} = +4.9^\circ$  ( $c = 0.96$ , MeOH).

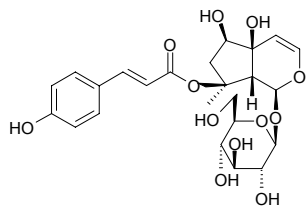
Source: *Dizygotheca kerchoveana* (leaf and stem of branch). Ref: 3885.



**4163 8-*p*-Coumaroylharpagide**

C<sub>24</sub>H<sub>30</sub>O<sub>12</sub> (510.50). Pharm: Elastase inhibitor (hmn leukocyte *in vitro*, IC<sub>50</sub> = 179 $\mu$ g/mL = 331 $\mu$ mol/L; control Caffeic acid, IC<sub>50</sub> = 86 $\mu$ g/mL =

475 $\mu$ mol/L). Source: NAN FEI GOU MA *Harpagophytum procumbens*. Ref: 5458.



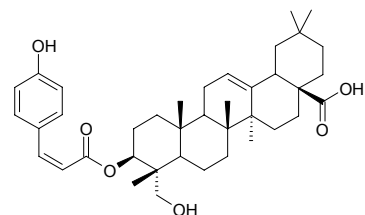
**4164 (3Z)-Coumaroylhederagenin**

C<sub>39</sub>H<sub>54</sub>O<sub>6</sub> (618.86). White amorphous powder,  $[\alpha]_D^{25} = +9.6^\circ$  ( $c = 0.3$ , CHCl<sub>3</sub>).

Pharm: Cytotoxic (*in vitro*, oral epidermoid carcinoma KB IC<sub>50</sub> =

(1.2 $\pm$ 0.01) $\mu$ mol/L, control VP-16, IC<sub>50</sub> = (1.1 $\pm$ 0.02) $\mu$ mol/L; colorectal carcinoma HT29, IC<sub>50</sub> = (2.1 $\pm$ 0.04) $\mu$ mol/L, VP-16, IC<sub>50</sub> = (2.3 $\pm$ 0.08) $\mu$ mol/L).

Source: MAO CAO LONG *Ludwigia octovalvis* (whole herb: yield = 0.00024%dw). Ref: 3005.



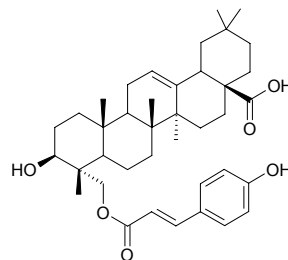
**4165 (23E)-Coumaroylhederagenin**

C<sub>39</sub>H<sub>54</sub>O<sub>6</sub> (618.86). White amorphous powder,  $[\alpha]_D^{25} = +6.8^\circ$  ( $c = 0.2$ , CHCl<sub>3</sub>).

Pharm: Cytotoxic (*in vitro*, oral epidermoid carcinoma KB IC<sub>50</sub> =

(1.3 $\pm$ 0.05) $\mu$ mol/L, control VP-16, IC<sub>50</sub> = (1.1 $\pm$ 0.02) $\mu$ mol/L; colorectal carcinoma HT29, IC<sub>50</sub> = (2.4 $\pm$ 0.08) $\mu$ mol/L, VP-16, IC<sub>50</sub> = (2.3 $\pm$ 0.08) $\mu$ mol/L).

Source: MAO CAO LONG *Ludwigia octovalvis* (whole herb: yield = 0.00024%dw). Ref: 3005.



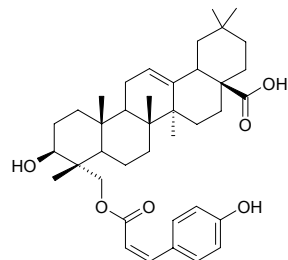
**4166 (23Z)-Coumaroylhederagenin**

C<sub>39</sub>H<sub>54</sub>O<sub>6</sub> (618.86). White amorphous powder,  $[\alpha]_D^{25} = +14.6^\circ$  ( $c = 0.2$ ,

CHCl<sub>3</sub>). Pharm: Cytotoxic (*in vitro*, oral epidermoid carcinoma KB, IC<sub>50</sub> =

(1.6 $\pm$ 0.10) $\mu$ mol/L, control VP-16, IC<sub>50</sub> = (1.1 $\pm$ 0.02) $\mu$ mol/L; colorectal carcinoma HT29, IC<sub>50</sub> = (3.6 $\pm$ 0.08) $\mu$ mol/L, VP-16, IC<sub>50</sub> = (2.3 $\pm$ 0.08) $\mu$ mol/L).

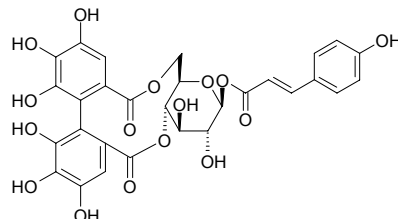
Source: MAO CAO LONG *Ludwigia octovalvis* (whole herb: yield = 0.00018%dw). Ref: 3005.



**4167 1-O-*p*-(E)-Coumaroyl-4,6-(S)-HHDP- $\beta$ -D-glucopyranose**

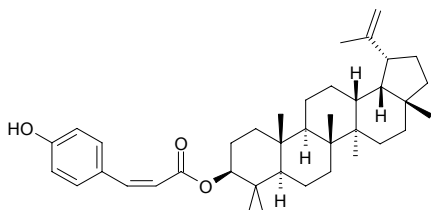
C<sub>29</sub>H<sub>24</sub>O<sub>16</sub> (628.51). Yellow amorphous powder,  $[\alpha]_D^{15} = -33.2^\circ$  ( $c = 0.3$ ,

MeOH). Source: GE XUN *Balanophora japonica* (aerial parts: yield = 0.0008%). Ref: 4101.

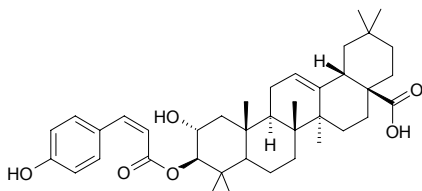


**4168 3-(Z)-Coumaroyllupeol**

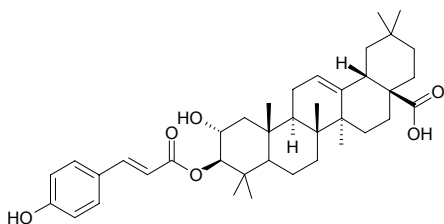
$C_{39}H_{56}O_3$  (572.88). Source: XIAO HUA MU LAN GUO *Bruguiera parviflora*.  
Ref: 2532.

**4169 3-O-(cis-p-Coumaroyl)-maslinic acid**

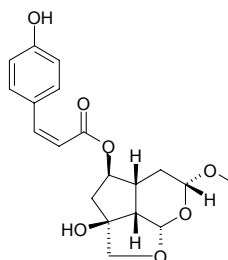
$C_{39}H_{54}O_6$  (618.86). White powder, mp 278~282°C,  $[\alpha]_D^{24} = +9.1^\circ$  ( $c = 1.1$ , pyridine). Pharm: Cytotoxic inactive (K562,  $ED_{50} > 20\mu\text{mol/L}$ , control Adriamycin,  $ED_{50} = (0.09\pm 0.03)\mu\text{mol/L}$ ; B-16 (F-10),  $ED_{50} > 20\mu\text{mol/L}$ , Adriamycin,  $ED_{50} = (0.06\pm 0.10)\mu\text{mol/L}$ ; SK-MEL-2,  $ED_{50} > 20\mu\text{mol/L}$ , Adriamycin,  $ED_{50} = (0.09\pm 0.30)\mu\text{mol/L}$ ; PC3,  $ED_{50} > 20\mu\text{mol/L}$ , Adriamycin,  $ED_{50} = (0.83\pm 0.18)\mu\text{mol/L}$ ; LOX-IMVI,  $ED_{50} > 20\mu\text{mol/L}$ , Adriamycin,  $ED_{50} = (0.38\pm 0.33)\mu\text{mol/L}$ ; A549,  $ED_{50} > 20\mu\text{mol/L}$ , Adriamycin,  $ED_{50} = (0.67\pm 0.21)\mu\text{mol/L}$ )<sup>[5479]</sup>. Source: DA ZAO *Ziziphus jujuba*. Ref: 2, 5479.

**4170 3-O-(trans-p-Coumaroyl)-maslinic acid**

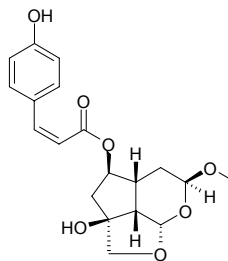
$C_{39}H_{54}O_6$  (618.86). White powder, mp 190~194°C,  $[\alpha]_D^{20} = +0.9^\circ$  ( $c = 1.0$ , pyridine). Pharm: Cytotoxic inactive (K562,  $ED_{50} > 20\mu\text{mol/L}$ , control Adriamycin,  $ED_{50} = (0.09\pm 0.03)\mu\text{mol/L}$ ; B-16 (F-10),  $ED_{50} > 20\mu\text{mol/L}$ , Adriamycin,  $ED_{50} = (0.06\pm 0.10)\mu\text{mol/L}$ ; SK-MEL-2,  $ED_{50} > 20\mu\text{mol/L}$ , Adriamycin,  $ED_{50} = (0.09\pm 0.30)\mu\text{mol/L}$ ; PC3,  $ED_{50} > 20\mu\text{mol/L}$ , Adriamycin,  $ED_{50} = (0.83\pm 0.18)\mu\text{mol/L}$ ; LOX-IMVI,  $ED_{50} > 20\mu\text{mol/L}$ , Adriamycin,  $ED_{50} = (0.38\pm 0.33)\mu\text{mol/L}$ ; A549,  $ED_{50} > 20\mu\text{mol/L}$ , Adriamycin,  $ED_{50} = (0.67\pm 0.21)\mu\text{mol/L}$ )<sup>[5479]</sup>. Source: DA ZAO *Ziziphus jujuba*. Ref: 5479.

**4171 6-O-cis-p-Coumaroyl-3α-O-methyl-7-deoxyrehmaglutin A**

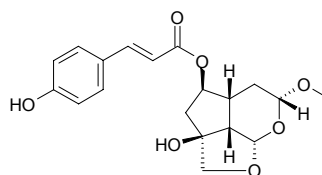
$C_{19}H_{22}O_7$  (362.38). Amorphous powder,  $[\alpha]_D^{26} = -47.6^\circ$  ( $c = 0.1$ , MeOH).  
Source: ZI YE *Catalpa ovata* (fallen leaf). Ref: 4290.

**4172 6-O-cis-p-Coumaroyl-3β-O-methyl-7-deoxyrehmaglutin A**

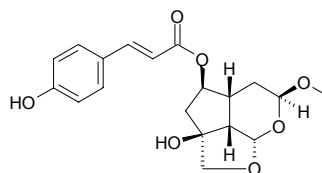
$C_{19}H_{22}O_7$  (362.38). Amorphous powder,  $[\alpha]_D^{26} = +20.0^\circ$  ( $c = 0.3$ , MeOH).  
Source: ZI YE *Catalpa ovata* (fallen leaf). Ref: 4290.

**4173 6-O-trans-p-Coumaroyl-3α-O-methyl-7-deoxyrehmaglutin A**

$C_{19}H_{22}O_7$  (362.38). Amorphous powder,  $[\alpha]_D^{26} = -90.9^\circ$  ( $c = 0.1$ , MeOH).  
Source: ZI YE *Catalpa ovata* (fallen leaf). Ref: 4290.

**4174 6-O-trans-p-Coumaroyl-3β-O-methyl-7-deoxyrehmaglutin A**

$C_{19}H_{22}O_7$  (362.38). Amorphous powder,  $[\alpha]_D^{26} = -16.1^\circ$  ( $c = 0.3$ , MeOH).  
Source: ZI YE *Catalpa ovata* (fallen leaf). Ref: 4290.

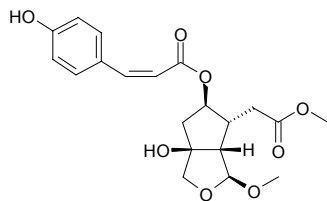




**4175 6-*O*-cis-*p*-Coumaroyl-1 $\beta$ -*O*-methylovatofuranic acid methyl ester**

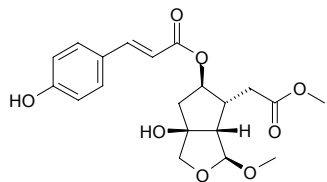
$C_{20}H_{24}O_8$  (392.41). Amorphous powder,  $[\alpha]_D^{26} = +27.4^\circ$  ( $c = 0.1$ , MeOH).

Source: ZI YE *Catalpa ovata* (fallen leaf). Ref: 4290.

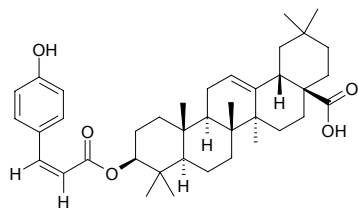
**4176 6-*O*-trans-*p*-Coumaroyl-1 $\beta$ -*O*-methylovatofuranic acid methyl ester**

$C_{20}H_{24}O_8$  (392.41). Amorphous powder,  $[\alpha]_D^{26} = -12.5^\circ$  ( $c = 0.1$ , MeOH).

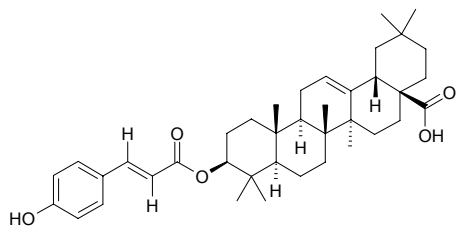
Source: ZI YE *Catalpa ovata* (fallen leaf). Ref: 4290.

**4177 3-*O*-(*E*)-Coumaroyloleanolic acid**

$C_{39}H_{54}O_5$  (602.86). Colorless prisms, mp 141~142°C,  $[\alpha]_D^{19.6} = +23.6^\circ$  ( $c = 0.36$ , acetone). Source: MU MA HUANG *Casuarina equisetifolia*. Ref: 2300.

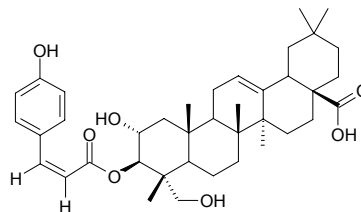
**4178 3-*O*-(*Z*)-Coumaroyloleanolic acid**

$C_{39}H_{54}O_5$  (602.86). Colorless prisms, mp 245~247°C,  $[\alpha]_D^{20.3} = +89.5^\circ$  ( $c = 0.21$ , acetone). Source: MU MA HUANG *Casuarina equisetifolia*. Ref: 2300.

**4179 3 $\beta$ -cis-*p*-Coumaroyloxy-2 $\alpha$ ,23-dihydroxyolean-12-en-28-oic acid**

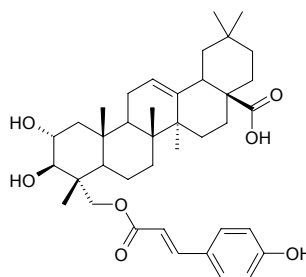
$C_{39}H_{54}O_7$  (634.86). White amorphous powder (CHCl<sub>3</sub>-MeOH), mp 252°C

(dec),  $[\alpha]_D^{20} = +34.9^\circ$  ( $c = 0.032$ , MeOH). Pharm: Cytotoxic (mouse mammary gland organ culture, DMBA-induced preneoplastic lesion, 10 $\mu$ g/mL, InRt = 36.6%). Source: SAN WEI ZHI FAN YING TAO *Eugenia sandwicensis* (stem). Ref: 5178.

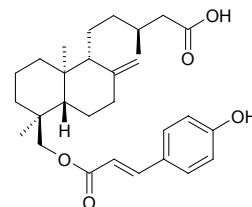
**4180 23-*trans*-*p*-Coumaroyloxy-2 $\alpha$ ,3 $\beta$ -dihydroxyolean-12-en-28-oic acid**

$C_{39}H_{54}O_7$  (634.86). White amorphous powder (CHCl<sub>3</sub>-MeOH), mp

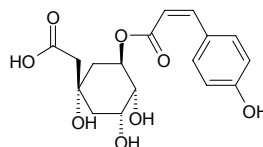
210~214°C,  $[\alpha]_D^{20} = +21.8^\circ$  ( $c = 0.055$ , MeOH). Pharm: Cytotoxic (mouse mammary gland organ culture, DMBA-induced preneoplastic lesion, 10 $\mu$ g/mL, InRt = 48.1%). Source: SAN WEI ZHI FAN YING TAO *Eugenia sandwicensis* (stem). Ref: 5178.

**4181 (13*S*)-ent-18-(*E*)-Coumaroyloxy-8(17)-labden-15-oic acid**

$C_{29}H_{40}O_5$  (468.64). Colorless oil,  $[\alpha]_D^{20} = -2.4^\circ$  ( $c = 0.365$ , MeOH). Pharm: Antimalarial (*Plasmodium falciparum* FcB1, IC<sub>50</sub> = (11.4±1.1) $\mu$ g/mL, control Chloroquine, IC<sub>50</sub> = (0.05±0.002) $\mu$ g/mL). Source: *Nuxia sphaerocephala* (leaf). Ref: 4419.

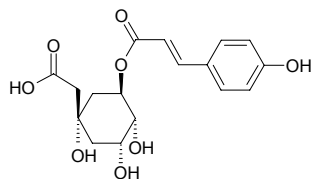
**4182 5-*p*-cis-Coumaroylquinic acid**

$C_{16}H_{18}O_8$  (338.32). Source: LV DOU *Onobrychis vicifolia* (leaf). Ref: 5084.

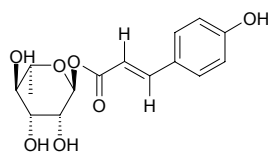


**4183 5-*p*-trans-Coumaroylquinic acid**

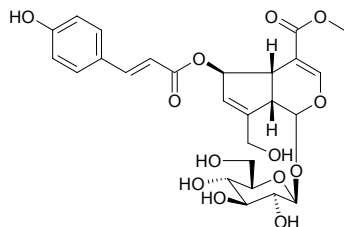
$C_{16}H_{18}O_8$  (338.32). Source: LV DOU *Onobrychis viciifolia* (leaf). Ref: 5084.

**4184 1-(*p*-Coumaroyl)- $\alpha$ -L-rhamnopyranose**

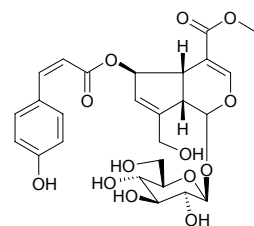
$C_{15}H_{18}O_7$  (310.31). Colorless prismatic crystals, mp 81–83°C; 188–190°C (chloroform-methanol-acetone), white crystals, mp 248–251°C,  $[\alpha]_D^{20} = -21.5^\circ$  ( $c = 0.5$ ,  $CHCl_3$ ). Pharm: Inhibitory activity against NFAT Transcription ( $IC_{50} > 100 \mu\text{mol/L}$ , positive control Cyclosporin A,  $IC_{50} = (0.29 \pm 0.01) \mu\text{mol/L}$ ). Source: DONG BEI HE SHI *Lappula echinata*, HUA CHA BIAO *Ribes fasciculatum* var. *chinense*. Ref: 48, 2536.

**4185 6-*O*-*E*-*p*-Coumaroyl scandoside methyl ester**

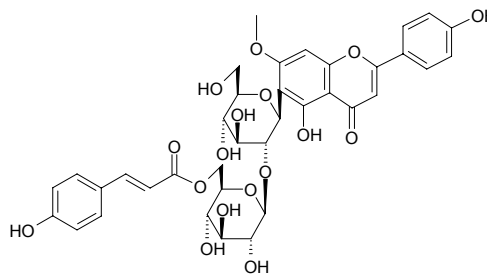
$C_{26}H_{30}O_{13}$  (550.52). Pharm: Neuroprotective (primary cultures of rat cortical cells, induced by *L*-glutamate, 0.1  $\mu\text{mol/L}$ , cell viability =  $(14.5 \pm 1.0)\%$ , 1.0  $\mu\text{mol/L}$ , cell viability =  $(62.2 \pm 4.0)\%$ ,  $p < 0.001$ , 10  $\mu\text{mol/L}$ , cell viability =  $(26.8 \pm 3.5)\%$ ,  $p < 0.05$ ). Source: BAI HUA SHE SHE CAO *Oldenlandia diffusa* [Syn. *Hedyotis diffusa*] (whole herb: yield = 0.00154%). Ref: 3027.

**4186 6-*O*-*Z*-*p*-Coumaroyl scandoside methyl ester**

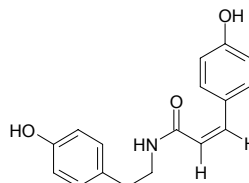
$C_{26}H_{30}O_{13}$  (550.52). Pharm: Neuroprotective (primary cultures of rat cortical cells, induced by *L*-glutamate, 0.1  $\mu\text{mol/L}$ , cell viability =  $(6.9 \pm 0.9)\%$ , 1.0  $\mu\text{mol/L}$ , cell viability =  $(25.7 \pm 2.0)\%$ ,  $p < 0.05$ , 10  $\mu\text{mol/L}$ , cell viability =  $(6.3 \pm 3.5)\%$ ). Source: BAI HUA SHE SHE CAO *Oldenlandia diffusa* [Syn. *Hedyotis diffusa*] (whole herb: yield = 0.00048%). Ref: 3027.

**4187 6'''-*p*-Coumaroylspinosin**

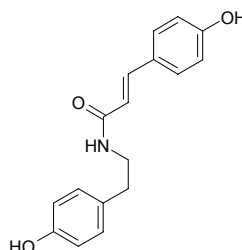
Apigenin-6-*C*-[(6-*O*-*p*-hydroxybenzoyl)- $\beta$ -*D*-glucopyranosyl(1 $\rightarrow$ 2)- $\beta$ -*D*-glucopyranoside  $C_{37}H_{38}O_{17}$  (754.71). Source: DA ZAO *Ziziphus jujuba*, SUAN ZAO REN *Ziziphus jujuba* var. *spinosa*. Ref: 2, 660.

**4188 *N*-*p*-cis-Coumaroyltyramine**

$C_{17}H_{17}NO_3$  (283.33). Source: DUAN TING SHAN MAI DONG *Liriope muscari* (tuber: yield = 0.00086%), HONG HAI JIAO *Capsicum annuum* (stem and root: yield = 0.00071%dw), MIAN MAO MA DOU LING *Aristolochia mollissima* (dried root and stem: yield = 0.00062%dw). Ref: 3026, 4772, 4779.

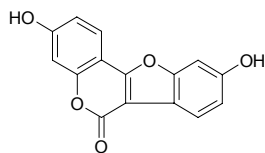
**4189 *N*-(*trans*-*p*-Coumaroyl) tyramine**

$C_{17}H_{17}NO_3$  (283.33). Pharm: Anti-HIV inactive (*in vitro*, acutely infected H-9 lymphocyte cells)<sup>[4706]</sup>; cytotoxic inactive (*in vitro*, MCF7 and A549)<sup>[4706]</sup>. Source: GUAN MU TONG *Aristolochia manshuriensis* (stem: yield = 0.00043%), HONG HAI JIAO *Capsicum annuum* (stem and root: yield = 0.0014%dw), MAI DONG *Ophiopogon japonicus* (tuber: yield = 0.0001%), RI BEN HUANG BAI *Phellodendron japonicum* (leaf), TIAN QIE ZI *Solanum indicum* (root). Ref: 3087, 4502, 4706, 4772, 4779.

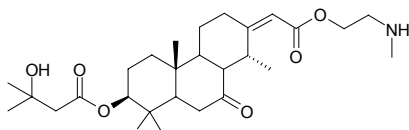


**4190 Coumestrol**

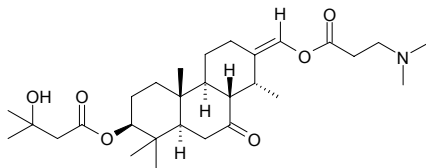
[479-13-0]  $C_{15}H_8O_5$  (268.23). **Pharm:** Anti-fertility agent; antifungal; estrogenic activity; peroxidase inhibitor (non-competitive); cytotoxic (KB,  $IC_{50} > 75\mu\text{mol/L}$ , control Helenalin,  $IC_{50} = (0.64 \pm 0.08)\mu\text{mol/L}$ , Melphalan,  $IC_{50} = (6.0 \pm 0.5)\mu\text{mol/L}$ ; Mono-Mac-6,  $IC_{50} > 75\mu\text{mol/L}$ , Helenalin,  $IC_{50} = (3.1 \pm 0.3)\mu\text{mol/L}$ ; Jurkat-T,  $IC_{50} = (53.3 \pm 4.2)\mu\text{mol/L}$ , Helenalin,  $IC_{50} = (1.14 \pm 0.08)\mu\text{mol/L}$ , Melphalan,  $IC_{50} = (9.1 \pm 0.8)\mu\text{mol/L}$ )<sup>[5077]</sup>. **Source:** BO CAI *Spinacia oleracea*, CAO MEI CHE ZHOU CAO *Trifolium fragiferum*, GE GEN *Pueraria lobata* [Syn. *Pueraria thunbergiana*; *Pueraria pseudohirsuta*], MU XU *Medicago sativa*, SAN XIAO CAO *Trifolium repens*, YAO YONG PU GONG YING *Taraxacum officinale*, *Bituminaria morisiana* (leaf). **Ref:** 2, 658, 660, 5077.

**4191 Coumingidine**

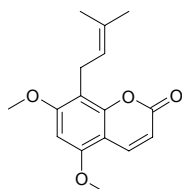
$C_{28}H_{45}NO_6$  (491.67). mp 160~161°C. **Pharm:** Uterine stimulant. **Source:** KAO MING GE MU *Erythrophleum couminga*, TIE XIU SE HUANG TAN *Dalbergia ferruginea*. **Ref:** 661.

**4192 Coumingine**

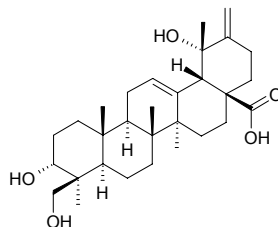
$C_{29}H_{47}NO_6$  (505.70). Lustrous, tiny acicular crystals (ether), mp 142°C,  $[\alpha]_D^{20} = -70^\circ$ . **Pharm:** Cardiotonic; uterine stimulant. **Source:** KAO MING GE MU *Erythrophleum couminga*, TIE XIU SE HUANG TAN *Dalbergia ferruginea*. **Ref:** 661.

**4193 Coumurrayin**

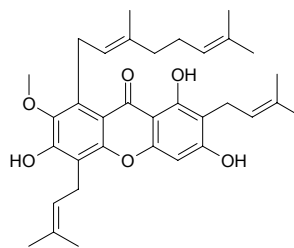
8-Isopentenylmettin [17245-25-9]  $C_{16}H_{18}O_4$  (274.32). mp 157°C. **Source:** JIU LI XIANG *Murraya paniculata* [Syn. *Chalcas paniculata*], YUN QIAN HU *Peucedanum rubricaulis*. **Ref:** 6, 11, 177.

**4194 Coussaric acid**

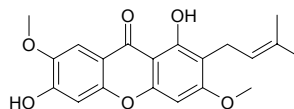
$C_{30}H_{46}O_5$  (486.70). Colorless needles ( $CHCl_3$ :MeOH = 5:1), mp 232~233°C,  $[\alpha]_D^{23} = +51.5^\circ$  ( $c = 1.0$ , pyridine). **Pharm:** Quinone reductase inducer (mouse Hepa lc7 hepatoma cells, CD =  $17.9\mu\text{mol/L} = 8.7\mu\text{g/mL}$ ). **Source:** *Coussarea brevicaulis*. **Ref:** 3434.

**4195 Cowagarcinone A**

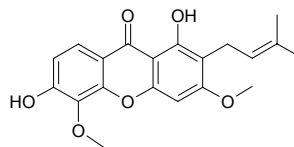
1,3,6-Trihydroxy-7-methoxy-2,5-bis(3-methyl-2-butenyl)-8-(3,7-dimethyl-2,6-octadienyl)xanthone  $C_{34}H_{42}O_6$  (546.71). Yellow gum. **Pharm:** Antioxidant (DPPH scavenger,  $IC_{50} > 200\mu\text{mol/L}$ , control BHT,  $IC_{50} = 5.10\mu\text{g/mL}$ ; crude latex of *Garcinia cowa*,  $IC_{50} = 13.20\mu\text{g/mL}$ ). **Source:** YUN NAN SHAN ZHU ZI *Garcinia cowa* (latex). **Ref:** 5281.

**4196 Cowagarcinone B**

1,6-Dihydroxy-3,7-dimethoxy-2-(3-methylbut-2-enyl)-xanthone  $C_{20}H_{20}O_6$  (356.38). Pale yellow solid, mp 252~253°C. **Pharm:** Antioxidant (DPPH scavenger,  $10\mu\text{mol/L}$ , ScRt = 15%, control BHT,  $10\mu\text{mol/L}$ , ScRt = 43%)<sup>[5319]</sup>. **Source:** DAO NIAN ZI *Garcinia mangostana*, TIAN SHAN ZHU ZI *Garcinia dulcis* (fruit), YUN NAN SHAN ZHU ZI *Garcinia cowa* (latex). **Ref:** 1964, 5281, 5319.

**4197 Cowagarcinone C**

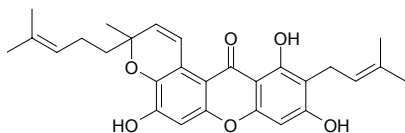
1,6-Dihydroxy-3,5-dimethoxy-2-(3-methylbut-2-enyl)xanthone  $C_{20}H_{20}O_6$  (356.38). Pale yellow solid, mp 152~153°C. **Source:** YUN NAN SHAN ZHU ZI *Garcinia cowa* (latex). **Ref:** 5281.



**4198 Cowagarcinone D**

6,8,12-Trihydroxy-7-(3-methyl-2-butenyl)-2-methyl-2-(4-methyl-3-pentenyl)pyrano-(2',3':7,8)xanthone C<sub>28</sub>H<sub>30</sub>O<sub>6</sub> (462.55). Yellow solid, mp 92–94°C.

Source: YUN NAN SHAN ZHU ZI *Garcinia cowa* (latex). Ref: 5281.

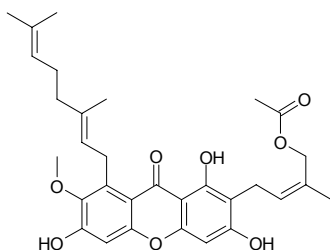
**4199 Cowagarcinone E**

1,3,6-Trihydroxy-7-methoxy-2-(4-acetoxy-3-methyl-2-butenyl)-8-(3,7-dimethyl-2,6-octadienyl)xanthone C<sub>31</sub>H<sub>36</sub>O<sub>8</sub> (536.63). Yellow gum. Pharm:

Antioxidant (DPPH scavenger, IC<sub>50</sub> > 200 μmol/L, control BHT, IC<sub>50</sub> =

5.10 μg/mL; crude latex of *Garcinia cowa*, IC<sub>50</sub> = 13.20 μg/mL). Source: YUN

NAN SHAN ZHU ZI *Garcinia cowa* (latex). Ref: 5281.

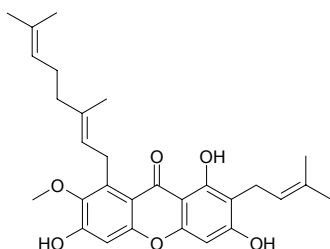
**4200 Cowanin**

C<sub>29</sub>H<sub>34</sub>O<sub>6</sub> (478.59). Pharm: Antioxidant (DPPH scavenger, IC<sub>50</sub> > 200 μmol/L, control BHT, IC<sub>50</sub> = 5.10 μg/mL; crude latex of *Garcinia cowa*, IC<sub>50</sub> =

13.20 μg/mL)<sup>[5281]</sup>; antioxidant (DPPH scavenger, 10 μmol/L, ScRt = 15%, control BHT, 10 μmol/L, ScRt = 43%)<sup>[5319]</sup>; antibacterial (*Staphylococcus*

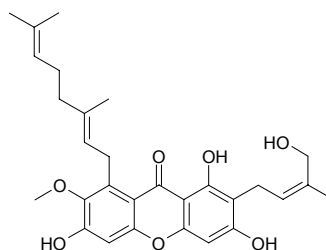
*aureus* ATCC 25923, MIC = 32 μg/mL, control Vancomycin, MIC = 2 μg/mL; *Staphylococcus aureus* MRSA SK1, MIC = 8 μg/mL, Vancomycin, MIC =

2 μg/mL)<sup>[5319]</sup>. Source: TIAN SHAN ZHU ZI *Garcinia dulcis* (fruit), YUN NAN SHAN ZHU ZI *Garcinia cowa* (latex). Ref: 5281, 5319.

**4201 Cowanol**

C<sub>29</sub>H<sub>34</sub>O<sub>7</sub> (494.59). Pharm: Antioxidant (DPPH scavenger, IC<sub>50</sub> > 200 μmol/L, control BHT, IC<sub>50</sub> = 5.10 μg/mL; crude latex of *Garcinia cowa*, IC<sub>50</sub> =

13.20 μg/mL). Source: YUN NAN SHAN ZHU ZI *Garcinia cowa* (latex). Ref: 5281.

**4202 Cowaxanthone**

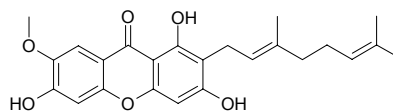
C<sub>24</sub>H<sub>26</sub>O<sub>6</sub> (410.47). Pharm: Antioxidant (DPPH scavenger, IC<sub>50</sub> > 200 μmol/L, control BHT, IC<sub>50</sub> = 5.10 μg/mL; crude latex of *Garcinia cowa*, IC<sub>50</sub> =

13.20 μg/mL)<sup>[5281]</sup>; antioxidant (DPPH scavenger, 10 μmol/L, ScRt = 16%, control BHT, 10 μmol/L, ScRt = 43%)<sup>[5319]</sup>; antibacterial (*Staphylococcus*

*aureus* ATCC 25923, MIC = 16 μg/mL, control Vancomycin, MIC = 2 μg/mL; *Staphylococcus aureus* MRSA SK1, MIC = 16 μg/mL, Vancomycin, MIC =

2 μg/mL)<sup>[5319]</sup>. Source: TIAN SHAN ZHU ZI *Garcinia dulcis* (fruit), TIAN SHAN ZHU ZI *Garcinia dulcis* (flower), YUN NAN SHAN ZHU ZI

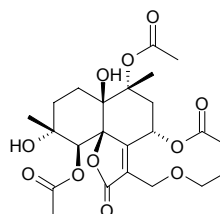
*Garcinia cowa* (latex). Ref: 4422, 5281, 5319.

**4203 CPB-2001-49-1359-1**

C<sub>23</sub>H<sub>32</sub>O<sub>11</sub> (484.50). Colorless oil, [α]<sub>D</sub> = -32° (c = 0.7, CHCl<sub>3</sub>). Pharm:

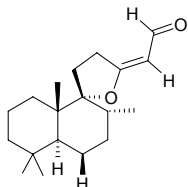
Antifungal (*Candida albicans* and *Aspergillus niger*, moderate activity; *Trichophyton mentagrophytes*, low activity); antibacterial (*Staphylococcus*

*aureus*, *Escherichia coli* and *Pseudomonas aeruginosa*, low activity). Source: JIA DI DAN CAO *Pseudoelephantopus spicatus* (leaf). Ref: 4133.

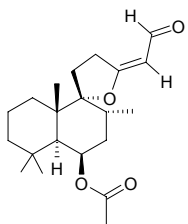


**4204 CPB5212-1492-1**

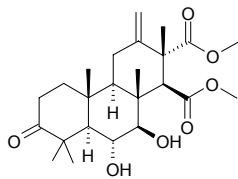
$C_{19}H_{30}O_2$  (290.45). Colorless oil,  $[\alpha]_D = -3.4^\circ$  ( $c = 0.64$ , MeOH). Pharm: Antitrypanosomal (epimastigotes of *Trypanosoma cruzi*, *in vitro*, MLC =  $11\mu\text{mol/L}$ ). Source: MAN JING ZI *Vitex trifolia*. Ref: 2550.

**4205 CPB5212-1492-2**

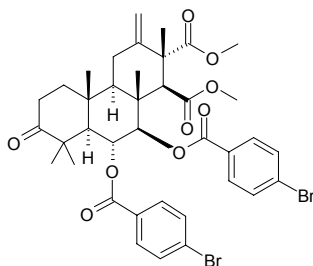
$C_{21}H_{32}O_4$  (348.49). Colorless oil,  $[\alpha]_D = -1.4^\circ$  ( $c = 0.50$ , MeOH). Pharm: Antitrypanosomal (epimastigotes of *Trypanosoma cruzi*, *in vitro*, MLC =  $36\mu\text{mol/L}$ ). Source: MAN JING ZI *Vitex trifolia*. Ref: 2550.

