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As you know, Interchim is specialized in purification of molecules, manufacturing purification systems as well as consumables. Another part is dedicated to the purification of natural products by flash purification.

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	From L-Abrine A2	to Azomycin A25	From 1-Naphthaleneacetic acid A184	to Nuezhenidic acidA191
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	From Cabazitaxel A36	to Cytosporone B A60	From Pachymic acid A198	to Pyromeconic acidA222
	From Daidzein A60	to Dulcoside A A85	From Qianhucoumarin G A222	to Quinic acidA224
	From Ebenifoline E-II A85	to Evonine A96	From RA-V A224	to RutinA231
	From Fabiatrin A96	to Fuziline A102	From Safflor Yellow A A231	to SyrosingopineA251
From 2"-O-beta-L-Galactopyranosylorientin		From Tabersonine A251	to TyrosolA266	
	A102	to Gyrophoric acid A126	From UDP-Gal A266	to Usnic AcidA268
	From Halofuginone A127	to Hypoxanthine A140	From Vaccarin A268	to Vitexin 4'-glucoside A271
	From Icariin A140	to Ivangustin A152	From Warangalone A272	to WushanicaritinA273
	From Jaceosidin A152	to Juncusol A153	From Xanthatin A273	to Xylose A274
	From Kadsulignan N A153	to Kuwanon H A159	From Yangonin A275	to YunaconitineA276
	From Lanatoside C A159	to Lysionotin A167	From Zederone A276	to Ziyuglycoside II A277
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NATA0

L-Abrine CAS: 526-31-8 C₁₂H₁₄N₂O₂

Chemical Name: (2S)-3-(1H-indol-3-yl)-2-(methylamino)propanoic acid

Synonyms: N-Methyl-L-tryptophan; Abrine; N-Methyl-L-tryptophane Vegetable origin

Specification: 98% min by HPLC

NATA1

Acacetin CAS: 480-44-4 C₁₆H₁₂O₅

Synonym: 5,7-Dihydroxy-4'-methoxyflavone Vegetable origin

Solubility: DMSO: ≥ 37mg/mL

1) Natural acacetin was a 4.0-fold and 5.5-fold more potent inhibitor of BACE-1 than oleanolic acid and maslinic acid, respectively.[1]

2) Acacetin significantly suppressed the photoreceptor collapse. [1] 3) Acacetin significantly reduces the A β levels by interfering with human APP proteolytic processing and BACE-1 expression. [1] 4) Acacetin inhibited the generation of the APP-CTF by affecting APP cleavage. [1]

5) Acacetin prolongs lifespan of significantly in the dose dependent manner. Acacetin (25uM) had the greatest effect on longevity, extending mean lifespan significantly by 27.31% at 25uM concentration.

NATA2

Acacetin-7-O-beta-D-rutinoside

CAS: 480-36-4 C₂₈H₃₂O₁₄



Vegetable origin

NATA3

Acanthopanaxoside B CAS: 915792-03-9

Vegetable origin

NATA5

25-acetate-Cimigenoside CAS: 27994-12-3



NATA7

3beta-acetoxy-eupha-7,25-dien-24(R)-ol CAS: 1352001-09-2

Vegetable origin

NATA8

β-Acetoxyisovalerylshikonin CAS: 69091-17-4

C₂₃H₂₆O₈

Chemical Name: [(1S)-1-(5,8-dihydroxy-1,4-dioxonaphthalen-2-yl) 4-methylpent-3-enyl] 3-acetyloxy-3-methylbutanoate Vegetable origin Specification: 98%min

NATAH

N-Acetyl-8-O-(N-acetyl-4',7',8',9',-tetra-O-acetyl-αneuraminosyl)-2-S-pheny-2-thio-neuraminic Acid, 1',9-Ester, 1-Methyl-ester, 4,7-Diacetate CAS: 158111-03-6

NATAI

2-Acetylacteoside CAS: 94492-24-7 C₃₁H₃₈O₁₆

Vegetable origin Specification: 98% min by HPLC



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QĈ

NATAA

 $\begin{array}{l} \textbf{1-Acetyl-beta-carboline}\\ CAS: 50892-83-6\\ C_{13}H_{10}N_2O \end{array}$



NATAL

Acetylcimigenol 3-O-α-L-arabinopyranside CAS: 402513-88-6

Vegetable origin

NATAM

Acetylcorynoline CAS: 18797-80-3

Vegetable origin

NATAB

25-O-Acetyl-7,8-didehydrocimigenol-3-xyloside



Vegetable origin

NATAC

13-Acetyl-9-dihydrobaccatin III CAS: 142203-65-4

Vegetable origin

NATAN

Acetylexidonin CAS: 116368-90-2 C₂₆H₃₄O₉



Vegetable origin

NATAO

6"-O-Acetylglycitin CAS: 134859-96-4

Vegetable origin

NATAP

8-O-acetylharpagide CAS: 6926-14-3 C₁₇H₂₆O₁₁

Synonyms: 3-Acetylharpagide,Harpagide 7-acetate,Acetylharpagide(8-O-Acetylharpagide) Vegetable origin Plant Source: Caryopteris Clandonensis Specification: 98% min by HPLC

NATAD

3-O-Acetyl-16α-hydroxydehydrotrametenolic acid CAS: 168293-14-9

Vegetable origin

NATAE

3-O-Acetyl-16alpha-hydroxytrametenolic acid CAS: 168293-13-8 AND Enantiomer



AND Enantiomer

NATAQ 20-O-Acetylingenol-3-angelate CAS: 82425-35-2 C₂₇H₃₆O₇

Vegetable origin Solubility: 10mM in DMSO

NATAF

1-O-Acetyl-6beta-O-Isobutyrylbritannilactone

CAS: 1087072-50-1 AND Enantiomer $C_{21}H_{30}O_6$ Advion × ^{*}Interchim

A.3

NATAR

N-Acetylneuraminic Acid CAS: 131-48-6

Synonyms: NANA, Sialic Acid

NATAS

N-Acetylneuraminic Acid, dimer(α ,2 \rightarrow 8) CAS: 149331-75-9

NATAT

N-Acetylneuraminic Acid Methyl Ester CAS: 22900-11-4

NATAU

3-O-acetyloleanolic acid CAS: 4339-72-4

Vegetable origin

NATAV

(9R,10R)-9-(acetyloxy)-9,10-dihydro-8,8-dimethyl-10-(1oxopropoxy)-2H,8H-Benzo[1,2-b:3,4-b']dipyran-2-one CAS: 440094-34-8

 $C_{19}H_{20}O_7$



Vegetable origin

NATAZ

N-Acetyl-2-phenylthio-α-neuraminic Acid Methyl Ester 4,7,8,9-Tetraacetate CAS: 118977-26-7

NATB0

N-Acetyl-2-phenylthioneuraminic Acid Methyl Ester 4,7,8,9-Tetraacetate CAS: 155155-64-9

NATA6

Acetyl Resveratrol CAS: 42206-94-0 C₂₀H₁₈O₆

Chemical Name: [4-[2-(3,5-diacetyloxyphenyl)ethenyl]phenyl] acetate Vegetable origin Specification: 98% min by HPLC Biological Activity: anti-aging Application: nutraceutical supplements



NATAG

8-O-Acetyl shanzhiside methyl ester

САS: 57420-46-9 AND Enantiomer С₁₉Н₂₈О₁₂ но



Vegetable origin Solubility: DMSO

8-O-Acetyl shanzhiside methyl ester (ND01) is an iridoid glucoside isolated from the leaves of *Lamiophlomis rotata Kudo*, a Chinese folk medicinal plant in Xi-zang.



NATAY

Acetylshikonin CAS: 54984-93-9 C₁₈H₁₈O₆

Vegetable origin

NATB2

Aconine CAS: 509-20-6 C25H41NO9

Synonym: Jesaconine Vegetable origin Solubility: 10mM in DMSO



NATB3

Aconitine CAS: 302-27-2 C34H47NO11

Synonym: Acetylbenzoylaconine Vegetable origin Solubility: DMSO: ≥ 6.8mg/mL

Aconitine(Acetylbenzoylaconine) is a neurotoxin which activates

tetrodotoxin-sensitive Na* channels, inducing presynaptic depolarization and blocking the release of neurotransmitters; also blocks norepinephrine reuptake and induces ventricular tachycardia after intracoronary injection in heart. Neurotoxin. Activates tetrodotoxinsensitive Na⁺ channels, inducing presynaptic depolarization, thus blocking the nerve action potential which, in turn, blocks the release of neurotransmitters and decreases the end plate potential at the neuromuscular junction. Aconitine also blocks norepinephrine reuptake. In the heart, aconitine induces ventricular tachycardia after intracoronary injection. In cultured ventricular myocytes, aconitine increases the duration of the action potential and induces the appearance of early after depolarization.

NATB4

Adenosine CAS: 58-61-7

Vegetable origin

NATB5

5'-Adenylic acid CAS: 61-19-8

Vegetable origin

NATB6

Aerugidiol CAS: 116425-35-5 C15H22O3

Vegetable origin



AND Enantiomer

NATB7

Aeruginolactone CAS: 1005208-88-7 C15H2003 Vegetable origin



AND Enantiomer



NATB9

NATB8

Afzelechin CAS: 2545-00-8 C₁₅H₁₄O₅

Vegetable origin

NATBA Afzelin

CAS: 482-39-3 C21H20010



Vegetable origin

NATBB

Agaricic acid CAS: 666-99-9 C22H40O7

Chemical Name: 2-hydroxynonadecane-1,2,3-tricarboxylic acid Synonym: Agaric acid Vegetable origin Specification: 95% min

NATBC

Agnuside CAS: 11027-63-7

Vegetable origin

NATBD

Agrostophyllidin CAS: 178439-50-4 C₁₇H₁₆O₄



NATBE

Ailanthone CAS: 981-15-7

Vegetable origin





Vegetable origin



NATBJ AND Enantiomer Ajugamarin F4 CAS: 122587-84-2 C29H42O9 ŌAc Vegetable origin OAc AND Enantiomer NATBK Ajugamarin H1 CAS: 122616-88-0 C34H48O11 Vegetable origin AND Enantiomer NATBL Ajugamarin L2 CAS: 124961-67-7 C₂₅H₃₆O₆ Vegetable origin AND Enantiomer NATBM Ajuganipponin A CAS: 936323-13-6 C31H42O11 OAc i. Vegetable origin AcO NATBN

Ajugasterone C CAS: 23044-80-6



Synonym: Acetyl-11-keto-β-boswellic acid

Vegetable origin

Solubility: DMSO: ≥ 5mg/mL

Acetyl-11-Keto-B-Boswellic Acid (AKBA) is an active triterpenoid compound from the extract of Boswellia serrate: a novel Nrf2 activator. IC50 value: Target: Nrf2 activator in vitro: AKBA significantly reduced infarct volumes and apoptotic cells, and also increased neurologic scores by elevating the Nrf2 and HO-1 expression in brain tissues in middle cerebral artery occlusion (MCAO) rats at 48 hours post reperfusion. In primary cultured neurons, AKBA increased the Nrf2 and HO-1 expression, which provided protection against OGDinduced oxidative insult. Additionally, AKBA treatment increased Nrf2 binding activity to antioxidant-response elements (ARE) [1]. AKBA significantly inhibited human colon adenocarcinoma growth, showing arrest of the cell cycle in G1-phase and induction of apoptosis [3]. AKBA triggered significant lipolysis in 3T3-L1 adipocytes as shown by reduced neutral lipids in cytosol and increased free fatty acids in culture medium. Increased lipolysis by AKBA was accompanied by up-regulation of lipolytic enzymes, adipocyte triglyceride lipase (ATGL) and hormone sensitive lipase (HSL), and a decreased expression of lipid droplet stability regulator perilipin. In addition, AKBA treatment reduced phenotypic markers of mature adipocyte aP2, adiponectin and glut-4 in mature adipocytes [5]. in vivo: AKBA significantly prevented the formation of intestinal adenomatous polyps without toxicity to mice. AKBA's activity both in the prevention of small intestinal and colonic polyps was more potently than aspirin. Histopathologic examination revealed that AKBA's effect, that is the reduction of polyp size and degree of dysplasia, was more prominent in larger sized polyps, especially those originating in colon [2]. AKBA administration in mice effectively delayed the growth of HT-29 xenografts without signs of toxicity. The activity of AKBA was more potent than that of aspirin [3]. AKBA exhibited anti-cancer activity in vitro and in vivo. With oral application in mice, AKBA significantly inhibited SGC-7901 and MKN-45 xenografts without toxicity [4].

NATBR

β-Alanine CAS: 107-95-9 C₃H₇NO₂

Synonyms: 2-Carboxyethylamine;3-Aminopropanoic acid Vegetable origin

NATBQ

L-Alanine CAS: 56-41-7 C₃H₇NO₂

Synonym: L-2-Aminopropionic acid Vegetable origin Solubility: H₂O: 150 mg/mL

NATBS

Alantolactone CAS: 546-43-0 C₁₅H₂₀O₂



Synonyms: (+)-Alantolactone; Alant camphor; Elecampane camphor Eupatal; Inula camphor Vegetable origin

Solubility: 10mM in DMSO

Alantolactone(Alant camphor) is a sesquiterpene lactone; has potential activity against triple-negative breast cancer MDA-MB-231 cells by suppressing the signal transducer and activator of transcription 3 (STAT3) signaling pathway. IC50 value: Target: STAT3 inhibitor in vitro: Alantolactone effectively suppressed both constitutive and inducible STAT3 activation at tyrosine 705. Alantolactone decreased STAT3 translocation to the nucleus, its DNA-binding, and STAT3 target gene expression. Alantolactone significantly inhibits STAT3 activation with a marginal effect on MAPKs and on NF-kB transcription; however, this effect is not mediated by inhibiting STAT3 upstream kinases [1]. 48h exposure of human erythrocytes to alantolactone (≥20µM) significantly decreased erythrocyte forward scatter and increased the percentage of annexin-V-binding cells [2]. Alantolactone could efficiently inhibit the promoter activity of TSP50 gene, further results revealed that alantolactone also efficiently inhibited the expression of TSP50 in both mRNA and protein levels [3]. Alantolactone treatment of RKO cells was found to result in dose dependent inhibition of cell viability and induction of apoptosis, accompanied with the accumulation of reactive oxygen species (ROS) and the disruption of mitochondrial membrane potential [4]. Alantolactone induced apoptosis in HepG2 cells in a dose-dependent manner. This alantolactone-induced apoptosis was found to be associated with GSH depletion, inhibition of STAT3 activation, ROS generation, mitochondrial transmembrane potential dissipation, and increased Bax/Bcl-2 ratio and caspase-3 activation [5]. in vivo: The in vivo administration of alantolactone inhibited the growth of human breast xenograft tumors [1]

NATBT Albanin A CAS: 73343-42-7

C₂₀H₁₈O₆

Vegetable origin

NATBU Albaspidin AA CAS: 3570-40-9

NATBV

Albaspidin AP CAS: 59092-91-0

Vegetable origin



C₂₃H₂₈O₁₁



Vegetable origin

Solubility: DMSO: ≥ 5.1mg/mL

Albiflorin is a major constituent contained in peony root; possesses therapeutic potential for neurodegenerative diseases. IC50 value: Target: in vitro: Albiflorin significantly ameliorated Glu-induced reduction of cell viability, nuclear and mitochondrial apoptotic alteration, reactive oxygen species accumulation, and B-cell lymphoma 2 (Bcl-2)/Bax ratio. Albiflorin also enhanced phosphorylation of AKT and its downstream element glycogen synthase kinase-3β, and this effect was abrogated by the AKT inhibitor LY294002 [1]. in vivo: Mice were exposed to X-ray radiation (400 Roentgen), and both mice and rabbits were intraperitoneally injected with cyclophosphamide (100.0mg/kg) and cytarabine chloride (92.7mg/kg), respectively, for 3 days to induce myelosuppression. Albiflorin was subsequently administrated intravenously at low (15.0mg/kg for mice, 6.00mg/kg for rabbits), intermediate (30.0mg/kg for mice, 12.0mg/kg for rabbits) and high (60.0mg/kg for mice, 24.0 mg/kg for rabbits) doses, as well as orally (60.0mg/kg for mice, 24.0mg/kg for rabbits) for 7 days. Shengi tablets were used as positive controls (oral administration of 936.0mg/kg for mice, 336.0mg/kg for rabbits). The administration of Albiflorin significantly ameliorated myelosuppression in all cases [2].