**4206 CPB-53-1114-4**

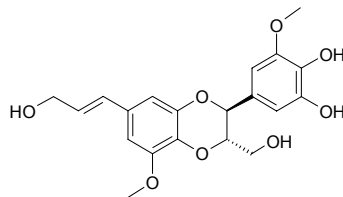
$C_{24}H_{36}O_7$  (436.55). Source: JI JIAN DAN QING MEI *Penicillium simplicissimum*. Ref: 4501.

**4207 CPB-53-1114-4 6,7-di-*p*-bromobenzoate**

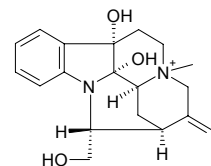
$C_{38}H_{42}Br_2O_9$  (802.56). Source: JI JIAN DAN QING MEI *Penicillium simplicissimum*. Ref: 4501.

**4208 CPB-53-641-1**

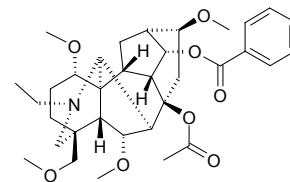
$C_{20}H_{22}O_8$  (390.39). Colorless oil,  $[\alpha]_D^{20} = +8.0^\circ$  ( $c = 1.0$ , MeOH). Source: TAN XIANG *Santalum album* (heartwood). Ref: 4468.

**4209 C-profluorocurine**

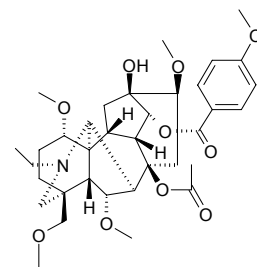
$C_{20}H_{27}N_2O_3$  (343.45). Source: *Strychnos guianensis* (stem cortex). Ref: 3943.

**4210 Crassicaudine**

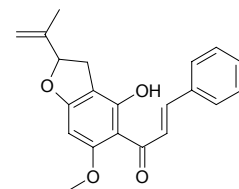
$C_{34}H_{47}NO_8$  (597.76). Source: CU JING WU TOU *Aconitum crassicaule*<sup>[1521]</sup>, ZHUA KUI GUA YE WU TOU *Aconitum hemisleyanum* var. *leueanthus* (root; yield = 0.00040%dw)<sup>[4678]</sup>. Ref: 1521, 4678.

**4211 Crassicauline A**

[79592-91-9]  $C_{35}H_{49}NO_{10}$  (643.78). Source: DIAN XI WU TOU *Aconitum bulleyanum*, FU ZI *Aconitum carmichaeli* (tuber). Ref: 618, 4373.

**4212 Crassichalcone**

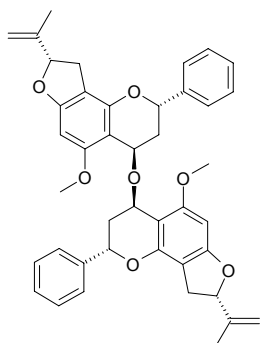
$C_{21}H_{20}O_4$  (336.39). Yellow oil. Source: HOU YE HUI MAO DOU *Tephrosia crassifolia*. Ref: 2389.



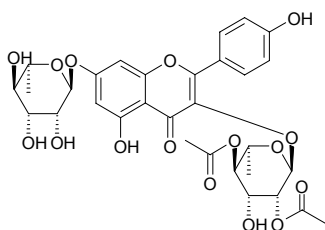
**4213 Crassifolin**

$C_{42}H_{42}O_7$  (658.80). Colorless crystals, mp 249–250°C,  $[\alpha]_D = +4.24^\circ$  ( $CHCl_3$ ).

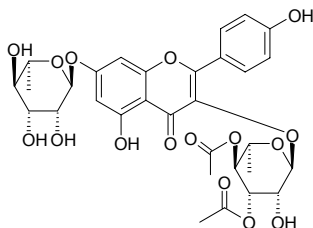
Source: HOU YE HUI MAO DOU *Tephrosia crassifolia*. Ref: 2389.

**4214 Crassirhizomide A**

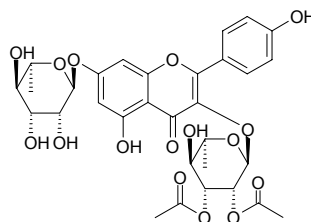
Kaempferol 3-*α*-L-(2,4-di-*O*-acetyl)rhamnopyranoside-7-*α*-L-rhamnopyranoside  $C_{31}H_{34}O_{16}$  (662.61). Pale yellow amorphous powder,  $[\alpha]_D = -152^\circ$  ( $c = 0.1$ , MeOH). Pharm: Anti-HIV-1 (RT (RDDP) inhibitor,  $IC_{50} = 215\mu\text{mol/L}$ , positive control Adriamycin,  $IC_{50} = 46\mu\text{mol/L}$ ; DDDP inhibitor,  $IC_{50} = 25\mu\text{mol/L}$ , positive control Adriamycin,  $IC_{50} = 6\mu\text{mol/L}$ ; RnaseH inhibitor,  $IC_{50} > 500\mu\text{mol/L}$ , positive control Illimaquinone,  $IC_{50} = 50\mu\text{mol/L}$ ). Source: GUAN ZHONG *Dryopteris crassirhizoma*. Ref: 3522.

**4215 Crassirhizomide B**

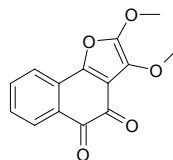
Kaempferol 3-*α*-L-(3,4-di-*O*-acetyl)rhamnopyranoside-7-*α*-L-rhamnopyranoside  $C_{31}H_{34}O_{16}$  (662.61). Pale yellow amorphous powder,  $[\alpha]_D = -219^\circ$  ( $c = 0.1$ , MeOH). Pharm: Anti-HIV-1 (RT (RDDP) inhibitor,  $IC_{50} > 500\mu\text{mol/L}$ , positive control Adriamycin,  $IC_{50} = 46\mu\text{mol/L}$ ; DDDP inhibitor,  $IC_{50} > 100\mu\text{mol/L}$ , positive control Adriamycin,  $IC_{50} = 6\mu\text{mol/L}$ ; RnaseH inhibitor,  $IC_{50} > 500\mu\text{mol/L}$ , positive control Illimaquinone,  $IC_{50} = 50\mu\text{mol/L}$ ). Source: GUAN ZHONG *Dryopteris crassirhizoma*. Ref: 3522.

**4216 Crassirhizomide C**

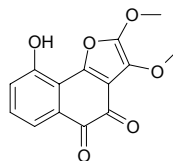
Kaempferol 3-*α*-L-(2,3-di-*O*-acetyl)rhamnopyranoside-7-*α*-L-rhamnopyranoside  $C_{31}H_{34}O_{16}$  (662.61). Pale yellow amorphous powder,  $[\alpha]_D = -161^\circ$  ( $c = 0.1$ , MeOH). Pharm: Anti-HIV-1 (RT (RDDP) inhibitor,  $IC_{50} = 240\mu\text{mol/L}$ , positive control Adriamycin,  $IC_{50} = 46\mu\text{mol/L}$ ; DDDP inhibitor,  $IC_{50} = 28\mu\text{mol/L}$ , positive control Adriamycin,  $IC_{50} = 6\mu\text{mol/L}$ ; RnaseH inhibitor,  $IC_{50} > 500\mu\text{mol/L}$ , positive control Illimaquinone,  $IC_{50} = 50\mu\text{mol/L}$ ). Source: GUAN ZHONG *Dryopteris crassirhizoma*. Ref: 3522.

**4217 Crataequinone A**

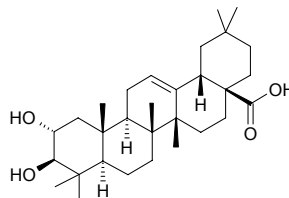
11,12-Dimethoxy-3,4-furo-1,2-naphthoquinone  $C_{14}H_{10}O_5$  (258.23). Red-purple needles (hexane-EtOAc), mp 157–158°C. Pharm: Intercellular adhesion molecule-1 (ICAM-1) expression inhibitor ( $IC_{50} = 33\mu\text{mol/L}$ ). Source: SHAN ZHA *Crataegus pinnatifida*. Ref: 4091.

**4218 Crataequinone B**

11,12-Dimethoxy-5-hydroxy-3,4-furo-1,2-naphthoquinone  $C_{14}H_{10}O_6$  (274.23). Red-purple needles (MeOH-H<sub>2</sub>O), mp 123–125°C. Pharm: Intercellular adhesion molecule-1 (ICAM-1) expression inhibitor ( $IC_{50} = 90\mu\text{mol/L}$ ). Source: SHAN ZHA *Crataegus pinnatifida*. Ref: 4091.

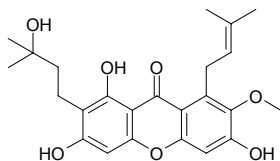
**4219 Crategolic acid**

2,3-Dihydroxy-12-oleanen-28-oic acid [4373-41-5]  $C_{30}H_{48}O_4$  (472.71). mp 263–265°C. Source: SHAN ZHA *Crataegus pinnatifida*, SHAN ZHA YE *Crataegus pinnatifida*, HUO XIANG *Agastache rugosus*. Ref: 6, 660.

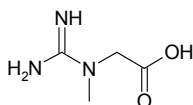


**4220 Cratoxylone**

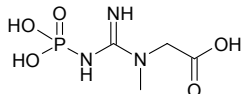
[149155-01-1] C<sub>24</sub>H<sub>28</sub>O<sub>7</sub> (428.49). Source: TIAN SHAN ZHU ZI *Garcinia dulcis* (fruit). Ref: 5319.

**4221 Creatine**

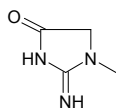
N-Amidinosarcosine [57-00-1] C<sub>4</sub>H<sub>9</sub>N<sub>3</sub>O<sub>2</sub> (131.14). mp 303°C. Source: GOU ROU *Canis familiaris*, GOU XIN *Canis familiaris*, LI YU *Cyprinus carpio*, NIU XUE *Bos taurus domesticus*; *Bubalus bubalis*, QING WA *Rana nigromaculata*; *Rana plancyi*, XIA TIAN GAO *Bos taurus domesticus*, XIANG ROU *Elephas maximus*. Ref: 6.

**4222 Creatine phosphoric acid**

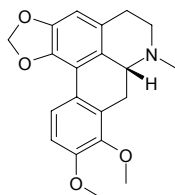
Phosphocreatine [6190-45-0] C<sub>4</sub>H<sub>10</sub>N<sub>3</sub>O<sub>5</sub>P (211.12). Source: QING WA *Rana nigromaculata*; *Rana plancyi*, LI YU *Cyprinus carpio*. Ref: 6.

**4223 Creatinine**

C<sub>4</sub>H<sub>7</sub>N<sub>3</sub>O (113.12). mp 260°C (dec). Source: MO GU *Agaricus campestris*, NIU XUE *Bos taurus domesticus*; *Bubalus bubalis*, REN NIAO *Homo sapiens*. Ref: 6.

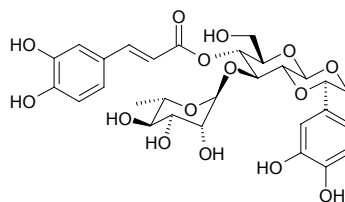
**4224 (-)-Crebanine**

C<sub>20</sub>H<sub>21</sub>NO<sub>4</sub> (339.39). [α]<sub>D</sub><sup>25</sup> = -55.2° (CHCl<sub>3</sub>). Source: *Stephania* sp. Ref: 3404.

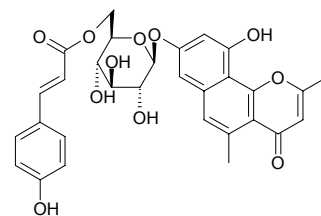
**4225 Crenatoside‡**

Oraposide; Orobanchoside [61276-16-2] C<sub>29</sub>H<sub>34</sub>O<sub>15</sub> (622.59). Amorphous powder, [α]<sub>D</sub><sup>26</sup> = -23° (c = 0.44, MeOH). Pharm: Antiviral inactive (Vero cell lines infected with HSV-2 strain 333, 250μg/mL)<sup>[4752]</sup>; ACE inhibitor (1.0mg/mL, InRt = 99.7%; 0.1mg/mL, InRt = 75.5%; 0.01mg/mL, InRt = 34.6%; control Captopril, 0.01mg/mL, InRt = 97.7%)<sup>[4752]</sup>; antioxidant (relative potency = 1.4, compared with Resveratrol, relative potency = 1)<sup>[4920]</sup>. Source: GUAN HUA ROU CONG RONG *Cistanche tubulosa*, LIE DANG *Orobanche coerulescens* (whole herb), NAN CHUAN GUAN CHUN HUA *Microtoena prainiana* (stem: yield = 0.0036%dw). Ref: 2448, 4752, 4920.

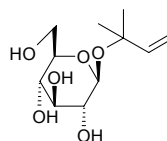
‡Note: See compound 16161.

**4226 Crenatoside**

C<sub>30</sub>H<sub>28</sub>O<sub>11</sub> (564.55). Colorless needles (MeOH), mp > 300°C, [α]<sub>D</sub><sup>20</sup> = -44.5° (c = 1.00, DMSO). Source: HUANG YAO *Rhamnus crenatus* (aerial parts). Ref: 4878.

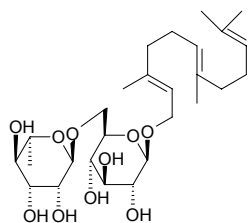
**4227 Crenulatin**

2-Methyl-3-buten-2-ol β-D-glucopyranoside C<sub>11</sub>H<sub>20</sub>O<sub>6</sub> (248.28). Colorless, small prismatic crystals, mp 118~120°C (acetone), [α]<sub>D</sub><sup>20</sup> = -26.76° (c = 1.1, ethanol); amorphous powder, [α]<sub>D</sub><sup>24</sup> = -19°. Source: BEI SHA SHEN *Glehnia littoralis* (fruit), DA HUA HONG JING TIAN *Rhodiola crenulata* [Syn. *Rhodiola euryphylla*]. Ref: 218, 3525.

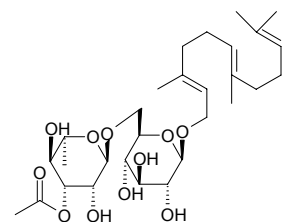


**4228 Crenulatoside A**

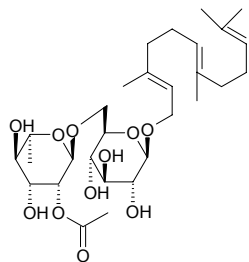
1-*O*-[ $\alpha$ -*L*-Rhamnopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranosyl]-(2*E*,6*E*)-farnesol  
 $C_{27}H_{46}O_{10}$  (530.66).  $[\alpha]_D^{20} = -44^\circ$  ( $c = 1$ , MeOH). Source: *Guioa crenulata*  
 (leaf). Ref: 5331.

**4229 Crenulatoside B**

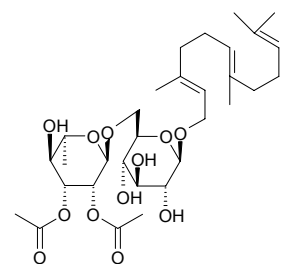
1-*O*-[3-*O*-Acetyl- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranosyl]-(2*E*,6*E*)-  
 farnesol  $C_{29}H_{48}O_{11}$  (572.70).  $[\alpha]_D^{20} = -28^\circ$  ( $c = 1$ , MeOH). Source: *Guioa*  
*crenulata* (leaf). Ref: 5331.

**4230 Crenulatoside C**

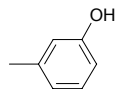
1-*O*-[2-*O*-Acetyl- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranosyl]-(2*E*,6*E*)-  
 farnesol  $C_{29}H_{48}O_{11}$  (572.70).  $[\alpha]_D^{20} = -24^\circ$  ( $c = 0.58$ , MeOH). Source: *Guioa*  
*crenulata* (leaf). Ref: 5331.

**4231 Crenulatoside D**

1-*O*-[2,3-*O*-acetyl- $\alpha$ -*L*-rhamnopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -*D*-glucopyranosyl]-(2*E*,  
 6*E*)-farnesol  $C_{31}H_{50}O_{12}$  (614.74).  $[\alpha]_D^{20} = -31^\circ$  ( $c = 0.33$ , MeOH). Source:  
*Guioa crenulata* (leaf). Ref: 5331.

**4232 *m*-Cresol**

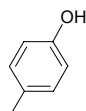
3-Methylphenol [108-39-4]  $C_7H_8O$  (108.14). mp 11~12°C, bp 202°C. Source:  
 CHUAN XU DUAN *Dipsacus asperoides*, MO YAO *Commiphora myrrha*  
 [Syn. *Commiphora molmo*], SANG YE *Morus alba*, YIN CHEN HAO  
*Artemisia capillaris*. Ref: 6, 660, 1379.

**4233 *o*-Cresol**

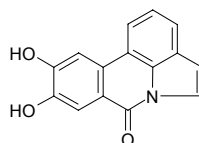
2-Methylphenol [95-48-7]  $C_7H_8O$  (108.14). Source: DANG GUI *Angelica*  
*sinensis*, YIN CHEN HAO *Artemisia capillaris*. Ref: 2, 660.

**4234 *p*-Cresol**

4-Methylphenol [106-44-5]  $C_7H_8O$  (108.14). mp 34°C. Pharm: Anthelmintic;  
 disinfectant; local anticorrosion. Source: CHUAN XU DUAN *Dipsacus*  
*asperoides*, DANG GUI *Angelica sinensis*, DU HUO *Angelica pubescens* f.  
*biserrata* [Syn. *Angelica pubescens*], HONG GUI *Chamaecyparis formosensis*,  
 HUI QIN *Pimpinella anisum*, YIN CHEN HAO *Artemisia capillaris*, *Morus*  
 sp. Ref: 2, 660, 1379.

**4235 Criasiaticidine A**

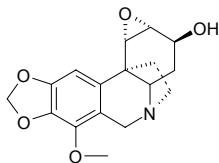
4,5-Etheno-9,10-dihydroxy-6-phenanthridone; Hippacine  $C_{15}H_9NO_3$  (251.24).  
 Pale brown needles ( $CH_3CN-H_2O$ ), mp 277~279°C; amorphous powder.  
Pharm: Cytotoxic (Meth-A cell,  $ED_{50} = 3.2\mu g/mL$ , control Adriamycin,  $ED_{50}$   
 $< 0.09\mu g/mL$ ; LLC cell,  $ED_{50} = 4.2\mu g/mL$ , Adriamycin,  $ED_{50} =$   
 $0.1\mu g/mL$ )<sup>[4125]</sup>. Source: LIN JING ZHONG ZI WEN SHU LAN *Crinum*  
*bulbispermum* (bulb), RI BEN WEN SHU LAN *Crinum asiaticum* var.  
*japonicum* (bulb). Ref: 3997, 4125.



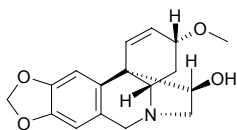


**4236 Crinamidine**

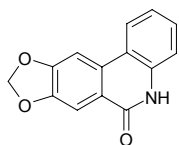
$C_{17}H_{19}NO_5$  (317.34). **Pharm:** AChE inhibitor ( $IC_{50} = (300 \pm 27) \mu\text{mol/L}$ , control Galanthamine,  $IC_{50} = (1.9 \pm 0.2) \mu\text{mol/L}$ ). **Source:** *Crinum moorei*. **Ref:** 4952.

**4237 Crinamine**

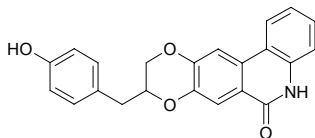
[639-41-8]  $C_{17}H_{19}NO_4$  (301.35). **Pharm:** AChE inhibitor ( $IC_{50} = (697 \pm 12) \mu\text{mol/L}$ , control Galanthamine,  $IC_{50} = (1.9 \pm 0.2) \mu\text{mol/L}$ )<sup>[4952]</sup>; inhibits respiration; antihypertensive (dog, short time); antiplasmodial (strain D10,  $IC_{50} = 2.8 \mu\text{g/mL}$ , control Hamayne,  $IC_{50} = 15.6 \mu\text{g/mL}$ , Chloroquine,  $IC_{50} = 0.002 \mu\text{g/mL}$ ; strain FAC8,  $IC_{50} = 3.4 \mu\text{g/mL}$ , Hamayne,  $IC_{50} = 18.2 \mu\text{g/mL}$ , Chloroquine,  $IC_{50} = 0.01 \mu\text{g/mL}$ ; cytotoxic, BL6,  $IC_{50} = 1.8 \mu\text{g/mL}$ , Hamayne,  $IC_{50} = 9.4 \mu\text{g/mL}$ , Chloroquine,  $IC_{50} = 20.9 \mu\text{g/mL}$ , Daunomycin,  $IC_{50} = 0.43 \mu\text{g/mL}$ )<sup>[3931]</sup>;  $LD_{50}$  (dog, orl) = 10 mg/kg. **Source:** LIN JING ZHONG ZI WEN SHU LAN *Crinum bulbispermum*, YA ZHOU WEN SHU LAN *Crinum asiaticum*, *Ammocharis coranica* (bulb). **Ref:** 658, 3931, 3952, 4952.

**4238 Crinasiadine**

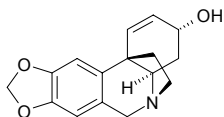
[40141-86-4]  $C_{14}H_9NO_3$  (239.13). **Pharm:** Antineoplastic. **Source:** YA ZHOU WEN SHU LAN *Crinum asiaticum*. **Ref:** 658.

**4239 Crinasiatine**

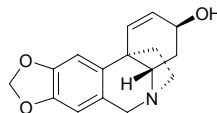
$C_{22}H_{17}NO_4$  (359.39). **Pharm:** Antineoplastic. **Source:** YA ZHOU WEN SHU LAN *Crinum asiaticum*. **Ref:** 658.

**4240 Crinine**

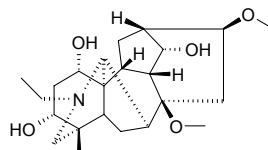
$C_{16}H_{17}NO_3$  (271.32). **Source:** GUAN MU WEN SHU LAN *Crinum macowanii* (bulb). **Ref:** 4000.

**4241 (+)-Crinine**

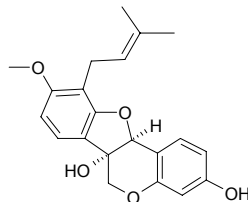
(+)-Vittatine  $C_{16}H_{17}NO_3$  (271.32). mp 207~208°C (sub). **Pharm:** AChE inhibitor ( $IC_{50} = (461 \pm 14) \mu\text{mol/L}$ , control Galanthamine,  $IC_{50} = (1.9 \pm 0.2) \mu\text{mol/L}$ )<sup>[4952]</sup>; antibacterial (*Staphylococcus aureus*, IZD = 19 mm, MIC = 63  $\mu\text{g/mL}$ ; *Escherichia coli*, IZD = 22 mm)<sup>[3829]</sup>; antifungal (*Candida albicans*, IZD = 17 mm, MIC = 31  $\mu\text{g/mL}$ )<sup>[3829]</sup>. **Source:** GU TING HUA *Amaryllis belladonna* (bulb), SHI SUAN *Lycoris radiata* [Syn. *Amaryllis radiata*], *Crinum moorei*. **Ref:** 6, 3829, 4952.

**4242 Crispulidine**

$C_{23}H_{37}NO_5$  (407.56).  $[\alpha]_D^{20} = 0^\circ$  ( $c = 0.9$ ,  $\text{CHCl}_3$ ). **Source:** TU ER QI CUI QUE HUA *Delphinium crispulum*. **Ref:** 1913.

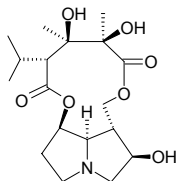
**4243 Cristacarpin**

3,6a-Dihydroxy-9-methoxy-10- $\gamma,\gamma$ -dimethylallylpterocarpan [74515-47-2]  $C_{21}H_{22}O_5$  (354.41). **Pharm:** Antibacterial (*Staphylococcus aureus*, *Bacillus subtilis*, *Micrococcus lysodeikticus*, all *in vitro*); antibacterial (*Escherichia coli*, MIA = 0.10  $\mu\text{g}$ , control Chloramphenicol, MIA = 0.001  $\mu\text{g}$ ; *Staphylococcus aureus*, MIA = 0.01  $\mu\text{g}$ , Chloramphenicol, MIA = 0.0001  $\mu\text{g}$ ; *Bacillus subtilis*, MIA = 0.01  $\mu\text{g}$ , Chloramphenicol, MIA = 0.0001  $\mu\text{g}$ )<sup>[5247]</sup>; antifungal (*Candida mycoderma*, MIA = 0.05  $\mu\text{g}$ , control Miconazole, MIA = 0.0001  $\mu\text{g}$ )<sup>[5247]</sup>; antioxidant (DPPH free radical scavenger, TLC, MIA = 1.0  $\mu\text{g}$ ,  $IC_{50} > 1000 \mu\text{g/mL}$ ; control Quercetin, MIA < 0.05  $\mu\text{g}$ ,  $IC_{50} = 7 \mu\text{g/mL}$ , Gallic acid, MIA < 0.05  $\mu\text{g}$ ,  $IC_{50} = 4 \mu\text{g/mL}$ ; Ascorbic acid, MIA < 0.10  $\mu\text{g}$ ,  $IC_{50} = 18 \mu\text{g/mL}$ )<sup>[5247]</sup>. **Source:** A BI XI NI YA CI TONG *Erythrina abyssinica*, JI KUAN CI TONG *Erythrina latissima* (stem wood), SHAN DI CI TONG *Erythrina poeppigiana* (root). **Ref:** 658, 3400, 5247.

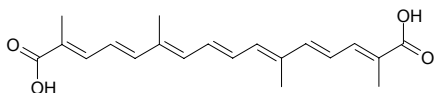


**4244 Croalbidine**

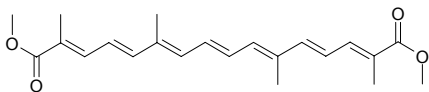
[41714-30-1] C<sub>18</sub>H<sub>29</sub>NO<sub>7</sub> (371.43). mp 208–209°C. Source: HUANG HUA DI DING *Crotalaria albida*. Ref: 6.

**4245 α-Crocetin**

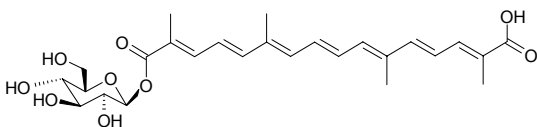
[27876-94-4] C<sub>20</sub>H<sub>24</sub>O<sub>4</sub> (328.41). mp (*trans*) 285°C. Pharm: Choleric (rft with ligated common bile duct, inhibits present of bilirubin in blood); reduces scleratheroma incidence (rft fed with cholesterol); LD<sub>50</sub> (mus, sc, sodium salt) = 5g/kg. Source: ZANG HONG HUA *Crocus sativus*, ZANG HONG HUA *Crocus sativus* (stigma: yield = 0.0048%dw)<sup>[4653]</sup>, ZHI ZI *Gardenia jasminoides* [Syn. *Gardenia florida*]. Ref: 2, 4, 658, 4653, 5501.

**4246 Crocetin dimethyl ester**

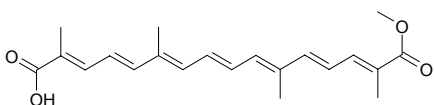
C<sub>22</sub>H<sub>28</sub>O<sub>4</sub> (356.47). mp (*cis*) 141°C, (*trans*) 222.5°C. Source: JIU BI YING *Ilex rotunda*, ZANG HONG HUA *Crocus sativus*. Ref: 6.

**4247 Crocetin mono(β-D-glucosyl) ester**

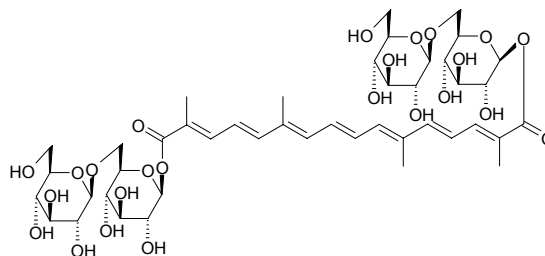
C<sub>26</sub>H<sub>34</sub>O<sub>9</sub> (490.56). Source: ZANG HONG HUA *Crocus sativus* (stigma: yield = 0.0017%dw). Ref: 4653.

**4248 Crocetin monomethyl ester**

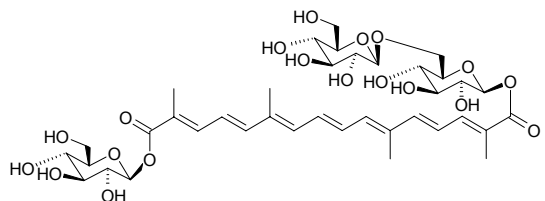
C<sub>21</sub>H<sub>26</sub>O<sub>4</sub> (342.44). Source: ZANG HONG HUA *Crocus sativus* (stigma: yield = 0.0014%dw). Ref: 4653.

**4249 Crocin**

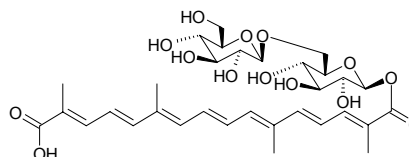
Crocine-1 [42553-65-1] C<sub>44</sub>H<sub>64</sub>O<sub>24</sub> (976.99). Pharm: Choleric (rft with ligated common bile duct, inhibits presence of bilirubin in blood and increases choleresis); tyrosinase inhibitor (mushroom tyrosinase, spectrophotometry method of Mason and Peterson, IC<sub>50</sub> = 140μmol/L, control Kojic acid, IC<sub>50</sub> = 235μmol/L)<sup>[4653]</sup>. Source: JU SE MAO RUI HUA *Verbascum phlomoides*, MEI LI FAN HONG HUA *Crocus speciosus* (in 1960, the compound was isolated from the plant by R.Entsche, et al.)<sup>[5505]</sup>, SHUI ZHI *Gardenia jasminoides* var. *grandiflora*, ZHI ZI *Gardenia jasminoides* [Syn. *Gardenia florida*] (dried ripe fruit: content scope = 0.105%–1.101%<sup>[5501]</sup>, mean content = 0.202%<sup>[5508]</sup>), YE HUA *Nyctanthes arbor-tristis*. Ref: 2, 658, 4653, 5501, 5505, 5508.

**4250 Crocin 2**

C<sub>38</sub>H<sub>54</sub>O<sub>19</sub> (814.84). Source: ZANG HONG HUA *Crocus sativus* (stigma, yield = 1.45%dw). Ref: 4653.

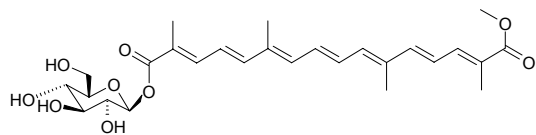
**4251 Crocin 3**

C<sub>32</sub>H<sub>44</sub>O<sub>14</sub> (652.70). Pharm: Tyrosinase inhibitor (mushroom tyrosinase, spectrophotometry method of Mason and Peterson, IC<sub>50</sub> = 0.96mmol/L, control Arbutin, IC<sub>50</sub> = 24mmol/L, Hydroquinone, IC<sub>50</sub> = 4.5mmol/L, Kojic acid, IC<sub>50</sub> = 235μmol/L)<sup>[4653]</sup>. Source: ZANG HONG HUA *Crocus sativus* (stigma: yield = 0.174%dw). Ref: 4653.

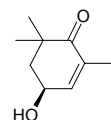


**4252 Crocin 4**

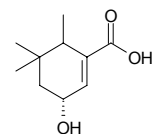
$C_{27}H_{36}O_9$  (504.58). Source: ZANG HONG HUA *Crocus sativus* (stigma: yield = 0.282%dw). Ref: 4653.

**4253 Crocusatin A**

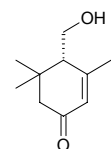
$C_9H_{14}O_2$  (154.21). Colorless oil,  $[\alpha]_D = -45^\circ$  ( $c = 0.06$ , MeOH). Source: ZANG HONG HUA *Crocus sativus* (pollen). Ref: 4233.

**4254 Crocusatin B**

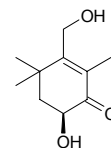
$C_{10}H_{16}O_3$  (184.24). Colorless powder,  $[\alpha]_D = +71^\circ$  ( $c = 0.07$ , MeOH). Pharm: Tyrosinase inhibitor (333.3  $\mu\text{mol/L}$ , InRt = 11.5%; control Kojic acid, 333.3  $\mu\text{mol/L}$ , InRt = 59.8%). Source: ZANG HONG HUA *Crocus sativus* (pollen). Ref: 4233.

**4255 Crocusatin C**

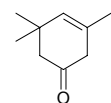
$C_{10}H_{16}O_2$  (168.24). Colorless oil,  $[\alpha]_D = -63^\circ$  ( $c = 0.06$ , MeOH). Source: ZANG HONG HUA *Crocus sativus* (pollen). Ref: 4233.

**4256 Crocusatin D**

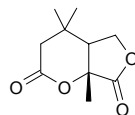
$C_{10}H_{16}O_3$  (184.24). Colorless oil,  $[\alpha]_D = -42^\circ$  ( $c = 0.07$ , MeOH). Source: ZANG HONG HUA *Crocus sativus* (pollen). Ref: 4233.

**4257 Crocusatin E**

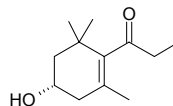
$C_9H_{14}O$  (138.21). Colorless oil. Source: ZANG HONG HUA *Crocus sativus* (pollen). Ref: 4233.

**4258 Crocusatin F**

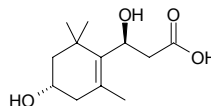
$C_{10}H_{14}O_4$  (198.22). Colorless oil,  $[\alpha]_D^{25} = -58^\circ$  ( $c = 0.012$ , MeOH). Source: ZANG HONG HUA *Crocus sativus* (stigma: yield = 0.00022%dw). Ref: 4653.

**4259 Crocusatin G**

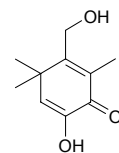
$C_{12}H_{20}O_2$  (196.29). Colorless oil,  $[\alpha]_D^{25} = +54^\circ$  ( $c = 0.05$ ,  $C_3H_5N$ );  $[\alpha]_D^{25} = +72^\circ$  ( $c = 0.03$ , MeOH). Source: ZANG HONG HUA *Crocus sativus* (stigma: yield = 0.00031%dw). Ref: 4653.

**4260 Crocusatin H**

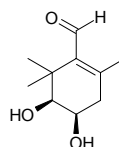
$C_{12}H_{20}O_4$  (228.29). Colorless needles,  $[\alpha]_D^{25} = +43^\circ$  ( $c = 0.02$ , MeOH). Pharm: Tyrosinase inhibitor (mushroom tyrosinase, spectrophotometry method of Mason and Peterson,  $IC_{50} = 0.87\text{mmol/L}$ , control Arbutin,  $IC_{50} = 24\text{mmol/L}$ , Hydroquinone,  $IC_{50} = 4.5\text{mmol/L}$ , Kojic acid,  $IC_{50} = 235\mu\text{mol/L}$ ). Source: ZANG HONG HUA *Crocus sativus* (stigma: yield = 0.00035%dw). Ref: 4653.

**4261 Crocusatin I**

$C_{10}H_{14}O_3$  (182.22). Colorless oil. Source: ZANG HONG HUA *Crocus sativus* (stigma: yield = 0.00006%dw). Ref: 4653.

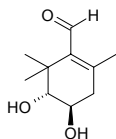
**4262 Crocusatin J**

$C_{10}H_{16}O_3$  (184.24). Colorless oil,  $[\alpha]_D^{25} = +68^\circ$  ( $c = 0.02$ , MeOH). Pharm: Tyrosinase inhibitor (*in vitro*, very weak). Source: ZANG HONG HUA *Crocus sativus* (petal: yield = 0.00053%). Ref: 3015.

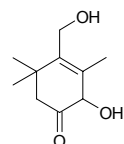


**4263 Crocusatin K**

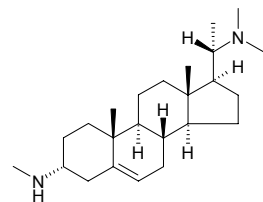
$C_{10}H_{16}O_3$  (184.24). Colorless oil,  $[\alpha]_D^{25} = +18^\circ$  ( $c = 0.02$ , MeOH). **Pharm:** Tyrosinase inhibitor (*in vitro*,  $IC_{50} = 260\mu\text{mol/L}$ ). **Source:** ZANG HONG HUA *Crocus sativus* (petal: yield = 0.00078%). **Ref:** 3015.