NATBX

Alcesefoliside CAS: 124151-38-8

Vegetable origin

NATBY

6-Aldehydoisoophiopogonanone A CAS: 116291-82-8

Vegetable origin

NATBZ

Alismoxide CAS: 87701-68-6 C15H26O2

Synonym: (+)-Alismoxide Vegetable origin Solubility: DMSO: ≥ 31 mg/mL





Synonyms: Alisol-A 24-acetate; Alisol A 24-monoacetate; Alisol A monoacetate Vegetable origin Solubility: 10mM in DMSO



Solubility: 10mM in DMSO H

Alisol B is a potentially novel therapeutic compound for bone disorders by targeting the differentiation of osteoclasts as well as their functions. IC50 Value: Target: In vitro: The in vitro cultured human renal tubular epithelial HK-2 cells were intervened with 5ng/mL transforming growth factor-beta (TGF-beta), 0.1micromol C3a, and 0.1micromol C3a + 10micromol alisol B, respectively. Exogenous C3a could induce renal tubular EMT. Alisol B was capable of suppressing C3a induced EMT [1]. Alisol-B strongly inhibited RANKLinduced osteoclast formation when added during the early stage of cultures, suggesting that alisol-B acts on osteoclast precursors to inhibit RANKL/RANK signaling. Among the RANK signaling pathways, alisol-B inhibited the phosphorylation of JNK, which are upregulated in response to RANKL in bone marrow macrophages, alisol-B also inhibited RANKL-induced expression of NFATc1 and c-Fos, which are key transcription factors for osteoclastogenesis. In addition, alisol-B suppressed the pit-forming activity and disrupted the actin ring formation of mature osteoclasts [2]. Alisol B induced calcium mobilization from internal stores, leading to autophagy through the activation of the CaMKK-AMPK-mammalian target of rapamycin pathway. Moreover, the disruption of calcium homeostasis induces endoplasmic reticulum stress and unfolded protein responses in alisol B-treated cells, leading to apoptotic cell death. Finally, by computational virtual docking analysis and biochemical assays, it was showed that the molecular target of alisol B is the sarcoplasmic/endoplasmic reticulum Ca(2+) ATPase [3]. In vivo.



Synonyms: 23-Acetylalismol B; 23-O-Acetylalisol B; Alisol B monoacetate Vegetable origin Solubility: 10mM in DMSO

Alisol B 23-acetate, a natural triterpenoid, produces protective effects against EE-induced cholestasis, due to FXR-mediated gene regulation. IC50 Value: Target: Anti-hepatotoxic natural product. In vitro: Alisol-B 23-acetate has an effect on FXR activation in a dosedependent manner using luciferase reporter assay in HepG2 cells [3]. In vivo: In alisol B 23-acetate-treated mice, the changes in transporters and enzymes, as well as ameliorative liver histology were abrogated by FXR antagonist guggulsterone [1]. Alisol B 23-acetate treatment in a dose-dependent manner resulted in protection against hepatotoxicity induced by CCI4via FXR activation. Through FXR activation, alisol B 23-acetate promoted hepatocyte proliferation via an induction in hepatic levels of FoxM1b, Cyclin D1 and Cyclin B1. Alisol B 23-acetate also reduced hepatic bile acids through a decrease in hepatic uptake transporter Ntcp, bile acid synthetic enzymes Cyp7a1, Cyp8b1, and an increase in efflux transporter Bsep, Mrp2 expression. In addition, alisol B 23-acetate induced the expression of STAT3 phosphorylation, and STAT3 target genes Bcl-xl and SOCS3, resulting in decreased hepatocyte apoptosis [2].



Synonyms: 23-O-Acetylalisol C; Alisol C monoacetate Vegetable origin Solubility: 10mM in DMSO

Alisol C 23-acetate, a natural product extracted from Alisma orientale, can significantly and strongly inhibit DTH response after oral administration.





Synonyms: Alisol-G; 25-Anhydroalisol A Vegetable origin Solubility: 10mM in DMSO Alisol G is a natural product extracted from Rhizoma Alimatis.

NATC9 Alizarin

CAS: 72-48-0

C₁₄H₈O₄

Vegetable origin

NATCB

Allantoin CAS: 97-59-6 C₄H₂N₄O₂



Synonym: 5-Ureidohydantoin Vegetable origin Solubility: DMSO: 6mg/mL Allantoin is a skin conditioning agent that promotes healthy skin, stimulates new and healthy tissue growth.

NATCC Allicin CAS: 539-86-6

NATCD

Alliin CAS: 556-27-4 C₆H₁₁NO₃S

Chemical Name: (2R)-2-amino-3-prop-2-enylsulfinylpropanoic acid Vegetable origin Specification: 98% min by HPLC

NATCE

Allitol CAS: 488-44-8



NATCG Alloalant

 $\begin{array}{l} \textbf{Alloalantolactone} \\ \text{CAS: 64340-41-6} \\ \text{C}_{15}\text{H}_{20}\text{O}_2 \end{array}$



Vegetable origin

NATCI

Allocryptopine CAS: 24240-04-8 C₂₁H₂₃NO₅

Chemical Name: 5,7,8,15-Tetrahydro-3,4-dimethoxy-6-methyl-[1,3] benzodioxolo[5,6-e][2]benzazecin-14(6H)-one Synonyms: Thalictrimine; Allo-cryptopine; Alpha-Allocryptopine Vegetable origin Specification: 98% min by HPLC

NATCJ

Alloimperatorin CAS: 642-05-7

Vegetable origin

NATCK

3-O-β-Allopyranosyl-(1→4)-β-oleandropyranosyl-11-Oisobutyryl-12-O-acetyl-Tenacigenin B CAS: 1260252-18-3

Vegetable origin

NATCL

(3beta,7beta,9beta,10alpha,23E)-19-3-(beta-Dallopyranosyloxy)-7-hydroxy-25-methoxy-Norlanosta-5,23-diene-9-carboxaldehyde



Vegetable origin

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NATCM

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D-Allose CAS: 2595-97-3

NATCN

 $\begin{array}{l} \textbf{4-Allylcatechol}\\ \text{CAS: 1126-61-0}\\ \text{C}_{9}\text{H}_{10}\text{O}_{2} \end{array}$

Synonyms: 4-Allylpyrocatechol;Hydroxychavicol Vegetable origin Solubility: DMSO 4-Allylcatechol (4-Allylpyrocatechol, Hydroxychavicol) is an intermediate to synthetic safrole.

NATCO

Alnustone CAS: 33457-62-4 C₁₉H₁₈O

Chemical Name: (4E,6E)-1,7-Diphenyl-4,6-heptadien-3-one Vegetable origin Specification: 98% min

A.10

Minterchim × **Advion**

NATCT

Aloin CAS: 1415-73-2 C₂₁H₂₂O₉

Synonyms: Aloin-A;Barbaloin-A Vegetable origin Solubility: DMSO: ≥ 27mg/mL

Aloin(Aloin-A; Barbaloin-A) is a natural antitumor anthraquinone glycoside with iron chelating and non-atherogenic activities. IC50 value: Target: in vitro: Aloin significantly inhibited HUVECs proliferation, migration and tube formation in vitro. suppressed activation of VEGF receptor (VEGFR) 2 and STAT3 phosphorylation in endothelial cells. In addition, the constitutively activated STAT3 protein, and the expression of STAT3-regulated antiapoptotic (Bcl-xL), proliferative (c-Myc), and angiogenic (VEGF) proteins were also downregulated in response to AL in human SW620 cancer cells [1]. Aloin exerted inhibition of cell proliferation, adhesion and invasion abilities of B16-F10 melanoma cells under non-cytotoxic concentrations. Furthermore, aloin induced melanoma cell differentiation through the enhancement of melanogenesis and transglutaminase activity [2]. In vivo: Aloin substantially reduced tumor volumes and weight in vivo mouse xenografts, without obviously toxicity [1]. Aloin (10, 30mg/ kg bw) or vehicle was given by gavage to mice after each alcohol administration. Alcohol elevated the serum transaminases alanine aminotransferase, aspartate aminotransferase, total cholesterol and triglyceride levels which were significantly attenuated by the co-administration of aloin (p < 0.05) [3].

NATCU

Aloin (mixture of A&B) CAS: 8015-61-0

Vegetable origin

NATCV Aloin B CAS: 28371-16-6 C₂₁H₂₂O₉

Synonyms: Aloin-B; Isobarbaloin U Vegetable origin

NATCW

Aloperine CAS: 56293-29-9

Vegetable origin

shock protein 90 (HSP90) and ER α and increased ER α ubiquitination. Protein fractionation results suggest that aloe-emodin tended to induce cytosolic ER α degradation [1] Aloe-emodin a natural com-

Solubility: 10mM in DMSO

Synonyms: Rhabarberone; 3-Hydroxymethylchrysazine

Aloe emodin is a hydroxyanthraquinone present in Aloe vera leaves,

has a specific in vitro and in vivo antitumor activity. IC50 value: Tar-

get: in vitro: aloe-emodin treatment led to the dissociation of heat

NATCP

C₁₅H₁₀O₅

Aloe emodin

CAS: 481-72-1

Vegetable origin

induce cytosolic ER α degradation [1]. Aloe-emodin, a natural compound found in aloe, inhibited both proliferation and anchorage-independent growth of PC3 cells. Protein content analysis suggested that activation of the downstream substrates of mTORC2, Akt and PKCa, was inhibited by aloe-emodin treatment. Pull-down assay and in vitro kinase assay results indicated that aloe-emodin could bind with mTORC2 in cells and inhibit its kinase activity [2]. Of three anthraquinone derivatives, aloe-emodin, with a lower cytotoxicity showed concentration-dependently reducing virus-induced cytopathic effect and inhibiting replication of influenza A in MDCK cells. Galectin-3 also inhibited influenza A virus replication. Proteomic analysis of treated cells indicated galectin-3 up-regulation as one anti-influenza A virus action by aloe-emodin. Since galectin-3 exhibited cytokinelike regulatory actions via JAK/STAT pathways, aloe-emodin also restored NS1-inhibited STAT1-mediated antiviral responses in transfected cells: e.g., STAT1 phosphorylation of interferon (IFN) stimulation response element (ISRE)-driven promoter, RNA-dependent protein kinase (PKR) and 2'5',-oligoadenylate synthetase (2'5',-OAS) expression [3]. AE downregulated mRNA expression and promoter/ gelatinolytic activity of Matrix Metalloproteinase (MMP)-2/9, as well as the RhoB expression at gene and protein level. AE suppressed the nuclear translocation and DNA binding of NF-kB [4]. In vivo: Aloeemodin also exhibited tumor suppression effects in vivo in an athymic nude mouse model [2].

NATCQ

Aloe-emodin-8-O-beta-D-glucopyranoside CAS: 33037-46-6

Vegetable origin

NATCR

Aloenin CAS: 38412-46-3 C₁₉H₂₂O₁₀

Vegetable origin Specification: 98% min by HPLC

NATCS

Aloeresin D CAS: 105317-67-7

Vegetable origin

AND Enantiomer

NATCX

Alpinetin CAS: 36052-37-6 C₁₆H₁₄O₄

Synonym: 7-Hydroxy-5-methoxyflavanone Vegetable origin Plant Source: AMOMUM SUBULATUM Specification: 98% min by HPLC

NATCY

Alpinoid D CAS: 1041740-13-9 C₂₀H₂₀O₃ //

Vegetable origin

NATCZ

D-Altrose CAS: 1990-29-0

NATD0

Amarogentin CAS: 21018-84-8

Vegetable origin

NATD1

Amentoflavone CAS: 1617-53-4 C₃₀H₁₈O₁₀



Synonym: Didemethyl-ginkgetin Vegetable origin

Solubility: DMSO: ≥ 34mg/mL

Amentoflavone is a natural biflavone compound with many biological properties, including anti-inflammatory, antioxidative, and neuroprotective effects. IC50 value: Target: In vitro: In irradiated v79 cells, Pretreatment with amentoflavone 24 hours prior to 8 Gy 60Co γ-ray irradiation significantly inhibited apoptosis, promoted the G2 phase, decreased the concentration of ROS and mitochondrial mass [2]. Amentoflavone dose-dependently inhibited the viability of SW480 cells, and a high concentration of amentoflavone (150µmol/L) obviously induced apoptosis of the cells [3]. In vivo: In epilepsy models, amentoflavone effectively prevented pilocarpine-induced epilepsy in a mouse kindling model, suppressed nuclear factor-κB activation and expression, inhibited excessive discharge of hippocampal neurons resulting in a reduction in epileptic seizures, shortened attack time, and diminished loss and apoptosis of hippocampal neurons [1].

NATD2

γ-aminobutyric acid CAS: 56-12-2 $C_4H_0NO_2$

Synonym: 4-Aminobutyric acid Vegetable origin

NATD3

5-Aminolevulinic acid (hydrochloride) CAS: 5451-09-2 C₅H₁₀CINO₃

Synonyms: ALA; 5-ALA Vegetable origin



5-Aminolevulinic acid HCl is an intermediate in heme biosynthesis in the body and the universal precursor of tetrapyrroles.

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Target: Others 5-Aminolevulinic acid is a non-fluorescent prodrug that leads to intracellular accumulation of fluorescent porphyrins in malignant gliomas-a finding that is under investigation for intraoperative identification and resection of these tumours. Median follow-up was 35.4 months (95% CI 1.0-56.7). Contrast-enhancing tumour was resected completely in 90 (65%) of 139 patients assigned 5-aminolevulinic acid compared with 47 (36%) of 131 assigned white light (difference between groups 29% [95% CI 17-40], p<0.0001). Patients allocated 5-aminolevulinic acid had higher 6-month progression free survival than did those allocated white light (41.0% [32.8-49.2] vs 21.1% [14.0-28.2]; difference between groups 19.9% [9.1-30.7], p=0.0003, Z test) [1]. 5-ALA alone proved to be insufficient in attaining gross total resection without the danger of incurring postoperative neurological deterioration. Furthermore, in the case of functional grade III gliomas, iMRI in combination with functional neuronavigation was significantly superior to the 5-ALA resection technique [2].



Amygdalin is a plant glucoside isolated from the stones of rosaceous fruits, such as apricots, peaches, almond, cherries, and plums.



Vegetable origin

NATD9

 $\begin{array}{l} \textbf{Anacardic Acid} \\ \textbf{CAS: 16611-84-0} \\ \textbf{C}_{22}\textbf{H}_{36}\textbf{O}_{3} \end{array}$

Chemical Name: 2-hydroxy-6-pentadecylbenzoic acid Synonyms: Cyclogallipharic acid; 22:0-Anacardic acid Vegetable origin Plant Source: cashew nut Specification: 98% min by HPLC

NATDA

Anacardoside CAS: 164991-86-0 C₁₉H₂₈O₁₂

Synonym: Orcinol gentiobioside Vegetable origin Plant Source: Semecarpus anacardium Specification: 98% min by HPLC

NATDB

Anagyrine CAS: 486-89-5 C₁₅H₂₀N₂O



Vegetable origin

NATDC

Ancitabine (hydrochloride) CAS: 10212-25-6 $C_9H_{12}CIN_3O_4$



AND Enantiomer

Synonyms: Cyclocytidine hydrochloride;Cyclo-hydrochloride; Cyclo-C Vegetable origin Solubility: DMSO: ≥ 10mM; DMSO: < 11.4mg/mL Ancitabine (hydrochloride) is an important antileukemia drugs.