**4264 Crocusatin L**

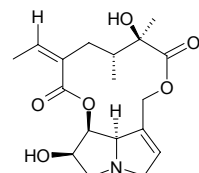
$C_{10}H_{16}O_3$  (184.24). Colorless oil,  $[\alpha]_D^{25} = +54^\circ$  ( $c = 0.02$ , MeOH). **Pharm:** Tyrosinase inhibitor (*in vitro*,  $IC_{50} = 1.0\text{mmol/L}$ ). **Source:** ZANG HONG HUA *Crocus sativus* (petal: yield = 0.00053%). **Ref:** 3015.

**4265 Croomionidine**

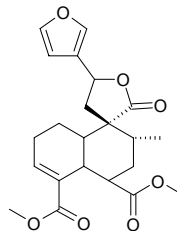
$C_{24}H_{42}N_2$  (358.62). crystals, mp 150~152°C,  $[\alpha]_D^{25} = -120^\circ$  ( $c = 0.15$ , MeOH). **Source:** JIN GANG DA *Croomia japonica*. **Ref:** 261.

**4266 Crotalaburnine**

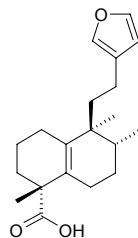
Anacrotine [5096-49-1]  $C_{18}H_{25}NO_6$  (351.40). Hydrate: brown acicular crystals (methanol), mp 180°C (blistering). **Pharm:** Anti-inflammatory (rat, tampon granuloma caused by carrageenan or hyaluronidase, 20mg/(kg·d) sc, 6d). **Source:** JIN LIAN HUA ZHU SHI DOU *Crotalaria laburnifolia*, GUANG YE ZHU SHI DOU *Crotalaria incana*, MEI ZHOU YE BAI HE *Crotalaria anagyroides*. **Ref:** 661.

**4267 Crotoacorylifuran**

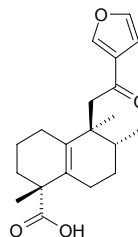
[61661-32-3]  $C_{22}H_{26}O_7$  (402.45). **Source:** ZAN BI XI BA DOU *Croton zambesicus*. **Ref:** 4552.

**4268 Crotohalimaneic acid**

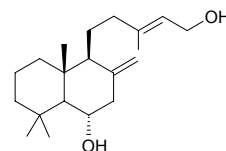
$C_{20}H_{28}O_3$  (316.44). Viscous transparent oil,  $[\alpha]_D^{25} = +36^\circ$  ( $c = 0.94$ ,  $CHCl_3$ ). **Pharm:** Cytotoxic (*in vitro*, hmn tumor cell cultures: BT474, 7.5 $\mu\text{g/mL}$ ; CHAGO, 0.1 $\mu\text{g/mL}$ ; HepG2, 0.2 $\mu\text{g/mL}$ ; Kato3, 0.4 $\mu\text{g/mL}$ ; SW620, 0.2 $\mu\text{g/mL}$ ). **Source:** GUANG YE BA DOU *Croton oblongifolius* [Syn. *Croton laevigatus*] (stem cortex). **Ref:** 4930.

**4269 Crotohalimoneic acid**

$C_{20}H_{26}O_4$  (330.43). White crystal solid, mp 168~170°C,  $[\alpha]_D^{25} = +86.5^\circ$  ( $c = 1.0$ ,  $CHCl_3$ ). **Pharm:** Cytotoxic (*in vitro*, hmn tumor cell cultures: BT474, 0.1 $\mu\text{g/mL}$ ; CHAGO, 0.1 $\mu\text{g/mL}$ ; HepG2, 5.2 $\mu\text{g/mL}$ ; Kato3, 8.2 $\mu\text{g/mL}$ ; SW620, 0.1 $\mu\text{g/mL}$ ). **Source:** GUANG YE BA DOU *Croton oblongifolius* [Syn. *Croton laevigatus*] (stem cortex). **Ref:** 4930.

**4270 Crotonadiol**

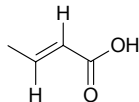
8(17),13-Labdadiene-6 $\alpha$ ,15-diol  $C_{20}H_{34}O_2$  (306.49). Colorless oil,  $[\alpha]_D^{25} = -28^\circ$  ( $c = 0.12$ ,  $CHCl_3$ ). **Source:** ZAN BI XI BA DOU *Croton zambesicus*. **Ref:** 2282.



**4271 Crotonic acid**

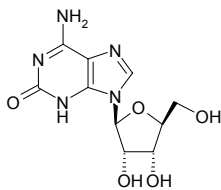
Butenoic acid [3724-65-0] C<sub>4</sub>H<sub>6</sub>O<sub>2</sub> (86.09). Source: BA DOU *Croton tiglium*.

Ref: 2.

**4272 Crotonoside**

2-Hydroxy-6-aminopurine-9-β-D-ribofuranoside [1818-71-9] C<sub>10</sub>H<sub>13</sub>N<sub>5</sub>O<sub>5</sub>

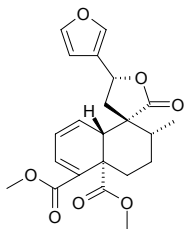
(283.25). Source: BA DOU *Croton tiglium*. Ref: 2.

**4273 Crotozambefuran A**

15,16-Epoxy-1,3,13(16),14-clerodetraen-20,12-olide-18,19-dioic acid dimethylester C<sub>22</sub>H<sub>24</sub>O<sub>7</sub> (400.43). White solid, mp 143~146°C, [α]<sub>D</sub><sup>25</sup> = -6.7°

(c = 0.6, MeOH). Source: ZAN BI XI BA DOU *Croton zambesicus*. Ref:

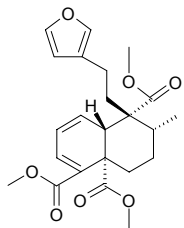
1953.

**4274 Crotozambefuran B**

15,16-Epoxy-1,3,13(16),14-clerodetraen-18,19,20-trioic acid trimethylester C<sub>23</sub>H<sub>28</sub>O<sub>7</sub> (416.48). White needles (hexane-EtOAc), mp 108~109°C, [α]<sub>D</sub><sup>25</sup> =

-46.7° (c = 0.09, MeOH). Source: ZAN BI XI BA DOU *Croton zambesicus*.

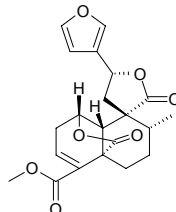
Ref: 1953.

**4275 Crotozambefuran C**

15,16-Epoxy-3,13(16),14-clerodatrien-19,1α:20,12-diolide-18-oic acid methylester C<sub>21</sub>H<sub>22</sub>O<sub>7</sub> (386.41). White powder (hexane-EtOAc), mp 242°C,

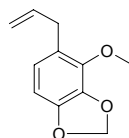
[α]<sub>D</sub><sup>25</sup> = -25.0° (c = 0.11, MeOH). Source: ZAN BI XI BA DOU *Croton*

*zambesicus*. Ref: 1953.

**4276 Croweacin**

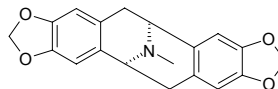
[484-34-4] C<sub>11</sub>H<sub>12</sub>O<sub>3</sub> (192.22). Source: XI XIN *Asarum sieboldii*, LIAO XI

XIN *Asarum heterotropoides* var. *mandshuricum*. Ref: 2, 660.

**4277 Crychine**

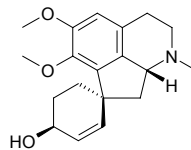
C<sub>19</sub>H<sub>17</sub>NO<sub>4</sub> (323.35). Source: HOU KE GUI *Cryptocarya chinensis* (wood).

Ref: 3092.

**4278 Cryprochine**

[147127-62-6] C<sub>19</sub>H<sub>25</sub>NO<sub>3</sub> (315.42). Source: HOU KE GUI *Cryptocarya*

*chinensis* (wood). Ref: 3092.

**4279 (S)-Cryptodorine**

C<sub>18</sub>H<sub>15</sub>NO<sub>4</sub> (309.32). [α]<sub>D</sub><sup>22</sup> = +19.67° (c = 0.001, CHCl<sub>3</sub>). Pharm: Antileish-

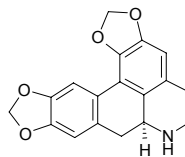
manial (*Leishmania panamensis*, IC<sub>50</sub> = (6±0.08)μmol/L, control

Amphotericin B, IC<sub>50</sub> = (0.1±0.004)μmol/L; *Leishmania mexicana*, IC<sub>50</sub> =

(3±0.65)μmol/L, Amphotericin B, IC<sub>50</sub> = (0.1±0.004)μmol/L; macrophage,

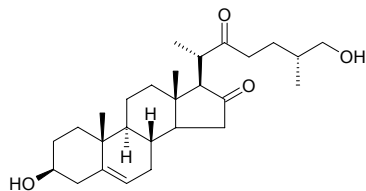
IC<sub>50</sub> = (64±0.03)μmol/L, SI = 21.3; HFF, IC<sub>50</sub> = (58±0.07)μmol/L, SI =

19.3). Source: JING JI GUA TAI MU *Gutteria dumetorum*. Ref: 5424.

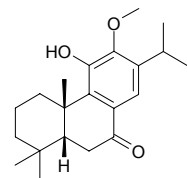


**4280 Cryptogenin**

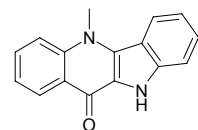
[16755-52-5] C<sub>27</sub>H<sub>42</sub>O<sub>4</sub> (430.63). mp 187~189°C. Source: YU ER QI *Trillium camtschaticum*. Ref: 6.

**4281 Cryptojaponol**

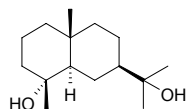
[16755-52-5] C<sub>21</sub>H<sub>30</sub>O<sub>3</sub> (330.47). mp 204~205°C, [α]<sub>D</sub><sup>25</sup> = +49° (c = 1.0, CHCl<sub>3</sub>). Pharm: Cytotoxic (A2780, IC<sub>50</sub> = 34.2 μg/mL, control Actinomycin D, IC<sub>50</sub> = 0.001 μg/mL; P388, IC<sub>50</sub> > 20 μg/mL; LNCaP, IC<sub>50</sub> > 20 μg/mL; KB, IC<sub>50</sub> > 20 μg/mL; Col2, IC<sub>50</sub> > 20 μg/mL; LU1, IC<sub>50</sub> > 20 μg/mL)<sup>[5400]</sup>; 12(S)-LOX inhibitor (hmn Platelets, 12(S)-HETE Production inhibitor, IC<sub>50</sub> = 85.08 μmol/L, control Baicalein, IC<sub>50</sub> = 24.6 μmol/L)<sup>[4980]</sup>. Source: DU SONG SHI *Juniperus rigida*, LIU SHAN *Cryptomeria fortunei*, OU ZHOU CI BAI *Juniperus communis* (wood), XIONG RUI ZHUANG SHU WEI CAO *Salvia staminea*. Ref: 6, 4980, 5400.

**4282 Cryptolepinone**

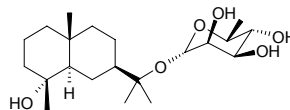
C<sub>16</sub>H<sub>12</sub>N<sub>2</sub>O (248.29). Pharm: Cytotoxic (quinone reductase induction assay in cultured Hepa1c1c7 mouse hepatoma cells, CD = 0.02 μg/mL)<sup>[5038]</sup>; cytotoxic (mouse mammary organ culture assay, 83% at 10 μg/mL)<sup>[5038]</sup>. Source: HUANG HUA REN *Sida acuta*. Ref: 5038.

**4283 Cryptomeridiol**

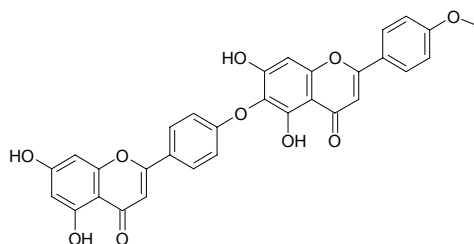
C<sub>15</sub>H<sub>28</sub>O<sub>2</sub> (240.39). Pharm: Cytotoxic inactive (HeLa, IC<sub>50</sub> > 200 μg/mL, control Mitomycin C, IC<sub>50</sub> = 1.7 μg/mL)<sup>[4092]</sup>. Source: TUAN JI AI NA XIANG *Blumea glomerata*. Ref: 4092.

**4284 Cryptomeridiol 11-α-L-rhamnoside**

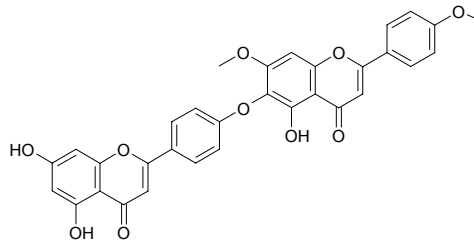
C<sub>21</sub>H<sub>38</sub>O<sub>6</sub> (386.53). Transparent rectangular crystals (EtOAc), mp 189~190°C, [α]<sub>D</sub><sup>25</sup> = -13.3° (c = 0.03, CHCl<sub>3</sub>). Pharm: Cytotoxic (*in vitro*, HepG<sub>2</sub>, IC<sub>50</sub> = 0.01 μg/mL, Hep2,2,15, IC<sub>50</sub> = 0.36 μg/mL). Source: YI LAN *Cananga odorata* (fruit). Ref: 3055.

**4285 Cryptomerin A**

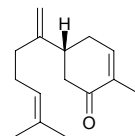
Hinokiflavone 4'''-methylether [22012-97-1] C<sub>31</sub>H<sub>20</sub>O<sub>10</sub> (552.50). mp 308~310°C. Source: LIU SHAN *Cryptomeria fortunei*. Ref: 6.

**4286 Cryptomerin B**

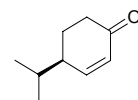
Hinokiflavone 4'''',7'''-dimethylether [22012-98-2] C<sub>32</sub>H<sub>22</sub>O<sub>10</sub> (566.53). mp 302~303°C (dec). Source: LIU SHAN *Cryptomeria fortunei*. Ref: 6.

**4287 Cryptomerion**

[5988-72-7] C<sub>15</sub>H<sub>22</sub>O (218.34). Colorless oil, [α]<sub>D</sub><sup>23</sup> = -31.4° (c = 0.1, CHCl<sub>3</sub>). Source: KUAN DONG HUA *Tussilago farfara* (flower bud), LIU SHAN *Cryptomeria fortunei*. Ref: 6, 3531.

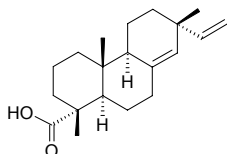
**4288 Cryptone**

[500-02-7] C<sub>9</sub>H<sub>14</sub>O (138.21). bp (-) 98~100°C/10mmHg, (±) 103°C/17mmHg. Source: HU JIAO *Piper nigrum*. Ref: 6.

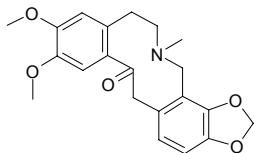


**4289 Cryptopimaric acid**

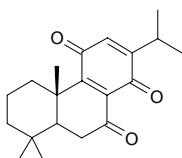
[471-74-9] C<sub>20</sub>H<sub>30</sub>O<sub>2</sub> (302.46). Colorless acicular crystals (mineral ether), mp 166~168°C,  $[\alpha]_D^{24} = -16^\circ$  ( $c = 0.43$ , ethanol). **Pharm:** Antineoplastic (P<sub>388</sub>, IC<sub>50</sub> = 12.5µg/mL); 15-lipoxygenase inhibitor (soy, IC<sub>50</sub> = 0.65mmol/L). **Source:** CI GU *Sagittaria sagittifolia*, CHOU BAI *Sabina vulgaris*, JI MAO SONG *Podocarpus imbricatus*, LIU SHAN *Cryptomeria fortunei*. **Ref:** 6, 520, 544, 658.

**4290 Cryptopine**

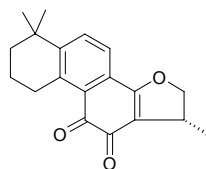
Cryptocavine [482-74-6] C<sub>21</sub>H<sub>23</sub>NO<sub>5</sub> (369.42). Hexapristmatic or lamellar crystals (benzene), mp 220~221°C, 221~223°C. **Pharm:** Similar action with narceine; LD<sub>50</sub> (mus, ip) = 0.2mg/kg. **Source:** BAI QU CAI *Chelidonium majus*, BAN RUI TANG SONG CAO *Thalictrum petaloideum* (root: content = 0.02%)<sup>[5508]</sup>, DA YE TANG SONG CAO *Thalictrum faberi* (root: content < 0.001%)<sup>[5508]</sup>, HE BAO MU DAN GEN *Dicentra spectabilis*, HE QING HUA *Hylomecon japonica*, JI YING SU *Argemone mexicana*, JIN SI MA WEI LIAN *Thalictrum glandulosissimum* (root: content < 0.005%)<sup>[5508]</sup>, JU HUA HUANG LIAN *Corydalis pallida*, MA WEI LIAN *Thalictrum foliolosum* (root: content < 0.001%)<sup>[5508]</sup>, XIA XU TANG SONG CAO *Thalictrum atriplex* (root: content = 0.03%)<sup>[5508]</sup>, XIAO GUO TANG SONG CAO *Thalictrum microgynum* (root: content = 0.04%)<sup>[5508]</sup>, XIAO HUA QIU GUO ZI JIN *Fumaria parviflora*, YA PIAN *Papaver somniferum*, YAN GUO CAO *Thalictrum thunbergii* (root: content < 0.001%)<sup>[5508]</sup>, YAO YONG QIU GUO ZI JIN *Fumaria officinalis*, YING SHUI HUANG LIAN *Thalictrum simplex* [Syn. *Thalictrum simplex* var. *brevipes*] (root: content < 0.001%)<sup>[5508]</sup>, YING SU *Papaver somniferum*, YING SU KE *Papaver somniferum*. **Ref:** 6, 661, 5508.

**4291 Cryptoquinone**

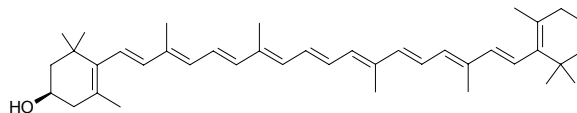
C<sub>20</sub>H<sub>26</sub>O<sub>3</sub> (314.43). Red needles, mp 105~106°C,  $[\alpha]_D^{25} = -680^\circ$  ( $c = 0.1$ , CHCl<sub>3</sub>). **Pharm:** Antifungal (*Pyricularia oryzae* and *Alternaria alternata*); cytotoxic (lymphoid neoplasm P<sub>388</sub> cells, IC<sub>50</sub> = 0.26µg/mL). **Source:** RI BEN LIU SHAN *Cryptomeria japonica*. **Ref:** 2015.

**4292 Cryptotanshinone**

15,17-Dihydropantanshinone IIa [35825-57-1] C<sub>19</sub>H<sub>20</sub>O<sub>3</sub> (296.37). mp 191°C. **Pharm:** Antibacterial (*Staphylococcus aureus* and its drug-resistant strains, hm *Mycobacterium tuberculosis* H37Rv, *in vitro*); acetylcholinesterase (AChE) inhibitor (IC<sub>50</sub> = 7.0µmol/L, Argentatin A, IC<sub>50</sub> = 42.8µmol/L)<sup>[4944]</sup>; MAO A inhibitor (hm recombinant MAO A, IC<sub>50</sub> = 80µmol/L)<sup>[5032]</sup>; iNOS inhibitor (RAW267.4 cells, LPS-induced, IC<sub>50</sub> = 8.4µmol/L)<sup>[5032]</sup>; immunosuppressant (lymphocyte transformation assay control group concanavalin A, 5µg/mL, InRt = 17%, 20µg/mL, InRt = 36%, 80µg/mL, InRt = 42%, control Dexamethasone, 50µg/mL, InRt = 63%)<sup>[4260]</sup>. **Source:** DAN SHEN *Salvia miltiorrhiza* (dried root: content scope = 0.040%~1.141%, mean content = 0.399%)<sup>[5508]</sup>, GAN XI SHU WEI CAO *Salvia przewalskii* (dried root: mean content = 0.33%)<sup>[5508]</sup>, HONG GEN CAO *Salvia prionitis* (dried root: content = 0.034%)<sup>[5508]</sup>, HUANG HUA SHU WEI CAO *Salvia flava* (dried root: content = 0.004%)<sup>[5508]</sup>, JI YE SHU WEI CAO *Salvia bulleyana* (dried root: content = 0.002%)<sup>[5508]</sup>, LI SE SHU WEI CAO *Salvia castanea* (dried root: content = 0.126%)<sup>[5508]</sup>, MAO DI HUANG SHU WEI CAO *Salvia digitaloides* (dried root: content = trace)<sup>[5508]</sup>, NAN DAN SHEN *Salvia bowleyana* (dried root: content = 0.015%)<sup>[5508]</sup>, NI DAN SHEN *Salvia sinica* (dried root: content = 0.006%)<sup>[5508]</sup>, SAN YE SHU WEI CAO *Salvia trijuga* (dried root: content = 0.145%)<sup>[5508]</sup>, YUN NAN SHU WEI CAO *Salvia yunnanensis* (dried root: content scope = 0.026%~0.36%, mean content = 0.193%)<sup>[5508]</sup>, ZHAN LONG JIAN *Veronicastrum sibiricum* (aerial parts), ZI DAN SHEN *Salvia przewalskii* var. *mandarinorum* (dried root: content = 0.498%)<sup>[5508]</sup>. **Ref:** 2, 658, 4260, 4944, 5032, 5508.

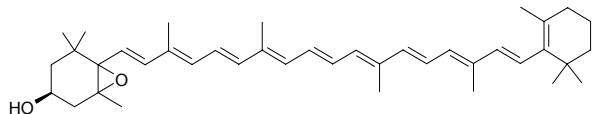
**4293 β-Cryptoxanthin**

[472-70-8] C<sub>40</sub>H<sub>56</sub>O (552.89). mp 169°C. **Pharm:** Yellow pigment. **Source:** FAN MU GUA *Carica papaya*, GOU QI ZI *Lycium chinense*, HONG HAI JIAO *Capsicum annuum*, HUANG BAI HE *Lilium hansonii*, MA TI YE *Caltha palustris*, NING XIA GOU QI ZI *Lycium barbarum*, SUAN JIANG *Physalis alkekengi*, YU SHU SHU *Zea mays*. **Ref:** 2, 658, 660.

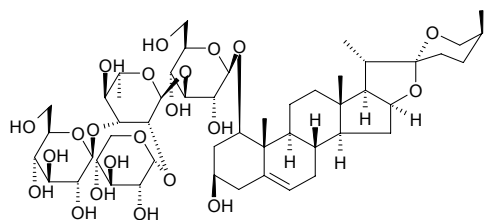


**4294 Cryptoxanthin epoxide**

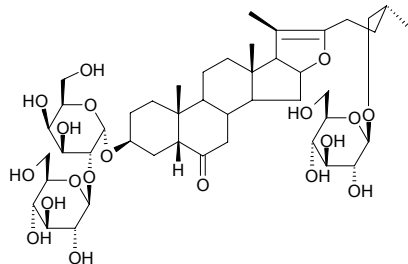
$C_{40}H_{56}O_2$  (568.89). mp 154°C. Source: FAN MU GUA *Carica papaya*. Ref: 6.

**4295 C<sup>THD</sup>0233276-10**

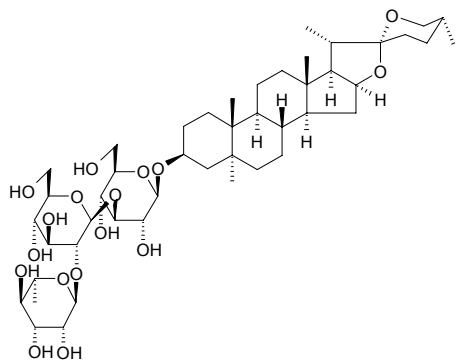
$C_{50}H_{80}O_{22}$  (1033.18). Pharm: Antineoplastic. Source: *Brodiaea californica*. Ref: 2165.

**4296 C<sup>THD</sup>0233276-15**

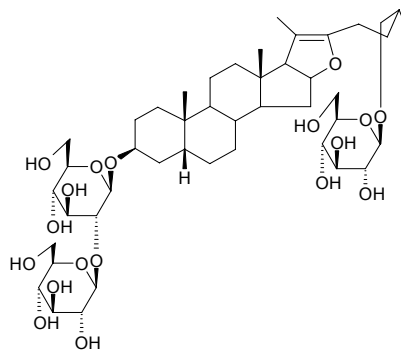
$C_{45}H_{72}O_{19}$  (917.06). Pharm: Platelet aggregation inhibitor (induced by ADP,  $IC_{50} = 0.020\mu\text{mol/L}$ ). Source: XIE BAI *Allium macrostemon*, JIU CONG *Allium porrum*, DA SUAN *Allium sativum*. Ref: 2165.

**4297 C<sup>THD</sup>0233276-2**

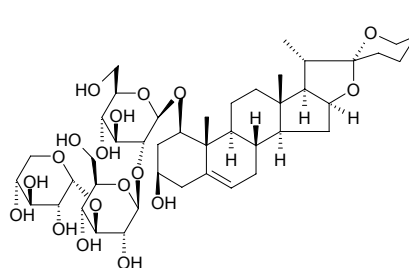
$C_{46}H_{76}O_{17}$  (901.11). Pharm: Phosphatase inhibitor (HeLa cell stimulated by TPA and joined by  $^{32}\text{P}$ ). Source: MAI KE LIN JIU *Allium macleanii*, SHAN JIU *Allium senescens*. Ref: 2165.

**4298 C<sup>THD</sup>0233276-21**

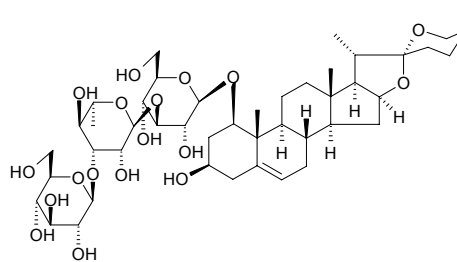
$C_{43}H_{74}O_{18}$  (903.08). Pharm: Free radical scavenger ( $\cdot\text{OH}$  free radical). Source: ZHI MU *Anemarrhena asphodeloides*. Ref: 2165.

**4299 C<sup>THD</sup>0233276-4**

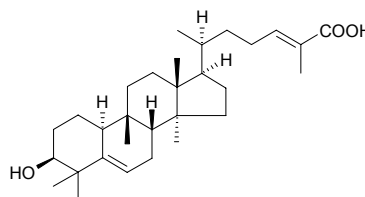
$C_{44}H_{70}O_{18}$  (887.04). Pharm: Antineoplastic ( $S_{180}$  Sarcoma, EAC). Source: DUAN TING SHAN MAI DONG *Liriope muscari*. Ref: 2165.

**4300 C<sup>THD</sup>0233276-9**

$C_{45}H_{72}O_{18}$  (901.06). Pharm: Antineoplastic. Source: *Brodiaea californica*. Ref: 2165.

**4301 C<sup>THD</sup>0384-2**

$C_{30}H_{48}O_3$  (456.72). Pharm: Antifungal (YNG-CA,  $IC_{50} = 2.9\mu\text{g/mL}$ ; YNG-CG,  $IC_{50} = 2.3\mu\text{g/mL}$ ). Source: DA HONG GU *Russula lepida*. Ref: 2075.

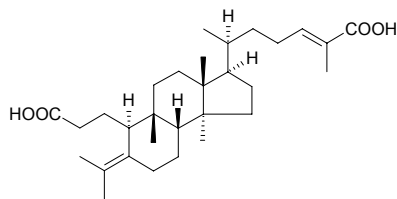




**4302 C<sup>7</sup>THD0384-3**

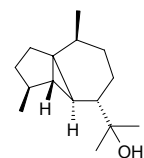
C<sub>30</sub>H<sub>48</sub>O<sub>4</sub> (472.71). **Pharm:** Farnesyl transferase inhibitor (IC<sub>50</sub> = 24μg/mL).

**Source:** DA HONG GU *Russula lepida*. **Ref:** 2075.

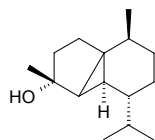
**4303 ent-Cubeban-11-ol**

C<sub>15</sub>H<sub>26</sub>O (222.37). Amorphous, [α]<sub>D</sub><sup>20</sup> = -60.1° (c = 0.29). **Source:** ZHAO WA

JIA KE TAI *Jackiella javanica*. **Ref:** 5303.

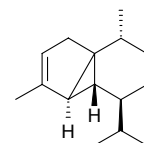
**4304 Cubeben camphor**

Cubebol C<sub>15</sub>H<sub>26</sub>O (222.37). mp 61–62°C. **Source:** BI CHENG QIE *Piper cubeba*. **Ref:** 6.

**4305 α-Cubebene**

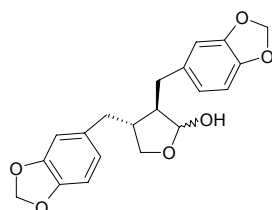
[17699-14-8] C<sub>15</sub>H<sub>24</sub> (204.36). **Pharm:** Flavorant. **Source:** BI CHENG QIE

*Piper cubeba*, CHAI HU *Bupleurum chinense*, SHENG JIANG *Zingiber officinale*. **Ref:** 2, 658.

**4306 Cubebin**

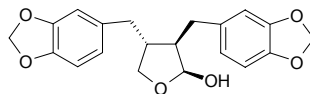
[18423-69-3] C<sub>20</sub>H<sub>20</sub>O<sub>6</sub> (356.38). mp 131–132°C. **Pharm:** Disinfectant

(bladder). **Source:** BI CHENG QIE *Piper cubeba*, SAN JIAO MA DOU LING *Aristolochia triangularis*. **Ref:** 6, 658.

**4307 (-)-Cubebin**

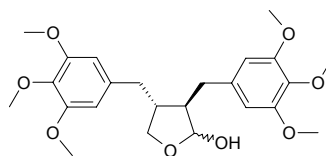
C<sub>20</sub>H<sub>20</sub>O<sub>6</sub> (356.38). **Pharm:** CYP3A4 inhibitor and CYP2D6 inhibitor (*in vitro*, CYP3A4, IC<sub>50</sub> = 9.1μmol/L; CYP2D6, IC<sub>50</sub> = 35.5μmol/L; control Ketoconazole, CYP3A4, IC<sub>50</sub> = 0.72μmol/L; control Quinidine, CYP2D6, IC<sub>50</sub> = 0.082μmol/L).

**Source:** BI CHENG QIE *Piper cubeba* (fruit: yield = 0.00074%dw). **Ref:** 4797.

**4308 (-)-Cubebinin**

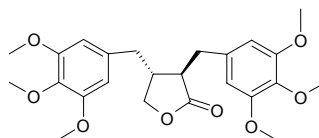
C<sub>24</sub>H<sub>32</sub>O<sub>8</sub> (448.52). **Pharm:** CYP3A4 inhibitor and CYP2D6 inhibitor (*in vitro*, CYP3A4, IC<sub>50</sub> = 15μmol/L; CYP2D6, IC<sub>50</sub> > 100μmol/L; control Ketoconazole, CYP3A4, IC<sub>50</sub> = 0.72μmol/L; control Quinidine, CYP2D6, IC<sub>50</sub> = 0.082μmol/L).

**Source:** BI CHENG QIE *Piper cubeba* (fruit: yield = 0.0002%dw). **Ref:** 4797.

**4309 (-)-Cubebininolide**

C<sub>24</sub>H<sub>30</sub>O<sub>8</sub> (446.50). **Pharm:** CYP3A4 inhibitor and CYP2D6 inhibitor (*in vitro*, CYP3A4, IC<sub>50</sub> = 14.9μmol/L; CYP2D6, IC<sub>50</sub> > 100μmol/L; control Ketoconazole, CYP3A4, IC<sub>50</sub> = 0.72μmol/L; control Quinidine, CYP2D6, IC<sub>50</sub> = 0.082μmol/L).

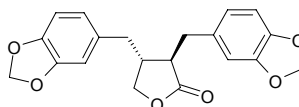
**Source:** BI CHENG QIE *Piper cubeba* (fruit: yield = 0.00074%dw). **Ref:** 4797.

**4310 Cubebinolide**

(-)-Hinokinin [26543-89-5] C<sub>20</sub>H<sub>18</sub>O<sub>6</sub> (354.36). mp (+) 64–65°C, (-) 64–65°C, (±)

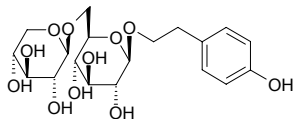
108°C. **Pharm:** Cytotoxic (A549, ED<sub>50</sub> = 9.2μmol/L, ED<sub>50</sub> = 26.1μg/mL, control Adriamycin, ED<sub>50</sub> = 0.01μmol/L, ED<sub>50</sub> = 0.02μg/mL; MCF7, ED<sub>50</sub> = 4.9μmol/L, ED<sub>50</sub> = 13.8μg/mL, Adriamycin, ED<sub>50</sub> = 0.1μmol/L, ED<sub>50</sub> = 0.1μg/mL; HT29, ED<sub>50</sub> = 4.0μmol/L, ED<sub>50</sub> = 11.4μg/mL, Adriamycin, ED<sub>50</sub> = 0.1μmol/L, ED<sub>50</sub> = 0.1μg/mL)<sup>[5088]</sup>; CYP3A4 inhibitor and CYP2D6 inhibitor (*in vitro*, CYP3A4, IC<sub>50</sub> = 8μmol/L; CYP2D6, IC<sub>50</sub> = 26.5μmol/L; control Ketoconazole, CYP3A4, IC<sub>50</sub> = 0.72μmol/L; control Quinidine, CYP2D6, IC<sub>50</sub> = 0.082μmol/L)<sup>[4797]</sup>;

synergist of pesticides. **Source:** BI CHENG QIE *Piper cubeba* (fruit: yield = 0.00083%dw), RI BEN BIAN BAI *Chamaecyparis obtusa*, TAI WAN SHAN *Taiwania cryptomerioides* (heartwood). **Ref:** 6, 658, 4797, 5088.

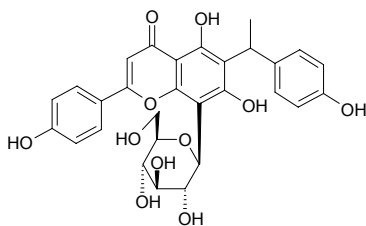


**4311 Cuculoside**

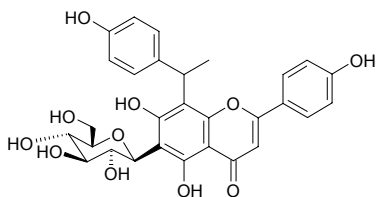
[123442-38-6]  $C_{19}H_{28}O_{11}$  (432.43). Source: MA QIAN ZI *Strychnos nux-vomica*. Ref: 2.

**4312 Cucumerin A**

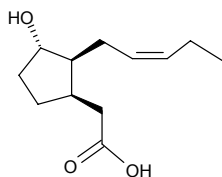
$C_{29}H_{28}O_{11}$  (552.54). Yellowish amorphous solid, mp 81–82°C,  $[\alpha]_D^{22} = -224.3^\circ$  ( $c = 0.01$ , DMSO). Pharm: Phytoalexin. Source: HUANG GUA *Cucumis sativus* (leaf: yield = 0.0007%fw). Ref: 4727.

**4313 Cucumerin B**

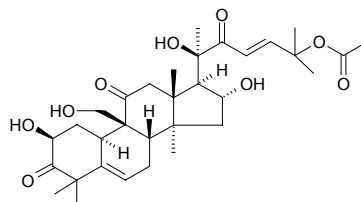
$C_{29}H_{28}O_{11}$  (552.54). Yellowish amorphous solid, mp 88–89°C,  $[\alpha]_D^{22} = -181.1^\circ$  ( $c = 0.01$ , DMSO). Pharm: Phytoalexin. Source: HUANG GUA *Cucumis sativus* (leaf: yield = 0.0008%fw). Ref: 4727.

**4314 Cucurbit acid**

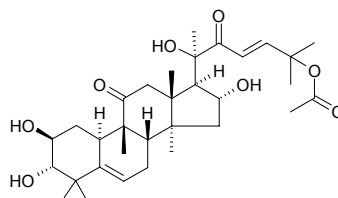
[58240-50-9]  $C_{12}H_{20}O_3$  (212.29). Pharm: Plant growth regulator (inhibits growth of rice leaves). Source: XI HU LU *Cucurbita pepo*. Ref: 658.