Andrographolide(Andrographis) is an irreversible antagonist of NFκB and prevents in vitro T cell activation; displays antiviral, antiinflammatory, antiapoptotic, and antihyperglycemic properties. IC50 value: Target: NF-kB antagonist in vitro: Treating TNF-α-stimulated VSMCs with andrographolide suppressed the expression of inducible nitric oxide synthase in a concentration-dependent manner. A reduction in TNF-α-induced c-Jun N-terminal kinase (JNK), Akt, and p65 phosphorylation was observed in andrographolide-treated VSM-Cs. However, andrographolide affected neither IkBa degradation nor p38 mitogen-activated protein kinase or extracellular signal-regulated kinase 1/2 phosphorylation under these conditions [1]. Andrographolide caused a dose-dependent increase in Cleaved-Caspase3/ Bax protein expression and a decrease in Bcl-2/NF-kb expression. Apoptosis in andrographolide-treated ECA-109 increased significantly compared with the apoptosis in the simple drug and radiation combined with drug groups (P < 0.001; P < 0.05) [3]. In vivo: In a hepatoprotection study, rats were intragastrically dosed with 30 or 50mg/kg andrographolide for 5 consecutive days. The results showed that andrographolide up-regulated glutamate cysteine ligase (GCL) catalytic and modifier subunits, superoxide dismutase (SOD)-1, heme oxygenase (HO)-1, and glutathione (GSH) S-transferase (GST) Ya/Yb protein and mRNA expression in the liver, heart, and kidneys [2]

NATDE

Andropanolide

CAS: 869807-57-8

Vegetable origin

NATDF

Androsin CAS: 531-28-2 C₁₅H₂₀O₈

Chemical Name: 1-[3-methoxy-4-[(2S,3R,4S,5S,6R)-3,4,5-trihydroxy-6-(hydroxymethyl)oxan-2-yl]oxyphenyl]ethanone Synonym: glucoacetovanillone Vegetable origin Specification: 98% min by HPLC

NATDG Anemarsaponin E CAS: 136565-73-6

Vegetable origin

Advion × Pinterchim

NATDH

cis-Anethol CAS: 104-46-1

Vegetable origin

NATDI

trans-Anethole CAS: 4180-23-8

Vegetable origin

NATDJ

Angelic acid CAS: 565-63-9

Vegetable origin

NATDK

Angelic Anhydride CAS: 94487-74-8

Vegetable origin

NATDL

Angelicin CAS: 523-50-2 C₁₁H₆O₃



Synonym: Isopsoralen Vegetable origin Solubility: 10mM in DMSO

Angelicin, a furocoumarin naturally occurring tricyclic aromatic compound, structurally related to psoralens, is reported to have anti-cancer, antiviral, anti-inflammatory activity. IC50 value: 49.56µM (cellular cytotoxicity); 5.39µg/ml (28.95µM) (against MHV-68) Target: In vitro: In human SH-SY5Y neuroblastoma cells, angelicin increased cellular cytotoxicity in a dose- and time-dependent manner with IC50 of 49.56µM at 48h of incubation. Angelicin dose-dependently downregulated the expression of anti-apoptotic proteins including Bcl-2, Bcl-xL, and Mcl-1; Angelicin-induced apoptosis is mediated primarily through the intrinsic caspase-mediated pathway[1]. Angelicin efficiently inhibited 12-O-tetradecanoylphorbol-13-acetate (TPA)-induced lytic replication of human gammaherpresviruses in both EBVand KSHV-infected cells [2]. Angelicin was potentially advantageous to prevent inflammatory diseases by inhibiting NF-kB and MAPK pathways [3]. In vivo.

NATDM

AngeloyIgomisin H CAS: 66056-22-2

Vegetable origin

NATDN

AngeloyIgomisin O CAS: 83864-69-1

Vegetable origin

NATDO

Angoroside C CAS: 115909-22-3 C₃₆H₄₈O₁₉

Vegetable origin Plant Source: Scrophularia ningpoensis Hemsl. Specification: 98% min by HPLC

NATDP

Angustifoline CAS: 550-43-6 C₁₄H₂₂N₂O

Vegetable origin

AND Enantiomer

AND Enantiomer



NATDR



NATDS

Anhydroicaritin CAS: 38226-86-7

Vegetable origin

NATDT

p-Anisaldehyde CAS: 123-11-5

Vegetable origin

NATDU

Anisodamin CAS: 55869-99-3 C₁₇H₂₃NO₄



AND Enantiomer

Synonym: 6-Hydroxyhyoscyamine Vegetable origin Solubility: 10mM in DMSO Anisodamine is an anticholinergic and α 1-adrenergic receptor antagonist used in the treatment of acute circulatory shock, is also a naturally occurring tropane alkaloid found in some plants of the Solanaceae family.



NATDV

Anthraquinone CAS: 84-65-1

C₁₄H₈O₂

Chemical Name: anthracene-9,10-dione Vegetable origin Specification: 98% min by HPLC

NATDW



Vegetable origin

NATDX

Anthricin CAS: 19186-35-7 C₂₂H₂₂O₇



Synonym: Deoxypodophyllotoxin Vegetable origin

NATDY

 $\begin{array}{l} \textbf{Anthriscinol} \\ \text{CAS: 69618-94-6} \\ \text{C}_{11}\text{H}_{12}\text{O}_{4} \end{array}$



Vegetable origin

NATDZ

Anthriscusin CAS: 67008-16-6 C₂₁H₂₄O₇

NATE0



NATE1 Apigenin CAS: 520-36-5 C₁₅H₁₀O₅ Ho

Synonyms: 4',5,7-Trihydroxyflavone;Apigenine;Apigenol;C.I. Natural Yellow 1

Vegetable origin

Solubility: DMSO: ≥ 30mg/mL

Apigenin is a non-toxic and non-mutagenic flavone that exists abundantly in numerous herbs and Vegetables. IC50 value: Target: In vitro: Apigenin reduced viability and migratory properties, increased apoptosis, and suppressed mitochondrial membrane potential in both the JAR and JEG3 cells. In addition, apigenin predominantly decreased phosphorylation of AKT, P70RSK and S6 whereas the phosphorylation of ERK1/2 and P90RSK was increased by apigenin treatment of JAR and JEG3 cells in a dose-dependent manner. Moreover, treatment of JAR and JEG3 cells with both apigenin and pharmacological inhibitors of PI3K/AKT (LY294002) and ERK1/2 (U0126) revealed synergistic anti-proliferative effects [1]. In vivo: Using NF-KB luciferase transgenic mice, we found that apigenin effectively modulated NF-kB activity in the lungs, suggesting the ability of dietary compounds to exert immune-regulatory activity in an organ-specific manner [2]. In rabbit articular chondrocytes, apigenin inhibited the gene expression of MMP-3, MMP-1, MMP-13, ADAMTS-4, and ADAMTS-5. Furthermore, apigenin inhibited production of MMP-3 protein in vivo [3].

NATE2

Apigenin 6-C-α-L-arabinopyranosyl-8-C-β-Dxylopyranoside CAS: 677021-30-6

Vegetable origin



Synonyms: Apigenin-7-O- β -D-glucopyranoside; Apigetrin; Cosmosiin

Vegetable origin

Solubility: DMSO: ≥ 30mg/mL

Apigenin-7-glucoside exhibits significant anti-proliferative and antioxidant activity, scavengers of ROS. In vitro: exhibits significant anti-proliferative activity against B16F10 melanoma cells after 24 and 48h of incubation. Apigenin-7-glucoside provoks an increase of subG0/G1, S and G2/M phase cell proportion with a significant decrease of cell proportion in G0/G1 phases. Apigenin-7-glucoside enhances melanogenesis synthesis and tyrosinase activity of B16F10 melanoma cells. [1] Api7G specifically induced the differentiation of CD34+ cells towards the erythroid lineage and inhibited the myeloid differentiation. [2] APIG had strong antioxidant activity against reactive oxygen species (ROS) in vitro in a concentration-dependent manner.

AND Enantiome

NATE5

Apigenin-7-O-glucuronide CAS: 29741-09-1

Vegetable origin

NATE4

Apigenin-7-O -(2G-rhamnosyl)gentiobioside CAS: 174284-20-9

Vegetable origin

NATE6

Apiin CAS: 26544-34-3 C₂₆H₂₈O₁₄

Vegetable origin Specification: 98% min by HPLC

NATE7

6'-O-β-D-apiofuranosyl-Sweroside CAS: 266678-59-5

Vegetable origin

NATE8

Apiopaeonoside CAS: 100291-86-9

Vegetable origin

NATE9

6"-O-Apiosyl-5-O-Methylvisammioside

CAS: 139446-82-5 C₂₇H₃₆O₁₄

AND Enantiom



Vegetable origin

Solubility: DMSO 6"-O-Apiosyl-5-O-Methylvisammioside is one of the components of the traditional Chinese medicine **Kang-Jing**.

NATEA

Apocynin CAS: 498-02-2 C₉H₁₀O₃



Synonym: Acetovanillone Vegetable origin Solubility: 10mM in DMSO

Apocynin is a selective NADPH-oxidase inhibitor with IC50 of 10µM. apocynin is an intracellular inhibitor of the assembly of NADPH oxidase in neutrophils and eosinophils and that apocynin requires conversion by peroxidases to exert its inhibitory effec [1] Apocynin can decrease the production of superoxide (O(2)(-)) from activated neutrophils and macrophages. Apocynin, after metabolic conversion, inhibits the assembly of NADPH-oxidase that is responsible for reactive oxygen species (ROS) production. [2] NADPH-oxidase is an enzyme responsible for reactive oxygen species production (ROS) and inhibition of this enzyme represents an attractive therapeutic target for the treatment of many diseases. [3]

NATEB

Arabinocytosine CAS: 147-94-4

Vegetable origin

NATED

3beta-[(alpha-L-Arabinopyranosyl)oxy]ursa-12,19(20)dien-28-oic acid beta-D-glucopyranosyl ester CAS: 686776-47-6 AND Enantiomer C₄₁H₆₄O₁₂



Vegetable origin

NATEC

(3beta)-3-(alpha-L-arabinopyranosyloxy)-Ursa-12,19(29)dien-28-oic acid, beta-D-glucopyranosyl ester

CAS: 356785-72-3





NATEE

D-arabinose CAS: 10323-20-3 C₅H₁₀O₅

Vegetable origin

NATEF

Arachidic Acid CAS: 506-30-9

NATEG

Araloside A CAS: 7518-22-1

C₄₇H₇₄O₁₈

Synonyms: Chikusetsusaponin IV,Oleanane Vegetable origin Plant Source: ARALIA DECAISNEANA HANCE Specification: 98% min by HPLC

NATEH

Arbutin CAS: 497-76-7 C₁₂H₁₆O₇



Synonyms: p-Arbutin; β-Arbutin Vegetable origin Solubility: DMSO: ≥ 2.9mg/mL

Arbutin(β -Arbutin) is a glycoside; a glycosylated hydroquinone extracted from the bearberry plant in the genus Arctostaphylos; inhibits tyrosinase and thus prevents the formation of melanin. IC50 value: Target: tyrosinase

NATEI

alpha-Arbutin CAS: 84380-01-8 C₁₂H₁₆O₇

Vegetable origin

Chemical Name: (2R,3S,4S,5R,6R)-2-(hydroxymethyl)-6-(4-hydroxyphenoxy)oxane-3,4,5-triol Synonyms: 4-Hydroxyphenyl a-D-glucopyranoside; CHEBI:29710; 4-Hydroxyphenyl-alpha-D-glucopyranoside Specification: 98% min by HPLC



NATEK

Arctigenin 4'-O-β-gentiobioside CAS: 41682-24-0

Vegetable origin



Synonyms: Arctii; NSC 315527; Arctigenin-4-glucoside Vegetable origin

Solubility: DMSO: ≥ 5.4mg/mL

Arctiin(NSC 315527), a plant lignan that can be extracted from the Arctium lappa (burdock) seeds, is a possible environmental endocrine disruptor compounds and have been shown to influence sex hormone metabolism as well as protein synthesis, steroid biosynthesis. IC50 Value: Target: Others in vitro: Treatment of PC-3 cells with arctiin decreased the cell number in a concentration- and time-dependent manner in serum-containing condition. Arctiin preferentially induced cell detachment, but did not have anti-proliferation or cytotoxic effects in PC-3 cells. The arctiin-induced effect was inhibited by cycloheximide, indicating that protein synthesis was required [1]. Although arctiin, the active component of AL that has been described in the literature, was not able to reduce degranulation in RBL-2H3 cells, a single high-performance liquid chromatography (HPLC) fraction from the AL extract inhibited beta-hexosaminidase release (IC(50) = 22.2microg/ml) [2]. The growth inhibition caused by arctiin is associated with the down-regulation of cyclin D1 protein expression. Furthermore, thearctiin-induced suppression of cyclin D1 protein expression occurs in various types of human tumor cells, including osteosarcoma, lung, colorectal, cervical and breast cancer, melanoma, transformed renal cells and prostate cancer. Depletion of the cyclin D1 protein using small interfering RNA-rendered human breast cancer MCF-7 cells insensitive to the growth inhibitory effects of arctiin, implicates cyclin D1 as an important target of arctiin [6]. in vivo: Histopathological evaluation of prostate revealed that all the rats in any group developed adenocarcinoma in dorsolateral lobe of prostate, except two rats in 0.1% arctiin treated and one rat in 0.002% arctiin treated groups without prostate adenocarcinoma development [3]. After oral administration of arctiin (30, 60, 120mg/kgd) for three weeks, the levels of serum creatinine (Scr) and blood urea nitrogen (BUN) and 24-h urine protein content markedly decreased, while endogenous creatinine clearance rate (ECcr) significantly increased [4]. STZ-induced diabetic rats were treated witharctiin at the dosage of 60 or 40mg/kg/day via intraperitoneal injection for 8 weeks. Blood glucose and 24-h urinary albumin content were measured, and kidney histopathological changes were monitored [5].

NATEM

Ardisiacrispin A CAS: 23643-61-0

Vegetable origin

Advion × ^{**} interchim

NATEN

Arecoline hydrobromide CAS: 300-08-3C₈H₁₃NO₂.HBr

Chemical Name: methyl 1-methyl-3,6-dihydro-2H-pyridine-5-carboxylate hydrobromide Vegetable origin Specification: 98% min

NATEO

Arenobufagin CAS: 464-74-4 $C_{24}H_{32}O_6$



Vegetable origin Solubility: 10mM in DMSO

Arenobufagin is a natural bufadienolide from toad venom; has potent antineoplastic activity against HCC HepG2 cells as well as corresponding multidrug-resistant HepG2/ADM cells. IC50 value: Target: in vitro: arenobufagin induced mitochondria-mediated apoptosis in HCC cells, with decreasing mitochondrial potential, as well as increasing Bax/Bcl-2 expression ratio, Bax translocation from cytosol to mitochondria. Arenobufagin also induced autophagy in HepG2/ ADM cells. Autophagy-specific inhibitors (3-methyladenine, chloroquine and bafilomycin A1) or Beclin1 and Atg 5 small interfering RNAs (siRNAs) enhanced arenobufagin-induced apoptosis, indicating that arenobufagin-mediated autophagy may protect HepG2/ ADM cells from undergoing apoptotic cell death [1]. Arenobufagin inhibited vascular endothelial growth factor (VEGF)-induced viability, migration, invasion and tube formation in human umbilical vein endothelial cells (HUVECs) in vitro [2]. Arenobufagin blocked the Na⁺/ K⁺ pump current in a dose-dependent manner with a half-maximal concentration of 0.29 microM and a Hill coefficient of 1.1 [3]. In vivo: arenobufagin inhibited the growth of HepG2/ADM xenograft tumors, which were associated with poly (ADP-ribose) polymerase cleavage, light chain 3-II activation and mTOR inhibition [1]. Arenobufagin also suppressed sprouting formation from VEGF-treated aortic rings in an ex vivo model [2]

NATEP

Arenobufagin 3-hemisuberate CAS: 30219-16-0

Vegetable origin

NATEQ L-Arginine

CAS: 74-79-3

 $C_6H_{14}N_4O_2$



Synonym: (S)-(+)-Arginine Vegetable origin

Solubility: 10mM in H₂O

L-Arginine is the nitrogen donor for synthesis of nitric oxide, a potent vasodilator that is deficient during times of sickle cell crisis. Target: Others L-Arginine is an α-amino acid. It was first isolated in 1886. The L-form is one of the 20 most common natural amino acids. At the level of molecular genetics, in the structure of the messenger ribonucleic acid mRNA, CGU, CGC, CGA, CGG, AGA, and AGG, are the triplets of nucleotide bases or codons that code for arginine during protein synthesis. In mammals, arginine is classified as a semiessential or conditionally essential amino acid, depending on the developmental stage and health status of the individual. L-Arginine is associated with a decrease in cardiac index while stroke index is maintained in patients with severe sepsis. Resolution of shock at 72hours is achieved by 40% and 24% of the patients in the L-Arginine and placebo cohorts, respectively. L-Arginine (450mg/kg during a 15-minute period) amplifies and sustains the hyperemia (38%) and increases absolute brain blood flow after eNOS upregulation by chronic simvastatin treatment (2mg/kg subcutaneously, daily for 14 days) in SV-129 mice.



Vegetable origin

A.18

NATEV

Aristolochic acid C CAS: 4849-90-5 C₁₆H₉NO₇

Vegetable origin

NATEW

Aristolochic acid D CAS: 17413-38-6

Vegetable origin

NATEX

Aristololactam CAS: 13395-02-3 C₁₇H₁₁NO₄

Vegetable origin Specification: 98% min by HPLC

NATEY

Aristololactam II CAS: 55610-00-9 C₁₆H₉NO₃



Synonym: Cepharanone A Vegetable origin

NATEZ

Aristolone CAS: 25274-27-5 C₁₅H₂₂O

Chemical Name: (1aR,7R,7aR,7bS)-1,1,7,7a-tetramethyl-1a,4,5,6,7,7b-hexahydrocyclopropa[a]naphthalen-2-one Vegetable origin Specification: 98% min by HPLC



NATF2 Artanin

CAS: 96917-26-9 C₁₆H₁₈O₅



Vegetable origin

NATF3

Arteannuin B CAS: 50906-56-4

Vegetable origin

NATF4

Artemether CAS: 71963-77-4 C₁₆H₂₆O₅



AND Enantiomer

Synonyms: Dihydroqinghaosu methyl ether; Dihydroartemisinin methyl ether; SM224 Vegetable origin

Solubility: 10mM in DMSO

Artemether is an antimalarial for the treatment of resistant strains of falciparum malaria. Target: Antiparasitic. Artemether is an antimalarial agent used to treat acute uncomplicated malaria. It is administered in combination with lumefantrine for improved efficacy. Artemether exhibits the highest activity against juvenile stages of the parasites, while adult worms are significantly less susceptible. There was no indication of neurotoxicity following repeated high doses of artemether given fortnightly for up to 5 months. Artemetherintegrated with other control strategies-has considerable potential for reducing the current burden of schistosomiasis in different epidemiological settings [1]. There were remarkably inhibitory effects of Artemether on brain glioma growth and angiogenesis in SD rats and the mechanism that Artemether inhibited brain glioma growth might be penetrating the blood-brain barrier and inhibiting angiogenesis [2].



Vegetable origin

NATF6

Artemisic acid CAS: 80286-58-4

Vegetable origin

NATF7 Artemisinin CAS: 63968-64-9

NATF8

Artemitin CAS: 479-90-3

Vegetable origin

NATF9

Artesunate CAS: 88495-63-0 C₁₉H₂₈O₈

Vegetable origin Solubility: 10 mM in DMSO Artesunate is an inhibitor of both **STAT-3** and **exported protein 1** (**EXP1**).

NATFA

(-)-Asarinin CAS: 133-04-0 C₂₀H₁₈O₆

Chemical Name: 5-[(1S,3AS,4R,6AS)-4-(1,3-BENZODIOXOL-5-YL)-1,3,3A,4,6,6A-HEXAHYDROFURO[3,4-C]FURAN-1-YL]-1,3-BENZODIOXOLE Vegetable origin Specification: 98% min

NATFB

alpha-Asarone CAS: 2883-98-9 C₁₂H₁₆O₃



Synonyms: α-Asarone; trans-Asarone Vegetable origin Solubility: 10mM in DMSO

Alpha-Asarone is one of the main psychoactive compounds, and possesses an antidepressant-like activity in mice. IC50 value: Target: In vitro: The results indicated that α -asarone significantly attenuated the LPS-stimulated increase in neuroinflammatory responses and suppressed pro-inflammatory cytokine production in BV-2 cells. Mechanistic study revealed that α -asarone inhibited the LPS-stimulated activation via regulation of nuclear factor kappa-B by blocking degradation of inhibitor kappa B-alpha signaling in BV-2 microglial cells. [2] In vivo: The present results reveal that the acute treatment of α -asarone elicited biphasic responses on immobility such that the duration of the immobility time is significantly reduced at lower doses (15 and 20 mg/kg, i.p.) but increased at higher doses (50 and 100 mg/kg, i.p.) significantly decreased the spontaneous locomotor activity.[1]

NATFC

Beta-Asarone CAS: 5273-86-9 C₁₂H₁₆O₃

Chemical Name: 1,2,4-trimethoxy-5-[(Z)-prop-1-enyl]benzene Vegetable origin Part Used: Asarum sieboldii Miq Specifications: 75%; 98%

NATFD

Asarylaldehyde CAS: 4460-86-0

Vegetable origin

NATFE

L(+)-Ascorbic acid CAS: 50-81-7

Vegetable origin

NATFF

Asiatic Acid CAS: 464-92-6 C₃₀H₄₈O₅

Vegetable origin Plant Source: naturally extracted from Centella asiatica(L.) Specifications: 90%; 98% min by HPLC

NATFG

Asiaticoside CAS: 16830-15-2 C₄₈H₇₈O₁₉

Vegetable origin Plant Source: Centella asiatica (L.) Urb Part Used: Whole Herb Specifications: 40%; 60%; 90% and 98% min Biological Activity: Anti-inflammatory; Dermis reconstruction; Epidermal reconstruction; Anti-aging

NATFH

Asiaticoside B CAS: 125265-68-1

Vegetable origin

NATFI

Aspartic acid (calcium) CAS: 21059-46-1 C₄H₅CaNO₄

Synonym: Calcium L-aspartate Vegetable origin Solubility: H₂O: ≥ 100mg/mL

Aspartic acid calcium (Calcium L-aspartate) is a chelate where calcium is attached to an amino acid naming L-Aspartic acid. L-Aspartic acid is an amino acid and serves as a building block for proteins in the body.

NATFK

Asperosaponin IV CAS: 126778-93-6

Vegetable origin

NATFJ

Asperosaponin VI CAS: 39524-08-8 C₄₇H₇₆O₁₈

Synonyms: Akebia saponin D Vegetable origin Plant Source: Dipsacus asper (Xuduan) Specification: 98% min by HPLC

NATFL

Asperuloside CAS: 14259-45-1

Synonym: Rubichloric acid Vegetable origin

NATFM

Asperulosidic acid CAS: 25368-11-0 $C_{18}H_{24}O_{12}$



Vegetable origin

NATFN

Astaxanthin CAS: 472-61-7

Vegetable origin

NATFO

Astilbin CAS: 29838-67-3 C₂₁H₂₂O₁₁

Vegetable origin Specification: 98% min by HPLC



Synonyms: Astragaline; 3-Glucosylkaempferol; Kaempferol 3- β -D-glucopyranoside

Vegetable origin

Solubility: 10mM in DMSO

Astragalin (kaempferol-3-O-glucoside) is a flavonoid with antiinflammatory activity and newly found in persimmon leaves and green tea seeds. IC50 value: Target: in vitro: Astragalin nontoxic at ≤ 20 µM suppressed cellular induction of Toll-like receptor 4 (TLR4) and ROS production enhanced by LPS. Both LPS and H2O2 induced epithelial eotaxin-1 expression, which was blocked by astragalin. LPS activated and induced PLCy1, PKCβ2, and NADPH oxidase subunits of p22phox and p47phox in epithelial cells and such activation and induction were demoted by astragalin or TLR4 inhibition antagonizing eotaxin-1 induction. H2O2-upregulated phosphorylation of JNK and p38 MAPK was dampened by adding astragalin to epithelial cells, while this compound enhanced epithelial activation of Akt and ERK. H₂O₂ and LPS promoted epithelial apoptosis concomitant with nuclear condensation or caspase-3 activation, which was blunted by astragalin [1]. Astragalin suppressed the expression of tumor necrosis factor α, interleukin 6, and nitric oxide in a dose-dependent manner in mMECs [2]. Astragalin attenuated the infiltration of inflammatory cells, the activity of myeloperoxidase (MPO) and the expression of tumor necrosis factor-α (TNF-α), interleukin-6 (IL-6) and interleukin-1ß (IL-1ß) in a dose-dependent manner. Additionally, Western blotting results showed that astragalin efficiently blunt decreased nuclear factor-kappaB (NF-kB) activation by inhibiting the degradation and phosphorylation of IkBa and the nuclear translocation of p65 [3]. Astragalin significantly reduced LPS-induced expression of iNOS, COX-2 and cytokines/chemokines, and production of NO in J774A.1 mouse macrophages. Astragalin inhibited LPSinduced activation of NF-kB as indicated by inhibition of degradation of IkBa, nuclear translocation of NF-kB, and NF-kB dependent gene reporter assay [4]. In vivo: Mice were injected intraperitoneally (i.p.) with lipopolysaccharide (LPS) (dose range: 5-40mg/kg). pretreatment with astragalin can improve survival during lethal endotoxemia and attenuate inflammatory responses in a murine model of lipopolysaccharide-induced acute lung injury [4].

NATFO AND Enantiomer Astragaloside A CAS: 83207-58-3 $C_{41}H_{68}O_{14}$

Synonyms: Astramembrannin I; Astragalin A Vegetable origin

Solubility: 10mM in DMSO

Astragaloside A is one of the major active constituents of Astragalus membranaceus in Traditional Chinese Medicine; has been widely used to treat ischemic diseases. IC50 value: Target: in vitro: AS-IV treatment promotes umbilical vein endothelial cells (HUVEC) proliferation, migration, and tube formation. AS-IV treatment also activates JAK2/STAT3 and ERK1/2 signaling pathways, and up-regulates endothelial nitric oxide synthase (eNOS) expression and nitric oxide (NO) production [1]. Administration of astragaloside IV (16, 32, and 64µM) 1 h prior to lipopolysaccharide stimulation dose-dependently attenuated cardiac hypertrophy induced by lipopolysaccharide. Further studies demonstrated that astragaloside IV inhibited the increment of the resting intracellular free Ca2+, and its effect was similar to verapamil [2]. ASI could inhibit cells apoptosis induced by high glucose (25mmol/L) in dose-dependent and time-dependent manners. ASI also inhibited high glucose-induced expression of TGF-B1 and activation of p38 MAPK pathway at the protein level. Furthermore, ASI increased HGF production in human tubular epithelial cells [3]. In vivo: the growth of tumor was suppressed by AS-IV treatment in vivo. AS-IV also could down-regulate regulatory T cells (Tregs) and upregulate cytotoxic T lymphocytes (CTLs) in vivo and in vitro[4]. As an in vivo model, mice subjected to unilateral ureteral obstruction (UUO) were administered AS-IV (20mg/kg) by intraperitoneal injection for 7 days. AS-IV significantly alleviated renal mass loss and reduced the expression of a-smooth muscle actin, fibronectin, and collagen IV both in vitro and in vivo [5]

NATFR





Astragaloside II is a natural isolated from Astragalus. IC50 value: Target: In vitro: In vivo: The developed and validated method has been successfully applied to the quantification and pharmacokinetic study of AST II in rats after intravenous and oral administration of AST II. The oral absolute bioavailability (F) of AST II was calculated to be 0.79 \pm 0.16% with an elimination half-life (t1/2) value of 1.92 \pm 0.30 h, suggesting its poor absorption and/or strong metabolism in vivo [1]





Astragaloside IV, an active component isolated from Astragalus membranaceus, suppresses the activation of ERK1/2 and JNK, and downregulates matrix metalloproteases (MMP)-2, (MMP)-9 in MDA-MB-231 breast cancer cells

AND Enantiomer

NATFV

Astragalus polysaccharide

Synonym: Astragalus Polysacharin Vegetable origin Solubility: 10mM in DMSO

Astragalus polysaccharide, one active component of the polysaccharides extract of Astragulus, attenuates TNF- α -induced insulin resistance by suppressing miR-721 and activating **PPAR-y** and **PI3K/Akt** in 3T3-L1 adipocytes.

NATFW

Astringin CAS: 29884-49-9 C₂₀H₂₂O₉

Chemical Name: (2S,3R,4S,5S,6R)-2-(3-[(E)-2-(3,4-DIHY-DROXYPHENYL)ETHENYL]-5-HYDROXYPHENOXY)-6-(HYDROXYMETHYL)OXANE-3,4,5-TRIOL Synonym: Piceatannol-3'-O-β-D-glucopyranoside Vegetable origin Specification: 98% min by HPLC

NATFX

Atanine CAS: 7282-19-1 C₁₅H₁₇NO₂



Vegetable origin

NATFZ

Atractylenolide I CAS: 73069-13-3 C₁₅H₁₈O₂



AND Enantiome

Vegetable origin Solubility: 10mM in DMSO

Atractylenolide I is a natural compound extracted from largehead atractylodes rhizome; induce apoptosis and bring about cytotoxicity of human promyeloleukemic HL-60 cells; TLR4-antagonizing agent. IC50 value: Target: TLR4 antagonist in vitro: The ID(50) values of atractylenolide I were 15.15mg/kg and 3.89microg/ml for inhibiting the vascular index in vivo and microvessel outgrowth in vitro, respectively. Atractylenolide I could dose-dependently inhibit the production of nitric oxide (NO), tumor necrosis factor-alpha (TNF-alpha), interleukin-1beta (IL-1beta), interleukin-6 (IL-6), vascular endothelial growth factor (VEGF) and placenta growth factor (PIGF) activity in the flute of mouse air pouch and the peritoneal macrophages stimulated by lipopolysaccharide (LPS) [1]. ATL-I showed no inhibitory effect on cell viability at concentrations ranging from 1µM to 100µM and markedly reduced the release of IL-6 and TNF-a at a concentrate-dependent manner. In addition, ATL-I suppressed the activity of nuclear NF-KB and the phosphorylation of ERK1/2 and p38 in LPStreated RAW264.7 cells [2]. AT-I inhibited the self-renewal capacity of gastric stem-like cells (GCSLCs) by suppression of their sphere formation capacity and cell viability. AT-I attenuated gastric cancer stem cell (GCSC) traits partly through inactivating Notch1, leading to reducing the expressions of its downstream target Hes1, Hey1 and CD44 in vitro [3]. AO-I was found to attenuate paclitaxel-induced protein expression of IL-6, VEGF and survivin, and to enhance early apoptosis and growth inhibition in MyD88(+) EOC cells; AO-I was shown to fit into the hydrophobic pocket of human MD-2 and to partially overlap with the binding site of paclitaxel by docking simulations, suggesting that AO-I may block the MD-2-mediated TLR4/ MyD88-dependent paclitaxel signaling in MyD88(+) EOC cells [4]. In vivo: In the in vivo study, ATL-I effectively suppressed tumor growth (A549) in transplanted tumor nude mice with up-regulation of caspase-3, caspase-9, and Bax and down-regulation of Bcl-2 and Bcl-XL [5].