**4315 Cucurbitacin A**

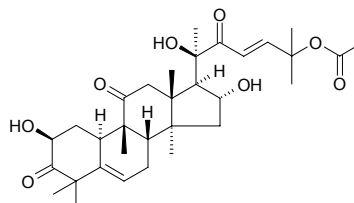
[6040-19-3]  $C_{32}H_{46}O_9$  (574.72). mp 207–208°C. Pharm: Extremely bitter; LD<sub>50</sub> (rbt, iv) = 0.7mg/kg. Source: HU KE HUANG GUA *Cucumis hookeri*, HUANG GUA *Cucumis sativus*, MI GUO HUANG GUA *Cucumis myriocarpus*, BO PI HUANG GUA *Cucumis leptodermis*. Ref: 6, 658.

**4316 Cucurbitacin F 25-acetate**

$C_{32}H_{48}O_8$  (560.73). Colorless acicular crystals, mp 208–210°C. Source: XI HUA XUE DAN *Hemsleya graciliflora* [Syn. *Alsomitra graciliflora*]. Ref: 33.

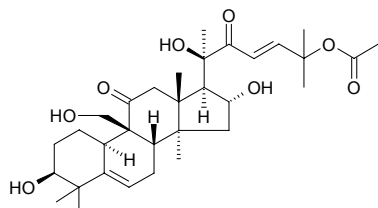
**4317 Cucurbitacin B**

Amarin; Fabacei II [6199-67-3]  $C_{32}H_{46}O_8$  (558.72). mp 178–186°C. Pharm: Antineoplastic; cytotoxic (hmn cancer line NUGC-3, IC<sub>50</sub> = 0.22μg/mL, hmn cancer line HONE-1, IC<sub>50</sub> = 0.05μg/mL hmn cancer line A549, EC<sub>50</sub> < 2.5μg/mL, hmn cancer line MCF7, EC<sub>50</sub> < 2.5μg/mL)<sup>[4267]</sup>; anti-hepatitis; anthelmintic; LD<sub>50</sub> (rbt, iv) = 0.5mg/kg, (mus, orl) = (1.0±0.07)mg/kg, (rat, sc) = 0.5mg/kg. Source: HU GUA *Lagenaria siceraria* var. *depressa*, GUA DI *Cucumis melo*, SI GUA *Luffa cylindrica*, HUANG GUA *Cucumis sativus*, YAO XI GUA *Citrullus colocynthis*, PEN GUA *Ecballium elaterium*, BAI XIE GEN *Bryonia alba*, FEI ZHOU HUANG GUA *Cucumis africanus*, SAN XING QU QU HUA *Iberis umbellata*, GUA LOU *Trichosanthes kirilowii*, YANG JIAO AO ZI *Strophanthus divaricatus*, NAN TOU QIU HAI TANG *Begonia nantoensis* (rhizome). Ref: 4, 5, 6, 532, 658, 4267.

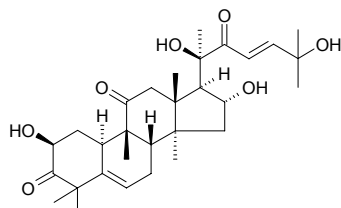


**4318 Cucurbitacin C**

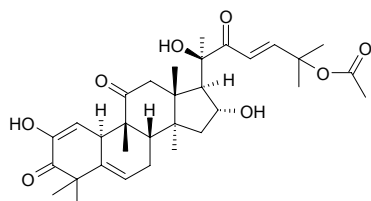
[5988-76-1] C<sub>32</sub>H<sub>48</sub>O<sub>8</sub> (560.73). mp 207.0–207.5°C. **Pharm:** Bitter principle. **Source:** HUANG GUA *Cucumis sativus*, KU HUANG GUA *Cucumis sativus* var. *hanzil*. **Ref:** 6, 658.

**4319 Cucurbitacin D**

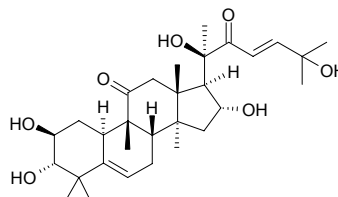
Elatericin [3877-86-9] C<sub>30</sub>H<sub>44</sub>O<sub>7</sub> (516.68). mp 149–153°C (dec). **Pharm:** Antineoplastic; antihypertensive; markedly enhances capillary permeability; laxative (animal model); LD<sub>50</sub> (mus, iv) = 0.96mg/kg, (cat, iv) = 0.9mg/kg, (dog, iv) = 1.0mg/kg. **Source:** BAI XIE GEN *Bryonia alba*, HONG BAI HE MU *Crinodendron hookerianum*, HUANG GUA *Cucumis sativus*, SAN XING QU QU HUA *Iberis umbellata*, *Gratiola* sp. **Ref:** 5, 6, 658.

**4320 Cucurbitacin E**

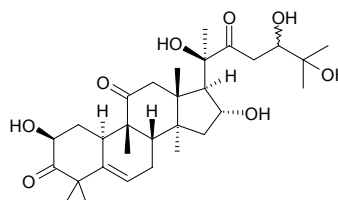
[18444-66-1] C<sub>32</sub>H<sub>44</sub>O<sub>8</sub> (556.70). mp 234°C (chloroform-methanol), [α]<sub>D</sub><sup>20</sup> = –64.3° (c = 1.64, chloroform). **Pharm:** Antineoplastic (S<sub>180</sub> *in vivo*, 5–15mg/kg, InRt = 40%–42%, EAC *in vivo*, 2.5–7.5mg/kg, InRt = 29%–73%); anti-gibberellin activity; anti-hepatitis; cytotoxic (KB *in vitro*, ED<sub>50</sub> = 0.01μg/mL, HeLa *in vitro*, ED<sub>50</sub> = 0.01–0.05μg/mL), cytotoxic (hmn cancer line NUGC-3, IC<sub>50</sub> = 0.34μg/mL; hmn cancer line HONE-1, IC<sub>50</sub> = 0.08μg/mL, hmn cancer line A549, EC<sub>50</sub> < 2.5μg/mL, hmn cancer line MCF7, EC<sub>50</sub> < 2.5μg/mL)<sup>[4267]</sup>; LD<sub>50</sub> (mus, orl) = 340mg/kg. **Source:** BAI XIE GEN *Bryonia alba*, GUA DI *Cucumis melo*, PEN GUA *Ecballium elaterium*, SAN XING QU QU HUA *Iberis umbellata*, YAO SHUI BA JIAO *Gratiola officinalis*, NAN TOU QIU HAI TANG *Begonia nantoensis* (rhizome). **Ref:** 658, 4267.

**4321 Cucurbitacin F**

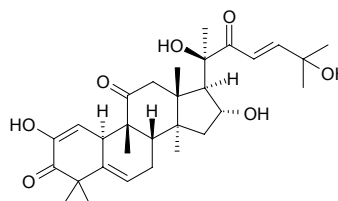
[5939-57-1] C<sub>30</sub>H<sub>46</sub>O<sub>7</sub> (518.70). **Pharm:** Antineoplastic. **Source:** AN GE LA HUANG GUA *Cucumis angolensis* HONG BAI HE MU *Crinodendron hookerianum*. **Ref:** 658.

**4322 Cucurbitacin H**

[751-69-2] C<sub>30</sub>H<sub>46</sub>O<sub>8</sub> (534.70). **Pharm:** Antineoplastic. **Source:** HONG BAI HE MU *Crinodendron hookerianum*, *Citrullus* sp. **Ref:** 658.

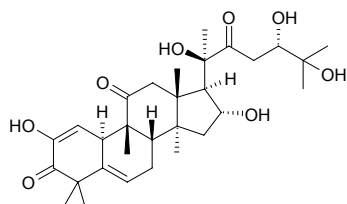
**4323 Cucurbitacin I**

[2222-07-3] C<sub>30</sub>H<sub>42</sub>O<sub>7</sub> (514.67). Acicular crystals (ethyl acetate–benzene), mp 148–149°C (dec), [α]<sub>D</sub> = –52° (c = 1.56, chloroform); white crystals (ethyl acetate–benzene), mp 146–148°C, [α]<sub>D</sub><sup>22</sup> = –56° (c = 1.0, ethanol). **Pharm:** Antineoplastic (S<sub>180</sub>, *in vivo*, 0.25–1.00mg/kg, InRt = (5–44)%, EAC, *in vivo*, 0.25–1.00mg/kg, InRt = (0–30)%, EAC, 0.25–0.50mg/kg, biotic prolonged rate = (36–61)%; anti-gibberellin activity; cytotoxic (KB, *in vitro*, ED<sub>50</sub> = 0.005–0.010μg/mL, HeLa, *in vitro*, ED<sub>50</sub> = 0.01μg/mL); cytotoxic (hmn cancer line NUGC-3, IC<sub>50</sub> = 2.14μg/mL, hmn cancer line HONE-1, IC<sub>50</sub> = 0.89μg/mL, hmn cancer line A549, EC<sub>50</sub> < 2.5μg/mL, hmn cancer line MCF7, EC<sub>50</sub> < 2.5μg/mL)<sup>[4267]</sup>. **Source:** PEN GUA *Ecballium elaterium*, BAI XIE GEN *Bryonia alba*, QU QU HUA *Iberis amara*, YAO SHUI BA JIAO *Gratiola officinalis*, NAN TOU QIU HAI TANG *Begonia nantoensis* (rhizome). **Ref:** 661, 4267.

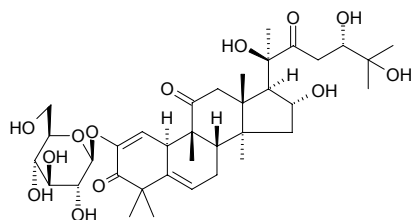


**4324 Cucurbitacin J**

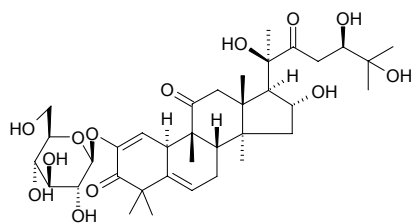
[5979-41-9] C<sub>30</sub>H<sub>44</sub>O<sub>8</sub> (532.68). Crystals (ethyl acetate), mp 200~202°C, [ $\alpha$ ]<sub>D</sub> = -36° (chloroform); white crystals (50% methanol), mp 198°C (dec), [ $\alpha$ ]<sub>D</sub><sup>22</sup> = -30.4° (c = 1.0, chloroform). **Pharm:** Antineoplastic; anti-gibberellin activity; cytotoxic (KB, *in vitro*, ED<sub>50</sub> = 0.1~1.0 µg/mL, HeLa, *in vitro*, ED<sub>50</sub> = 1 µg/mL). **Source:** WU JUAN XU XI GUA *Citrullus ecirrhosus*, NA SHI XI GUA *Citrullus naudinianus*, BAI XIE GEN *Bryonia alba*. **Ref:** 661.

**4325 Cucurbitacin J 2-O-β-glucopyranoside**

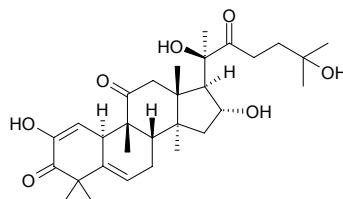
C<sub>36</sub>H<sub>54</sub>O<sub>13</sub> (694.82). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>23</sup> = -55.8° (c = 2.3, MeOH). **Source:** SAN YING JIAN GUA LOU *Trichosanthes tricuspidata*. **Ref:** 1982.

**4326 Cucurbitacin K 2-O-β-glucopyranoside**

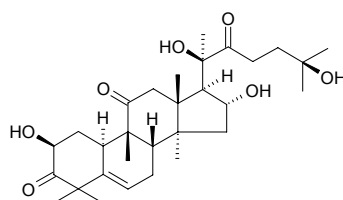
C<sub>36</sub>H<sub>54</sub>O<sub>13</sub> (694.82). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>23</sup> = -64.4° (c = 0.8, MeOH). **Source:** SAN YING JIAN GUA LOU *Trichosanthes tricuspidata*. **Ref:** 1982.

**4327 Cucurbitacin L**

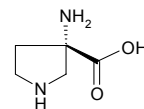
[1110-02-7] C<sub>30</sub>H<sub>44</sub>O<sub>7</sub> (516.68). Acicular crystals (dil. methanol), mp 140°C, [ $\alpha$ ]<sub>D</sub> = -49° (chloroform); white crystals (50% methanol), mp 124~127°C, [ $\alpha$ ]<sub>D</sub><sup>22</sup> = -48° (c = 1.0, ethanol). **Pharm:** Antineoplastic (animal Ehrlich ascites carcinoma *in vivo*, biotic prolonged rate = (38~42)%); cytotoxic (KB *in vitro*, ED<sub>50</sub> = 0.01~0.1 µg/mL, HeLa *in vitro*, ED<sub>50</sub> = 0.1 µg/mL). **Source:** BAI XIE GEN *Bryonia alba*, PEN GUA *Ecballium elaterium*, WU JUAN XU XI GUA *Citrullus ecirrhosus*, YAO XI GUA *Citrullus colocynthis*. **Ref:** 661.

**4328 Cucurbitacin R**

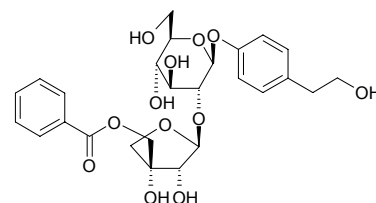
C<sub>30</sub>H<sub>46</sub>O<sub>7</sub> (518.70). **Pharm:** Anti-inflammatory (carrageenan-induced mouse paw edema, 4mg/kg, InRt = 27% at 5h)<sup>[4970]</sup>. **Source:** TA YOU XIE GUA *Cayaponia tayuya* (root). **Ref:** 4970.

**4329 Cucurbitine**

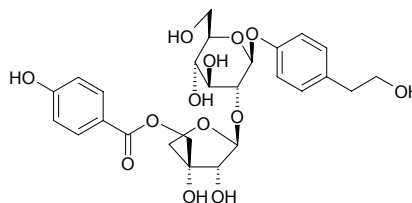
[6807-92-7] C<sub>5</sub>H<sub>10</sub>N<sub>2</sub>O<sub>2</sub> (130.15). mp 260°C (dec). **Pharm:** Anthelmintic; causes slight shrinkage of liver (mus). **Source:** NAN GUA *Cucurbita moschata*, XI HU LU *Cucurbita pepo*, NAN GUA ZI *Cucurbita moschata*, TAO NAN GUA *Cucurbita pepo* var. *akoda*. **Ref:** 6, 658.

**4330 Cucurbitoside A**

C<sub>26</sub>H<sub>32</sub>O<sub>12</sub> (536.54). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -76.1° (c = 1.1, MeOH). **Source:** NAN GUA ZI *Cucurbita moschata* (seed). **Ref:** 4436.

**4331 Cucurbitoside B**

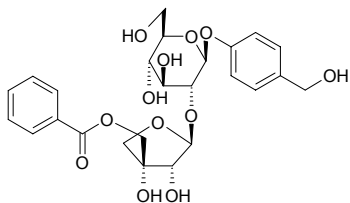
C<sub>26</sub>H<sub>32</sub>O<sub>13</sub> (552.54). Amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = -65.9° (c = 0.4, MeOH). **Source:** NAN GUA ZI *Cucurbita moschata* (seed). **Ref:** 4436.



**4332 Cucurbitoside C**

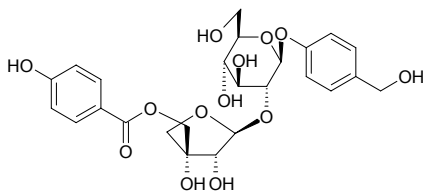
$C_{25}H_{30}O_{12}$  (522.51). Amorphous powder,  $[\alpha]_D^{25} = -81.5^\circ$  ( $c = 1.1$ , MeOH).

Source: NAN GUA ZI *Cucurbita moschata* (seed). Ref: 4436.

**4333 Cucurbitoside D**

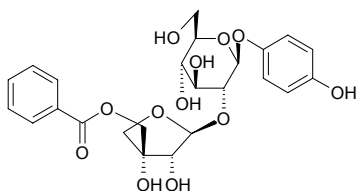
$C_{25}H_{30}O_{13}$  (538.51). Amorphous powder,  $[\alpha]_D^{25} = -76.9^\circ$  ( $c = 0.9$ , MeOH).

Source: NAN GUA ZI *Cucurbita moschata* (seed). Ref: 4436.

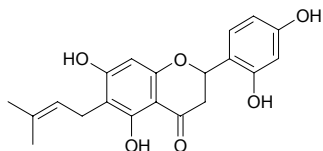
**4334 Cucurbitoside E**

$C_{24}H_{28}O_{12}$  (508.48). Amorphous powder,  $[\alpha]_D^{25} = -77.0^\circ$  ( $c = 0.3$ , MeOH).

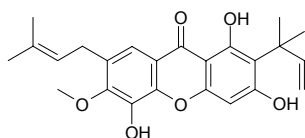
Source: NAN GUA ZI *Cucurbita moschata* (seed). Ref: 4436.

**4335 Cudraflavanone B**

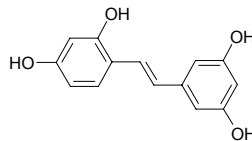
2',4',5,7-Tetrahydroxy-6-prenylflavanone  $C_{20}H_{20}O_6$  (356.38). Resin (acetone-*n*-hexane),  $[\alpha]_D^{24} = 0^\circ$  ( $c = 0.20$ , MeOH). Pharm: Antifungal (*Candida glabrata*, *Cryptococcus neoformans* and *Aspergillus fumigatus*, weak activity). Source: GOU JI *Cudrania cochinchinensis* (root: yield = 0.00013%dw). Ref: 4713.

**4336 Cudrafrutixanthone**

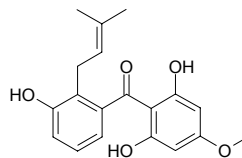
$C_{24}H_{26}O_6$  (410.47). Yellow amorphous powder. Source: ZHE TENG *Cudrania fruticosa* (root). Ref: 5074.

**4337 Cudranin**

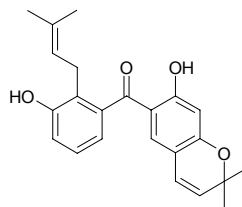
Oxyresveratrol; Tetrahydroxystilbene [4721-07-7]  $C_{14}H_{12}O_4$  (244.25). mp 202°C. Pharm: Cytotoxic (cyclooxygenase-1 inhibitor)<sup>[5038]</sup>; antifungal (skin fungi in humans); inhibits respiration of cytoblast (rat, hepatic cells, in low concentration). Source: DA DA HE MIAN BAO GUO *Artocarpus dadah*, LA KOU SHA MIAN BAO GUO *Artocarpus lakoocha*, MAO YE LI LU *Veratrum grandiflorum*, SANG ZHI *Morus alba*, SANG CHENG *Machura pomifera*, SANG YE *Morus alba*, WEI JING BAI HE *Schoenocaulon officinale* (rhizome), *Cudrania* sp. Ref: 6, 658, 4210, 5038.

**4338 Cudranone**

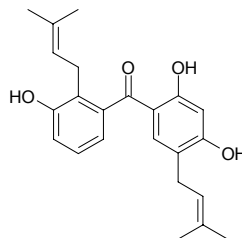
4-Methoxy-9-prenyl-2,6,10-trihydroxybenzophenone  $C_{19}H_{20}O_5$  (328.37). Pharm: Cytotoxic (HSC-2 cells,  $CC_{50} = 0.40$ mmol/L; HGF,  $CC_{50} > 0.61$ mmol/L). Source: GOU JI *Cudrania cochinchinensis* (root: yield = 0.00020%dw). Ref: 3025.

**4339 Cudraphenone A**

$C_{23}H_{24}O_4$  (364.45). Yellow oil. Pharm: Cytotoxic (HSC-2 cells,  $CC_{50} = 0.17$ mmol/L; HGF,  $CC_{50} = 0.43$ mmol/L). Source: GOU JI *Cudrania cochinchinensis* (root: yield = 0.00011%dw). Ref: 3025.

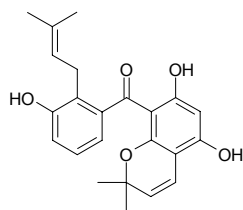
**4340 Cudraphenone B**

$C_{23}H_{26}O_4$  (366.46). Yellow oil. Pharm: Cytotoxic (HSC-2 cells,  $CC_{50} = 0.036$ mmol/L; HGF,  $CC_{50} = 0.09$ mmol/L). Source: GOU JI *Cudrania cochinchinensis* (root: yield = 0.00018%dw). Ref: 3025.

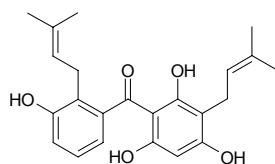


**4341 Cudraphenone C**

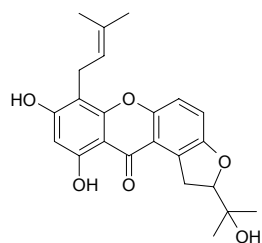
$C_{23}H_{24}O_5$  (380.44). Yellow oil. **Pharm:** Cytotoxic (HSC-2 cells,  $CC_{50}$  = 0.092mmol/L; HGF,  $CC_{50}$  = 0.19mmol/L). **Source:** GOU JI *Cudrania cochinchinensis* (root: yield = 0.00010%dw). **Ref:** 3025.

**4342 Cudraphenone D**

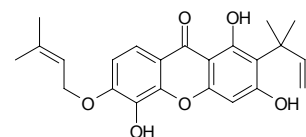
$C_{23}H_{26}O_5$  (382.46). Yellow oil. **Pharm:** Cytotoxic (HSC-2 cells,  $CC_{50}$  = 0.052mmol/L; HGF,  $CC_{50}$  = 0.19mmol/L). **Source:** GOU JI *Cudrania cochinchinensis* (root: yield = 0.00046%dw). **Ref:** 3025.

**4343 Cudraxanthone J**

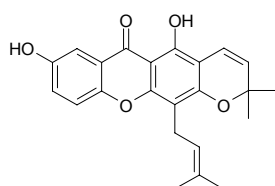
$C_{23}H_{24}O_6$  (396.44). **Source:** ZHE SHU *Cudrania tricuspidata*, *Morus* sp. **Ref:** 2513.

**4344 Cudraxanthone P**

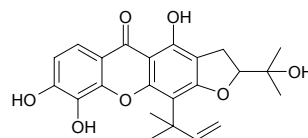
$C_{23}H_{24}O_6$  (396.44). Yellow prisms (MeOH), mp 166°C. **Source:** GOU JI *Cudrania cochinchinensis* (root: yield = 0.00003%dw). **Ref:** 3025.

**4345 Cudraxanthone Q**

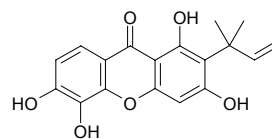
$C_{23}H_{22}O_5$  (378.43). Yellow needles (MeOH), mp 205°C. **Source:** GOU JI *Cudrania cochinchinensis* (root: yield = 0.00003%dw). **Ref:** 3025.

**4346 Cudraxanthone R**

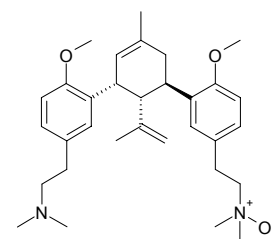
$C_{23}H_{24}O_7$  (412.44). Yellow prisms (MeOH), mp 237°C,  $[\alpha]_D^{22}$  = +6.1° ( $c$  = 0.10, acetone). **Source:** GOU JI *Cudrania cochinchinensis* (root: yield = 0.00003%dw). **Ref:** 3025.

**4347 Cudraxanthone S**

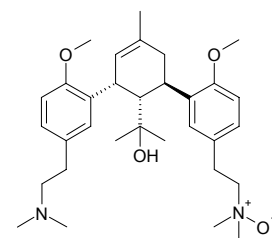
1,3,5,6-Tetrahydroxy-2-(1,1-dimethyl-2-propenyl)xanthone  $C_{18}H_{16}O_6$  (328.32). Granule (acetone), mp 162°C (dec). **Pharm:** Antifungal (*Candida glabrata*, *Cryptococcus neoformans* and *Aspergillus fumigatus*, MIC = 2-4µg/mL). **Source:** GOU JI *Cudrania cochinchinensis* (root: yield = 0.00055%dw). **Ref:** 4713.

**4348 (-)-Culantramine N-oxide**

$C_{32}H_{46}N_2O_3$  (506.74). **Pharm:** Platelet aggregation inhibitor; DNA isomerase inhibitor; antibacterial; cytotoxic. **Source:** *Zanthoxylum* sp. **Ref:** 2176.

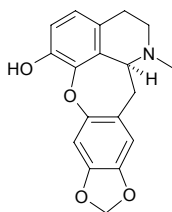
**4349 (-)-Culantraminol N-oxide**

$C_{32}H_{48}N_2O_4$  (524.75). **Pharm:** Platelet aggregation inhibitor; DNA isomerase inhibitor; antibacterial; cytotoxic. **Source:** *Zanthoxylum* sp. **Ref:** 2176.

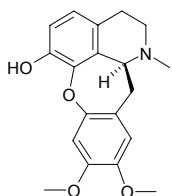


**4350 Cularicine**

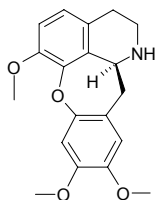
[2271-08-1] C<sub>18</sub>H<sub>17</sub>NO<sub>4</sub> (311.34). Pharm: Cytotoxic. Source: BANG ZHUANG ZI JIN *Corydalis claviculata*. Ref: 658.

**4351 Cularidine**

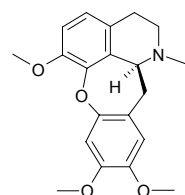
C<sub>19</sub>H<sub>21</sub>NO<sub>4</sub> (327.38). Pharm: Cytotoxic. Source: DOU ZHUANG HE BAO MU DAN *Dicentra cucullaria*, BANG ZHUANG ZI JIN *Corydalis claviculata*. Ref: 658.

**4352 Cularimine**

[479-42-5] C<sub>19</sub>H<sub>21</sub>NO<sub>4</sub> (327.38). Pharm: Antineoplastic. Source: SUI MAO HE BAO MU DAN *Dicentra eximia*. Ref: 658.

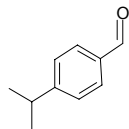
**4353 Cularine**

[479-39-0] C<sub>20</sub>H<sub>23</sub>NO<sub>4</sub> (341.41). Pharm: Anesthetic (rbt cornea); cytotoxic; enhances myocardial contractility; antihypertensive (rbt); uterine stimulant. Source: BANG ZHUANG ZI JIN *Corydalis claviculata*, DOU ZHUANG HE BAO MU DAN *Dicentra cucullaria*, E LE GANG HE BAO MU DAN *Dicentra oregana*, MEI LI HE BAO MU DAN *Dicentra formosa*, SUI MAO HE BAO MU DAN *Dicentra eximia*, WA SHI XIAO BO *Berberis valdiviana*. Ref: 658.

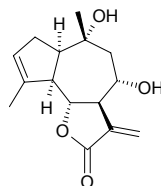
**4354 Cumaldehyde**

*p*-Isopropyl-benzaldehyde [122-03-2] C<sub>10</sub>H<sub>12</sub>O (148.21). bp 235~236°C.

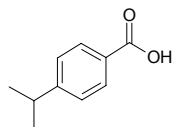
Pharm: Antiviral. Source: AN YE *Eucalyptus globulus*, DU QIN GEN *Cicuta virosa*, HUANG HUA HAO *Artemisia annua*, MO YAO *Commiphora myrrha* [Syn. *Commiphora molmo*], XI YE AN YE *Eucalyptus tereticornis*. Ref: 6, 658.

**4355 Cumambrin B**

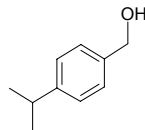
C<sub>15</sub>H<sub>20</sub>O<sub>4</sub> (264.32). Source: *Anthemis carpatica* (aerial parts). Ref: 3974.

**4356 Cumic acid**

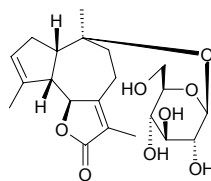
4-(1-Methylethyl)benzoic acid [536-66-3] C<sub>10</sub>H<sub>12</sub>O<sub>2</sub> (164.21). Source: ZI SU YE *Perilla frutescens* var. *arguta*. Ref: 2, 660.

**4357 Cumic alcohol**

4-Isopropylbenzyl alcohol [536-60-7] C<sub>10</sub>H<sub>14</sub>O (150.22). bp 246°C. Source: HUA JIAO *Zanthoxylum bungeanum*. Ref: 6.

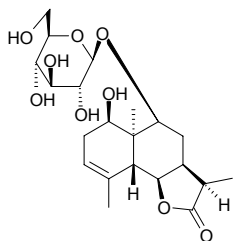
**4358 Cuminoside A**

(1*S*,5*S*,6*S*,10*S*)-10-Hydroxyguaia-3,7(11)-dien-12,6-olide  
β-*D*-glucopyranoside C<sub>21</sub>H<sub>30</sub>O<sub>8</sub> (410.47). Amorphous powder, [α]<sub>D</sub><sup>24</sup> = -35°  
(*c* = 2.3, MeOH). Source: ZI RAN QIN *Cuminum cyminum* (fruit). Ref: 3395.

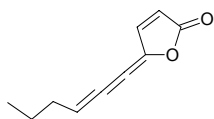


**4359 Cuminoside B**

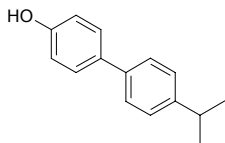
(1*R*,5*R*,6*S*,7*S*,9*S*,10*S*,11*R*)-1,9-Dihydroxyeudesm-3-en-12,6-olide  
9-*O*- $\beta$ -*D*-glucopyranoside] C<sub>21</sub>H<sub>32</sub>O<sub>9</sub> (428.48). Amorphous powder,  $[\alpha]_D^{21} = -14^\circ$  ( $c = 1.1$ , MeOH). Source: ZI RAN QIN *Cuminum cyminum* (fruit). Ref: 3395.

**4360 Cumulene**

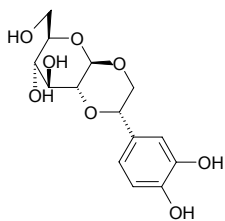
C<sub>10</sub>H<sub>10</sub>O<sub>2</sub> (162.19). Source: QI ZHOU YI ZHI HAO *Conyza canadensis* [Syn. *Erigeron canadensis*]. Ref: 6.

**4361 4-Cumylphenol**

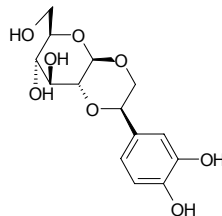
C<sub>15</sub>H<sub>16</sub>O (212.29). Colorless needles, mp 73~74°C. Source: LV ZAO JI GEN YING MAO ZAO *Chaetomorpha basiretorsa*. Ref: 4822.

**4362 Cuneaside A**

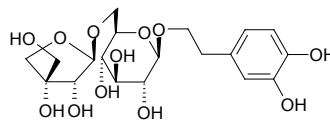
7 $\beta$ -(3,4-Dihydroxyphenyl)-ethane 7,8-(2',1'-*O*- $\beta$ -*D*-glucopyranosyl)-7,8-diol  
C<sub>14</sub>H<sub>18</sub>O<sub>8</sub> (314.29). White amorphous powder,  $[\alpha]_D^{20} = +45.0^\circ$  ( $c = 0.10$ , H<sub>2</sub>O). Pharm: Antibacterial (*Staphylococcus aureus*, MIC = 30.0 $\mu$ mol/L, control Bakuchiol, MIC = 25.0 $\mu$ mol/L; *Micrococcus epidermidis*, MIC = 20.0 $\mu$ mol/L, Bakuchiol, MIC = 15.0 $\mu$ mol/L). Source: DA XUE TENG *Sargentodoxa cuneata* (stem). Ref: 5337.

**4363 Cuneaside B**

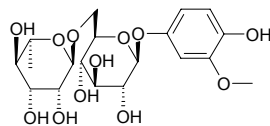
7 $\alpha$ -(3,4-Dihydroxyphenyl)-ethane 7,8-(2',1'-*O*- $\beta$ -*D*-glucopyranosyl)-7,8-diol  
C<sub>14</sub>H<sub>18</sub>O<sub>8</sub> (314.29). White amorphous powder,  $[\alpha]_D^{20} = +65.8^\circ$  ( $c = 0.10$ , H<sub>2</sub>O). Pharm: Antibacterial (*Staphylococcus aureus*, MIC = 20.0 $\mu$ mol/L, control Bakuchiol, MIC = 25.0 $\mu$ mol/L; *Micrococcus epidermidis*, MIC = 20.0 $\mu$ mol/L, Bakuchiol, MIC = 15.0 $\mu$ mol/L). Source: DA XUE TENG *Sargentodoxa cuneata* (stem). Ref: 5337.

**4364 Cuneaside C**

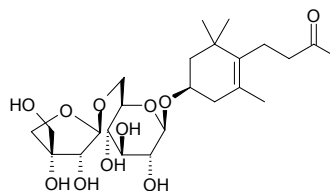
2-(3,4-Dihydroxyphenyl)  
ethyl-*O*- $\beta$ -*D*-apiofuranosyl-(1" $\rightarrow$ 6')- $\beta$ -*D*-glucopyranoside C<sub>19</sub>H<sub>28</sub>O<sub>12</sub> (448.43).  
White amorphous powder,  $[\alpha]_D^{20} = -70.1^\circ$  ( $c = 0.10$ , H<sub>2</sub>O). Source: DA XUE TENG *Sargentodoxa cuneata* (stem). Ref: 5337.

**4365 Cuneaside D**

3-Methoxy-4-hydroxyphenyl-1-*O*- $\alpha$ -*L*-rhamnopyranosyl-(1" $\rightarrow$ 6')- $\beta$ -*D*-glucopyranoside C<sub>19</sub>H<sub>28</sub>O<sub>12</sub> (448.43). White amorphous powder,  $[\alpha]_D^{20} = -60.3^\circ$  ( $c = 0.10$ , H<sub>2</sub>O). Source: DA XUE TENG *Sargentodoxa cuneata* (stem). Ref: 5337.

**4366 Cuneaside E**

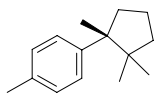
4-[4 $\beta$ -*O*- $\beta$ -*D*-Apiofuranosyl-(1" $\rightarrow$ 6')- $\beta$ -*D*-glucopyranosyl-2,6,6-trimethyl-1-cyclohexen-1-yl]-butan-2-one C<sub>24</sub>H<sub>40</sub>O<sub>11</sub> (504.58). White amorphous powder,  $[\alpha]_D^{20} = -81.7^\circ$  ( $c = 0.10$ , H<sub>2</sub>O). Source: DA XUE TENG *Sargentodoxa cuneata* (stem). Ref: 5337.



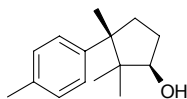


**4367 Cuparene**

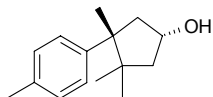
$C_{15}H_{22}$  (202.34). Source: FANG FENG *Saposhnikovia divaricata* [Syn. *Ledebouriella seseloides*], SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*], WU WEI ZI *Schisandra chinensis*. Ref: 2.

**4368  $\alpha$ -Cuparenol**

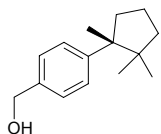
[21730-88-1]  $C_{15}H_{22}O$  (218.34). mp 73°C. Source: CE BAI ZHI JIE *Thuja orientalis* [Syn. *Platycladus orientalis*; *Biota orientalis*]. Ref: 6.

**4369  $\beta$ -Cuparenol**

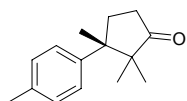
$C_{15}H_{22}O$  (218.34). Source: CE BAI ZHI JIE *Thuja orientalis* [Syn. *Platycladus orientalis*; *Biota orientalis*]. Ref: 6.

**4370  $\gamma$ -Cuparenol**

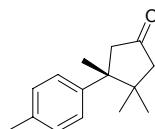
[4584-25-2]  $C_{15}H_{22}O$  (218.34). bp 110°C/0.5mmHg. Source: CE BAI ZHI JIE *Thuja orientalis* [Syn. *Platycladus orientalis*; *Biota orientalis*]. Ref: 6.

**4371  $\alpha$ -Cuparenone**

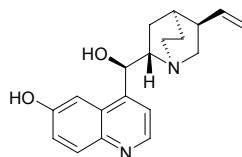
[16169-32-0]  $C_{15}H_{20}O$  (216.33). mp (+) 52~53°C. Source: CE BAI ZHI JIE *Thuja orientalis* [Syn. *Platycladus orientalis*; *Biota orientalis*]. Ref: 6.

**4372  $\beta$ -Cuparenone**

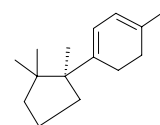
[28152-91-2]  $C_{15}H_{20}O$  (216.33). bp 114~115°C/0.8mmHg. Source: CE BAI ZHI JIE *Thuja orientalis* [Syn. *Platycladus orientalis*; *Biota orientalis*]. Ref: 6.

**4373 Cupreine**

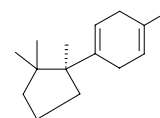
Hydroxycinchonine [524-63-0]  $C_{19}H_{22}N_2O_2$  (310.40). mp 198°C. Source: JIN JI LE *Cinchona ledgeriana*. Ref: 6.

**4374  $\alpha$ -Cuprenene**

$C_{15}H_{24}$  (204.36). bp 140~141°C. Source: CE BAI ZHI JIE *Thuja orientalis* [Syn. *Platycladus orientalis*; *Biota orientalis*]. Ref: 6.

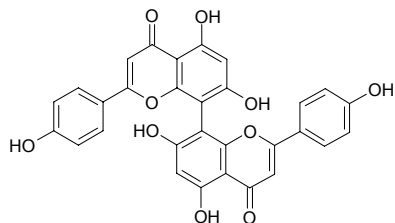
**4375  $\gamma$ -Cuprenene**

$C_{15}H_{24}$  (204.36). bp 140~141°C. Source: CE BAI ZHI JIE *Thuja orientalis* [Syn. *Platycladus orientalis*; *Biota orientalis*]. Ref: 6.

**4376 Cupressiflavone**

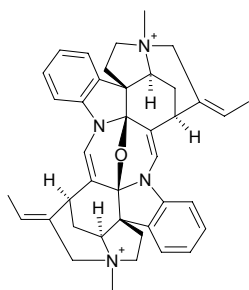
Cupressiflavone  $C_{30}H_{18}O_{10}$  (538.47). mp > 360°C. Pharm: Cyclo nucleotide phosphodiesterase inhibitor; anti-HIV-1 inactive (*in vitro*)<sup>[4234]</sup>. Source: CE BAI YE *Thuja orientalis* [Syn. *Platycladus orientalis*; *Biota orientalis*], CUI YUN CAO *Selaginella uncinata* (dried whole herb: content = 0.213%)<sup>[5508]</sup>, DA YE NAN YANG SHAN *Araucaria bidwillii*, DIAN ZHUANG JUAN BAI *Selaginella pulvinata* (dried whole herb: mean content = 0.113%)<sup>[5508]</sup>, E MEI JUAN BAI *Selaginella omeiensis* (dried whole herb: content = 0.042%)<sup>[5508]</sup>, HAN SHENG JUAN BAI *Selaginella stauntoniana* (dried whole herb: content = 0.470%)<sup>[5508]</sup>, JIANG NAN JUAN BAI *Selaginella moellendorffii* (dried whole herb: mean content = 0.119%)<sup>[5508]</sup>, JUAN BAI *Selaginella tamariscina* (dried whole herb: mean content = 0.131%)<sup>[5508]</sup>, LV GAN BAI *Cupressus arizonica*, MAN SHENG JUAN BAI *Selaginella davidii* (dried whole herb: content = 0.100%)<sup>[5508]</sup>, MAO ZHI JUAN BAI *Selaginella braunii* (dried whole herb: mean content = 0.279%)<sup>[5508]</sup>, PA SHI BEI KE SHAN *Agathis palmerstoni*, PING PU YUAN BAI *Juniperus horizontalis*, XI FANG CI BAI *Juniperus occidentalis* (leaf), YAN ZHOU JUAN BAI *Selaginella involvens* (dried whole herb: content = 0.094%)<sup>[5508]</sup>, ZHONG

HUA JUAN BAI *Selaginella sinensis* (dried whole herb: content = 0.438%)<sup>[5508]</sup>. Ref: 6, 658, 4234, 5508.



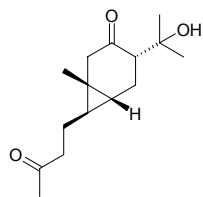
#### 4377 C-Curarine

[7168-64-1]  $C_{40}H_{44}N_4O^{2+}$  (596.82). Pharm: Causes paralysis; supertoxic agent (neuromuscular blocker, one of main component of Calabash curare). Source: FEN CHA MA QIAN ZI *Strychnos divaricans*, FU SHI MA QIAN ZI *Strychnos froesii*, MI SHI MA QIAN ZI *Strychnos mitschelichii*. Ref: 658.



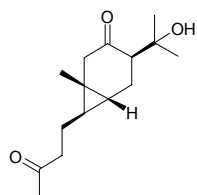
#### 4378 Curcarabranol A

$C_{15}H_{24}O_3$  (252.36). Pharm: NO production inhibitor (mus peritoneal macrophages, induced by LPS, 100 $\mu$ mol/L, InRt = (28.8 $\pm$ 2.1)%), control L-NMMA, 100 $\mu$ mol/L, InRt = (79.2 $\pm$ 0.9)%,  $p < 0.01$ )<sup>[4150]</sup>. Source: PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. Ref: 4150.



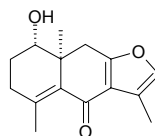
#### 4379 Curcarabranol B

$C_{15}H_{24}O_3$  (252.36). Pharm: NO production inhibitor (mus peritoneal macrophages, induced by LPS, 100 $\mu$ mol/L, InRt = (35.1 $\pm$ 1.0)%), control L-NMMA, 100 $\mu$ mol/L, InRt = (79.2 $\pm$ 0.9)%,  $p < 0.01$ )<sup>[4150]</sup>. Source: PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. Ref: 4150.



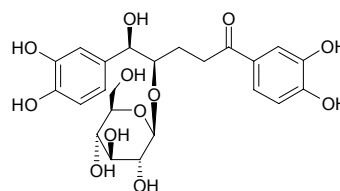
#### 4380 Curcolone

Nehipetol [17015-43-9]  $C_{15}H_{18}O_3$  (246.31). Source: PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. Ref: 6, 4150.



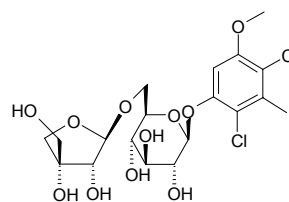
#### 4381 Curculigin

Curculigine  $C_{23}H_{28}O_{12}$  (496.47). Pharm: Contracts blood vessels (*in vitro*, rabbit aorta, facilitating effect on adrenaline evoked contractions, 1~30 $\mu$ mol/L). Source: XIAN MAO *Curculigo orchoides*. Ref: 5095.



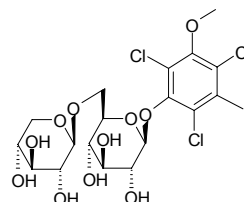
#### 4382 Curculigin B

$C_{19}H_{26}Cl_2O_{11}$  (501.32). Colorless acicular crystals ( $CH_3COCH_3$ ), mp 202~205 $^{\circ}C$ ,  $[\alpha]_D^{18} = -33.6^{\circ}$  ( $c = 0.15$ , methanol). Source: XIAN MAO *Curculigo orchoides*. Ref: 227.



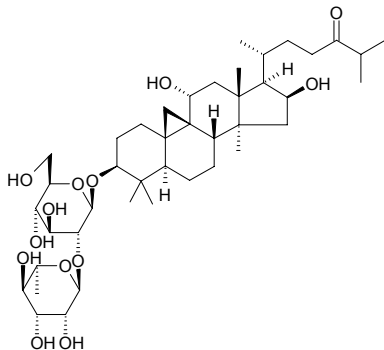
#### 4383 Curculigin C

$C_{19}H_{25}Cl_3O_{11}$  (535.76). Colorless acicular crystals, mp 178~181 $^{\circ}C$ ,  $[\alpha]_D^{18} = -38.94^{\circ}$  ( $c = 0.94$ , methanol). Source: MAO XIAN MAO *Curculigo pilosa* (rhizome). Ref: 227.

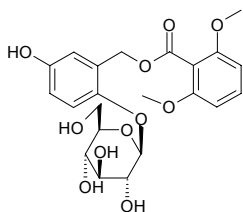


**4384 Curculigosaponin G**

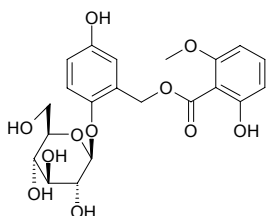
[142998-33-2]  $C_{42}H_{70}O_{13}$  (783.01). White powder, mp 154~157°C,  $[\alpha]_D = +4.23^\circ$  ( $c = 0.10$ , methanol). **Pharm:** Improves hyperplasia of spleen lymphocyte (increases the weight of mus thymus gland). **Source:** XIAN MAO *Curculigo orchioides*. **Ref:** 1144.

**4385 Curculigoside**

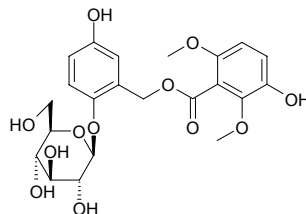
[85643-19-2]  $C_{22}H_{26}O_{11}$  (466.44). Colorless rhombic crystals (water), mp 158~159°C,  $[\alpha]_D^{25} = -28.7^\circ$  ( $c = 1$ , methanol). **Pharm:** Promotes macrophage phagocytic function; antioxidant (hydroxyl radical scavenger,  $IC_{50} = 0.54\mu\text{mol/L}$ , control EGCG,  $IC_{50} = 0.43\mu\text{mol/L}$ , superoxide anion radical scavenger,  $IC_{50} = 1.35\mu\text{mol/L}$ , control EGCG,  $IC_{50} = 0.53\mu\text{mol/L}$ )<sup>[4499]</sup>. **Source:** MAO XIAN MAO *Curculigo pilosa* (rhizome), XIAN MAO *Curculigo orchioides* (rhizome: mean content of 14 origins = 0.160%<sup>[5508]</sup>). **Ref:** 1031, 1146, 4499, 5095, 5508.

**4386 Curculigoside B**

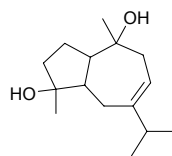
$C_{21}H_{24}O_{11}$  (452.42). Colorless acicular crystals, mp 219~222°C,  $[\alpha]_D^{18} = -47.2^\circ$  ( $c = 0.18$ , methanol). **Pharm:** Antioxidant (hydroxyl radical scavenger,  $IC_{50} = 1.11\mu\text{mol/L}$ , control EGCG,  $IC_{50} = 0.43\mu\text{mol/L}$ , superoxide anion radical scavenger,  $IC_{50} = 1.48\mu\text{mol/L}$ , control EGCG,  $IC_{50} = 0.53\mu\text{mol/L}$ ). **Source:** XIAN MAO *Curculigo orchioides* (rhizome). **Ref:** 227, 4499.

**4387 Curculigoside C**

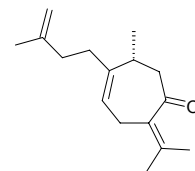
$C_{22}H_{26}O_{12}$  (482.45). **Pharm:** Antioxidant (hydroxyl radical scavenger,  $IC_{50} = 0.25\mu\text{mol/L}$ , control EGCG,  $IC_{50} = 0.43\mu\text{mol/L}$ , superoxide anion radical scavenger,  $IC_{50} = 0.88\mu\text{mol/L}$ , control EGCG,  $IC_{50} = 0.53\mu\text{mol/L}$ ). **Source:** XIAN MAO *Curculigo orchioides* (rhizome). **Ref:** 4499.

**4388 Curcumadiol**

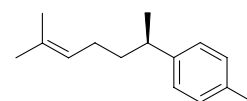
[31946-48-2]  $C_{15}H_{26}O_2$  (238.37). mp 145~155°C. **Source:** PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. **Ref:** 6.

**4389 Curcumadione**

$C_{16}H_{24}O$  (232.37). **Pharm:** NO production inhibitor (mus peritoneal macrophages, induced by LPS, 100 $\mu\text{mol/L}$ , InRt = (27.2 $\pm$ 2.2)%), control *L*-NMMA, 100 $\mu\text{mol/L}$ , InRt = (79.2 $\pm$ 0.9)%,  $p < 0.01$ )<sup>[4150]</sup>. **Source:** PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. **Ref:** 4150.

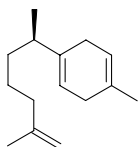
**4390  $\alpha$ -Curcumene**

[4176-17-4]  $C_{15}H_{22}$  (202.34). **Source:** DANG SHEN *Codonopsis pilosula*, GAN JIANG *Zingiber officinale*, HUANG HAO *Artemisia scoparia* [Syn. *Artemisia capillaris* var. *scoparia*], NAN HE SHI *Daucus carota*, SHENG JIANG *Zingiber officinale*, XI YANG SHEN *Panax quinquefolium*. **Ref:** 2, 660.

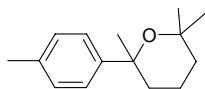


**4391  $\beta$ -Curcumene**

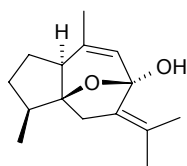
[28976-67-2] C<sub>15</sub>H<sub>24</sub> (204.36). bp (+) 98~100°C/2.2mmHg, (-) 142°C/19mmHg. Source: JIANG HUANG *Curcuma longa*, YU JIN *Curcuma aromatica*. Ref: 6, 660.

**4392 Curcumenether**

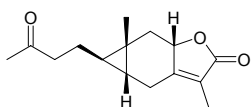
C<sub>15</sub>H<sub>22</sub>O (218.34). Source: CE BAI ZHI JIE *Thuja orientalis* [Syn. *Platycladus orientalis*; *Biota orientalis*]. Ref: 6.

**4393 Curcumenol**

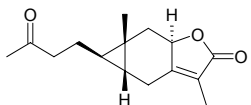
[19431-84-6] C<sub>15</sub>H<sub>22</sub>O<sub>2</sub> (234.34). mp 118.5~119.5°C. Pharm: NO production inhibitor (mus peritoneal macrophages, induced by LPS, 100μmol/L, InRt = (71.3±2.1)%, control *L*-NMMA, 100μmol/L, InRt = (79.2±0.9)%,  $p < 0.01$ )<sup>[4150]</sup>. Source: PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. Ref: 6, 4150.

**4394 Curcumenolactone A**

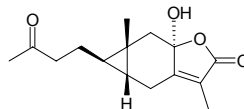
C<sub>15</sub>H<sub>20</sub>O<sub>3</sub> (248.32). Pharm: NO production inhibitor (mus peritoneal macrophages, induced by LPS, 100μmol/L, InRt = (40.2±3.2)%, control *L*-NMMA, 100μmol/L, InRt = (79.2±0.9)%,  $p < 0.01$ ). Source: PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. Ref: 4150.

**4395 Curcumenolactone B**

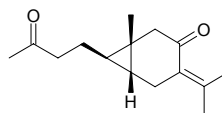
C<sub>15</sub>H<sub>20</sub>O<sub>3</sub> (248.32). Pharm: NO production inhibitor (mus peritoneal macrophages, induced by LPS, 100μmol/L, InRt = (30.6±4.7)%, control *L*-NMMA, 100μmol/L, InRt = (79.2±0.9)%,  $p < 0.01$ ). Source: PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. Ref: 4150.

**4396 Curcumenolactone C**

C<sub>15</sub>H<sub>20</sub>O<sub>4</sub> (264.32). Pharm: NO production inhibitor inactive (mus peritoneal macrophages, induced by LPS, 100μmol/L, InRt = (-1.4±4.3)%, control *L*-NMMA, 100μmol/L, InRt = (79.2±0.9)%). Source: PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. Ref: 4150.

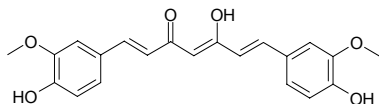
**4397 Curcumenone**

C<sub>15</sub>H<sub>22</sub>O<sub>2</sub> (234.34). Pharm: NO production inhibitor (mus peritoneal macrophages, induced by LPS, 100μmol/L, InRt = (54.8±1.4)%, control *L*-NMMA, 100μmol/L, InRt = (79.2±0.9)%,  $p < 0.01$ ). Source: PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*]. Ref: 4150.

**4398 Curcumin**

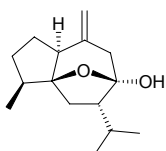
1,7-Bis(4-hydroxy-3-methoxyphenyl)-1,6-heptadiene-3,5-dione; Turmeric yellow [458-37-7] C<sub>21</sub>H<sub>20</sub>O<sub>6</sub> (368.39). Yellow needles, mp 183~184°C; soluble in ethanol, ice vinegar, insoluble in water, ether<sup>[5507]</sup>. Pharm: Antibacterial; choleric; pigment; inhibits gastric injury (caused by injecting 20mg/kg enteramine); NO production inhibitor (mus peritoneal macrophages, induced by LPS, 100μmol/L, InRt = (103.0±0.7)%, control *L*-NMMA, 100μmol/L, InRt = (79.2±0.9)%,  $p < 0.01$ , cytotoxic effect was observed with viability = 4%)<sup>[4150]</sup>; anti-inflammatory (modulator of cytokine network, a lead compound to develop new clinically relevant anti-inflammatory drugs)<sup>[4416]</sup>; anti-inflammatory (preclinical reports suggest that curcumin exerts an anti-inflammatory action in models of atherosclerosis, Alzheimer's disease, arthritis and pancreatitis; proposed mechanisms include macrophage activation inhibitor, lipoxygenase inhibitor, cyclooxygenase 2 inhibitor, and metabolite production via arachidonic acid pathways)<sup>[4415]</sup>; anti-inflammatory (NF-κB pathway)<sup>[4415]</sup>; anti-inflammatory (rat macrophages and pancreatitis tissue, blocks NO production and NOS activity and expression)<sup>[4415]</sup>; antioxidant<sup>[4415]</sup>; hepatoprotective<sup>[4415]</sup>; antihepatotoxin (injury caused by paracetamol); cytotoxic (Colon26-L5, ED<sub>50</sub> = 23.2μmol/L; HT1080, ED<sub>50</sub> = 23.4μmol/L)<sup>[3035]</sup>; antineoplastic (EBV-EA induced by TPA, IC<sub>50</sub> = 343mol ratio/32pmol TPA<sup>[4099]</sup>, IC<sub>50</sub> = 341mol ratio/32pmol TPA<sup>[5028,5048]</sup>); β-hexosaminidase release inhibitor (inhibits degranulation and release, RBL-2H3 Cells, 100μmol/L, InRt = 62.6%<sup>[4655]</sup>, IC<sub>50</sub> = 82μmol/L<sup>[4163]</sup>,  $p < 0.01$ ); 5α-reductase inhibitor (rat prostate 5α-Reductase, IC<sub>50</sub> > 1000μmol/L)<sup>[5343]</sup>; neuroprotective (*in vitro* protects PC12 cells from β-Amyloid insult: anti-βA(25-35), ED<sub>50</sub> = (7.0±1.1)μg/mL;

anti- $\beta$ A(1-41),  $ED_{50} = (10.0 \pm 0.9) \mu\text{g/mL}$ ; control Congo red: anti- $\beta$ A(25-35),  $ED_{50} = (37.5 \pm 5.4) \mu\text{g/mL}$ ; anti- $\beta$ A(1-41),  $ED_{50} = (39.2 \pm 5.2) \mu\text{g/mL}$ <sup>[4653]</sup>.  
**Source:** BAI CHANG *Acorus calamus*, GUANG XI E SHU *Curcuma kwangsiensis* (dried rhizome: mean content of 3 origins = 0.156%)<sup>[5508]</sup>, HUANG GEN JIANG HUANG *Curcuma xanthorrhiza*, JIANG HUANG *Curcuma longa* (dried rhizome: content scope = 0.556%~2.03%)<sup>[5501]</sup>, mean content of 10 origins = 1.87%<sup>[5508]</sup>, JIANG HUANG *Curcuma longa* (turmeric powder: recovery 0.00115%dw)<sup>[4643]</sup>, PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*], YU JIN *Curcuma aromatica* (dried rhizome: mean content of 3 origins = 0.057%)<sup>[5508]</sup>. **Ref:** 6, 658, 3035, 4099, 4150, 4163, 4416, 4415, 4643, 4655, 5028, 5048, 5345, 5501, 5507, 5508.



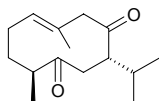
#### 4399 Curcumol

[4871-97-0]  $C_{15}H_{24}O_2$  (236.36). mp 141~144°C. **Pharm:** Cytotoxic (H.L. staining method, 1.25mg/mL, effectively damaging cancer cells); antineoplastic (mouse sarcoma S37, 75mg/kg sc, InRt = (53.7~62.0)%; mouse cervical carcinoma U4, 75mg/kg sc, InRt = (45.1~77.1)%; mouse Ehrlich ascites cancer EAC, biotic prolonged rate = (65.8~78.9)%);  $LD_{50}$  (mouse, acute toxicity test, ip) = 250mg/kg;  $LD_{50}$  (mouse, subacute toxicity test, ip) = 163.4mg/kg. **Source:** JIANG HUANG *Curcuma longa*, PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*], WEN YU JIN *Curcuma wengujin* (dried rhizome: content scope = 0.10%~0.16%)<sup>[5501]</sup>; content = 0.0408%<sup>[5508]</sup>. **Ref:** 4, 5, 6, 660, 5501, 5508.



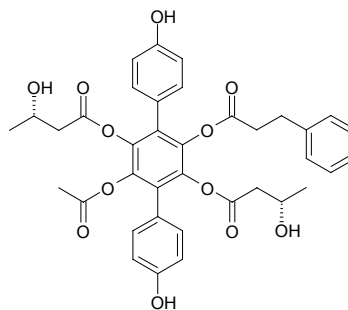
#### 4400 Curdione

[13657-68-6]  $C_{15}H_{24}O_2$  (236.36). Colorless prismatic crystals (absolute ethanol), mp 61~62°C,  $[\alpha]_D^{25} = +26^\circ$  ( $c = 1$ , chloroform). **Pharm:** Antineoplastic (mus sarcoma 37, mus cervical carcinoma U14, mus Ehrlich ascites carcinoma, initiative immunity); used in treatment of cervical cancer; NO production inhibitor (mus peritoneal macrophages, induced by LPS, 100 $\mu\text{mol/L}$ , InRt = (32.0 $\pm$ 1.6)%; control *L*-NMMA, 100 $\mu\text{mol/L}$ , InRt = (79.2 $\pm$ 0.9)%;  $p < 0.01$ )<sup>[4150]</sup>. **Source:** PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*], YU JIN *Curcuma aromatica*, WEN YU JIN *Curcuma wengujin* (dried rhizome: content scope = 0.35%~0.67%)<sup>[5501]</sup>. **Ref:** 4, 5, 6, 661, 4150, 5501.



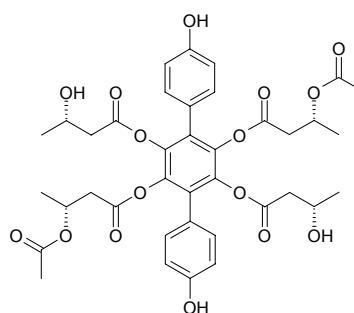
#### 4401 Curtisian E

$C_{37}H_{36}O_{12}$  (672.69). Grayish solid,  $[\alpha]_D^{20} = -5.4^\circ$  ( $c = 1.1$ ,  $\text{CH}_3\text{OH}$ ). **Source:** KE DI SI WANG ZHE JUN *Paxillus curtisii*. **Ref:** 3447.



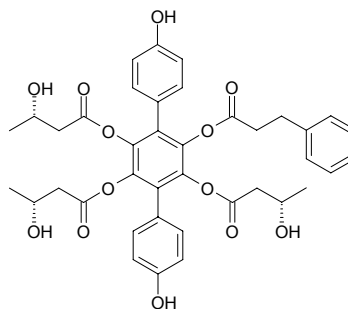
#### 4402 Curtisian F

$C_{38}H_{42}O_{16}$  (754.75). Grayish solid,  $[\alpha]_D^{20} = -6.4^\circ$  ( $c = 0.8$ ,  $\text{CH}_3\text{OH}$ ). **Source:** KE DI SI WANG ZHE JUN *Paxillus curtisii*. **Ref:** 3447.



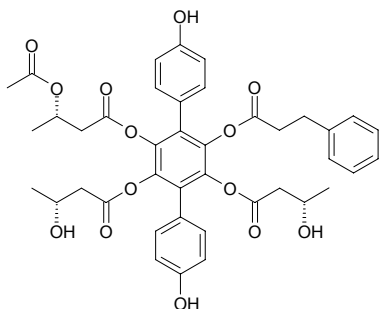
#### 4403 Curtisian G

$C_{39}H_{40}O_{13}$  (716.75). Grayish solid,  $[\alpha]_D^{20} = -3.1^\circ$  ( $c = 0.5$ ,  $\text{CH}_3\text{OH}$ ). **Source:** KE DI SI WANG ZHE JUN *Paxillus curtisii*. **Ref:** 3447.

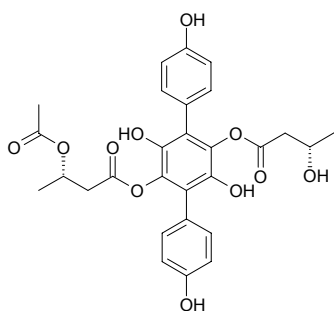


**4404 Curtisian H**

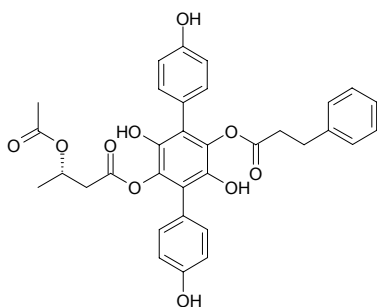
$C_{41}H_{42}O_{14}$  (758.78). Grayish solid,  $[\alpha]_D^{20} = -3.9^\circ$  ( $c = 1.0$ ,  $CH_3OH$ ). Source: KE DI SI WANG ZHE JUN *Paxillus curtisii*. Ref: 3447.

**4405 Curtisian I**

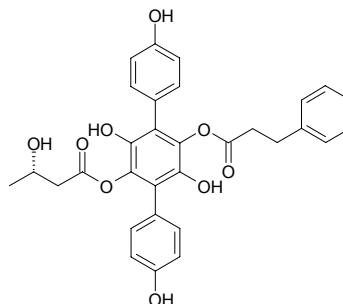
$C_{28}H_{28}O_{11}$  (540.53). Grayish solid,  $[\alpha]_D^{20} = -1.8^\circ$  ( $c = 1.0$ ,  $MeOH$ ). Pharm: Antioxidant (DPPH scavenger,  $IC_{50} = 19.1 \mu mol/L$ ; control *L*-Ascorbic acid,  $IC_{50} = 16.5 \mu mol/L$ ; Vitamin E,  $IC_{50} = 22.8 \mu mol/L$ ; BHA,  $IC_{50} = 31.6 \mu mol/L$ ). Source: KE DI SI WANG ZHE JUN *Paxillus curtisii*. Ref: 5483.

**4406 Curtisian J**

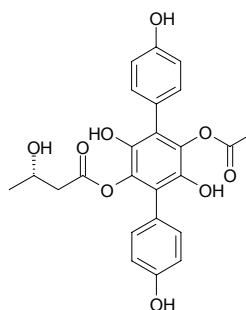
$C_{33}H_{30}O_{10}$  (586.60). Grayish solid,  $[\alpha]_D^{20} = -3.54^\circ$  ( $c = 0.85$ ,  $MeOH$ ). Pharm: Antioxidant (DPPH scavenger,  $IC_{50} = 117.8 \mu mol/L$ ; control *L*-Ascorbic acid,  $IC_{50} = 16.5 \mu mol/L$ ; Vitamin E,  $IC_{50} = 22.8 \mu mol/L$ ; BHA,  $IC_{50} = 31.6 \mu mol/L$ ). Source: KE DI SI WANG ZHE JUN *Paxillus curtisii*. Ref: 5483.

**4407 Curtisian K**

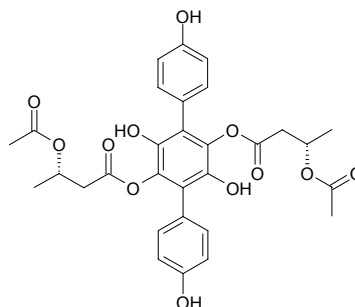
$C_{31}H_{28}O_9$  (544.56). Grayish solid,  $[\alpha]_D^{20} = -1.48^\circ$  ( $c = 0.95$ ,  $MeOH$ ). Pharm: Antioxidant (DPPH scavenger,  $IC_{50} = 31.3 \mu mol/L$ ; control *L*-Ascorbic acid,  $IC_{50} = 16.5 \mu mol/L$ ; Vitamin E,  $IC_{50} = 22.8 \mu mol/L$ ; BHA,  $IC_{50} = 31.6 \mu mol/L$ ). Source: KE DI SI WANG ZHE JUN *Paxillus curtisii*. Ref: 5483.

**4408 Curtisian L**

$C_{24}H_{22}O_9$  (454.44). Grayish solid,  $[\alpha]_D^{20} = +0.86^\circ$  ( $c = 1.17$ ,  $MeOH$ ). Pharm: Antioxidant (DPPH scavenger,  $IC_{50} = 24.0 \mu mol/L$ ; control *L*-Ascorbic acid,  $IC_{50} = 16.5 \mu mol/L$ ; Vitamin E,  $IC_{50} = 22.8 \mu mol/L$ ; BHA,  $IC_{50} = 31.6 \mu mol/L$ ). Source: KE DI SI WANG ZHE JUN *Paxillus curtisii*. Ref: 5483.

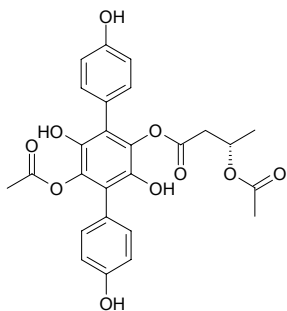
**4409 Curtisian M**

$C_{30}H_{30}O_{12}$  (582.57). Grayish solid,  $[\alpha]_D^{20} = -8.7^\circ$  ( $c = 0.75$ ,  $MeOH$ ). Pharm: antioxidant (DPPH scavenger,  $IC_{50} = 45.9 \mu mol/L$ , control Ascorbic acid,  $IC_{50} = 16.5 \mu mol/L$ ). Source: KE DI SI WANG ZHE JUN *Paxillus curtisii* (sporocarp). Ref: 4379.

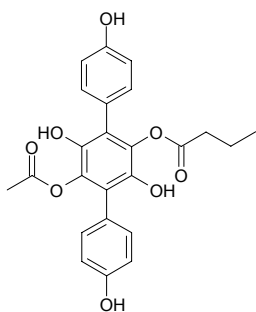


**4410 Curtisian N**

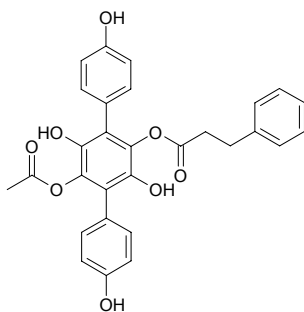
$C_{26}H_{24}O_{10}$  (496.48). Grayish solid,  $[\alpha]_D^{20} = -16.2^\circ$  ( $c = 0.51$ , MeOH). **Pharm:** antioxidant (DPPH scavenger,  $IC_{50} = 48.8\mu\text{mol/L}$ , control Ascorbic acid,  $IC_{50} = 16.5\mu\text{mol/L}$ ). **Source:** KE DI SI WANG ZHE JUN *Paxillus curtisii* (sporocarp). **Ref:** 4379.

**4411 Curtisian O**

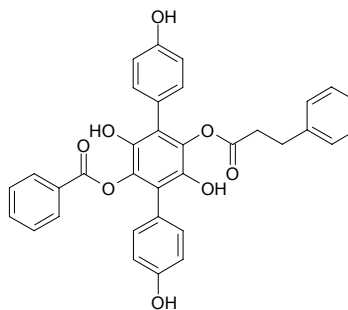
$C_{24}H_{22}O_8$  (438.44). Grayish solid. **Pharm:** antioxidant (DPPH scavenger,  $IC_{50} = 58.7\mu\text{mol/L}$ , control Ascorbic acid,  $IC_{50} = 16.5\mu\text{mol/L}$ ). **Source:** KE DI SI WANG ZHE JUN *Paxillus curtisii* (sporocarp). **Ref:** 4379.

**4412 Curtisian P**

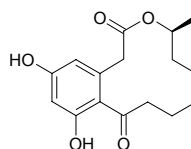
$C_{29}H_{24}O_8$  (500.51). Light red-brown solid. **Pharm:** antioxidant (DPPH scavenger,  $IC_{50} = 44.0\mu\text{mol/L}$ , control Ascorbic acid,  $IC_{50} = 16.5\mu\text{mol/L}$ ). **Source:** KE DI SI WANG ZHE JUN *Paxillus curtisii* (sporocarp). **Ref:** 4379.

**4413 Curtisian Q**

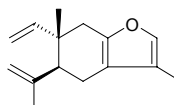
$C_{34}H_{26}O_8$  (562.58). Light red-brown solid. **Pharm:** antioxidant (DPPH scavenger,  $IC_{50} = 43.4\mu\text{mol/L}$ , control Ascorbic acid,  $IC_{50} = 16.5\mu\text{mol/L}$ ). **Source:** KE DI SI WANG ZHE JUN *Paxillus curtisii* (sporocarp). **Ref:** 4379.

**4414 Curvularin**

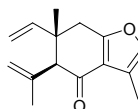
[10140-70-2]  $C_{16}H_{20}O_5$  (292.33). White square crystals, mp 206.5~208.0°C. **Pharm:** Cytotoxic. **Source:** CAO YE BAI JIANG *Patrinia scabra*. **Ref:** 2181.

**4415 Curzerene**

Isofuranogermacrene [17910-09-7]  $C_{15}H_{20}O$  (216.33). **Source:** PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*], SHUI CAI *Menyanthes trifoliata*. **Ref:** 6.

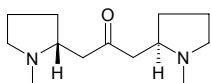
**4416 Curzerenone**

Zedoarone [20493-56-5]  $C_{15}H_{18}O_2$  (230.31). bp 104°C/3mmHg,  $[\alpha]_D = 0.7^\circ$  ( $c = 0.3$ ,  $CHCl_3$ ). **Pharm:** NO production inhibitor (mus peritoneal macrophages, induced by LPS, 100 $\mu\text{mol/L}$ , InRt = (39.7 $\pm$ 2.4)%), control *L*-NMMA, 100 $\mu\text{mol/L}$ , InRt = (79.2 $\pm$ 0.9)%,  $p < 0.01$ )<sup>[4150]</sup>; cytotoxic inactive (*in vitro*, MCF7)<sup>[3093]</sup>. **Source:** MO YAO *Commiphora myrrha* [Syn. *Commiphora molmo*]<sup>[3093]</sup>, PING E SHU *Curcuma zedoaria* [Syn. *Curcuma aeruginosa*], SHUI CAI *Menyanthes trifoliata*. **Ref:** 6, 3093, 4150.

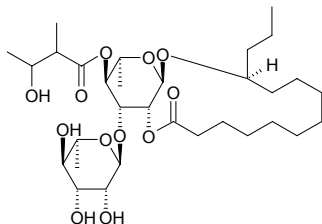


**4417 Cuscohygrine**

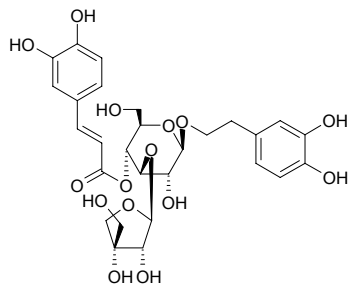
Bellaradine; Cuskygrine [454-14-8]  $C_{13}H_{24}N_2O$  (224.35). bp 169–170°C/23mmHg, soluble in ethanol, ether, benzene.<sup>[5507]</sup> **Pharm:** Antiallergic (mus, caused by 2,4-dinitrofluorobenzene). **Source:** LANG DANG *Zi Hyoscyamus niger*, MAO MAN TUO LUO YE *Datura innoxia*, OU MAN TUO LUO GEN *Datura stramonium*, PAO NANG CAO *Physochlaina physaloides*, SAI LANG DANG *Anisodus luridus*, SAN FEN SAN *Scopolia acutangula* [Syn. *Anisodus acutangulus*], ZANG QIE *Anisodus tanguticus* [Syn. *Scopolia tangutica*], DIAN QIE *Atropa belladonna*, GU KE *Erythroxylum coca*, JI XUAN HUA *Convolvulus erinaceus*. **Ref:** 6, 658, 660, 5507.

**4418 Cuscutic resinoid A**

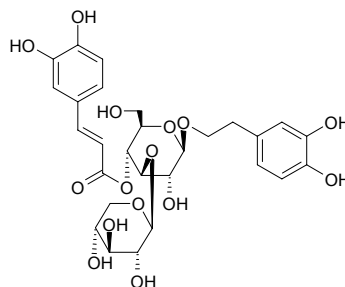
$C_{31}H_{54}O_{12}$  (618.77). Colorless amorphous powder,  $[\alpha]_D^{23} = -24.0^\circ$  ( $c = 0.7$ , MeOH). **Pharm:** Cancer cell stimulator (10  $\mu$ mol/L, MCF7 cell and T47D breast cancer cell proliferation). **Source:** TU SI ZI *Cuscuta chinensis* (seed). **Ref:** 4959.