Advion × 😤 inter

NATG0

Atractylenolide II CAS: 73069-14-4 $C_{15}H_{20}O_2$

Synonym: Asterolide

Vegetable origin



Solubility: 10mM in DMSO Atractylenolide II is a sesquiterpene compound isolated from the dried rhizome of Atractylodes macrocephala (Baizhu in Chinese); anti-proliferative activity. IC50 value: 82.3µM(B16 melanoma cell, 48h) [1] Target: anticancer natural compound in vitro: AT-II treatment for 48 h dose-dependently inhibited cell proliferation with an IC(50) of 82.3µM, and induced G1 phase cell cycle arrest. Moreover, treatment with 75 µM AT-II induced apoptosis. These observations were associated with the decrease of the expression of Cdk2, phosphorylated-Akt, phosphorylated-ERK and Bcl-2, the increase of the expression of phosphorylated-p38, phosphorylated-p53, p21, p27, and activation of caspases-8, -9 and -3. In addition, a chemical inhibitor of p53, PFTa, significantly decreased AT-II-mediated growth inhibition and apoptosis [1]. In B16 and A375 cells, AT-II (20, 40 µm) treatment for 48 h dose-dependently reduced protein expression levels of phospho-STAT3, phospho-Src, as well as STAT3-regulated Mcl-1 and Bcl-xL. Overexpression of a constitutively active variant of STAT3, STAT3C in A375 cells diminished the antiproliferative and apoptotic effects of AT-II [2]. In vivo: Daily administration of AT-II (12.5, 25mg/kg, i.g.) for 14 days significantly inhibited tumor growth in a B16 xenograft mouse model and inhibited the activation/phosphorylation of STAT3 and Src in the xenografts [2].

NATG1

Atractylenolide III CAS: 73030-71-4 C₁₅H₂₀O₃



AND Enantiomer

Synonyms: ICodonolactone; 8β-Hydroxyasterolide Vegetable origin

Solubility: 10mM in DMSO

Atractylenolide III is a major component of Atractylodes rhizome can induce apoptosis of the lung carcinoma cells. IC50 value: Target: Anticancer natural compound in vitro: ATL-III inhibited cell growth, increased lactate dehydrogenase release and modulated cell cycle on human lung carcinoma A549 cells. ALT-III induced the activation of caspase-3 and caspase-9 and cleavage of poly-(ADP)-ribose polymerase. ATL-III induced the release of cytochrome c, upregulation of bax expression, and translocation of apoptosis-inducing factor [1]. Atractylenolide II did not show cytoprotective effects, but oral administration of atractylenolide III dose-dependently prevented ethanol-induced PRGM cell death and cell membrane damage. The EC50 values were 0.27 and 0.34mm, respectively [2]. Against adult D. pteronyssinus, atractylenolide III (LD50, 73.8mg/m²) and atractylon (72.1mg/m²) were eight times more active than Deet and 2.5-fold more toxic than dibutyl phthalate [3]. In vivo: In the in-vivo assay, atractylenolide III 10mg/kg significantly reduced 70% ethanol-induced Wistar rat gastric ulcer. Atractylenolide III could inhibit matrix metalloproteinase (MMP)-2 and MMP-9 expression through upregulation of tissue inhibitors of metalloproteinase from the gastric ulcerated tissues [2]

NATG2

Atractylodin CAS: 55290-63-6 C₁₃H₁₀O



Synonym: Atractydin Vegetable origin Solubility: DMSO: 14mg/mL

Atractylodin is an active component of the essential oil contained in the rhizomes of Atractylodes lancea and A.



NATG4

Atractyloside potassium salt CAS: 102130-43-8

 $C_{30}H_{44}O_{16}S_2.2K$

Vegetable origin Specification: 98%min by HPLC

NATG5

Atranorin CAS: 479-20-9 C₁₉H₁₈O₈

Chemical Name: (3-hydroxy-4-methoxycarbonyl-2,5-dimethylphenyl) 3-formyl-2,4-dihydroxy-6-methylbenzoate Synonyms: Atranorine; Parmelin; Usnarin; Antranoric acid; Atranoric acid Vegetable origin

Plant Source: Dendroides Specification: 99% min by HPLC



Solubility: DMSO: ≥ 31mg/mL

Aucubin is an iridoid glycoside with a wide range of biological activities, including anti-inflammatory, anti-microbial, anti-algesic as well as anti-tumor activities. IC50 value: Target: In vitro: Aucubin promotes neuronal differentiation and neurite outgrowth in neural stem cells cultured primarily from the rat embryonic hippocampus [1]. Aucubin significantly reversed the elevated gene and protein expression of MMP-3, MMP-9, MMP-13, iNOS, COX-2 and the production of NO induced by IL-1 β challenge in rat chondrocytes [2]. In vivo.

A.24





NATG7

Aurantio-obtusin CAS: 67979-25-3 C₁₇H₁₄O₇

Chemical Name: 1,3,7-trihydroxy-2,8-dimethoxy-6-methylanthracene-9,10-dione Vegetable origin Plant Source: Catsia tora Linn Part Used: Seeds Specification: 98% min by HPLC

NATG8

Auraptene CAS: 495-02-3

Vegetable origin

NATG9

 $\begin{array}{l} \textbf{Avicularin} \\ \text{CAS: 572-30-5} \\ \text{C}_{20}\text{H}_{18}\text{O}_{11} \end{array}$

Chemical Name: Quercetin 3-alpha-L-arabinofuranoside Vegetable origin Plant Source: Polygonum aviculare, Andromeda polifolia, Vaccinium myrtillus, Juglans regia Specification: 98% min by HPLC

NATGA

Avobenzone CAS: 70356-09-1

Vegetable origin

NATGB

(2S, 3R, 4E)-2-Azido-3-benzoyl-erythro-sphingosine CAS: 103348-50-1

NATGC

Azido-erythro-sphingosine CAS: 103348-49-8

NATGD

(2S, 3R, 4E)-2-Azido-3-(tert-butyldimethylsilyl)-erythrosphingosine CAS: 114299-64-8

NATGE

Azomycin CAS: 527-73-1 C₃H₃N₃O₂

Synonyms: 2-Nitroimidazole; Amicin Vegetable origin

NATGF

Baccatin III CAS: 27548-93-2 C₃₁H₃₈O₁₁

Vegetable origin Specification: 98% min by HPLC

NATGG

Baicalein CAS: 491-67-8 $C_{15}H_{10}O_5$

Synonym: 5,6,7-Trihydroxyflavone Vegetable origin Solubility: DMSO: ≥ 34mg/mL Baicalein (5,6,7-Trihydroxyflavone) is a **xanthine oxidase** inhibitor with an **IC**⁵⁰ value of 3.12mM.

NATGI

Baicalein-7-O-diglucoside CAS: 114482-86-9 C₂₇H₃₀O₁₅

Synonyms: Oroxin B; Baicalein 7-O-beta-gentiobioside Vegetable origin Plant Source: Oroxylumindicum(L.)Vent Part Used: Seeds Specification: 98% min by HPLC

NATGH

Baicalein 6-O-glucoside AND Enantiomer CAS: 28279-72-3 HO C₂₁H₂₀O₁₀ HO HO HO HO HO HO HO HO OH OH OH OH

NATGJ

Baicalein-7-O-glucoside CAS: 57396-78-8 C₂₁H₂₀O₁₀

Synonym: Oroxin A Vegetable origin Plant Source: Oroxylumindicum(L.)Vent Part Used: Seeds Specification: 98%min by HPLC


Synonym: Baicalein 7-O-β-D-glucuronide Vegetable origin

Solubility: DMSO: ≥ 32mg/mL

Baicalin, one the effective compositions of scutellaria baicalensis, possesses multiple properities such as antioxidant, anti-tumor, anti-HIV, treating cardiovascular disease and so on. IC50 value: Target: In vitro: Baicalin could significantly attenuate OGD/RO mediated apoptotic cell significantly attenuate OGD/RO mediated apoptotic cell death in SH-SY5Y cells; the apoptosis rates in the low-, mediumand high-dose baicalin groups were 12.1%, 7.9%, and 5.4%, death in SH-SY5Y cells. That down-regulation of NF-κB and NMDAR1 remarkable decrease was noted in the medium- and high-dose groups [2]. In vivo: In the olfactory bulbectomy (OBX) depression rat model, baicalin modulated the levels or activity of malondialdehyde, superoxide dismutase, and glutathione peroxidase and prevented apoptotic protease-activating factor-1 expression, effectively suppressing caspase-mediated apoptosis signalling cascades [3].



NATGM

Baimaside CAS: 18609-17-1 C₂₇H₃₀O₁₇

Chemical Name: 3-[(2S,3R,4S,5S,6R)-4,5-DIHYDROXY-6-(HYDROXYMETHYL)-3-[(2S,3R,4S,5S,6R)-3,4,5-TRIHYDROXY-6-(HYDROXYMETHYL)OXAN-2-YL]OXYOXAN-2-YL]OXY-2-(3,4-DIHYDROXYPHENYL)-5,7-DIHYDROXYCHROMEN-4-ONE Synonyms: Quercetin 3-beta-D-sophoroside; Quercetin 3-betasophoroside Vegetable origin Specification: 98%min

NATGN

Bakkenolide A CAS: 19906-72-0

Vegetable origin

NATGO Bakuchalcone CAS: 84575-13-3 C₂₀H₂₀O₅ HO Vegetable origin AND Enantiomer

NATGP Bakuchiol CAS: 10309-37-2 C₁₈H₂₄O



Synonym: (S)-(+)-Bakuchiol Vegetable origin Solubility: 10mM in DMSO

Bakuchiol is a phytoestrogen isolated from the seeds of Psoralea corylifolia L; has anti-tumor effects. IC50 value: Target: in vitro: Bakuchiol reduced mitochondrial membrane potential (Psim) of cells in a concentration- and time-dependent manner, showing a more potent effect than that of resveratrol. S phase arrest, caspase 9/3 activaton, p53 and Bax up-regulation, as well as Bcl-2 down-regulation were observed in bakuchiol-treated A549 cells [1]. UGT2B7 was inhibited by the strongest intensity. The noncompetitive inhibition was demonstrated by the results obtained from Dixon plot and Lineweaver-Burk plot. The Ki value was calculated to be 10.7µM [2]. Bakuchiol was found to be naturally occurring potent inhibitors of hCE2, with low Ki values ranging from 0.62µM to 3.89µM [3]. After exposure to bakuchiol at 0.25-fold, 0.5-fold and 1-fold of minimum inhibitory concentration (MIC) (3.91µg/ml) for 24h, the fungal conidia of T. mentagrophytes demonstrated a significant dose-dependent increase in membrane permeability. Moreover, bakuchiol at 1-fold MIC elicited a 187% elevation in reactive oxygen species (ROS) level in fungal cells after a 3-h incubation [4]. In vivo: In combination with the reported concentration after an intravenous administration of bakuchiol (15mg/kg) in rats, the high risk of in vivo inhibition of bakuchiol towards UGT2B7-catalyzed metabolism of drugs was indicated [2]. In a guinea pig model of tinea pedis, bakuchiol at 1%, 5% or 10% (w/w) concentration in aqueous cream could significantly reduce the fungal burden of infected feet (p<0.01-0.05) [4].



(+)-Balanophonin CAS: 215319-47-4

NATGS

Baohuoside I CAS: 113558-15-9 C₂₇H₃₀O₁₀



Synonyms: Icariin-II;Icariside-II Vegetable origin Solubility: DMSO: ≥ 32mg/mL

Baohuoside I (Icariside-II) is a component of Epimedium koreanum; a regulator of CXCR4 expression as well as function in cervical cancer and breast cancer cells; Apoptosis inducer. IC50 value: Target: CXCR4 expression regulator in vitro: Baohuoside I downregulated CXCR4 expression in a dose- and time-dependent manner in HeLa cells [1]. Treatment with a pharmacological proteasome and lysosomal inhibitors did not have a substantial effect on baohuoside I's ability to suppress CXCR4 expression [1]. Treatment with 50 µm IS resulted in an increased number of apoptotic cells mirrored by increases in cleaved caspase 9 and cleaved PARP. In addition, treatment with 50µM Icariside-IIsignificantly inhibited the activation of the Janus kinase (JAK)STAT3 and mitogen-activated protein kinase (MAPK) ERK pathways, but promoted the activation of the PI3K AKT pathway [2]. Treatment of A375 cells with IS resulted in an increased number of apoptotic cells ranging from 5.6% to 26.3% mirrored by increases in cleaved caspase-3 and a decrease in survivin expression. IS significantly inhibited the activation of the JAK-STAT3 and MAPK pathways but promoted an unsustained activation peak of the PI3K-AKT pathway [3]. Icariside-II in MCF7 cells produced a loss of mitochondrial membrane potential and release of cytochrome c and apoptosis-inducing factor (AIF), and activation of caspase-9 revealed the involvement of the intrinsic apoptosis pathway. In contrast, IcaS enhanced the expression level of Fas and the Fas-associated death domain (FADD), and activated caspase-8, suggesting the involvement of the extrinsic apoptosis pathway [4]. in vivo: IS administration (50 mg/kg) resulted in a 47.5% decreased tumor volume in A375 bearing mice. IS administration (50mg/kg, 100mg/kg) resulted in 41% and 49% decreased tumor volume in B16 bearing mice, respectively [3]

NATGT

Baohuoside V CAS: 118544-18-6

Vegetable origin

NATGU

Baohuoside VII CAS: 119730-89-1





Batatasin III CAS: 56684-87-8 C₁₅H₁₆O₃

Vegetable origin

NATGW



Synonym: Broussochalcone B Vegetable origin

Solubility: DMSO: ≥ 34mg/mL

Bavachalcone is a major bioactive compounds isolated from Psoralea corylifolia L.; has been widely used as traditional Chinese medicine; antibiotic or anticancer agent. IC50 value: Target: Bavachalcone inhibited osteoclast formation from precursor cells with the IC(50) of approximately 1.5microg ml(-1). The activation of MEK, ERK, and Akt by receptor activator of nuclear factor kappaB ligand (RANKL), the osteoclast differentiation factor, was prominently reduced in the presence of bavachalcone. The induction of c-Fos and NFATc1, key transcription factors for osteoclastogenesis, by RANKL was also suppressed by bavachalcone [1]. Bavachalcone exhibited a significant inhibitory effect on baculovirus-expressed BACE-1 in vitro [2]. Bavachalcone had stronger inhibition on UGT1A1 and UGT1A7 than corylin which did not inhibit UGT1A1, UGT1A3, UGT1A7, UGT1A8, UGT1A10, and UGT2B4. Data fitting using Dixon and Lineweaver-Burk plots demonstrated the noncompetitive inhibition of bavachalcone against UGT1A1 and UGT1A7-mediated 4-MU glucuronidation reaction. The values of inhibition kinetic parameters (Ki) were 5.41 µ M and 4.51µ M for UGT1A1 and UGT1A7, respectively [3].



Bavachin, a flavonoid first isolated from seeds of *P. corylifolia*, acts as a phytoestrogen that activates the estrogen receptors ER α and ER β with EC₅₀ s of 320 and 680nM, respectively.



Vegetable origin Solubility: 10mM in DMSO

Bavachinin(7-O-Methylbavachin) is a natural compound isolated from the Chinese herb Fructus Psoraleae; has potent anti-angiogenic activity. IC50 value: Target: in vitro: Isobavachalcone significantly inhibits both oligomerization and fibrillization of Aβ42, whereas bavachinin inhibits fibrillization and leads to off-pathway aggregation. Both of the compounds attenuated Aβ42-induced toxicity in a SH-SY5Y cell model [1]. Bavachinin, has potent anti-angiogenic activity in vitro and in vivo. Bavachinin inhibited increases in HIF-1 α activity in vitro and in vivo. Bavachinin inhibited increases in HIF-1 α activity in human KB carcinoma (HeLa cell derivative) and human HOS osteosarcoma cells under hypoxia in a concentration-dependent manner, probably by enhancing the interaction between von Hippel-Lindau (VHL) and HIF-1 α [2]. In vivo: significantly inhibited Th2 cytokine production, including IL-4, IL-5 and IL-13. Notably, this compound almost completely blocked inflammation in the ovalbumin (OVA)-sensitized animal asthma model [3].

NATGZ

Bavachromene CAS: 41743-38-8 C₂₀H₁₈O₄



Vegetable origin

NATH0

Bayogenin CAS: 6989-24-8 C₃₀H₄₈O₅



Vegetable origin

NATH1

Bayogenin 3-O-β-D-glucopyranoside CAS: 104513-86-2

Vegetable origin

NATH2

Behenic Acid CAS: 112-85-6

NATH3

Bellidifolin CAS: 2798-25-6

Vegetable origin

NATH4

1,2-Benzenedicarboxylic acid CAS: 84-74-2 C₁₆H₂₂O₄



Vegetable origin

NATH6

2H,6H-Benzo[1,2-b:5,4-b']dipyran, 2-butenoic acid deriv. AND Enantiomer CAS: 81720-03-8 $C_{19}H_{20}O_{6}$



Vegetable origin

NATH7

Benzoic acid CAS: 65-85-0 $C_7H_6O_2$

Vegetable origin



Benzoylmesaconine CAS: 63238-67-5 C₃₁H₄₃NO₁₀



Synonym: Mesaconine 14-benzoate Vegetable origin Solubility: 10mM in DMSO

Benzoylmesaconine is the most abundant component of Wutou decoction, which is widely used in China because of its therapeutic effect on rheumatoid arthritis.

erchim[®] × Advion

Benzoyloxypaeoniflorin CAS: 72896-40-3

Vegetable origin

NATHE

Benzoylpaeoniflorin CAS: 38642-49-8C₃₀H₃₂O₁₂



Vegetable origin

Solubility: DMSO: ≥ 34mg/mL Benzoylpaeoniflorin may treat coronary heart disease by decreasing apoptosis.

NATHH

6-Benzyladenine CAS: 1214-39-7

Vegetable origin

NATHF

Benzyl 2,6-dimethoxybenzoate CAS: 34328-54-6 $C_{16}H_{16}O_4$



Vegetable origin

NATHG

Benzyl 4-O-β-D-Galactopyranosyl-β-D-glucopyranoside CAS: 18404-72-3

NATHI

(9Z,12Z)-N-Benzyloctadeca-9,12-dienamide CAS: 18286-71-0

Vegetable origin

NATHJ

N-Benzyloleamide CAS: 883715-21-7

Vegetable origin

NATHK

Berbamine CAS: 478-61-5 C₃₇H₄₀N₂O₆

Vegetable origin Specification: 98% min by HPLC

NATHL AND Enantiomer Berbamine (dihydrochloride) CAS: 6078-17-7 C₃₇H₄₂Cl₂N₂O₆

Vegetable origin

Solubility: DMSO: \geq 42mg/mL

Berbamine dihydrochloride, a natural compound derived from the Berberis amurensis plant, has been shown to exhibit antitumor activity in several cancers. IC50 value: Target: In vitro: In this study the in vitro cytotoxicity of BER was measured by MTT assay. Cytotoxicity tests showed dose-dependent cell growth inhibition effects of BER against A549 cells [1]. In vivo: In vivo anti-cancer efficacy of BER was assessed in A549 xenografts. BER significantly reduced the growth of lung cancer in a dose-dependent manner in nude mice with prolonged survival time.

NATHM

Berberine CAS: 2086-83-1

C₂₀H₁₈NO₄

Vegetable origin

NATHN

Berberine hydrochloride CAS: 633-65-8 $C_{20}H_{18}CINO_4$

Synonyms: Berberinium chloride, NATURAL YELLOW 18 Vegetable origin Plant Source: Berberis aristata Specification: 98% min by HPLC

NATHO

Berberine Sulfate CAS: 633-66-9

Vegetable origin

NATHP Berberrubine

CAS: 15401-69-1

Vegetable origin

NATHQ Bergamottin CAS: 7380-40-7

Vegetable origin



CIH CIH

Advion × ^{minterchim}

NATHR

Bergapten CAS: 484-20-8 C₁₂H₈O₄



Synonym: 5-Methoxypsoralen Vegetable origin Solubility: 10mM in DMSO

Bergapten is a natural anti-inflammatory and anti-tumor agent isolated from bergamot essential oil, other citrus essential oils and grapefruit juice. Bergapten is inhibitory towards mouse and human CYP isoforms.

NATHS

Bergaptol CAS: 486-60-2

Vegetable origin

NATHT

Bergenin CAS: 477-90-7 C₁₄H₁₆O₉



Vegetable origin Solubility: 10mM in DMSO

Synonym: Cuscutin

Bergenin, a polyphenol, is a potent antinarcotic agent with antioxidant action. IC50 value: < 2.5μ M (antiplasmodial) [3] Target: In vitro: The naloxone-precipitated withdrawal symptom (jumping frequency) was significantly ameliorated (50% of control group) by administration of bergenin (20mg/kg) in morphine-treated mice. Furthermore, morphine-induced down-regulation of glutathione (GSH) contents was reversed by bergenin administration in the frontal cortex and liver [2]. In vivo: Bergenin attenuated inflammatory cell infiltration and decreased the concentration of NO, TNF- α , IL-1 β , and IL-6, which were increased in LPS-induced mouse mastitis [1].

NATHU

Bernardioside A CAS: 121368-52-3

Vegetable origin

NATHV

Betaine CAS: 107-43-7

Vegetable origin

NATHW

Betaine (hydrochloride) CAS: 590-46-5 $C_5H_{12}CINO_2$



Synonym: Betaine chloride Vegetable origin Solubility: $H_2O: \ge 43$ mg/mL

Betaine hydrochloride is an acidic form of betaine, a vitamin-like substance found in grains and other foods; improves the amplification of DNA by reducing the formation of secondary structure in GC-rich regions.

NATHX

Betulin CAS: 473-98-3 C₃₀H₅₀O₂

Synonym: Trochol

Vegetable origin



Solubility: DMSO: 10mM (Betulin (Trochol), is a sterol regulatory element-binding protein (SREBP) inhibitor with an IC₃₀ of 14.5µM in K562 cell line.

NATHY

Betulinaldehyde CAS: 13159-28-9

C₃₀H₄₈O₂



Synonyms: Betulinic aldehyde; Betunal Vegetable origin

Solubility: 10mM in DMSO

Betulinaldehyde(Betunal) belongs to pentacyclic triterpenoids and was reported to exhibit antimicrobial activities against bacteria and fungi, including S. aureus. IC50 value: Target: Betulinaldehyde(Betunal) belongs to pentacyclic triterpenoids that are based on a 30-carbon skeleton comprising four six-membered rings and one five-membered ring. Betulinaldehyde regulates multiple desirable targets which could be further explored in the development of therapeutic agents for the treatment of S. aureus infections [1]. Study compounds α-amyrin [3β-hydroxy-urs-12-en-3ol (AM)], betulinic acid [3β-hydroxy-20(29)-lupaene-28-oic acid (BA)] and betulinaldehyde [3β-hydroxy-20(29)-lupen-28-al (BE)] belong to pentacyclic triterpenoids and were reported to exhibit antimicrobial activities against bacteria and fungi, including S. aureus. The MIC values of these compounds against a reference strain of methicillinresistant S. aureus (MRSA) (ATCC 43300) ranged from 64µg/ml to 512µg/ml. However, the response mechanisms of S. aureus to these compounds are still poorly understood [2].

NATHZ

Betulinic acid CAS: 472-15-1

Vegetable origin

AND Enantiomer

AND Enantiome



NATI1

Betulonic acid CAS: 4481-62-3 $C_{30}H_{46}O_3$



Synonyms: Liquidambaric acid; (+)-Betulonic acid Vegetable origin

Solubility: 10mM in DMSO

Betulonic acid belongs to the pentacyclic triterpenic derivative class, has antitumor activities. In vitro: BEA-NP is found over three-times more permeable than that solubilized by DMSO in Caco-2 cell monocultures.[1] In vivo: The tumor growth in the S180 berry mice orally doses with BEA-NP at 75mg/kg is inhibited by 50%. Rubusoside is effective in solubilizing BEA, maintaining its cytotoxicity, enhancing its permeability and reducing tumor growth when orally administered. [1] Antitumor activities against MGC-803, PC3, Bcap-37, A375, and MCF-7 human cancer cell lines In vivo: The animals are treated with betulonic acid amide (50mg/kg in Tween aqueous solution) and hep-tral (6mg/kg) as hepatoprotective compounds. It is found that betulonic acid amide stimulats the regenerative response in hepatocytes under conditions of combined toxic exposure and promots recovery of their qualitative and quantitative characteristics. [2]



Synonyms: PA-457; MPC-4326; FH11327; YK FH312 Vegetable origin

Solubility: DMSO

Bevirimat(YK FH312; FH11327; MPC-4326) is an anti-HIV drug derived from a betulinic acid-like compound; is believed to inhibit HIV by a novel mechanism, so-called maturation inhibition. IC50 value: Target: Anti-HIV Like protease inhibitors, bevirimat and other maturation inhibitors interfere with protease processing of newly translated HIV polyprotein precursor, called gag. Bevirimat prevents this viral replication by specifically inhibiting cleavage of the capsid protein (CA) from the SP1 spacer protein.

NATI3

Biacangelicol CAS: 26091-79-2

Synonym: Byakangelicol Vegetable origin

NATI4

(+)-Bicuculline CAS: 485-49-4 C₂₀H₁₇NO₆

Synonym: d-Bicuculline Vegetable origin Solubility: DMSO: ≥ 36mg/mL (+)-Bicuculline, a convulsant alkaloid, is the antagonist of GABA.

NATI5

Biflorin CAS: 89701-85-9

NATI6

Bilirubin CAS: 635-65-4

Vegetable origin

NATI7

Bilobalide CAS: 33570-04-6 C₁₅H₁₈O₈

Synonym: (-)-Bilobalide Vegetable origin Solubility: 10mM in DMSO









NATI9

 $\begin{array}{l} \textbf{Biochanin A} \\ \textbf{CAS: 491-80-5} \\ \textbf{C}_{16}\textbf{H}_{12}\textbf{O}_5 \end{array}$

Chemical Name: 5,7-dihydroxy-3-(4-methoxyphenyl)chromen-4-one Vegetable origin Specification: 98% min by HPLC

NATIA

Bisabolangelone CAS: 30557-81-4 C₁₅H₂₀O₃



NATIB

Vegetable origin

Bisacurone CAS: 120681-81-4



Synonyms: Curcumin III;Didemethoxycurcumin Vegetable origin DMSO: ≥ 31mg/mL

Bisdemethoxycurcumin(Curcumin III; Didemethoxycurcumin) is a natural derivative of curcumin with anti-inflammatory and anti-cancer activities. IC50 value: Target: Anticancer natural compound in vitro: BDMC-induced apoptosis was mediated by a combinatory inhibition of cytoprotective proteins, such as Bcl2 and heme oxygenase-1 and increased generation of reactive oxygen species. Intriguingly, BDMCinduced apoptosis was reversed with co-treatment of sr144528, a cannabinoid receptor (CBR) 2 antagonist, which was confirmed with genetic downregulation of the receptor using siCBR2 [1]. Induction of cell cycle arrest in HepG2 cells by NB and BDCur in combination was evidenced by accumulation of the G2/M cell population. Further investigation on the molecular mechanism showed that NB and BDCur in combination resulted in a significant decrease in the expression level of Cdc2 and cyclin B [2]. BDMC treatment activated Sirt1/AMPK signaling pathway. Moreover, downregulating Sirt1 by the pharmacological inhibitor nicotianamine or small interfering RNA blocked BDMC-mediated protection against t-BHP-mediated decrease in proliferation [4]. In vivo: human gastric adenocarcinoma xenograft model was generated in vivo using nude mice and BDMC was observed to suppress the growth and activity of tumors, in addition to improving the physical and mental capacity of the mice [3].

NATID

Boldine CAS: 476-70-0

Vegetable origin

NATIE

(+)-Borneol CAS: 464-43-7 C₁₀H₁₈O

Synonym: d-Borneol Vegetable origin Solubility: 10mM in DMSO



(+)-Borneol (d-Borneol) is a natural bicyclic monoterpene used for analgesia and anesthesia in traditional Chinese medicine; enhances **GABA receptor** activity with an **EC**^{so} of 248µM.

NATIF

(-)-Borneol CAS: 464-45-9 C₁₀H₁₈O AND Enantiomer



Synonym: L-Borneol Vegetable origin Solubility: DMSO (-)-Borneol has a highly efficacious positive modulating action at GABA receptor with an EC:0 of 237µM.

NATIG

DL-Borneol CAS: 507-70-0 C₁₀H₁₈O

Synonym: (±)-Borneol Vegetable origin Solubility: DMSO DL-Borneol is a racemic mixture of D-Borneol and L-Borneol. DL-Borneol is widely used for the treatment of cardiovascular and cerebrovascular diseases in China.

NATIH

Bornyl acetate CAS: 76-49-3 C₁₂H₂₀O₂

Vegetable origin

Chemical Name: (1,7,7-trimethyl-6-bicyclo[2.2.1]heptanyl) acetate Specification: 99% min by HPLC



NATIJ

Beta-Boswellic acid CAS: 631-69-6

Vegetable origin

NATIK

Brandioside CAS: 133393-81-4

Vegetable origin



NATIM Braylin

CAS: 6054-10-0 C₁₅H₁₄O₄



Vegetable origin

NATIN

Brazilin CAS: 474-07-7 C₁₆H₁₄O₅



Vegetable origin

NATIO

Brevifolincarboxylic acid CAS: 18490-95-4 C₁₃H₈O₈

Vegetable origin Specification: 98% min by HPLC

NATIP

Brevilin A CAS: 16503-32-5 C₂₀H₂₆O₅

Vegetable origin Plant Source: Centipeda minima Specification: 98% min by HPLC

NATIQ

C15H22O4

Britannilactone CAS: 33620-72-3



Synonym: Desacetylinulicin Vegetable origin Solubility: 10mM in DMSO

Britannilactone(Desacetylinulicin) is a methanol extract of the dried flower of Inula britannica L. IC50 value: Target: A bioassay-guided isolation of the chloroform fraction of the I. britannica using an in vitro melanogenesis inhibition assay led to the isolation of sesquiterpenes, 1-O-acetylbritannilactone (1), britannilactone (2) and neobritannilactone B (3). Compounds 1 and 2 significantly reduced melanin production in a dose-dependent manner with IC50 values of 13.3 and 15.5µM, respectively [1].