**4419 Cusianoside A**

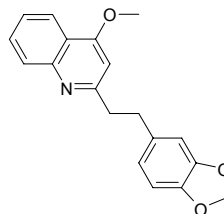
[2-(3,4-Dihydroxyphenylethyl)]-3-*O*- $\alpha$ -D-apiofuranosyl-(1 $\rightarrow$ 4)-(4-*O*-caffeoyl)- $\beta$ -D-glucopyranoside  $C_{28}H_{34}O_{15}$  (610.57).  $[\alpha]_D = -67.5^\circ$  (MeOH). **Source:** MA LAN GEN *Baphicacanthus cusia* [Syn. *Strobilanthes cusia*]. **Ref:** 2577.

**4420 Cusianoside B**

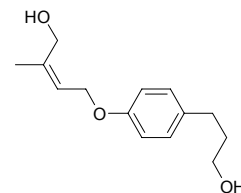
[2-(3,4-Dihydroxyphenylethyl)]-3-*O*- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 3)-(4-*O*-caffeoyl)- $\beta$ -D-glucopyranoside  $C_{28}H_{34}O_{15}$  (610.57).  $[\alpha]_D = -41.9^\circ$  (MeOH). **Source:** MA LAN GEN *Baphicacanthus cusia* [Syn. *Strobilanthes cusia*]. **Ref:** 2577.

**4421 Cusparine**

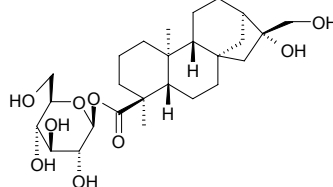
[529-92-0]  $C_{19}H_{17}NO_3$  (307.35). **Pharm:** Antidiarrheal; antimalarial; antipyretic; antispasmodic. **Source:** AN GU SI TU LA SHU *Galipea officinalis*. **Ref:** 658.

**4422 Cuspidiol**

$C_{14}H_{20}O_3$  (236.31). **Pharm:** Antifungal (TLC-based assay, *Cladosporium cucumerinum*, MIQ = 0.1  $\mu$ g, control Miconazole, MIQ = 1  $\mu$ g; *Candida albicans*, MIQ = 10  $\mu$ g, Miconazole, MIQ = 0.1  $\mu$ g); antibacterial (TLC-based assay, *Bacillus subtilis*, MIQ = 10  $\mu$ g; control Chloramphenicol, MIQ = 1  $\mu$ g). **Source:** *Fagara xanthoxyloides*. **Ref:** 5385.

**4423 Cussoracoside A**

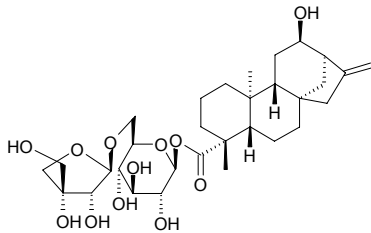
$C_{26}H_{42}O_9$  (498.62).  $[\alpha]_D^{19} = -37.6^\circ$  ( $c = 0.1$ , MeOH). **Source:** *Cussonia racemosa* (leaf). **Ref:** 4164.



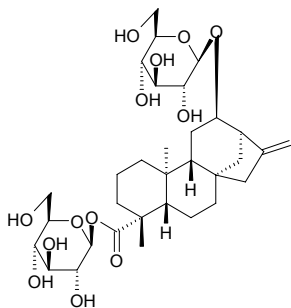


**4424 Cussoracoside B**

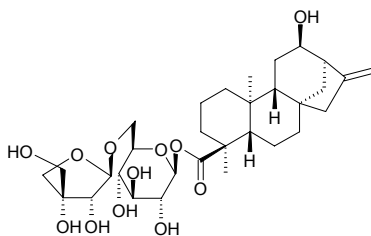
$C_{31}H_{48}O_{12}$  (612.72).  $[\alpha]_D^{19} = -27.2^\circ$  ( $c = 0.5$ , MeOH). Source: *Cussonia racemosa* (leaf). Ref: 4164.

**4425 Cussoracoside C**

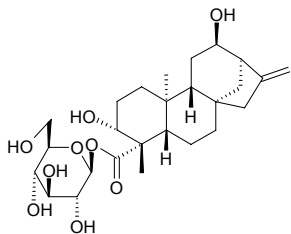
$C_{32}H_{50}O_{13}$  (642.75). Amorphous powder,  $[\alpha]_D^{19} = -30.0^\circ$  ( $c = 0.5$ , MeOH). Source: *Cussonia racemosa* (leaf). Ref: 4164.

**4426 Cussoracoside D**

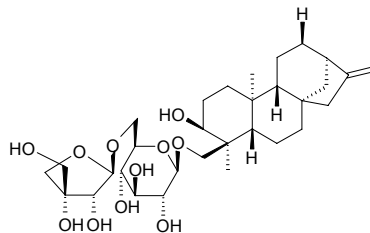
$C_{31}H_{48}O_{12}$  (612.72).  $[\alpha]_D^{19} = -19.5^\circ$  ( $c = 0.5$ , MeOH). Source: *Cussonia racemosa* (leaf). Ref: 4164.

**4427 Cussoracoside E**

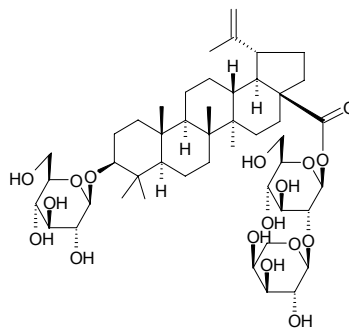
$C_{26}H_{40}O_9$  (496.60).  $[\alpha]_D^{19} = -30.5^\circ$  ( $c = 1.6$ , MeOH). Source: *Cussonia racemosa* (leaf). Ref: 4164.

**4428 Cussoracoside F**

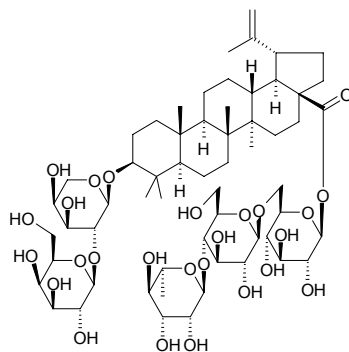
$C_{31}H_{50}O_{11}$  (598.74).  $[\alpha]_D^{19} = -35.7^\circ$  ( $c = 0.4$ , MeOH). Source: *Cussonia racemosa* (leaf). Ref: 4164.

**4429 Cussosaponin A**

3-*O*- $\beta$ -D-Glucopyranosyl betulinic acid 28-*O*- $\alpha$ -L-arabinopyranosyl(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl ester  $C_{47}H_{76}O_{17}$  (913.12). Amorphous powder,  $[\alpha]_D^{30} = -14.7^\circ$  ( $c = 0.3$ , pyridine). Source: *Cussonia racemosa* (leaf). Ref: 4232.

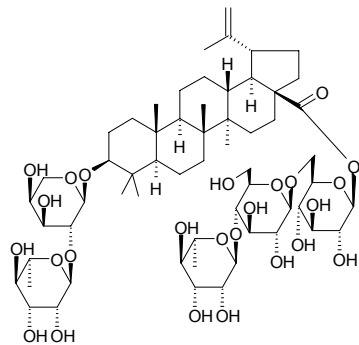
**4430 Cussosaponin B**

3-*O*- $\alpha$ -D-Galactopyranosyl(1 $\rightarrow$ 2)- $\alpha$ -L-arabinopyranosyl betulinic acid 28-*O*- $\alpha$ -L-rhamnopyranosyl(1 $\rightarrow$ 4)- $\beta$ -D-glucopyranosyl(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl ester  $C_{59}H_{96}O_{26}$  (1221.41). Amorphous powder,  $[\alpha]_D^{30} = -34^\circ$  ( $c = 0.8$ , pyridine). Source: *Cussonia racemosa* (leaf). Ref: 4232.

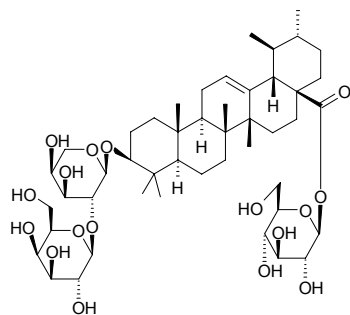


**4431 Cusosaponin C**

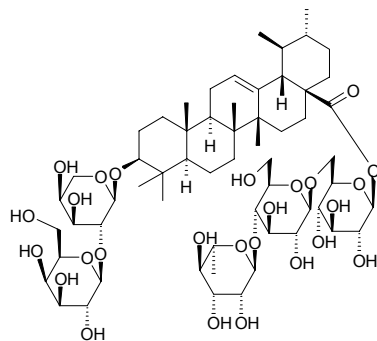
3-β-[(*O*-α-*L*-Rhamnopyranosyl-(1→2)-α-*L*-arabinopyranosyl)oxy]lup-20-(29)-en-28-oic acid 28-*O*-α-*L*-rhamnopyranosyl-(1→4)-*O*-β-*D*-glucopyranosyl-(1→6)-β-*D*-glucopyranosyl ester C<sub>59</sub>H<sub>96</sub>O<sub>25</sub> (1205.41). Amorphous powder, [α]<sub>D</sub><sup>30</sup> = -6.5° (*c* = 0.4, pyridine); amorphous solid, [α]<sub>D</sub><sup>26</sup> = -34.0° (*c* = 0.10, MeOH). **Source:** BAI TOU WENG *Pulsatilla chinensis*, *Cussonia racemosa* (leaf). **Ref:** 3086, 4232.

**4432 Cusosaponin D**

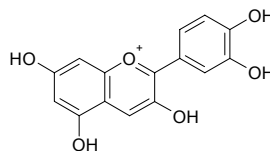
3-*O*-β-*D*-Galactopyranosyl(1→2) α-*L*-arabinopyranosyl ursolic acid 28-*O*-β-*D*-glucopyranosyl ester C<sub>47</sub>H<sub>76</sub>O<sub>17</sub> (913.12). Amorphous powder, [α]<sub>D</sub><sup>30</sup> = -50° (*c* = 1.2, pyridine). **Source:** *Cussonia racemosa* (leaf). **Ref:** 4232.

**4433 Cusosaponin E**

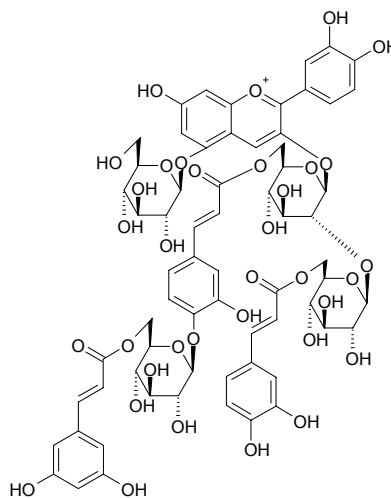
3-*O*-α-*D*-Galactopyranosyl-(1→2)-α-*L*-arabinopyranosyl ursolic acid 28-*O*-α-*L*-rhamnopyranosyl(1→4)-β-*D*-glucopyranosyl(1→6)-β-*D*-glucopyranosyl ester C<sub>59</sub>H<sub>96</sub>O<sub>26</sub> (1221.41). [α]<sub>D</sub><sup>30</sup> = -14.8° (*c* = 1.6, pyridine). **Source:** *Cussonia racemosa* (leaf). **Ref:** 4232.

**4434 Cyanidin**

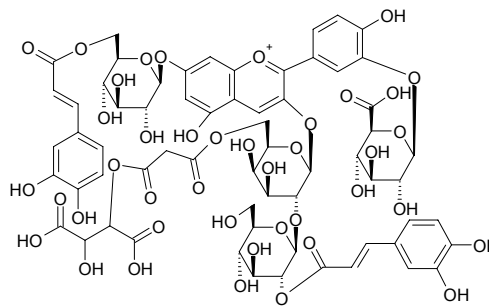
[13306-05-3] C<sub>15</sub>H<sub>11</sub>O<sub>6</sub><sup>+</sup> (287.25). **Pharm:** Red pigment. **Source:** CHOU MO LI *Clerodendron fragrans*. **Ref:** 6, 658.

**4435 Cyanidin-3-*O*-[2-*O*-(6-*O*-*E*-caffeoyl-β-*D*-glucopyranosyl)]-[6-*O*-[4-*O*-(6-*O*-*E*-3,5-dihydroxycinnamoyl-β-*D*-glucopyranosyl)-*E*-caffeoyl]-β-*D*-glucopyranosyl]-5-*O*-β-*D*-glucopyranoside**

C<sub>66</sub>H<sub>69</sub>O<sub>35</sub><sup>+</sup> (1422.26). **Source:** XI XIN YE QIAN NIU *Ipomoea asarifolia* (flower). **Ref:** 3501.

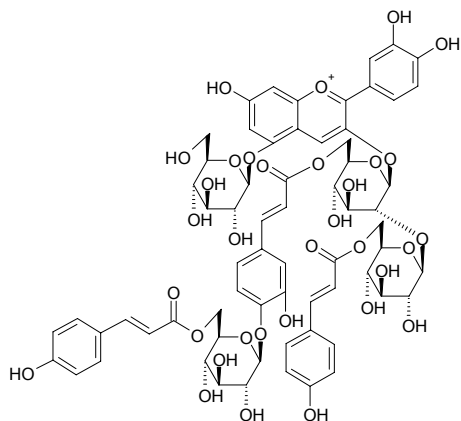
**4436 Cyanidin-3-*O*-[2-*O*-(2-*O*-(*trans*-caffeoyl)-β-*D*-glucopyranosyl)-6-*O*-(2-*O*-(tartaryl)malonyl)-β-*D*-galactopyranosyl]-7-*O*-[6-*O*-(*trans*-caffeoyl)-β-*D*-glucopyranoside]-3'-*O*-[β-*D*-glucuronopyranoside]**

C<sub>64</sub>H<sub>67</sub>O<sub>41</sub><sup>+</sup> (1492.22). **Source:** HUA GUAN YIN LIAN HUA *Anemone coronaria*. **Ref:** 1956.



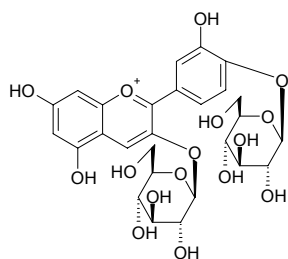
**4437 Cyanidin-3-O-[2-O-(6-O-E-p-coumaroyl-β-D-glucopyranosyl)]-  
{6-O-[4-O-(6-O-E-p-coumaroyl-β-D-glucopyranosyl)-E-caffeoyl]-β-D-glucopyranosyl}-5-O-β-D-glucopyranoside**

$C_{66}H_{69}O_{33}^+$  (1390.27). Source: XI XIN YE QIAN NIU *Ipomoea asarifolia* (flower). Ref: 3501.



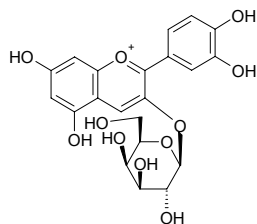
**4438 Cyanidin-3,4'-di-O-β-D-glucopyranoside**

$C_{27}H_{31}O_{16}^+$  (611.54). Source: YANG CONG *Allium cepa*. Ref: 3497.



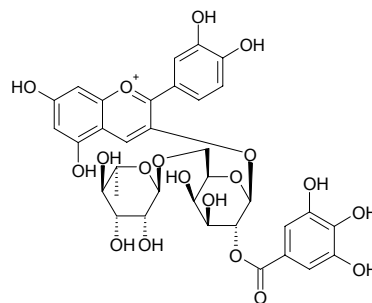
**4439 Cyanidin-3-O-β-D-galactoside**

Idaein [60562-64-3]  $C_{21}H_{21}O_{11}^+$  (449.39). mp 210°C (dec). Pharm: Anti-inflammatory; prevents brittle rupture of blood capillary. Source: HUANG LU ZHI YE *Cotinus coggygria* var. *cinerea*, QIAN QU CAI *Lythrum salicaria*, QIU MU GUA *Chaenomeles lagenaria* [Syn. *Chaenomeles speciosa*], A YUE HUN ZI *Pistacia vera*, CHA YE *Camellia sinensis* [Syn. *Thea sinensis*], OU ZHOU SHUI QING GANG *Fagus sylvatica*, *Vaccinium* sp. Ref: 6, 658, 759.



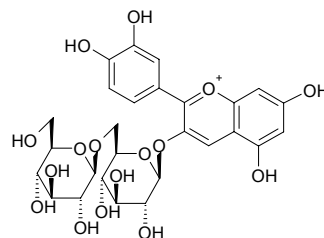
**4440 Cyanidin-3-O-(2''-O-galloyl-6''-O-α-rhamnopyranosyl-β-galactopyranoside)**

$C_{34}H_{35}O_{19}$  (747.65). Source: CU YING MAO TIE XIAN CAI *Acalypha hispida* (flower). Ref: 3466.



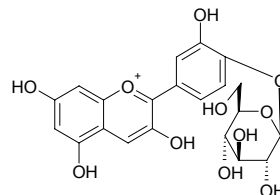
**4441 Cyanidin-3-gentiobioside**

$C_{27}H_{31}O_{16}^+$  (611.54). Source: YI ZHI HUANG HUA *Solidago virgaurea* var. *leiocarpa* [Syn. *Solidago decurrens*]. Ref: 6.



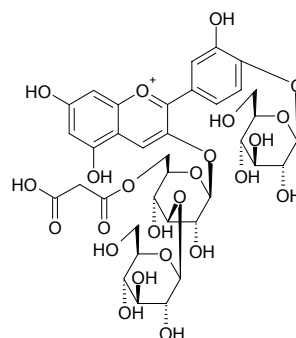
**4442 Cyanidin-4'-O-β-D-glucopyranoside**

[27459-77-4]  $C_{21}H_{21}O_{11}^+$  (449.39). Source: YANG CONG *Allium cepa*, KA FEI HUANG KUI *Hibiscus esculentus*. Ref: 1521, 3497.



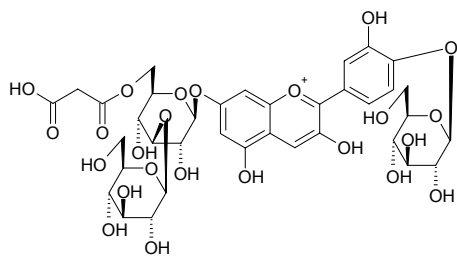
**4443 Cyanidin-3-O-(3''-O-β-glucopyranosyl-6''-O-malonyl-β-glucopyranoside)-4'-O-β-glucopyranoside**

$C_{36}H_{43}O_{24}^+$  (859.73). Source: YANG CONG *Allium cepa*. Ref: 3497.



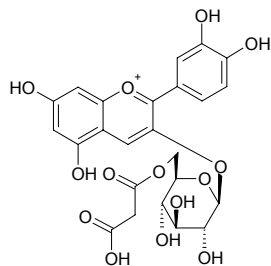
**4444 Cyanidin-7-O-(3''-O-β-glucopyranosyl-6''-O-malonyl-β-glucopyranoside)-4'-O-β-glucopyranoside**

$C_{36}H_{43}O_{24}^+$  (895.73). Source: YANG CONG *Allium cepa*. Ref: 3497.



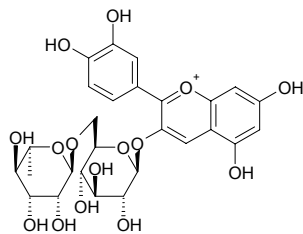
**4445 Cyanidin-3-O-(6''-O-malonyl-β-glucopyranoside)**

$C_{24}H_{23}O_{14}^+$  (535.44). Source: *Dracula chimaera*, *Dracula cordobae*. Ref: 3406.



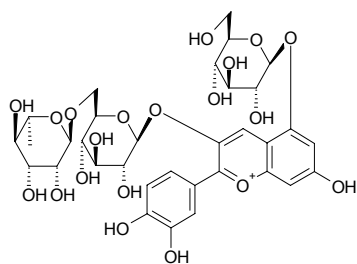
**4446 Cyanidin-3-rutinoside**

Cyanidin rhamnoglucoside; Keracyanin  $C_{27}H_{31}O_{15}^+$  (595.54). Pharm: Red pigment. Source: AN HONG WEI LING CAI *Potentilla atrosanguinea*, JIN YU CAO *Antirrhinum majus*, MO PAN CAO *Abutilon indicum*, SHUI MA TIAO *Polygonum thunbergii*, YANG SHI GUO *Syzygium cumini*, *Dracula chimaera*, *Dracula cordobae*. Ref: 6, 658, 660, 3406.



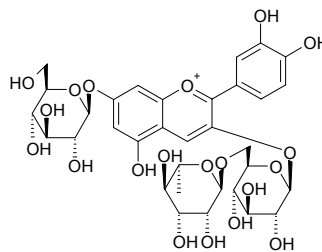
**4447 Cyanidin-3-rutinoside-5-glucoside**

$C_{33}H_{41}O_{20}^+$  (757.68). Source: MU FU RONG HUA *Hibiscus mutabilis*. Ref: 6.



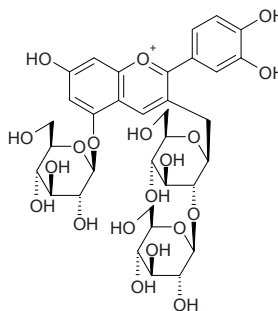
**4448 Cyanidin-3-O-β-rutinoside-7-O-β-glucoside**

$C_{33}H_{41}O_{20}^+$  (757.68). Source: *Lilium* sp. Ref: 1862.



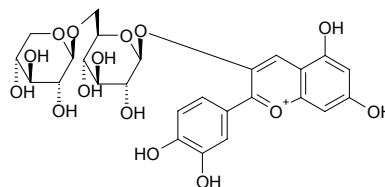
**4449 Cyanidin-3-sophoroside-5-glucoside**

$C_{34}H_{43}O_{20}^+$  (771.71). Source: FU SANG HUA *Hibiscus rosa-sinensis*. Ref: 6.



**4450 Cyanidin-3-xylosyl-glucoside**

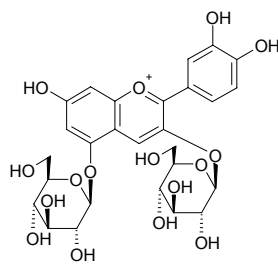
$C_{26}H_{29}O_{15}^+$  (581.51). Source: BU XUE CAO *Limonium gmelinii*, MU TONG *Akebia quinata*. Ref: 6.



**4451 Cyanin**

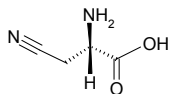
Cyanidin diglucoside [2611-67-8]  $C_{27}H_{31}O_{16}^+$  (611.54). mp 205°C (dec).

Pharm: Pigment. Source: BAI FAN DOU *Phaseolus vulgaris*, DI YU *Sanguisorba officinalis*, DU JUAN HUA *Rhododendron simsii*, FENG LI *Ananas comosus*, MAO SHU *Dioscorea alata*, MEI GUI HUA *Rosa rugosa*, MU FU RONG HUA *Hibiscus mutabilis*, SHI CHE JU *Centaurea cyanus*, YU JIN XIANG *Tulipa gesneriana*, *Sambucus* sp. Ref: 6, 658.

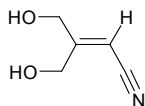


**4452 L-β-Cyanoalanine**

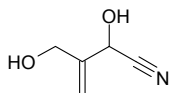
[923-01-3] C<sub>4</sub>H<sub>6</sub>N<sub>2</sub>O<sub>2</sub> (114.10). **Pharm:** Neurotoxin. **Source:** DA CHAO CAI *Vicia sativa*. **Ref:** 658.

**4453 1-Cyano-2-hydroxymethylprop-1-ene-3-ol**

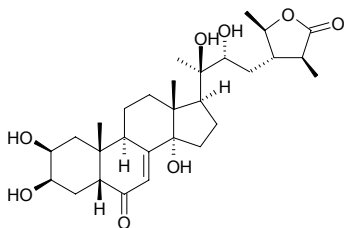
C<sub>5</sub>H<sub>7</sub>NO<sub>2</sub> (113.12). **Source:** JIA KU GUA *Cardiospermum halicacabum*. **Ref:** 6.

**4454 1-Cyano-2-hydroxymethylprop-2-ene-1-ol**

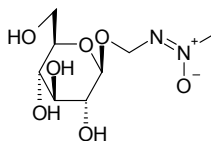
C<sub>5</sub>H<sub>7</sub>NO<sub>2</sub> (113.12). **Source:** JIA KU GUA *Cardiospermum halicacabum*. **Ref:** 6.

**4455 Cyasterone**

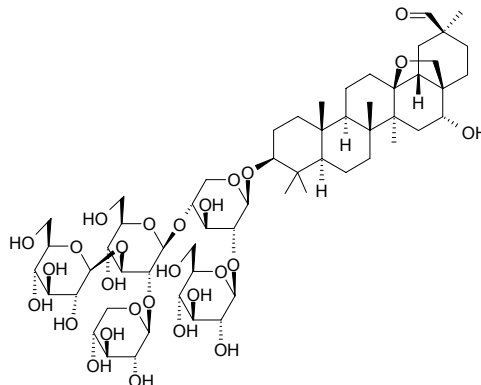
C<sub>29</sub>H<sub>44</sub>O<sub>8</sub> (520.67). mp 164~166°C. **Pharm:** Antineoplastic (mus-skin *in vivo*, inhibits EBV-EA induction); insect ecdysone. **Source:** BAI MAO XIA KU CAO *Ajuga decumbens*, CHUAN NIU XI *Cyathula officinalis* (root: content scope = 1.5%~7.6%<sup>[5501]</sup>; mean content of 22 batch samples = 0.064%<sup>[5508]</sup>), HUANG JIN GU CAO *Ajuga chamaepitys*, JIN GU CAO *Ajuga ciliata* (dried whole herb: mean content = 0.044%<sup>[5508]</sup>), MA NIU XI *Cyathula capitata*, PU FU JIN GU CAO *Ajuga reptans*, TAI WAN JIN GU CAO *Ajuga taiwanensis* (whole herb), YAN LING CAO *Trillium tschonoskii*, YU ER QI *Trillium camtschaticum*. **Ref:** 6, 658, 660, 693, 4483, 5501, 5508.

**4456 Cycasin**

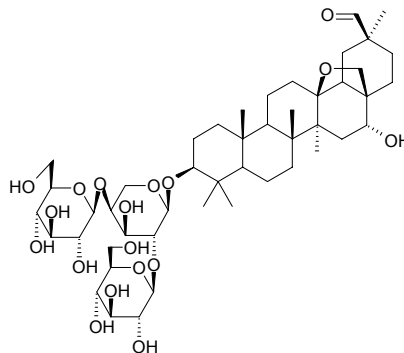
[14901-08-7] C<sub>8</sub>H<sub>16</sub>N<sub>2</sub>O<sub>7</sub> (252.23). mp 154°C (dec). **Pharm:** Antineoplastic (mus EAC, sc); carcinogen (causes cancer by *Cycas revoluta* aglycone, orl); LD<sub>50</sub> (mus, orl) = 1.67mg/kg, (gpg, orl) = 1000mg/kg. **Source:** QUAN YE SU TIE *Cycas circinalis*, SU TIE SHU GUO *Cycas revoluta*, SU TIE YE *Cycas revoluta*. **Ref:** 5, 6, 658.

**4457 Cyclamin**

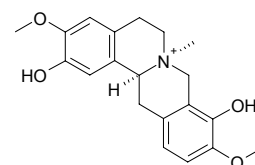
[23643-76-7] C<sub>58</sub>H<sub>94</sub>O<sub>27</sub> (1223.38). Colorless acicular or clustered crystals, mp 280~281°C, [α]<sub>D</sub><sup>21</sup> = -10.1° (c = 1.48, water); [α]<sub>D</sub><sup>20</sup> = -22.4° (c = 1.52, pyridine). **Pharm:** Antineoplastic; antifungal; hemolytic; toxin. **Source:** XIAN KE LAI *Cyclamen persicum*, OU ZHOU XIAN KE LAI *Cyclamen europaeum*. **Ref:** 658.

**4458 Cyclaminorin**

C<sub>47</sub>H<sub>76</sub>O<sub>18</sub> (929.12). **Source:** HU SHE HONG *Ardisia mamillata* [Syn. *Tinus mamillata*] (root). **Ref:** 3990.

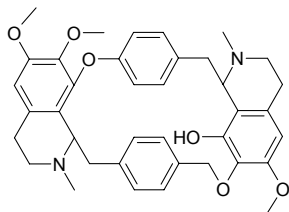
**4459 Cyclanoline**

C<sub>20</sub>H<sub>24</sub>NO<sub>4</sub><sup>+</sup> (342.42). Chloride: mp 214°C, [α]<sub>D</sub> = -116° (methanol); hydrated chloride: colorless octahedral crystals, recrystallizing in methanol or ethanol becoming acicular crystals, mp 211~212°C (dec), [α]<sub>D</sub><sup>30</sup> = -120° (c = 0.67, methanol); white acicular crystals, mp 214~215°C (dec), [α]<sub>D</sub><sup>17</sup> = -112.4° (c = 0.310, methanol). **Pharm:** Ganglionic blocker; inhibits gastric contraction (animal model); muscle relaxant (striated muscle). **Source:** FANG JI *Stephania tetrandra*, KUO GUO JI YING SU *Argemone platyceras*, NAN LUN HUAN TENG *Cyclea tonkinensis*, QIAN JIN TENG *Stephania japonica*, ZHU SHA LIAN *Aristolochia kaempferi*. **Ref:** 658, 661.

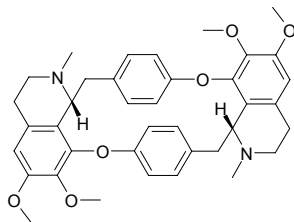


**4460 Cycleanonine**

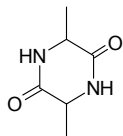
[116520-07-1] C<sub>38</sub>H<sub>42</sub>N<sub>2</sub>O<sub>6</sub> (622.77). Yellowish crystal powder, mp 96~97°C, [ $\alpha$ ]<sub>D</sub><sup>16</sup> = +376.8° (*c* = 0.501, chloroform). **Pharm:** Antibacterial (broad spectrum); cytotoxic (hmn, carcinoma of gastric glands Sca7901). **Source:** LUN HUAN TENG *Cyclea racemosa*. **Ref:** 104, 1604.

**4461 Cycleanine**

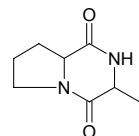
[518-94-5] C<sub>38</sub>H<sub>42</sub>N<sub>2</sub>O<sub>6</sub> (622.77). mp 268~273°C. **Pharm:** Cytotoxic (HeLa, ED<sub>50</sub> = 12μg/mL). **Source:** BAI YAO ZI *Stephania cepharantha*, DI BU RONG *Stephania delavayi* [Syn. *Stephania epigaea*], GUANG YE DI BU RONG *Stephania glabra*, NAN LUN HUAN TENG *Cyclea tonkinensis*, SI CHUAN LUN HUAN TENG *Cyclea sutchuenensis*, WA SHI DU HUO *Heracleum wallichii*, XI SHENG TENG *Cissampelos pareira*. **Ref:** 5, 6, 274, 658.

**4462 Cyclo-(Ala-Ala)**

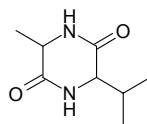
C<sub>6</sub>H<sub>10</sub>N<sub>2</sub>O<sub>2</sub> (142.16). Colorless acicular crystals (CH<sub>3</sub>OH), mp 206~208°C. **Source:** JIN TIE SUO *Psammosilene tunicoides*. **Ref:** 790, 898, 2106.

**4463 Cyclo-(Ala-Pro)**

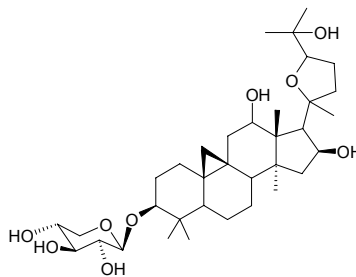
Cyclo-(Pro-Ala) C<sub>8</sub>H<sub>12</sub>N<sub>2</sub>O<sub>2</sub> (168.20). Needles (MeOH), mp 170~172°C; White crystals (MeOH), mp 178~181°C. **Source:** JIN TIE SUO *Psammosilene tunicoides*, SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*], ZHANG YE BAN XIA *Pinellia pedatisecta*. **Ref:** 477, 2430, 2487, 4551.

**4464 Cyclo-(Ala-Val)**

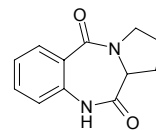
C<sub>8</sub>H<sub>14</sub>N<sub>2</sub>O<sub>2</sub> (170.21). Colorless acicular crystals (CH<sub>3</sub>OH) mp 177~179°C. **Source:** JIN TIE SUO *Psammosilene tunicoides*, SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*], ZHANG YE BAN XIA *Pinellia pedatisecta*. **Ref:** 660, 790, 898, 2106, 2487.

**4465 Cycloalpioside C**

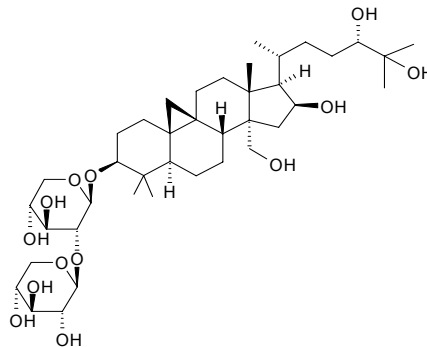
(20*S*\*,24*R*\*)-Epoxy-9,19-cyclolanostane-3β,12β,16β,25-tetraol-3-*O*-β-*D*-xylopyranoside C<sub>35</sub>H<sub>58</sub>O<sub>9</sub> (622.85). **Source:** TIE PO LUO *Beesia calthaefolia* (whole herb). **Ref:** 3099.

**4466 Cycloanthranilyproline**

C<sub>12</sub>H<sub>12</sub>N<sub>2</sub>O<sub>2</sub> (216.24). Pale yellow powder, [ $\alpha$ ]<sub>D</sub><sup>25</sup> = 505° (*c* = 0.1, MeOH). **Source:** LIANG BAI MEI RONG JUN *Fuligo candida* (sporocarp). **Ref:** 4271.

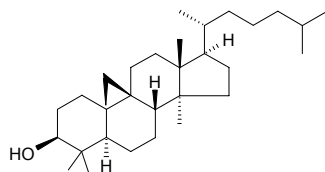
**4467 24*S*-Cycloartane-3β,16β,24,25,30-pentaol-3-*O*-(2-*O*-β-*D*-xylosyl)-β-*D*-xyloside**

C<sub>40</sub>H<sub>68</sub>O<sub>13</sub> (756.98). White acicular crystals, mp 211~213°C. **Source:** BIAN ZHU TANG SONG CAO *Thalictrum smithii*. **Ref:** 826.

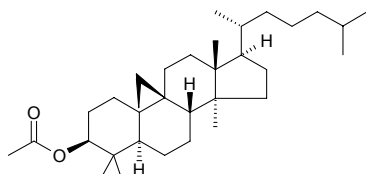


**4468 Cycloartanol**

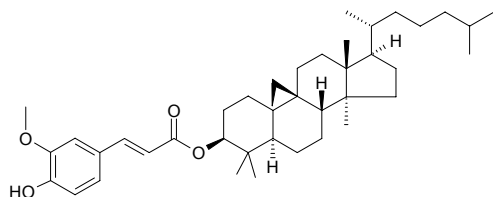
$C_{31}H_{56}O$  (444.79). mp 101~102°C. Source: DOU YOU *Glycine max*, GOU QI ZI *Lycium chinense*, HUO YANG LE *Euphorbia antiquorum*, SHUI LONG GU *Polypodium niponicum*. Ref: 6, 660.

**4469 Cycloartanol acetate**

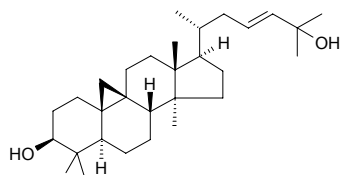
$C_{33}H_{58}O_2$  (486.83). mp 132~133°C. Source: MANG GUO SHU PI *Mangifera indica*. Ref: 6.

**4470 Cycloartanol ferulate**

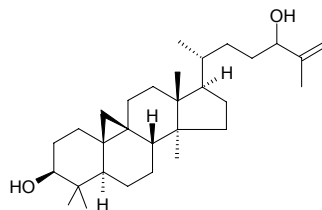
$C_{41}H_{64}O_4$  (620.96). Source: MI PI KANG *Oryza sativa*. Ref: 6.