NATIR

4-(Bromomethyl)-7-methoxy coumarin CAS: 35231-44-8 C₁₁H_oBrO₂

Vegetable origin Chemical Name: 4-(bromomethyl)-7-methoxychromen-2-one Specification: 98% min by HPLC

NATIS

Bronyl acetate CAS: 20347-65-3

Vegetable origin

NATIT



Vegetable origin

NATIU



Vegetable origin

NATIV



Synonyms: (-)-Bruceantin; NCI165563; NSC165563 Vegetable origin

Solubility: 10mM in DMSO

Bruceantin(NSC165563) is first isolated from Brucea antidysenterica, a tree used in Ethiopia for the treatment of cancer, and activity was observed against B16 melanoma, colon 38, and L1210 and P388 leukemia in mice. IC50 value: Target: anticancer Cell differentiation was induced and c-MYC was down-regulated, suggesting a mechanistic correlation between c-MYC down-regulation and induction of cell differentiation or cell death. Treatment of HL-60 and RPMI 8226 cell lines induced apoptosis, and this involved the caspase and mitochondrial pathways. Moreover, an in vivo study using RPMI 8226 human-SCID xenografts demonstrated that bruceantin induced regression in early as well as advanced tumors, and these significant antitumor responses were facilitated in the absence of overt toxicity.



Synonyms: Dihydrobrusatol; NSC310616 Vegetable origin

Solubility: DMSO: 12mg/mL

Bruceine A(NSC310616; Dihydrobrusatol) is a natural guassinoid compound extracted from the dried fruits of Brucea javanica (L.); are potential candidates for the treatment of canine babesiosis. IC50 value: Target: Bruceine A inhibited the in vitro growth of Babesia gibsoni in canine erythrocytes at lower concentration compared with the standard antibabesial drug diminazene aceturate and killed the parasites within 24hr at a concentration of 25nM. Oral administration of bruceine A at a dosage of 6.4mg/kg/day for 5 days resulted in no clinical findings in a dog with normal ranges of hematological and biochemical values in the blood. Three dogs were infected with B. gibsoni and two of them were treated with bruceine A at a dosage of 6.4mg/kg/day for 6 days from day 5 post-infection.

NATIX

Bruceine D CAS: 21499-66-1 C20H26O

Vegetable origin Specification: 98% min by HPLC

NATIY

Brucine CAS: 357-57-3 C23H26N2O4

Vegetable origin Specification: 98% min by HPLC

NATIZ

Brucine sulfate CAS: 4845-99-2

Vegetable origin

NAT_J0

Bryodulcosigenin CAS: 4965-97-3

Vegetable origin

NATJ1

Buddlejasaponin IVb CAS: 152580-79-5

Vegetable origin

A.34



Vegetable origin Solubility: DMSO: ≥ 31mg/mL

NATJ2

Bufalin

C24H34O4

Bufalin a major digoxin-like immunoreactive component of the Chinese medicine Chan Su; has been shown to exert a potential for anticancer activity against various human cancer cell lines in vitro. IC50 value: Target: Anticaner natural compound in vitro: Bufalin remarkably inhibited growth in human gallbladder cancer cells by decreasing cell proliferation, inducing cell cycle arrest and apoptosis in a dose-dependent manner. Bufalin also disrupted the mitochondrial membrane potential ($\Delta \Psi m$) and regulated the expression of cell cycle and apoptosis regulatory molecules. Activation of caspase-9 and the subsequent activation of caspase-3 indicated that bufalin may be inducing mitochondria apoptosis pathways [1]. Bufalin suppressed the protein levels associated with DNA damage and repair, such as a DNA dependent serine/threonine protein kinase (DNA-PK), DNA repair proteins breast cancer 1, early onset (BRCA1), 14-3-3 σ (an important checkpoint keeper of DDR), mediator of DNA damage checkpoint 1 (MDC1), O6-ethylguanine-DNA methyltransferase (MGMT) and p53 (tumor suppressor protein) [2]. TNF-α significantly increased p65 translocation into nucleus (P < 0.01) and enhanced NF-KB DNA-binding activity, which were dose-dependently inhibited by bufalin. Furthermore, bufalin attenuated the TNF- α -induced interleukin-1beta (IL-1β), IL-6, and IL-8 production in RAFLSs in a concentration-dependent manner [3]. Bufalin enhanced TRAIL-induced apoptosis in MCF-7 and MDA-MB-231 breast cancer cells by activating the extrinsic apoptotic pathway. Bufalin also promoted the clustering of death receptor 4 (DR4) and DR5 in aggregated lipid rafts [4]. In vivo: bufalin (0.3 and 0.6mg/kg, i.p.) potently decreased carrageenan-induced paw edema. Bufalin down regulated the expression levels of nitric oxide synthase (iNOS), cyclooxygenase-2 (COX-2), interleukin-1ß (IL-1ß), interleukin-6 (IL-6), and tumor necrosis factor- α (TNF- α) during these treatments [5]



Vegetable origin

Solubility: DMSO: ≥ 4.6mg/mL

Bufotalin is a cardiotoxic bufanolide steroid, cardiac glycoside analogue, secreted by a number of toad species; a novel anti-osteoblastoma agent. IC50 value: Target: in vitro: bufotalin induced osteoblastoma cell death and apoptosis in dose- and time-dependent manners. Further, bufotalin induced endoplasmic reticulum (ER) stress activation in osteoblastoma cells, the latter was detected by the induction of C/EBP homologous protein (CHOP), phosphorylation of inositol-requiring enzyme 1 (IRE1) and PKR-like endoplasmic reticulum kinase (PERK), as well as caspase-12 activation [1]. Bufotalin was the most potent active compound among these four bufadienolides, and it exerted stronger inhibitory effect on the viability of doxorubicin-induced multidrug resistant liver cancer cells (R-HepG2) than that of their parent cells HepG2. Bufotalin treatment induced cell cycle arrest at G(2)/M phase through down-regulation of Aurora A, CDC25, CDK1, cyclin A and cyclin B1, as well as up-regulation of p53 and p21. Bufotalin treatment also induced apoptosis which was accompanied by decrease in mitochondrial membrane potential, increases in intracellular calcium level and reactive oxygen species production, activations of caspase-9 and -3, cleavage of poly ADPribose polymerase (PARP) as well as changes in the expressions of bcl-2 and bax [2]. Bufotalin promoted death receptor-mediated cell death, especially TRAIL-induced apoptosis, through activation of caspase-3 and PARP-1. Cotreatment of bufotalin with TRAIL resulted in the downregulation of anti-apoptotic proteins, including Bcl-XL, Mcl-1, survivin and XIAP, and the up-regulation of MAPKs and TRAIL receptor DR5. In addition, phosphorylation of STAT1 was strongly inhibited by bufotalin [3]. Externalization of phosphatidylserine, accumulation of sub-G(1) cells, fragmentation of DNA, and formation of apoptotic bodies were observed in bufotalin-treated Hep 3B cells [4].

NAT_{J5}

Bullatine A CAS: 1354-84-3

Vegetable origin

NAT_{J6}

Bullatine B CAS: 466-26-2

Synomym: Neoline Vegetable origin

Advion × 🕆 interc





Solubility: 10mM in DMSO

Bulleyaconitine A is an analgesic and antiinflammatory drug isolated from Aconitum plants; has several potential targets, including voltage-gated Nat channels.

NAT_{J8} Bursehernin CAS: 40456-51-7 C₂₁H₂₂O₆



Vegetable origin

NATJ9

Butin CAS: 492-14-8

Vegetable origin

NATJA

Butyl-p-hydroxybenzoate CAS: 94-26-8 C₁₁H₁₄O₃

Vegetable origin Chemical Name: butyl 4-hydroxybenzoate Specification: 98% min by HPLC

NATJB

Butylphthalide CAS: 6066-49-5

Vegetable origin

NATJC Butyraxanthone B CAS: 1141754-81-5 C28H30O6

Vegetable origin



NATJE

Buxtamine CAS: 4236-73-1

Synonyms: Buxtauine; Cyclobuxoxine Vegetable origin

NATJG

Byakangelicin CAS: 19573-01-4 C₁₇H₁₈O₇

Chemical Name: 9-(2,3-dihydroxy-3-methylbutoxy)-4-methoxyfuro[3,2-g]chromen-7-one Vegetable origin Specification: 98% min by HPLC

NATJH

Cabazitaxel CAS: 183133-96-2

Vegetable origin

NATJI

Cafestol CAS: 469-83-0

Vegetable origin

NATJJ

Caffeic acid CAS: 331-39-5 C₀H₈O₄



Vegetable origin Solubility: DMSO: 106.7mg/mL Caffeic acid, an inhibitor of 5-Lipoxygenase (5-LO), is a phenolic compound widely distributed in medicinal plants.

NATJK

Caffeic acid phenethyl ester CAS: 104594-70-9 C₁₇H₁₆O₄

Vegetable origin Solubility: DMSO: 150mg/mL Caffeic acid phenethyl ester is a NF-KB inhibitor.

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NATJL



NATJM

Caffeine CAS: 58-08-2

Vegetable origin

NATJN

(E)-N-Caffeoylputrescine CAS: 29554-26-5

Vegetable origin

NATJP

3-O-Caffeoylquinic Acid

Neochlorogenic Acid

NATJO

4-O-Caffeoylquinic Acid



Vegetable origin Solubility: 10mM in DMSO

NATJR

Calceolarioside B CAS: 105471-98-5 $C_{23}H_{26}O_{11}$

Vegetable origin Plant Source: Fraxinus mandschurica Specification: 98% min by HPLC

NATJS Calycanthine CAS: 595-05-1

Vegetable origin

NATJT Calyciphylline A

CAS: 596799-30-3 C₂₃H₃₁NO₄



Vegetable origin

NATJU

Calycosin CAS: 20575-57-9 C₁₆H₁₂O₅



Synonym: Cyclosin Vegetable origin Solubility: DMSO: ≥ 28mg/mL

Calycosin (Cyclosin) is a natural active compound with anti-oxidative and anti-inflammation activity. IC50 value: Target: in vitro: calycosin had obvious anti-proliferation effects on SKOV3 cells in a dose- and time-dependent manner. Calycosin up-regulated the Bax/ Bcl-2 ratio and cleaved caspase-3, cleaved caspase-9 expression in a dose-dependent manner. In summary, calycosin might exert anti-growth and induce-apoptosis activity against ovarian cancer SKOV3 cells through activating caspases and Bcl-2 family proteins, therefore presenting as a promising therapeutic agent for the treatment of ovarian cancer [1]. Both calycosin and genistein inhibited proliferation and induced apoptosis in MCF-7 breast cancer cells, especially after treatment with calycosin. Treatment of MCF-7 cells with calycosin or genistein resulted in decreased phosphorylation of Akt, and decreased expression of its downstream target, HOTAIR [2]. incubation of calycosin resulted in enhanced expression ERβ in MCF-7 and T-47D cells, rather than MDA-231 and MDA-435 cells. Moreover, with the upregulation of ERB, successive changes in downstream signaling pathways were found, including inactivation of insulin-like growth factor 1 receptor (IGF-1R), then stimulation of p38 MAPK and suppression of the serine/threonine kinase (Akt), and finally poly(ADP-ribose) polymerase 1 (PARP-1) cleavage [3]. In vivo: calycosin stimulated a dramatic increase in uterine weight and downregulated the level of ERa protein in OVX mice [4].

NATJV



Solubility: DMSO: ≥ 32mg/mL

Calycosin-7-O-β-D-glucoside, a melanin biosynthesis inhibitor, is isolated from the methanol extract of astragalus. IC50 value: $68 \mu M$ in inhibition of Tyrosinase Target: In vitro: Calycosin-7-O-β-d-glucoside showed a melanin biosynthesis inhibition zone in a culture plate of Streptomyces bikiniensis. Furthermore, 75.78μM of calycosin-7-O-βd-glucoside dramatically decreased 50% of the melanin content on Melan-a cells without any apparent cytotoxicity [1]. Calycosin-7-Oβ-D-glucoside was revealed to scavenge NO, inhibit the activities of MMP-2 and MMP-9, and attenuate cell death in the in vitro cultured brain microvascular endothelial cells under OGD condition. In vivo: Calycosin-7-O-β-D-glucoside treatment significantly reduced infarct volume, histological damage and blood-brain barrier permeability in the in vivo MCAO ischemia-reperfusion rat model [2]. To reveal its physiological functions under stress, seedlings with different isoflavonoid levels were established using a phenylalanine ammonia lyase (PAL) enzyme inhibitor, I-α-aminooxy-β-phenylpropionic acid (AOPP). The results showed that the significant promotion of antioxidant capacity in this species might be associated with the remarkable accumulation of Calycosin-7-O-β-D-glucoside after cold pretreatment. The results provided the first evidence that a type of isoflavonoid, Calycosin-7-O-β-D-glucoside, might play a very important role against freezing stress in vivo [3].

NATJW

Camellianin A CAS: 109232-77-1

Vegetable origin

NATJX

Camelliaside A CAS: 135095-52-2

Vegetable origin

NATJY

Camelliaside B CAS: 131573-90-5

Vegetable origin

NATJZ





AND Enantiome

Synonym: (24R)-5-Ergosten-3β-ol Vegetable origin Solubility: 10mM in Ethanol Campesterol is a plant sterol with cholesterol lowering and anticarcinogenic effects.

NATK0

Camphene

CAS: 79-92-5 C₁₀H₁₆

Chemical Name: 3,3-dimethyl-2-methylidenebicyclo[2.2.1]heptane Vegetable origin

Specification: 98% min by HPLC

NATK1

Camphor CAS: 76-22-2 C₁₀H₁₆O

Vegetable origin

NATK2

Camptothecin CAS: 7689-03-4

Vegetable origin

NATK3

 $\begin{array}{l} \textbf{Cantharidin} \\ \textbf{CAS: 56-25-7} \\ \textbf{C}_{10}\textbf{H}_{12}\textbf{O}_{4} \end{array}$

Vegetable origin

Solubility: 10mM in DMSO

Cantharidin, a natural toxin isolated from beetles in the families Meloidae and Oedemeridae, has been reported to be toxic to some pests, including the diamondback moth. IC50 value: Target: In vitro: A 48h treatment of human erythrocytes with cantharidin significantly increased the percentage of annexin-V-binding cells (≥10µg/mL), significantly decreased forward scatter (≥25µg/mL), significantly increased [Ca²⁺]i (≥25µg/mL), but did not significantly modify ceramide abundance or ROS [1]. In vivo.

AND Enantiomer

<u> % interchim</u> » Advior



NATK4

Canthin-6-one CAS: 479-43-6 C14H8N2O



Vegetable origin

NATK5

Canthin-6-one N-oxide CAS: 60755-87-5 C14H8N2O2

Vegetable origin

NATK6

Caproic acid CAS: 142-62-1 C₆H₁₂O₂

Vegetable origin Chemical Name: hexanoic acid Specification: 98% min

NATK7

(6E)-Capsaicin CAS: 404-86-4

Vegetable origin



NATK9

beta-Carboline-1-propionic acid CAS: 89915-39-9 C₁₄H₁₂N₂O₂

Vegetable origin

NATKA

Carboxyatractyloside CAS: 33286-30-5 C₃₁H₄₄O₁₈S₂K₂

Vegetable origin Plant Source: Xanthium sibiricum Specification: 98% min by HPLC

NATKB

2-(1-carboxy-5,6,7,8-tetrahydro-5,5-dimethyl-2-naphthalenyl)-4-methyl-3-Furancarboxylic acid CAS: 1071072-76-8

 $C_{19}H_{20}O_{5}$



Vegetable origin

NATKC

Cardamonin CAS: 19309-14-9 $C_{16}H_{14}O_{4}$



Synonyms: Alpinetin chalcone; Cardamomin Vegetable origin Solubility: DMSO: ≥ 28mg/mL Cardamonin is a novel antagonist of hTRPA1 cation channel with an IC 50 of 454nM.