**4471 9,19-Cycloart-23-ene-3β,25-diol**

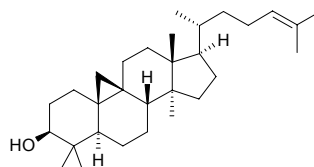
Cycloart-23-ene-3β,25-diol [14599-48-5]  $C_{30}H_{50}O_2$  (442.73). Colorless rhombic crystals (chloroform-petroleum ether), mp 198~199°C,  $[\alpha]_D^{23} = +41.6^\circ$  ( $c = 0.09$ , chloroform). Pharm: Cytotoxic (Ehrlich ascites carcinoma). Source: AI YE *Artemisia argyi*. Ref: 900.

**4472 9,19-Cycloart-25-ene-3β,24-diol**

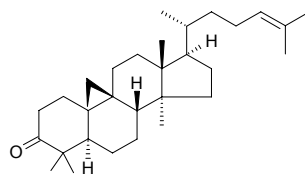
[10388-48-4]  $C_{30}H_{50}O_2$  (442.73). Acicular crystals (chloroform-methanol), mp 174~176°C,  $[\alpha]_D^{30} = +42^\circ$ . Pharm: Antibacterial (*Staphylococcus aureus* and *Escherichia coli*); cytotoxic (Ehrlich ascites carcinoma,  $IC_{50} = 7.5 \mu\text{mol/L}$ ,  $IC_{90} = 13.5 \mu\text{mol/L}$ ,  $P_{388}$ ,  $ED_{50} = 2.4 \mu\text{g/mL}$ ). Source: HUO YANG LE *Euphorbia antiquorum*. Ref: 900.

**4473 Cycloartenol**

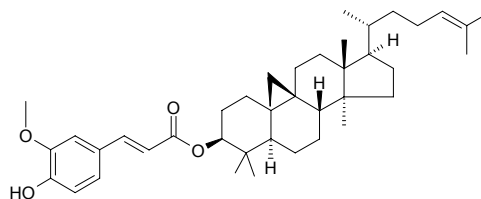
9β,19-Cyclo-24-lanosten-3β-ol [469-38-5]  $C_{30}H_{50}O$  (426.73). mp 115°C. Pharm: Precursor to biosynthesis of sterol. Source: DOU YOU *Glycine max*, GAN PI *Citrus chachiensis*, HEI DA DOU *Glycine max*, HUO YANG LE *Euphorbia antiquorum*, KONG SHI CHUN *Ulva pertusa*, SHI CHUN *Ulva lactuca*, XIANG SI ZI *Abrus precatorius*, YA PIAN *Papaver somniferum*, YAN CAO *Nicotiana tabacum*, YING SU *Papaver somniferum*. Ref: 6, 658.

**4474 Cycloartenone**

$C_{31}H_{52}O$  (440.76). mp 109°C. Source: YA PIAN *Papaver somniferum*. Ref: 6.

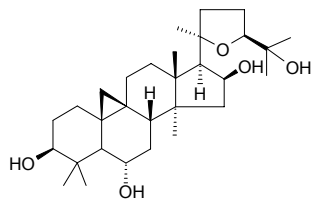
**4475 Cycloartenyl ferulate**

Oryzanol A  $C_{41}H_{62}O_4$  (618.95). Source: MI PI KANG *Oryza sativa*. Ref: 6.

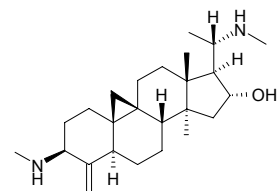


**4476 Cycloastragenol**

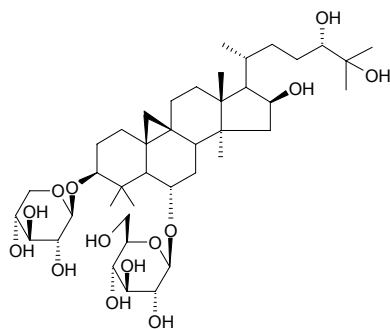
$C_{30}H_{50}O_5$  (490.73). Source: HUANG QI *Astragalus membranaceus*. Ref: 2.

**4477 Cyclobuxine D**

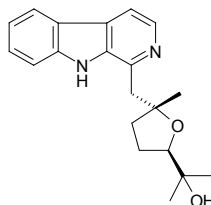
$C_{25}H_{42}N_2O$  (386.63). Pharm: Anti-inflammatory; increases blood pressure; laxative. Source: HE KAN NI YA HUANG YANG *Buxus hyrcana*, JIN SHU HUANG YANG *Buxus sempervirens* (the compound was isolated from the plant by D.Stanfacher, et al. in 1964)<sup>[5505]</sup>, WA LI XI HUANG YANG *Buxus wallichiana*, XI YE HUANG YANG *Buxus harlandii*, XIAO YE HUANG YANG *Buxus microphylla*. Ref: 658, 5505.

**4478 Cyclocanthoside E**

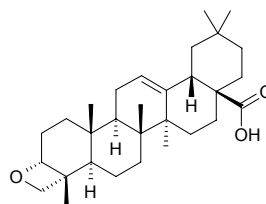
$C_{41}H_{70}O_{14}$  (787.01). Pharm: Antitrypanosomal (*Trypanosoma brucei rhodesiense*,  $IC_{50} = 85.2\mu\text{g/mL}$ , control Melarsoprol,  $IC_{50} = 0.0032\mu\text{g/mL}$ ; *Trypanosoma cruzi*,  $IC_{50} > 30\mu\text{g/mL}$ , Benznidazole,  $IC_{50} = 0.50\mu\text{g/mL}$ ); antileishmanial (*Leishmania donovani*,  $IC_{50} = 14.1\mu\text{g/mL}$ , control Miltefosine,  $IC_{50} = 0.087\mu\text{g/mL}$ ); antimalarial (*Plasmodium falciparum*,  $IC_{50} > 5\mu\text{g/mL}$ , Chloroquine,  $IC_{50} = 0.086\mu\text{g/mL}$ ); cytotoxic (L6 cells,  $IC_{50} > 90\mu\text{g/mL}$ , control Podophyllotoxin,  $IC_{50} = 0.008\mu\text{g/mL}$ ). Source: YOU YE HUANG QI *Astragalus oleifolius* (lower stem part). Ref: 5285.

**4479 Cyclocapitelline**

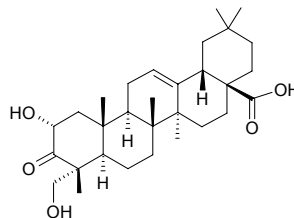
$C_{20}H_{24}N_2O_2$  (324.43). Yellow amorphous solids,  $[\alpha]_D = +43^\circ$  ( $c = 0.50$ ,  $\text{CHCl}_3$ ). Source: XIAO TOU LIANG HOU CHA *Hedyotis capitellata*. Ref: 2424.

**4480 Cyclocaric acid A**

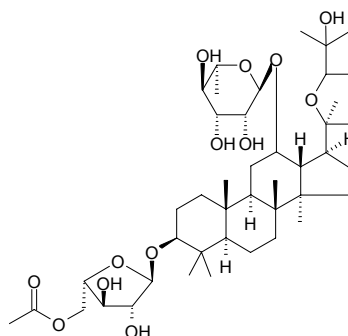
3,23- $\beta$ -Epoxy-olean-12-en-28-oic acid  $C_{30}H_{46}O_3$  (454.70). Pharm: Antihypertensive (alcohol extract of source plant QING QIAN LIU); increases coronary flow (alcohol extract of source plant QING QIAN LIU). Source: QING QIAN LIU *Cyclocarya paliurus*. Ref: 658.

**4481 Cyclocaric acid B**

3-Oxo-2 $\alpha$ ,23-dihydroxyolean-12-en-28-oic acid  $C_{30}H_{46}O_5$  (486.70). White granular crystals, mp 258–260°C (MeOH). Source: QING QIAN LIU *Cyclocarya paliurus*. Ref: 493.

**4482 Cyclocarioside A**

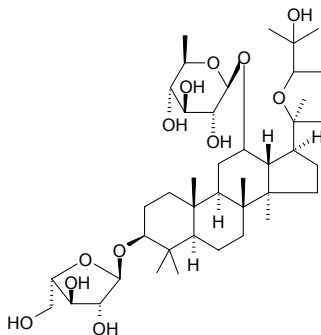
$C_{43}H_{72}O_{13}$  (797.05). White powder,  $[\alpha]_D^{20} = -25.1^\circ$  ( $c = 0.3$ , EtOH). Source: QING QIAN LIU *Cyclocarya paliurus*. Ref: 246.



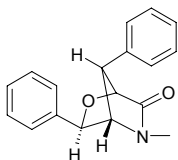


**4483 Cyclocarioside I**

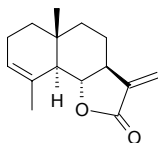
20,24-Epoxy-dammarane-(3 $\beta$ ,12 $\beta$ ,20S,24R)-12-O- $\beta$ -D-quinovopyranosyl-25-hydroxy-3-O- $\alpha$ -L-arabinofuranoside C<sub>41</sub>H<sub>70</sub>O<sub>12</sub> (755.01). White powdery crystals, mp 143~144°C. **Pharm:** Sweetener. **Source:** QING QIAN LIU *Cyclocarya paliurus*. **Ref:** 338, 658.

**4484 Cycloclausenamide**

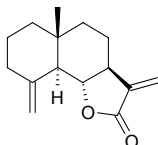
[103541-16-8] C<sub>18</sub>H<sub>17</sub>NO<sub>2</sub> (279.34). Colorless clavate crystals (methanol), mp 164~166°C, [ $\alpha$ ]<sub>D</sub><sup>24.5</sup> = -40° (c = 0.23, methanol). **Pharm:** Antihepatotoxin, (mus, caused by CCl<sub>4</sub>, reduces GPT). **Source:** HUANG PI YE *Clausera lansium*. **Ref:** 1182.

**4485  $\alpha$ -Cyclocostunolide**

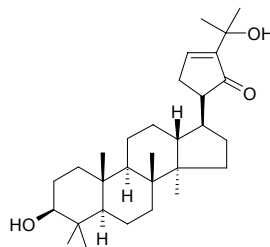
[2221-81-0] C<sub>15</sub>H<sub>20</sub>O<sub>2</sub> (232.33). **Pharm:** Schistosomacide (prevents infection of *Schistosoma mansoni*). **Source:** MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*]. **Ref:** 2, 658.

**4486  $\beta$ -Cyclocostunolide**

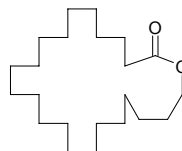
[2221-82-1] C<sub>15</sub>H<sub>20</sub>O<sub>2</sub> (232.33). **Source:** MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*]. **Ref:** 2.

**4487 20(R)-21,24-Cyclo-3 $\beta$ ,25-dihydroxydammar-23(24)-en-21-one**

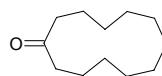
C<sub>30</sub>H<sub>48</sub>O<sub>3</sub> (456.72). **Source:** JIAO GU LAN *Gynostemma pentaphyllum*. **Ref:** 2.

**4488 Cyclodocosalactone**

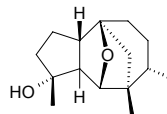
C<sub>22</sub>H<sub>42</sub>O<sub>2</sub> (338.58). White powder. **Source:** JIANG HUANG *Curcuma longa*. **Ref:** 2497.

**4489 Cyclododecanone**

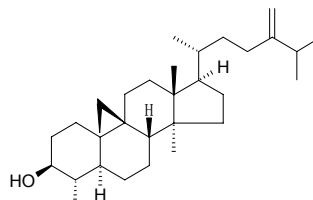
[830-13-7] C<sub>12</sub>H<sub>22</sub>O (182.31). **Source:** SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. **Ref:** 2.

**4490 7,12-Cyclo-6,11-epoxy-4-dumortanol**

[240417-21-4] C<sub>15</sub>H<sub>24</sub>O<sub>2</sub> (236.36). Oil. **Source:** MAO DI QIAN *Dumortiera hirsuta*. **Ref:** 2283.

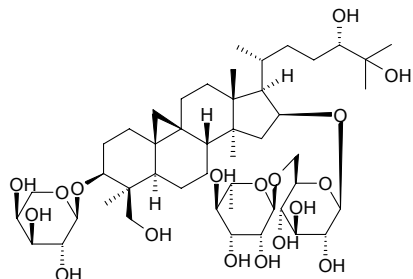
**4491 Cycloeucaleanol**

[469-39-6] C<sub>31</sub>H<sub>54</sub>O (442.78). mp 138~139°C. **Source:** BA WANG BIAN *Euphorbia royleana*, GOU QI ZI *Lycium chinense*, MAN TUO LUO ZI *Datura metel*. **Ref:** 6, 660.

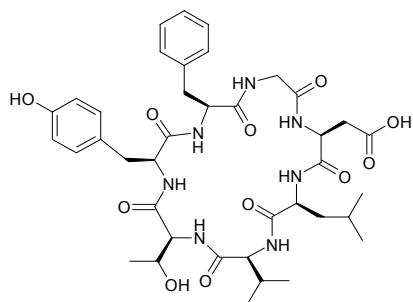


**4492 Cyclofoetoside B**

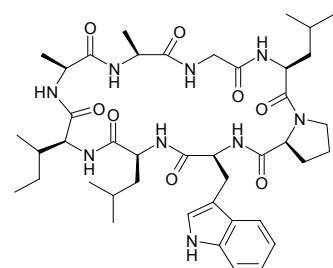
$C_{47}H_{80}O_{18}$  (933.15). Pharm.: Antineoplastic (rat, ip, 50mg/kg). Source.: XIANG TANG SONG CAO *Thalictrum foetidum*. Ref.: 658.

**4493 Cyclo-(Gly-Asp-Leu-Thr-Val-Tyr-Phe)**

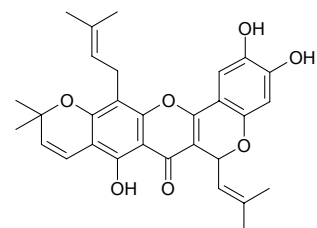
$C_{39}H_{53}N_7O_{11}$  (795.90). Colorless powder,  $[\alpha]_D^{24} = -22.3^\circ$  ( $c = 0.25$ , MeOH). Source.: FO SHOU *Citrus medica* var. *sarcodactylis* (fruit peel). Ref.: 4208.

**4494 Cyclo-(Gly-Leu-Pro-Trp-Leu-Ile-Ala-Ala)**

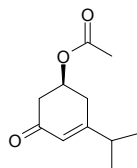
$C_{42}H_{63}N_9O_8$  (822.03). Colorless powder,  $[\alpha]_D^{24} = -81.1^\circ$  ( $c = 0.15$ , MeOH). Source.: FO SHOU *Citrus medica* var. *sarcodactylis* (fruit peel). Ref.: 4208.

**4495 Cycloheterophyllin**

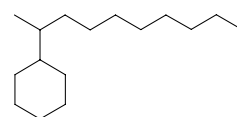
[36545-53-6]  $C_{30}H_{30}O_7$  (502.57). Source.: BO LUO MI *Artocarpus heterophyllus*. Ref.: 6.

**4496 3-Isopropyl-5-acetoxycyclohexene-2-one-1**

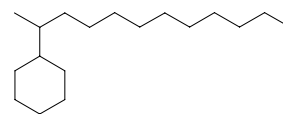
$C_{11}H_{16}O_3$  (196.25). White crystals, mp 135-137°C,  $[\alpha]_D^{20} = -55.6^\circ$  ( $c = 0.009$ ,  $CHCl_3$ ). Source.: DAO CAO *Oryza sativa*. Ref.: 3801.

**4497 2-Cyclohexyldecane**

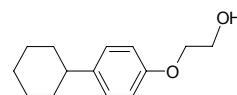
$C_{16}H_{32}$  (224.43). Source.: DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*]. Ref.: 2.

**4498 3-Cyclohexyldodecane**

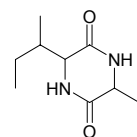
$C_{18}H_{36}$  (252.49). Source.: XI YANG SHEN *Panax quinquefolium*. Ref.: 2.

**4499 2-(p-Cyclohexyl-phenoxy)ethanol**

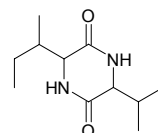
$C_{14}H_{20}O_2$  (220.31). Source.: WU WEI ZI *Schisandra chinensis*. Ref.: 2.

**4500 Cyclo-(Ile-Ala)**

$C_9H_{16}N_2O_2$  (184.24). Source.: SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. Ref.: 2487.

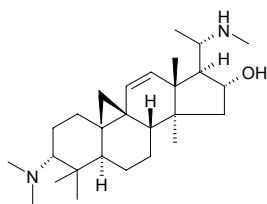
**4501 Cyclo-(Ile-Val)**

$C_{11}H_{20}N_2O_2$  (212.29). Source.: SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. Ref.: 2487, 4551.

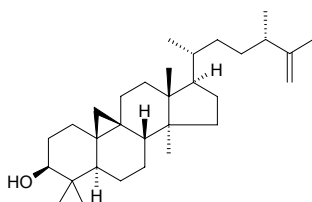


**4502 Cyclokoreanine B**

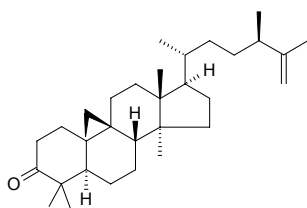
[10413-97-5] C<sub>28</sub>H<sub>50</sub>N<sub>2</sub>O (430.72). mp 235–236°C. Source: HUANG YANG MU YE *Buxus microphylla* var. *sinica*. Ref: 6.

**4503 Cyclolaudenol**

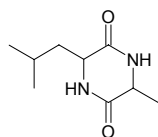
[511-61-5] C<sub>31</sub>H<sub>52</sub>O (440.76). mp 125°C. Source: SHUI LONG GU *Polypodium niponicum*, YA PIAN *Papaver somniferum*. Ref: 6.

**4504 Cyclolaudenone**

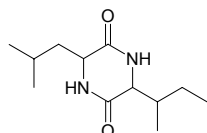
[2315-13-1] C<sub>32</sub>H<sub>54</sub>O (454.79). Source: YA PIAN *Papaver somniferum*. Ref: 6.

**4505 Cyclo-(Leu-Ala)**

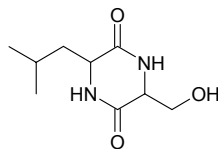
C<sub>9</sub>H<sub>16</sub>N<sub>2</sub>O<sub>2</sub> (184.24). Source: SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. Ref: 2487.

**4506 Cyclo-(Leu-Ile)**

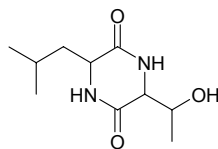
C<sub>12</sub>H<sub>22</sub>N<sub>2</sub>O<sub>2</sub> (226.32). Source: SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. Ref: 2487.

**4507 Cyclo-(Leu-Ser)**

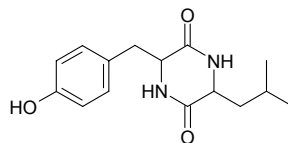
C<sub>9</sub>H<sub>16</sub>N<sub>2</sub>O<sub>3</sub> (200.24). Needles (MeOH), mp 240–242°C. Source: SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. Ref: 2487, 4551.

**4508 Cyclo-(Leu-Thr)**

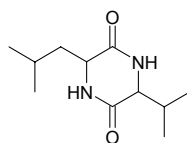
C<sub>10</sub>H<sub>18</sub>N<sub>2</sub>O<sub>3</sub> (214.27). Needles (MeOH), mp 280–282°C. Source: SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. Ref: 2487, 4551.

**4509 Cyclo-(Leu-Tyr)**

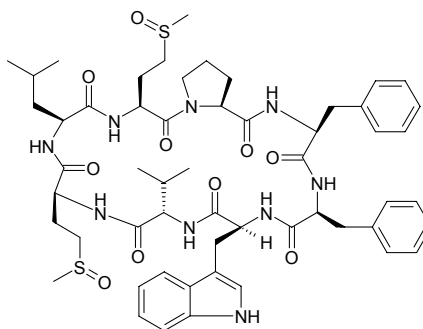
C<sub>15</sub>H<sub>20</sub>N<sub>2</sub>O<sub>3</sub> (276.34). Needles (MeOH), mp 260–222°C. Source: SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. Ref: 2487, 4551.

**4510 Cyclo-(Leu-Val)**

C<sub>11</sub>H<sub>20</sub>N<sub>2</sub>O<sub>2</sub> (212.29). Source: SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*], ZHANG YE BAN XIA *Pinellia pedatisecta*. Ref: 660, 2487.

**4511 Cyclolinopeptide F**

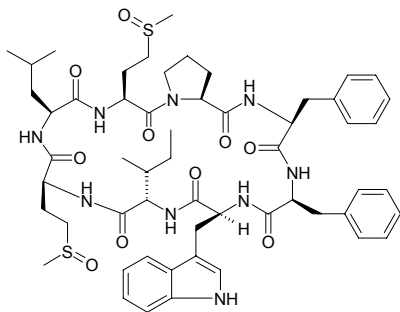
C<sub>55</sub>H<sub>73</sub>N<sub>9</sub>O<sub>10</sub>S<sub>2</sub> (1084.38). Colorless powder, [α]<sub>D</sub> = –71.4° (c = 0.21, MeOH). Source: YA MA ZI *Linum usitatissimum*. Ref: 754.



**4512 Cyclolinopeptide G**

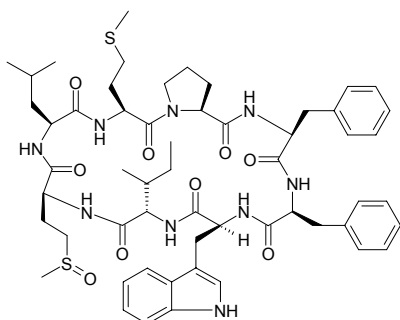
$C_{56}H_{75}N_9O_{10}S_2$  (1098.4). Colorless powder,  $[\alpha]_D = -66.6^\circ$  ( $c = 0.2$ , MeOH).

Source: YA MA ZI *Linum usitatissimum*. Ref: 754.

**4513 Cyclolinopeptide H**

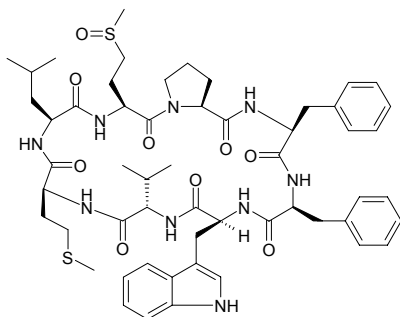
$C_{56}H_{75}N_9O_9S_2$  (1082.41). Colorless powder,  $[\alpha]_D = -87.7^\circ$  ( $c = 0.15$ , MeOH).

Source: YA MA ZI *Linum usitatissimum*. Ref: 754.

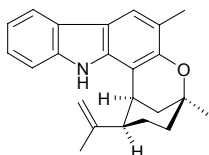
**4514 Cyclolinopeptide I**

$C_{55}H_{73}N_9O_9S_2$  (1068.38). Colorless powder,  $[\alpha]_D = -60.6^\circ$  ( $c = 0.2$ , MeOH).

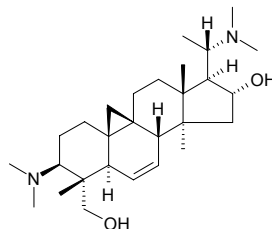
Source: YA MA ZI *Linum usitatissimum*. Ref: 754.

**4515 Cyclomahanimbine**

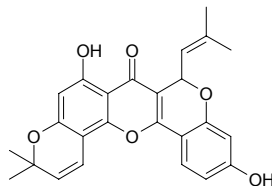
[25488-33-9]  $C_{23}H_{25}NO$  (331.46). Source: JIU LI XIANG *Murraya paniculata* [Syn. *Chalcas paniculata*]. Ref: 11.

**4516 Cyclomicrophylline A**

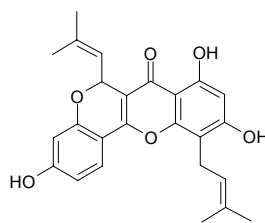
$C_{28}H_{48}N_2O_2$  (444.71). Pharm: AChE inhibitor ( $IC_{50} = (235 \pm 3) \mu\text{mol/L}$ , control Physostigmine,  $IC_{50} = (0.041 \pm 0.001) \mu\text{mol/L}$ ); BChE inhibitor ( $IC_{50} = (2.43 \pm 0.05) \mu\text{mol/L}$ , control Physostigmine,  $IC_{50} = (0.875 \pm 0.008) \mu\text{mol/L}$ ). Source: DUO RU TOU HUANG YANG *Buxus papillosa* (leaf). Ref: 5216.

**4517 Cyclomorusin**

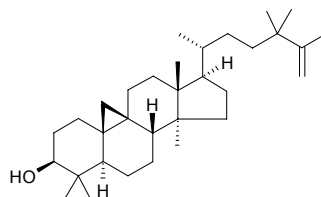
Cyclomulberochromene [62596-34-3]  $C_{25}H_{22}O_6$  (418.45). Pale yellow prisms (MeOH), mp 256–257°C, mp 233–234°C,  $[\alpha]_D^{20} = +20^\circ$  ( $c = 0.15$ , MeOH). Source: FEI HOU MIAN BAO GUO *Artocarpus altilis*, MIAN BAO GUO *Artocarpus incisa* [Syn. *Artocarpus communis*] (root cortex: yield = 0.52%), SANG BAI PI *Morus alba*, SANG ZHI *Morus alba*. Ref: 6, 1521, 2513, 4682.

**4518 Cyclomulberrin**

[19275-51-5]  $C_{25}H_{24}O_6$  (420.47). mp 231–232°C. Source: SANG BAI PI *Morus alba*, SANG ZHI *Morus alba*. Ref: 6.

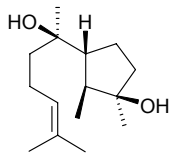
**4519 Cycloneolitsol**

[28840-92-8]  $C_{32}H_{54}O$  (454.79). White needles (petroleum ether-EtOAc), mp 176–178°C. Source: YUN NAN SHI XIAN TAO *Pholidota yunnanensis* (whole herb). Ref: 4814.



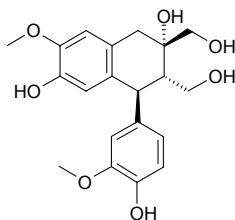
**4520 Cyclonerodiol**

[28834-06-2] C<sub>15</sub>H<sub>28</sub>O<sub>2</sub> (240.39). Source: *Myrothecium* sp. Ref: 4457.

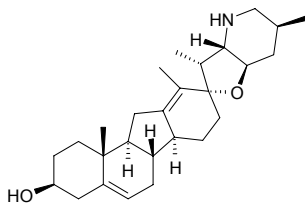
**4521 (+)-Cycloolivil**

[3064-05-9] C<sub>20</sub>H<sub>24</sub>O<sub>7</sub> (376.41). Source: DU ZHONG *Eucommia ulmoides*.

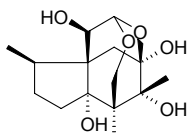
Ref: 2.

**4522 Cyclopamine**

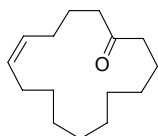
11-Deoxojervine [4449-51-8] C<sub>27</sub>H<sub>41</sub>NO<sub>2</sub> (411.63). mp 237~238°C. Pharm: Teratogen. Source: BAI LI LU *Veratrum album*, JIA ZHOU LI LU *Veratrum californicum*, LI LU *Veratrum nigrum*. Ref: 6, 658, 1521.

**4523 Cycloparvifloralone**

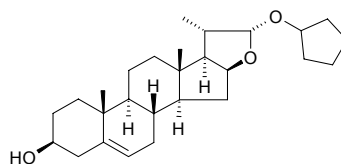
C<sub>15</sub>H<sub>24</sub>O<sub>6</sub> (300.35). Pharm: Neurotrophic bioassay inactive (primary culture of rat cortical neurons, 0.1-10 μmol/L)<sup>[3046]</sup>. Source: *Illicium merrillianum* (pericarp: yield = 0.010%dw). Ref: 3046.

**4524 5-cis-Cyclopentadecen-1-one**

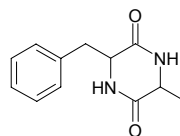
C<sub>15</sub>H<sub>26</sub>O (222.37). Source: SHE XIANG *Moschus moschiferus*, *Moschus berezovskii*, *Moschus sifanicus*. Ref: 2.

**4525 22-Cyclopentylloxil-22-deisopenty-3β-hydroxyl-furostanol**

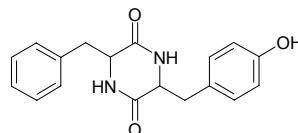
C<sub>27</sub>H<sub>42</sub>O<sub>3</sub> (414.63). Colorless mass crystals, mp 262~264°C. Source: WU HUA GUO *Ficus carica*. Ref: 814.

**4526 Cyclo-(Phe-Ala)**

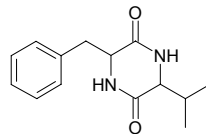
C<sub>12</sub>H<sub>14</sub>N<sub>2</sub>O<sub>2</sub> (218.26). Source: SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*], ZHANG YE BAN XIA *Pinellia pedatisecta*. Ref: 2487, 3195, 4551.

**4527 Cyclo-(Phe-Tyr)**

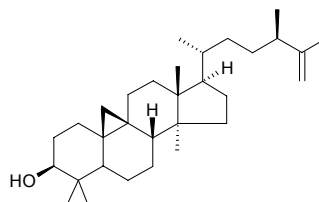
C<sub>18</sub>H<sub>18</sub>N<sub>2</sub>O<sub>3</sub> (310.36). Needles (MeOH), mp 291~293°C. Source: SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. Ref: 2487, 4551.

**4528 Cyclo-(Phe-Val)**

C<sub>14</sub>H<sub>18</sub>N<sub>2</sub>O<sub>2</sub> (246.31). Source: SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. Ref: 2487.

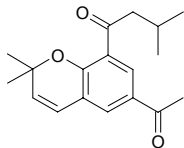
**4529 Cyclopholidonol**

C<sub>31</sub>H<sub>52</sub>O (440.76). White needles (petroleum ether-EtOAc), mp 169~171°C. Source: YUN NAN SHI XIAN TAO *Pholidota yunnanensis* (whole herb). Ref: 4814.

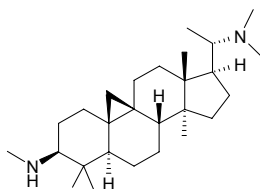


**4530 Cyclophiloselloidone**

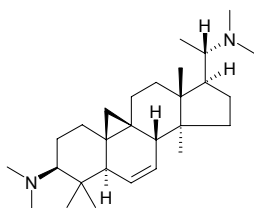
$C_{18}H_{22}O_3$  (286.37). Source: MAO DA DING CAO *Gerbera piloselloides*. Ref: 6.

**4531 Cycloprotobuxine C**

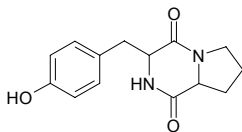
[1936-70-5]  $C_{27}H_{48}N_2$  (400.70). Pharm: Laxative. Source: JIN SHU HUANG YANG *Buxus sempervirens*, MA LAI XI YA HUANG YANG *Buxus malaiana*, XI BAN YA HUANG YANG *Buxus balearica*. Ref: 658.

**4532 Cycloprotobuxine C<sub>1</sub>**

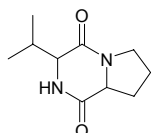
$C_{28}H_{48}N_2$  (412.71). Pharm: AChE inhibitor ( $IC_{50} = (38.8 \pm 2.2) \mu\text{mol/L}$ , control Physostigmine,  $IC_{50} = (0.041 \pm 0.001) \mu\text{mol/L}$ )<sup>[5216]</sup>; BChE inhibitor ( $IC_{50} = (2.73 \pm 0.07) \mu\text{mol/L}$ , control Physostigmine,  $IC_{50} = (0.875 \pm 0.008) \mu\text{mol/L}$ )<sup>[5216]</sup>. Source: DUO RU TOU HUANG YANG *Buxus papillosa* (leaf). Ref: 5216.

**4533 Cyclo-(Pro-Tyr-)**

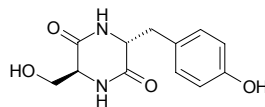
$C_{14}H_{16}N_2O_3$  (260.30). White powder. Source: DUO XIONG RUI SHANG LU *Phytolacca polyandra*. Ref: 2255.

**4534 Cyclo-(Pro-Val)**

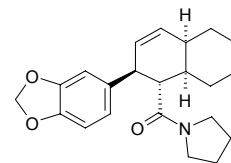
Cyclo-(Val-Pro)  $C_{10}H_{16}N_2O_2$  (196.25). White crystals (MeOH), mp 186~188°C; needles (MeOH), mp 145~147°C. Source: JIN TIE SUO *Psammosilene tunicoides*, SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*]. Ref: 2430, 2487, 4551.

**4535 Cyclo-(D-seryl-L-tyrosyl)**

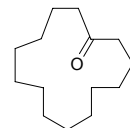
$C_{12}H_{14}N_2O_4$  (250.26). White acicular crystals, mp 256~259°C,  $[\alpha]_D^{19} = +18.4^\circ$  ( $c = 1.09$ ). Source: CHUAN SHAN JIA *Manis pentadactyla*. Ref: 110.

**4536 Cyclostachine A**

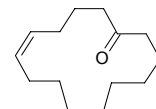
$C_{22}H_{27}NO_3$  (355.47). Pharm: Antibacterial; anticonvulsant; antifungal; sedative. Source: MAO SUI HU JIAO *Piper trichostachyon*. Ref: 661.

**4537 Cyclotetradecan-1-one**

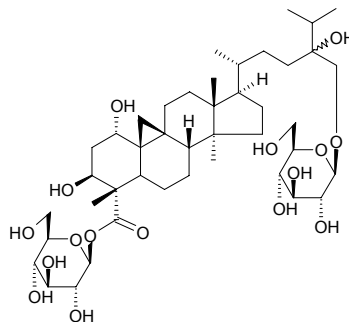
[3603-99-4]  $C_{14}H_{26}O$  (210.36). Source: SHE XIANG *Moschus moschiferus*, *Moschus berezovskii*, *Moschus sifanicus*. Ref: 2.

**4538 5-cis-Cyclotetradecen-1-one**

$C_{14}H_{24}O$  (208.35). Source: SHE XIANG *Moschus moschiferus*, *Moschus berezovskii*, *Moschus sifanicus*. Ref: 2.

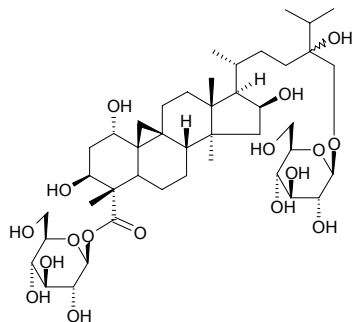
**4539 Cyclotricuspidoside A**

28,31-Di-O-β-D-glucopyranosides of 1α,3β,24ζ,31-tetrahydroxy-24ζ-methyl-cycloartan-28-oic acid [239794-21-9]  $C_{43}H_{72}O_{16}$  (845.04).  $[\alpha]_D^{23} = +24.5^\circ$  ( $c = 1.0$ , MeOH). Source: SAN YING JIAN GUA LOU *Trichosanthes tricuspidata*. Ref: 2316.

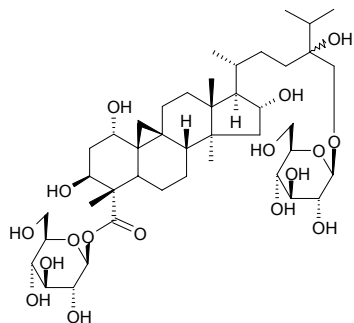


**4540 Cyclotricuspidoside B**

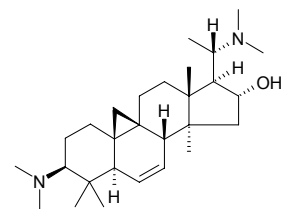
1 $\alpha$ ,3 $\beta$ ,16 $\beta$ ,24 $\zeta$ ,31-Pentahydroxy-24 $\zeta$ -methylcycloartan-28-oic acid  
 [239794-22-0] C<sub>43</sub>H<sub>72</sub>O<sub>17</sub> (861.04). [ $\alpha$ ]<sub>D</sub><sup>23</sup> = +35.9° (c = 1.0, MeOH). Source:  
 SAN YING JIAN GUA LOU *Trichosanthes tricuspidata*. Ref: 2316.

**4541 Cyclotricuspidoside C**

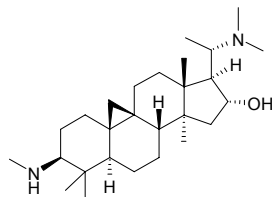
1 $\alpha$ ,3 $\beta$ ,16 $\alpha$ ,24 $\zeta$ ,31-Pentahydroxy-24 $\zeta$ -methylcycloartan-28-oic C<sub>43</sub>H<sub>72</sub>O<sub>17</sub>  
 (861.04). [ $\alpha$ ]<sub>D</sub><sup>23</sup> = +12.1° (c = 1.0, MeOH). Source: SAN YING JIAN GUA  
 LOU *Trichosanthes tricuspidata*. Ref: 2316.

**4542 Cyclovirobuxine A**

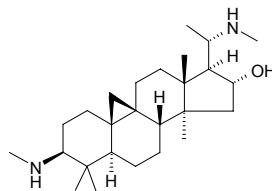
C<sub>28</sub>H<sub>48</sub>N<sub>2</sub>O (428.71). Pharm: AChE inhibitor (IC<sub>50</sub> = (105.7±5.6)μmol/L, control Physostigmine, IC<sub>50</sub> = (0.041±0.001)μmol/L)<sup>[5216]</sup>; BChE inhibitor (IC<sub>50</sub> = (2.05±0.05)μmol/L, control Physostigmine, IC<sub>50</sub> = (0.875±0.008)μmol/L). Source: DUO RU TOU HUANG YANG *Buxus papillosa* (leaf). Ref: 5216.

**4543 Cyclovirobuxine**

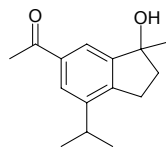
C<sub>27</sub>H<sub>48</sub>N<sub>2</sub>O (416.70). Pharm: Antiarrhythmic; increases coronary flow; laxative; used in treatment of rheumatic heart disease and coronary heart disease; vasodilator (peripheral). Source: JIN SHU HUANG YANG *Buxus sempervirens*, MA LAI XI YA HUANG YANG *Buxus malaiana*, WA LI XI HUANG YANG *Buxus wallichiana*, XIAO YE HUANG YANG *Buxus microphylla*, YIN BAI HUANG YANG *Buxus argentea*. Ref: 658.

**4544 Cyclovirobuxine D**

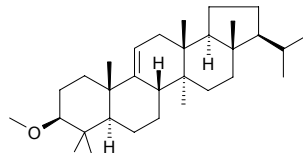
[860-29-7] C<sub>26</sub>H<sub>46</sub>N<sub>2</sub>O (402.67). mp 221~224°C. Pharm: Antiarrhythmic; cardiotonic; increases coronary flow; against acute ischemia myocardial; vasodilator (peripheral). Source: HUANG YANG MU YE *Buxus microphylla* var. *sinica*. Ref: 6, 658.

**4545 Cyllindrene**

C<sub>15</sub>H<sub>20</sub>O<sub>2</sub> (232.33). Pharm: Vasoconstriction inhibitor (rbt, *in vitro*, strip of artery sample, contraction caused by noradrenaline, 0.3mmol/L, InRt = 40%) Source: BAI MAO GEN<sup>(1)</sup> *Imperata cylindrica* var. *major*. Ref: 5501.

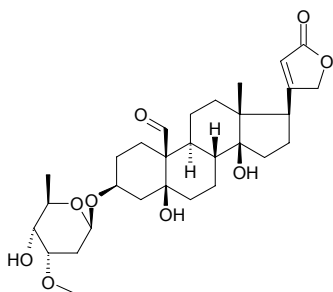
**4546 Cyllindrin**

[17904-55-1] C<sub>31</sub>H<sub>52</sub>O (440.76). mp 269~270°C. Source: BAI MAO GEN<sup>(1)</sup> *Imperata cylindrica* var. *major*, DAN ZHU YE *Lophatherum gracile*, MAO CAO YE *Imperata cylindrica* var. *major*, DAN ZHU YE GEN *Lophatherum gracile*. Ref: 6.

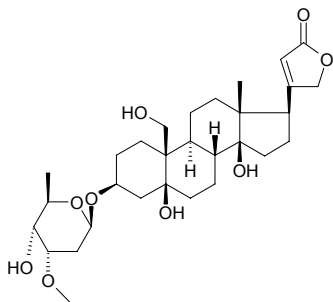


**4547 Cymarín**

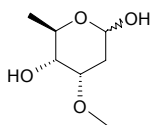
[508-77-0] C<sub>30</sub>H<sub>44</sub>O<sub>9</sub> (548.68). mp 148°C, 185–187°C. **Pharm:** Antineoplastic; antimitotic; cardiotoxic (dog, cures experimental cardiovascular insufficiency); cytotoxic (KB, ED<sub>50</sub> < 0.1 µg/mL); diuretic (rat); increases blood pressure; prevents hardening of cardiac muscle and vasa coronaria (rvt); promotes resynthesis of heart glycogen; reduces symptom of acute dysemia in myocarditis (rvt); LD<sub>50</sub> (cat, iv) = 0.095 mg/kg. **Source:** CHUN FU SHOU CAO *Adonis vernalis*, FU SHOU CAO *Adonis amurensis*, HEI GANG LIU *Periploca nigrescens*, HUANG WAN *Senecio nemorensis*, JIN HUANG CE JIN ZHAN HUA *Adonis chrysocyatha*, KANG PI DU MAO XUAN HUA *Strophanthus kombe*, LUO BU MA *Apocynum venetum*. **Ref:** 4, 5, 6, 658, 2498.

**4548 Cymarol**

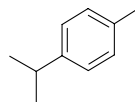
[465-84-9] C<sub>30</sub>H<sub>46</sub>O<sub>9</sub> (550.70). mp 240–243°C. **Source:** FU SHOU CAO *Adonis amurensis*. **Ref:** 6.

**4549 Cymarose**

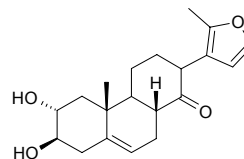
[579-04-4] C<sub>7</sub>H<sub>14</sub>O<sub>4</sub> (162.19). **Source:** DIAN DI MEI YE CHA YE HUA *Apocynum androsaemifolium*, JIA ZHU TAO MA *Apocynum cannabinum*, KANG PI DU MAO XUAN HUA *Strophanthus kombe*, LUO BU MA *Apocynum venetum*, XI LA GANG LIU *Periploca graeca*. **Ref:** 658.

**4550 p-Cymene**

4-Isopropyltoluene [99-87-6] C<sub>10</sub>H<sub>14</sub> (134.22). **Pharm:** Antifungal; antitussive (dispels phlegm); insecticidal; analgesic (local, pain due to rheumatism); antifungal (*Aspergillus niger* KCCM11239, MFC = 0.78 mg/mL; *Aspergillus flavus* KCCM11453, MFC = 1.56 mg/mL; *Candida albicans* KCCM11282, MFC > 6.25 mg/mL; *Candida utilis* KCCM11356, MFC > 6.25 mg/mL; *Cryptococcus neoformans* KCCM0564, MFC = 6.25 mg/mL; *Trichosporon mucoides* KCCM50570, MFC = 1.56 mg/mL; *Trichophyton rubrum* ATCC6345, MFC = 0.39 mg/mL; *Blastoschyzomyces capitatus* KCCM50270, MFC = 3.12 mg/mL)<sup>[4079]</sup>; LD<sub>50</sub> (rat, orl) = 4.75 g/kg. **Source:** BEI HAI DANG GUI *Angelica acutiloba* var. *sugiyamae*, DA YE XIANG RU *Mosla dianthera*, DONG DANG GUI *Angelica acutiloba* [Syn. *Ligusticum acutilobum*], DONG LING CAO *Rabdosia rubescens*, DU HUO *Angelica pubescens* f. *biserrata* [Syn. *Angelica pubescens*], DU SONG SHI *Juniperus rigida*, GAN JIANG *Zingiber officinale*, GANG SONG *Baeckea frutescens*, HOU PO *Magnolia officinalis*, HUANG HAO *Artemisia scoparia* [Syn. *Artemisia capillaris* var. *scoparia*], HUO XIANG *Agastache rugosus*, JIAN ZI SU YE *Perilla frutescens* var. *acuta* [Syn. *Perilla frutescens* var. *purpurascens*], JING JIE *Schizonepeta tenuifolia* [Syn. *Nepeta tenuifolia*], JU PI *Citrus reticulata*, KONG SHI CHUN *Ulva pertusa*, KUAN YE QIANG HUO *Notopterygium forbesii* [Syn. *Notopterygium franchetii*], KUO YE XIE CAO *Valeriana officinalis* var. *latifolia*, LIAN QIAO *Forsythia suspensa*, LIAO XI XIN *Asarum heterotropoides* var. *mandshuricum*, MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*], PEI LAN *Eupatorium fortunei* (volatile oil: content = 3.33%), SHENG JIANG *Zingiber officinale*, TU JING JIE *Chenopodium ambrosioides*, WU SE MEI *Lantana camara*, WU WEI ZI *Schisandra chinensis*, XI XIN *Asarum sieboldii*, XING REN *Prunus armeniaca*, YANG SHI CAO *Achillea millefolium*, YIN CHEN HAO *Artemisia capillaris*, ZHI ZHU XIANG *Valeriana jatamansii* [Syn. *Valeriana wallichii*], CHAO XIAN DA BAI LI XIANG *Thymus magnus*, WU MAI BAI LI XIANG *Thymus quinquecostatus*, occurs in many plants (very widely distributed in plant oils). **Ref:** 2, 658, 660, 4079, 5501.

**4551 Cynajapogenin A**

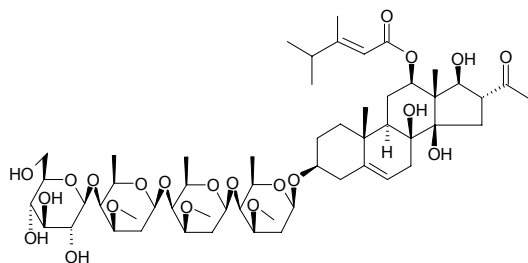
C<sub>20</sub>H<sub>26</sub>O<sub>4</sub> (330.43). **Source:** BAI WEI *Cynanchum atratum*, RI BEN NIU PI XIAO *Cynanchum japonicum* **Ref:** 1521.



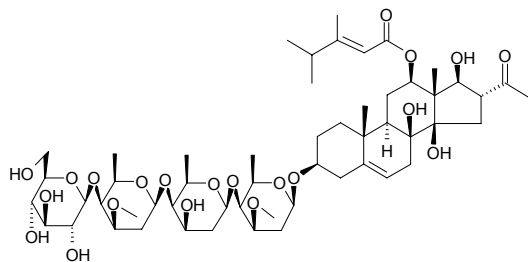


**4552 Cynanauricoside A**

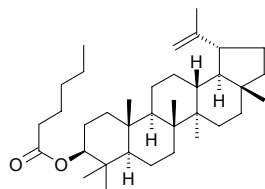
Cauda-3-*O*- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-cymaropynanosyl-(1 $\rightarrow$ 4)- $\beta$ -D-ol  
eandropyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-cymaropynanoside C<sub>55</sub>H<sub>88</sub>O<sub>21</sub> (1085.30). White  
amorphous powder, mp 172~176°C. Source: ER YE NIU PI XIAO  
*Cynanchum auriculatum*. Ref: 852.

**4553 Cynanauricoside B**

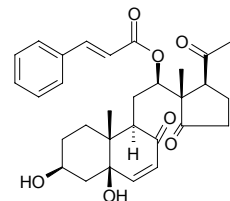
Cauda-3-*O*- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-oleandropyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-  
digitoxopyranosyl-(1 $\rightarrow$ 4)- $\beta$ -D-cymaropynanoside C<sub>54</sub>H<sub>86</sub>O<sub>21</sub> (1071.27).  
White amorphous powder. Source: ER YE NIU PI XIAO *Cynanchum*  
*auriculatum*. Ref: 852.

**4554 Cynanester A**

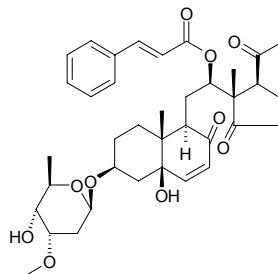
C<sub>36</sub>H<sub>60</sub>O<sub>2</sub> (524.88). mp 156~158°C (acetone). Source: E RONG TENG  
*Cynanchum chinense*. Ref: 212.

**4555 Cynaphylloside**

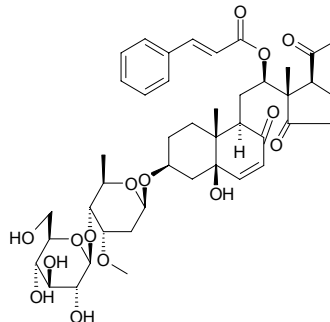
12(*R*)-*O*-Cinnamoyloxy-3 $\beta$ ,5 $\beta$ -dihydroxy-8,14-seco-17 $\beta$ -pregn-6-ene-8,14,  
20-trione C<sub>30</sub>H<sub>36</sub>O<sub>7</sub> (508.62). White amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>21</sup> = -115.8° (*c* =  
0.61, MeOH). Source: WU YE BAI QIAN *Cynanchum aphyllum* (aerial  
parts). Ref: 4218.

**4556 Cynaphylloside A**

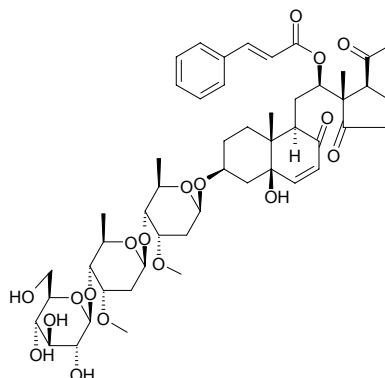
C<sub>37</sub>H<sub>48</sub>O<sub>10</sub> (652.79). White amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>21</sup> = -63.9° (*c* = 0.81,  
MeOH). Source: WU YE BAI QIAN *Cynanchum aphyllum* (aerial parts). Ref:  
4218.

**4557 Cynaphylloside B**

C<sub>43</sub>H<sub>58</sub>O<sub>15</sub> (814.93). White amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>21</sup> = -63.8° (*c* = 0.89,  
MeOH). Source: WU YE BAI QIAN *Cynanchum aphyllum* (aerial parts). Ref:  
4218.

**4558 Cynaphylloside C**

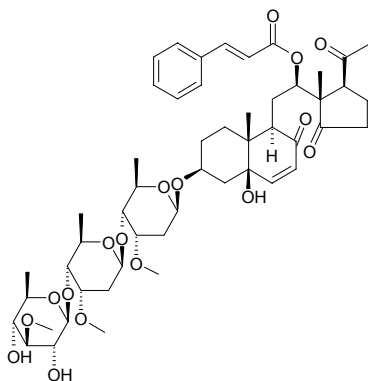
C<sub>50</sub>H<sub>70</sub>O<sub>18</sub> (959.10). White amorphous powder, [ $\alpha$ ]<sub>D</sub><sup>21</sup> = -42.4° (*c* = 0.96,  
MeOH). Source: WU YE BAI QIAN *Cynanchum aphyllum* (aerial parts). Ref:  
4218.



**4559 Cynaphylloside D**

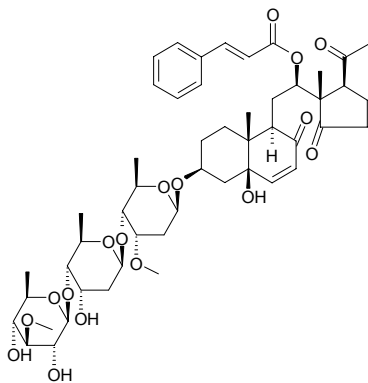
$C_{51}H_{72}O_{17}$  (957.13). White amorphous powder,  $[\alpha]_D^{21} = -38.2^\circ$  ( $c = 1.10$ , MeOH).

Source: WU YE BAI QIAN *Cynanchum aphyllum* (aerial parts). Ref: 4218.

**4560 Cynaphylloside E**

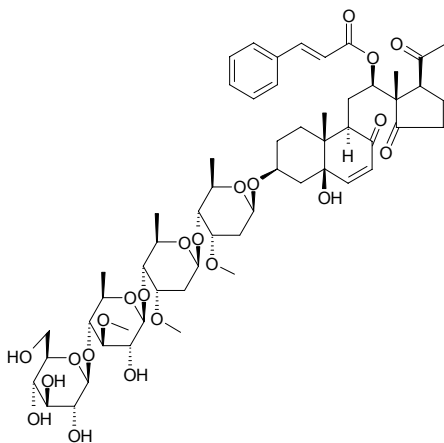
$C_{50}H_{70}O_{17}$  (943.11). White amorphous powder,  $[\alpha]_D^{21} = -61.2^\circ$  ( $c = 0.50$ , MeOH).

Source: WU YE BAI QIAN *Cynanchum aphyllum* (aerial parts). Ref: 4218.

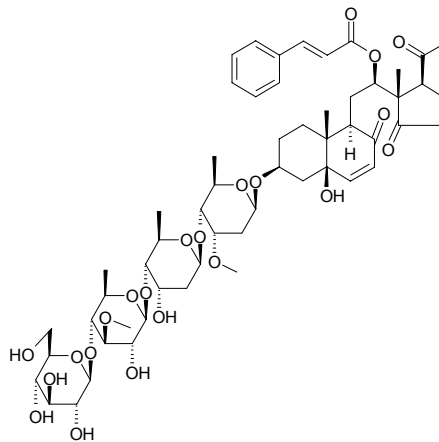
**4561 Cynaphylloside F**

$C_{57}H_{82}O_{22}$  (1119.28). White amorphous powder,  $[\alpha]_D^{21} = -53.9^\circ$  ( $c = 0.59$ , MeOH).

Source: WU YE BAI QIAN *Cynanchum aphyllum* (aerial parts). Ref: 4218.

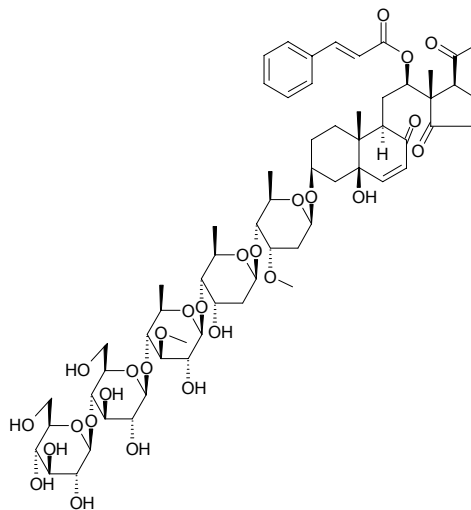
**4562 Cynaphylloside G**

12(*R*)-*O*-Cinnamoyloxy-3 $\beta$ ,5 $\beta$ -dihydroxy-8,14-seco-17 $\alpha$ -pregn-6-ene-8,14,20-trione  $C_{56}H_{80}O_{22}$  (1105.25). White amorphous powder,  $[\alpha]_D^{21} = -52.6^\circ$  ( $c = 0.91$ , MeOH). Source: WU YE BAI QIAN *Cynanchum aphyllum* (aerial parts). Ref: 4218.

**4563 Cynaphylloside H**

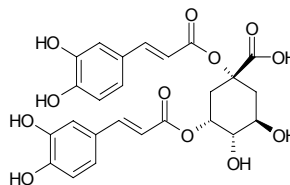
$C_{62}H_{90}O_{27}$  (1267.39). White amorphous powder,  $[\alpha]_D^{21} = -56.1^\circ$  ( $c = 0.71$ , MeOH).

Source: WU YE BAI QIAN *Cynanchum aphyllum* (aerial parts). Ref: 4218.

**4564 Cynarin**

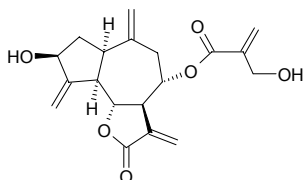
1,5-Di-*O*-caffeoylquinic acid [1182-34-9]  $C_{25}H_{24}O_{12}$  (516.46). mp 227~228°C.

Pharm: Antihepatotoxic; choleric; antihypercholesterolemic (cholesterol in serum). Source: CAI JI *Cynara scolymus*, CI CAI JI *Cynara cardunculus*, HUANG WAN *Senecio nemorensis*. Ref: 6, 658.

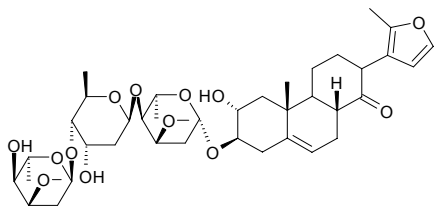


**4565 Cynaropicrin**

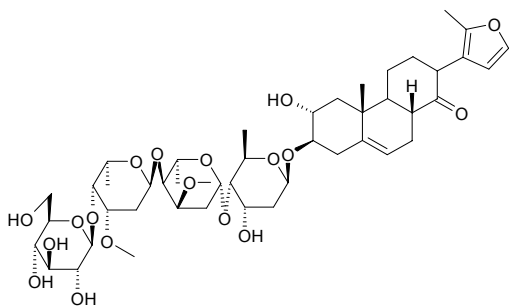
[35730-78-0] C<sub>19</sub>H<sub>22</sub>O<sub>6</sub> (346.38). Noncrystal, [α]<sub>D</sub><sup>20</sup> = +108.6°. **Pharm:** Anti-inflammatory (modulator of cytokine network: inhibits TNF-α production in LPS-activated RAW264.7 cells, IC<sub>50</sub> = 8.2 μmol/L, sulphydryl (thiol, -SH) compounds such as L-cysteine, abrogated the inhibitory effect of cynaropicrin)<sup>[4416]</sup>; cytotoxic (HeLa, ED<sub>50</sub> = 5 μg/mL)<sup>[661]</sup>. **Source:** CAI JI *Cynara scolymus*, CI CAI JI *Cynara cardunculus*, AN BEI JU *Amberboa muricata*, MU XIANG *Saussurea lappa* [Syn. *Aucklandia lappa*]. **Ref:** 661, 4416.

**4566 Cynascyroside D**

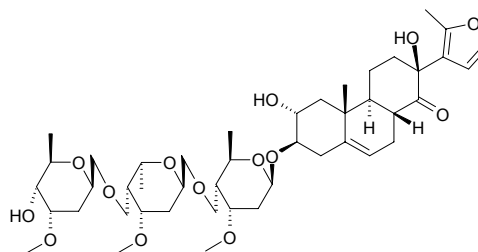
Cynajapogenin A 3-*O*-*L*-cymaropyranosyl-(1→4)-*β*-*D*-digitoxopyranosyl-(1→4)-*β*-*L*-cymaropyranoside C<sub>40</sub>H<sub>60</sub>O<sub>13</sub> (748.92). Pale yellow powder, mp 102–104°C, [α]<sub>D</sub><sup>23</sup> = –54.3° (*c* = 0.1, MeOH). **Source:** CHAO FENG CAO *Cynanchum ascyrifolium* (root). **Ref:** 4207.

**4567 Cynascyroside E**

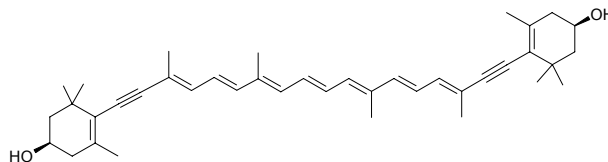
Cynajapogenin A 3-*O*-*β*-*D*-glucopyranosyl-(1→4)-*α*-*L*-diginopyranosyl-(1→4)-*β*-*L*-cymaropyranosyl-(1→4)-*β*-*D*-digitoxopyranoside C<sub>46</sub>H<sub>70</sub>O<sub>18</sub> (911.06). Pale yellow powder, mp 135–137°C, [α]<sub>D</sub><sup>23</sup> = –65.0° (*c* = 0.1, MeOH). **Source:** CHAO FENG CAO *Cynanchum ascyrifolium* (root). **Ref:** 4207.

**4568 Cynatroside B**

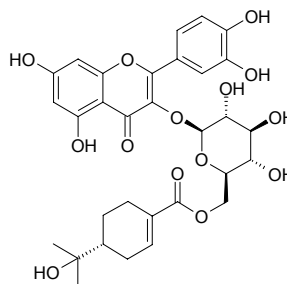
C<sub>43</sub>H<sub>70</sub>O<sub>14</sub> (835.05). **Pharm:** AChE inhibitor (dose-dependent manner, reversible and non-competitive, IC<sub>50</sub> = 3.6 μmol/L); anti-amnesic (mouse, 1.0 mg/kg orl, ameliorates memory impairments induced by scopolamine (1.0 mg/kg body weight sc) as measured in the passive avoidance and the Morris water maze tests, Cynatroside B may hold significant therapeutic value in alleviating certain memory impairments observed in Alzheimer's disease.). **Source:** BAI WEI *Cynanchum atratum* (root). **Ref:** 3365.

**4569 Cynthiaxanthin**

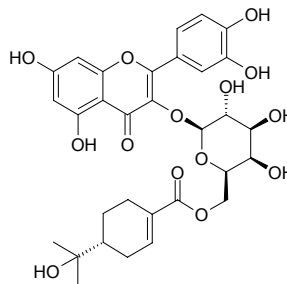
[28380-31-6] C<sub>40</sub>H<sub>52</sub>O<sub>2</sub> (564.86). mp 188–190°C. **Source:** HAI XIA *Panaeus orientalis*. **Ref:** 6.

**4570 Cypellogin A**

C<sub>31</sub>H<sub>34</sub>O<sub>14</sub> (630.61). Light yellow amorphous powder, [α]<sub>D</sub> = –7° (*c* = 0.1, MeOH). **Source:** *Eucalyptus cypellocarpa* (leaf). **Ref:** 4525.

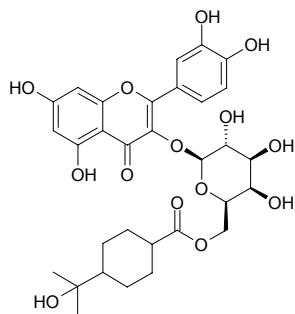
**4571 Cypellogin B**

C<sub>31</sub>H<sub>34</sub>O<sub>14</sub> (630.61). Light yellow amorphous powder, [α]<sub>D</sub> = +47° (*c* = 0.1, MeOH). **Source:** *Eucalyptus cypellocarpa* (leaf). **Ref:** 4525.

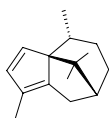


**4572 Cypellogin C**

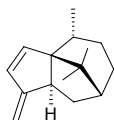
$C_{31}H_{32}O_{14}$  (632.62). Light yellow amorphous powder,  $[\alpha]_D^{20} = +10^\circ$  ( $c = 0.1$ , MeOH). Source: *Eucalyptus cypellocarpa* (leaf). Ref: 4525.

**4573 Cypera-2,4-diene**

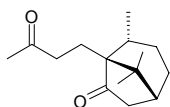
$C_{15}H_{22}$  (202.34). Source: KAN MAI NIANG ZHUANG SHA CAO *Cyperus alopecuroides* (essential oil). Ref: 5129.

**4574 (-)-Cypera-2,4(15)-diene**

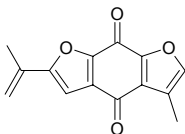
$C_{15}H_{22}$  (202.34). Source: XIANG FU *Cyperus rotundus* (essential oil). Ref: 5210.

**4575 (+)-Cyperadione**

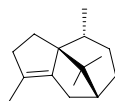
$C_{15}H_{24}O_2$  (236.36). Source: XIANG FU *Cyperus rotundus* (essential oil). Ref: 5210.

**4576 Cyperaquinone**

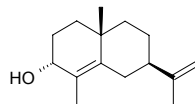
[26962-40-3]  $C_{14}H_{10}O_4$  (242.23). Source: QI PAN SHA CAO *Cyperus haspan*, *Cyperus* sp. Ref: 658.

**4577 Cyperene**

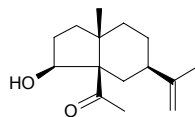
[2387-78-2]  $C_{15}H_{24}$  (204.36). bp 104°C/5mmHg. Source: SAN QI *Panax pseudo-ginseng* var. *notoginseng* [Syn. *Panax notoginseng*], XIANG FU *Cyperus rotundus*. Ref: 2, 6.

**4578 Cyperol**

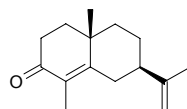
[20084-99-5]  $C_{15}H_{24}O$  (220.36). bp 147~150°C/8mmHg. Source: XIANG FU *Cyperus rotundus*. Ref: 6.

**4579 Cyperolone**

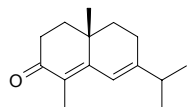
[13741-46-3]  $C_{15}H_{24}O_2$  (236.36). mp 41~42°C, bp 120°C/0.1mmHg. Source: XIANG FU *Cyperus rotundus*. Ref: 6.

**4580 α-Cyperone**

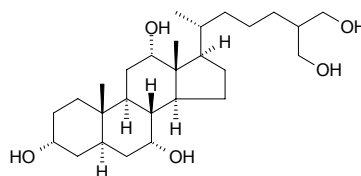
[473-08-5]  $C_{15}H_{22}O$  (218.34). bp (+) 177°C, (±) 128~129°C/2.8mmHg. Pharm: Platelet aggregation inhibitor (10μmol/L, InRt = 100%, antagonist of arachidonic acid). Source: XIANG FU *Cyperus rotundus* (dried rhizome: content = 0.23%<sup>[5501]</sup>; content = 0.19%<sup>[5508]</sup>). Ref: 6, 5501, 5508.

**4581 β-Cyperone**

$C_{15}H_{22}O$  (218.34). bp 175~176°C. Source: XIANG FU *Cyperus rotundus*. Ref: 6.

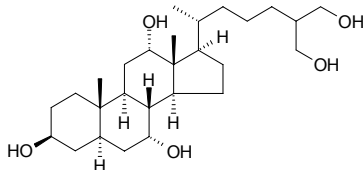
**4582 5α-Cyprinol**

[2952-70-7]  $C_{27}H_{48}O_5$  (452.68). mp 242~244°C. Source: LI YU DAN *Cyprinus carpio*. Ref: 6.

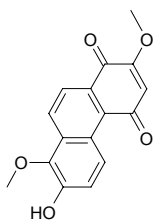


**4583 5 $\beta$ -Cyprinol**

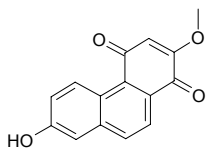
[2486-18-2] C<sub>27</sub>H<sub>48</sub>O<sub>5</sub> (452.68). Source: QING WA DAN *Rana nigromaculata*; *Rana plancyi*. Ref: 6.

**4584 Cypripedin**

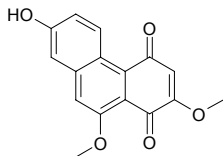
[8031-72-9] C<sub>16</sub>H<sub>12</sub>O<sub>5</sub> (284.27). Pharm: Dermatitic (causes contact dermatitis). Source: SHAO LAN *Cypripedium calceolus*. Ref: 658.

**4585 Cypritolbetquinone A**

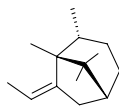
Densiflorol B; 7-Hydroxy-2-methoxy-1,4-phenanthraquinone C<sub>15</sub>H<sub>10</sub>O<sub>4</sub> (254.24). Red powder, mp 260~262°C. Source: DA HUA SHAO LAN *Cypripedium macranthum* [Syn. *Cypripedium tibeticum*] (rhizome), MI HUA SHI HU *Dendrobium densiflorum* (stem). Ref: 4863, 5171.

**4586 Cypritolbetquinone B**

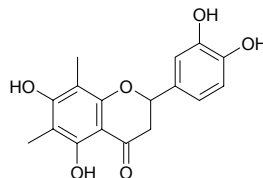
7-Hydroxy-2,10-dimethoxy-1,4-phenanthraquinone C<sub>16</sub>H<sub>12</sub>O<sub>5</sub> (284.27). Red powder, mp 260~262°C. Source: DA HUA SHAO LAN *Cypripedium macranthum* [Syn. *Cypripedium tibeticum*] (rhizome). Ref: 4863.

**4587 Cyprotene**

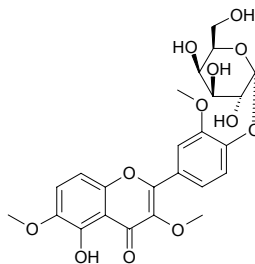
C<sub>14</sub>H<sub>24</sub> (192.35). Source: KAN MAI NIANG ZHUANG SHA CAO *Cyperus alopecuroides* (essential oil). Ref: 5129.

**4588 Cyrtominetin**

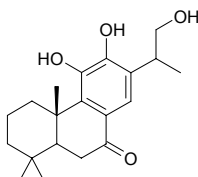
C<sub>17</sub>H<sub>16</sub>O<sub>6</sub> (316.31). Source: HUN TOU JI *Cyrtomium fortunei*. Ref: 6.

**4589 Cyrtophyllin**

C<sub>24</sub>H<sub>26</sub>O<sub>12</sub> (506.47). Gray yellow amorphous powder, mp 152~154°C. Pharm: Anti-inflammatory (rat, arthritis induced by egg white or glucosan); diuretic (rat, orl, 400mg/kg); LD<sub>50</sub> (mus, orl) ≥ 8g/kg, (mus, ip) = 5g/kg. Source: LU BIAN QING *Clerodendron cyrtophyllum*. Ref: 661.

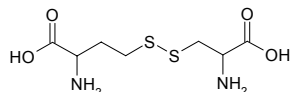
**4590 Cyrtophyllone B**

C<sub>20</sub>H<sub>28</sub>O<sub>4</sub> (332.44). mp 241.8°C, [α]<sub>D</sub><sup>20</sup> = -4.0° (c = 1.4, MeOH). Pharm: Antiproliferative (*in vitro*, MTT assay, CEM, IC<sub>50</sub> = 19.9μmol/L, control Doxorubicin, IC<sub>50</sub> = 0.036μmol/L, HeLa, IC<sub>50</sub> = 20.5μmol/L, Doxorubicin, IC<sub>50</sub> = 0.027μmol/L, HCT8, IC<sub>50</sub> = 59.3μmol/L, Doxorubicin, IC<sub>50</sub> = 0.024μmol/L, MCF7, IC<sub>50</sub> = 70.2μmol/L, Doxorubicin, IC<sub>50</sub> = 0.183μmol/L, B-16, IC<sub>50</sub> = 28.6μmol/L, Doxorubicin, IC<sub>50</sub> = 0.056μmol/L)<sup>[4940]</sup>. Source: *Aegiphila lhotzkyana* (root). Ref: 4940.

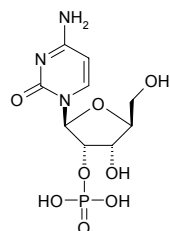


**4591 Cystathionine**

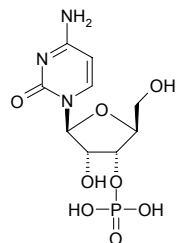
[6899-07-6]  $C_7H_{14}N_2O_4S_2$  (254.33). mp L (+) 312°C (dec). Source: MO GU *Agaricus campestris*. Ref: 6.

**4592 Cytidylic acid A**

[85-94-9]  $C_9H_{14}N_3O_8P$  (323.20). mp 238~239°C. Source: GOU QI YE *Lycium chinense*. Ref: 6.

**4593 Cytidylic acid B**

[84-52-6]  $C_9H_{14}N_3O_8P$  (323.20). mp 233~234°C. Source: GOU QI YE *Lycium chinense*. Ref: 6.

**4594 Cytisine**

Baptitoxine; Sophorine [485-35-8]  $C_{11}H_{14}N_2O$  (190.25). mp (+) 155°C, ( $\pm$ ) 147°C;  $[\alpha]_D^{17} = -119^\circ$ , soluble in water, acetone, methanol, ethanol, chloroform, acetic ester, moderate soluble in benzene, insoluble in ether, petroleum ether.<sup>[5507]</sup> Pharm: Hallucinogen (causes illusion); respiratory stimulant (reflexive); supercharging for cerebral circulation; teratogen (rbt); LD<sub>50</sub> (mus, ip) = 18mg/kg. Source: AO MA JIN QUE HUA *Cytisus osmariensis*<sup>[5507]</sup>, DU DOU *Laburnum anagyroides*, GAO SHAN HUANG HUA *Thermopsis alpina*, HU SHENG YE YE JUE MING *Thermopsis alternifolia*, JING DOU *Ulex europaeus*<sup>[5507]</sup>, KU DOU ZI *Sophora alopecuroides*, KU SHEN SHI *Sophora flavescens* [Syn. *Sophora angustifolia*], KU SHEN *Sophora flavescens* [Syn. *Sophora angustifolia*], MU MA DOU *Thermopsis lanceolata*, XIAO YE YE JUE MING *Thermopsis chinensis*, YE JUE MING *Thermopsis lupinoides*, YING ZHAO DOU *Spartium junceum*, ZI TENG *Wisteria sinensis*, ZI TENG ZI *Wisteria sinensis*. Ref: 4, 6, 593, 658, 5507.