NATKD

Cardanol (C15:1) CAS: 501-26-8 C21H34O



Vegetable origin

NATKE

(±)-Car-3-ene-2,5-dione

NATKG

Carnosic acid CAS: 3650-09-7 C20H28O4



Vegetable origin

NATKH

Carnosol CAS: 5957-80-2 C20H26O4

Vegetable origin Specification: 98% min by HPLC Advion × ^{Printer}



NATKJ

α-Carotene CAS: 7488-99-5

Vegetable origin

NATKI

β-Carotene CAS: 7235-40-7

C40H56



Synonyms: Provitamin A; Carotaben; beta-Carotene; Lucarotin Vegetable origin

Solubility: DMSO

Beta Carotene is an organic compound and classified as a terpenoid. It is a precursor (inactive form) of vitamin A. Target: Others Beta Carotene is a strongly colored red-orange pigment abundant in plants and fruits. β -Carotene is biosynthesized from geranylgeranyl pyrophosphate. It is a member of the carotenes, which are tetraterpenes, synthesized biochemically from eight isoprene units and thus having 40 carbons. Among this general class of carotenes, β -carotene is distinguished by having beta-rings at both ends of the molecule. Absorption of β -carotene is enhanced if eaten with fats, as carotenes are fat soluble [1, 2].

NATKK

Carvacrol CAS: 499-75-2

Vegetable origin

NATKL

β-Caryophyllene CAS: 87-44-5

Vegetable origin

NATKM

Castanospermine CAS: 79831-76-8 C₈H₁₅NO₄

Vegetable origin Solubility: $H_2O: \ge 34$ mg/mL

Castanospermine inhibits all forms of α - and β -glucosidases, especially glucosidase I (required for glucoprotein processing by transfer of mannose and glucose from asparagine-linked lipids). Target α - and β -glucosidases. IC 50: 1.2uM [2] in vitro: Castanospermine, [(1S,6S,7R,8R,8aR)-1,6,7,8-tetrahydroxyoctahydroindolizine] is a potent and specific inhibitor of mammalian and plant α -and β -D-glucosidases in vitro. [1] In vivo: Experiments in vivo with castanospermine, an inhibitor of the glucosidases that convert protein N-linked high mannose carbohydrates to complex oligosaccharides, resulted in significant inhibition of tumor growth in nude mice.[3]

нс

AND Enantiome

NATKN

Casticin CAS: 479-91-4 C₁₉H₁₈O₈

Chemical Name: 5-hydroxy-2-(3-hydroxy-4-methoxyphenyl)-3,6,7trimethoxychromen-4-one Synonym: Vitexicarpin Vegetable origin Specification: 98% min by HPLC



Catalpol, an iridoid glycoside, has neuroprotective, anti-inflammatory, and anti-hepatitis virus effects. IC50 Value: Target: neuroprotective, anti-inflammatory, and anti-hepatitis virus natural product. In vitro: Catalpol could be encapsulated into composite nanofibers and induce differentiation of hASCs into neural-like cells, which might offer new avenues in nerve regeneration [1]. In vivo: The pharmacokinetics of catalpol in normal and doxorubicin-induced chronic kidney disease rats after oral administration of Rehmannia glutinosa extract was determined, and the extraction recoverie of catalpol was higher than 68.24% [2]. The protective effect of catalpol on renal IRI mice through suppressing phosphatidylinositol 3-kinase/protein kinase B (PI3K/Akt)-endothelial nitric oxide synthase (eNOS) and against inflammation, and the possible underlying mechanism [3].



Synonyms: (+)-Catechin;Cianidanol; D-Catechin; Cyanidanol; Catechuic acid

Vegetable origin Solubility: 10mM in DMSO

Catechin((+)-Catechin; D-Catechin) is a flavan-3-ol, a type of natural phenol and antioxidant. IC50 value: Target: in vitro: Co-treatment of astrocytes with (+)-catechin (300µM), an anti-oxidant found abundantly in green tea, significantly prevented PA-induced ROS production, MMP collapse and cell death [1]. The (+)-catechin emulsified gel further suppressed the activity of pro-inflammatory cytokines, viz. tumor necrosis factor-alpha (TNF- α), interleukin-1 beta (IL-1 β), and interleukin-6 (IL-6) [2]. Catechin, a well-known natural antioxidant, partially restored both the STAT5 activation and miR-182 expression resulting in cell survival [4]. In vivo: The in vitro permeation study revealed that release of (+)-catechin from an emulsified gel base reached a steady state after 6h, while pH of the entire emulsified gel was found to be between 6.2 and 6.5 that falls well within the normal pH range of the skin [1]. Catechin administration for 16 wk significantly ameliorated renal dysfunction in type 2 diabetic db/db mice, partially due to MG trapping, which in turn inhibited AGEs formation and lowered proinflammatory cytokines, including tumor necrosis factor a and IL-1B. Similarly, the MG trapping and cellular signaling inhibition effects of CE were observed in human endothelium-derived cells under high glucose conditions [3].



Synonyms: (-)-Catechin 3-gallate;(-)-Catechin 3-O-gallate Vegetable origin

Solubility: 10mM in DMSO

(-)-catechin gallate, a minor polyphenolic constituent in green tea, was used to study its cytotoxicity. IC50 value: Target: In vitro: The cytotoxicity of (-)-catechin gallate (CG) towards cells derived from tissues of the human oral cavity was studied. CG did enhance Fe²-induced, lipid peroxidation. CG-induced apoptosis was detected by nuclear staining, both with acridine orange and by the more specific <u>TUNEL procedure. In vivo.</u>

NATKR

(+)-Catechin Hydrate CAS: 225937-10-0 C₁₅H₁₆O₇

Vegetable origin Chemical Name: (2R,3S)-2-(3,4-dihydroxyphenyl)-3,4-dihydro-2Hchromene-3,5,7-triol hydrate Plant Source: Tea Specification: 98%

NATKS

Catechol

CAS: 120-80-9

Vegetable origin

NATKT

Catharanthine CAS: 2468-21-5 $C_{21}H_{24}N_2O_2$



AND Enantiomer

Synonym: (+)-3,4-Didehydrocoronaridine Vegetable origin Solubility: 10mM in DMSO

Catharanthine inhibits nicotinic receptor mediated diaphragm contractions with IC50 of 59.6µM. Target: nAChR Catharanthine evokes a concentration-dependent attenuation of carbachol responses in the rat ileum preparation, producing rightward curve displacements and decreases in maximal agonist responses. The mixture of serpentine, plus aimalicine and catharanthine reveals a concentration-dependent inhibitory effect of acethylcholinesterase (AchE), with an IC50 at ca. 2.25µg/MI [1]. Catharanthine can induce the self-association of tubulin into linear indefinite polymers with an efficacy that is 75% that of vinblastine or vincristine. Catharanthine binds to tubulin alpha-beta dimer with binding constant of 2.8mM [2]. Catharanthine stimulates release of amylase from pancreatic fragments and to cause extensive degranulation of pancreatic acinar cells with accumulation of membrane material in the Golgi region. Catharanthine induces a delayed release of Ca2+ from prelabeled pancreatic fragments as compared to bethanechol [3]. Catharanthine inhibits epibatidine-induced Ca(2+) influx in TE671- α , - β , - γ , -δ cells in a noncompetitive manner with similar potencies IC50 of 17mM-25mM. Catharanthine inhibits [3H]TCP binding to the desensitized Torpedo AChR with higher affinity compared to the resting AChR. Catharanthine enhances [3H]cytisine binding to resting but activatable Torpedo AChRs, suggesting desensitizing properties [4].

NATKU

Catharanthine Sulfate CAS: 70674-90-7



NATKW

Caudatin CAS: 38395-02-7 C₂₇H₄₀O₇

Vegetable origin Specification: 98% min by HPLC

NATKX

Cauloside F CAS: 60451-47-0

Vegetable origin

NATKY

Cedar acid CAS: 530-57-4 $C_9H_{10}O_5$



Vegetable origin

NATKZ

Cedrol CAS: 77-53-2

Vegetable origin

NATL0

Celastrol CAS: 34157-83-0 C₂₉H₃₈O₄

Synonym: Tripterine Vegetable origin Plant Source: Roots of Tripterygium wilfordii Plant Habitat: In the montains with altitude between 1500-3000 meters Collecting seasons: Autumn and Winter Part Used: Roots Specifications: 98%; 99% min by HPLC

NATL1

Cephaeline CAS: 483-17-0 C₂₈H₃₈N₂O₄

Synonyms: Cephaelin;7',10,11-Trimethoxyemetan-6'-ol; UNII-QA971541A1; Desmethylemetine Vegetable origin Plant Source: Uragoga ipecacuanha Baill Specification: 98% min by HPLC

NATL2

(-)-Cephaeline (dihydrochloride) CAS: 5853-29-2 $C_{28}H_{40}Cl_2N_2O_4$

Synonym: NSC 32944 Vegetable origin Solubility: DMSO (-)-Cephaeline dihydrochloride is an enantiomer of Cephaeline dihydrochloride. Cephaeline dihydrochloride is a selective **CYP2D6** inhibtor with **IC**₅₀ of 121µM.

NATL3

Cephalomannine CAS: 71610-00-9

Vegetable origin

NATL4

Cephalotaxlen CAS: 24316-19-6 C₁₈H₂₁NO₄



AND Enantiomer

Synonyms: (-)-Cephalotaxine; ZINC19795976 Vegetable origin Solubility: 10mM in DMSO Cephalotaxine is an antiviral as well as antitumor agent.

NATL5

Cepharanthine CAS: 481-49-2

Vegetable origin

NATL6 Ceplignan CAS: 185244-78-4 C₁₈H₁₈O₇ HO Vegetable origin

NATL7

Ceramide, from Acetobacter malorum(Ceramide mix.)

A.42



Solubility: DMSO: ≥ 26mg/mL

Chaetocin is a specific inhibitor of the histone methyltransferase (HMT) SU(VAR)3-9 with an IC₅₀ of 0.6µM for SU(VAR)3-9. It also inhibits thioredoxin reductase (TrxR) with an IC 50 of 4µM



AND Enantiomer NATLB Chamaejasmenin C CAS: 89595-70-0 C33H28O10 Vegetable origin

NATLC



NATLD

Chamigrenal CAS: 19912-84-6

Vegetable origin



Vegetable origin

NATLF

Chasmanine CAS: 5066-78-4

Vegetable origin

NATLG

Chebulagic acid



Solubility: 10mM in DMSO

Chebulagic acid is a COX-LOX dual inhibitor isolated from the fruits of Terminalia chebula Retz, on angiogenesis. T arget: COX-LOX [1] In vitro: Chebulagic acid can enhance the autophagy. Chebulagic acid exert anti-inflammatory and anti-infective effects. [1] [2] Chebulagic acid also show a protective effect against 1-methyl-4-phenylpyridinium (MPP+) - induce cytotoxicity which mimics the pathological symptom of Parkinson's disease. Chebulagic acid inhibit the LPS-induced upregulation of TNF-q and IL-16 in a dose- and timedependent manner. Furthermore, LPS-activated MAPK signaling is inhibited by CA treatment in the EA.hy926 cells. [3]

NATLH



NATLI

Chelerythrine CAS: 34316-15-9 C₂₁H₁₈NO₄

Vegetable origin Chemical Name: 1,2-dimethoxy-12-methyl-[1,3]benzodioxolo[5,6-c] phenanthridin-12-ium Specification: 98% min by HPLC

NATLJ

Chelidonine CAS: 476-32-4

Vegetable origin

NATLK

Chicanin CAS: 78919-28-5

Vegetable origin

NATLL

L-Chicoric Acid



Synonyms: (-)-Chicoric acid;trans-Caffeoyltartaric acid Vegetable origin

Solubility: 10mM in DMSO

L-Chicoric acid is an inhibitor of human immunodeficiency virus type 1 (HIV-1) integrase in vitro and of HIV-1 replication in tissue culture. IC50 value: Target: In vitro: Using quantitative real-time polymerase chain reaction (PCR), I-CA inhibits integration at concentrations from 500nM to 10µM but also inhibits entry at concentrations above 1µM [1]. I-Chicoric acid, an inhibitor of human immunodeficiency virus type 1 (HIV-1) integrase, improves on the in vitro anti-HIV-1 effect of Zidovudine plus a protease inhibitor (AG1350) [2]. L-chicoric acid inhibits integrase and that the drug is likely to interact at residues near the catalytic triad in the integrase active site [3]. In vivo.

NATLN

Chikusetsusaponin IVa CAS: 51415-02-2 $C_{42}H_{66}O_{14}$

Synonym: Calenduloside F Vegetable origin Solubility: 10mM in DMSO

Chikusetsusaponin IVa a major active ingredient of triterpenoid saponins, exerts antithrombotic effects, including minor hemorrhagic events. This appears to be important for the development of new therapeutic agents. A novel AMPK activator that is capable of bypassing defective insulin signalling and could be useful for the treatment of T2DM or other metabolic disorders. IC50 Value: 199.4 ± 9.1µM (inhibiting thrombin-induced fibrinogen clotting) Target: In vitro: Using biochemical and pharmacological methods, it proves that chikusetsusaponin IVa prolongs the recalcification time, prothrombin time, activated partial thromboplastin time, and thrombin time of normal human plasma in a dose-dependent manner; inhibits the amidolytic activity of thrombin and factor Xa upon synthetic substrates S2238 and S2222; inhibits thrombin-induced fibrinogen clotting (50% inhibition concentration, 199.4 ± 9.1µM); inhibits thrombin- and collageninduced platelet aggregation. Chikusetsusaponin IVa can also preferentially inhibits thrombin in a competitive manner (K(i)=219.6µM) [1]. Chikusetsusaponin IVa suppresses the production of iNOS, COX-2, IL-1β, IL-6, and TNF-α in LPS-stimulated THP-1 cells likely by inhibiting NF-KB activation and ERK, JNK, and p38 signal pathway phosphorylation [2]. In vivo: Studies were performed on type 2 diabetic mellitus (T2DM) rats given CHS for 28 days to test the antihyperglycemic activity. Oral administration of CHS dose-dependently increased the level of serum insulin and decreased the rise in blood glucose level [3].



NATLO Chimonanthine

CAS: 5545-89-1

Vegetable origin

A.44



Synonyms: 3-O-Caffeoylquinic acid;Heriguard;NSC-407296 Vegetable origin

Solubility: DMSO: ≥ 32 mg/mL

Chlorogenic acid(NSC-407296; 3-O-Caffeoylquinic acid) is one of the most abundant polyphenols in the human diet, has been reported to inhibit cancer cell growth and a major anti-inflammatory constituent of lonicerae flos extract. IC50 value: Target: in vitro: CGA significantly decreases the hypoxia-induced HIF-1a protein level in A549 cells, without changing its mRNA level. CGA was, however, found to suppress the transcriptional activity of HIF-1a under hypoxic conditions, leading to a decrease in the expression of its downstream target VEGF [1], CGA inhibited various TLR agonist-, IL-1g-, or highmobility group box-1-stimulated autophosphorylation (activation) of IRAK4 in peritoneal macrophages from C57BL/6 or C3H/HeJ mice via directly affecting the kinase activity of IRAK4, a proximal signal transducer in the MyD88-mediated innate immunity that enhances transcriptional activity of NF-kB or AP-1 [2]. In vivo: CGA can block hypoxia-stimulated angiogenesis in vitro and VEGF-stimulated angiogenesis in vivo using HUVEC cells in a mouse model [1]. CGA consequently attenuated protein or mRNA levels of NF-kB/AP-1 target genes encoding TNF-a, IL-1a, IL-6, and high-mobility group box-1 in vivo under endotoxemia or ALI [2]. CGA (10, 30 and 100mg/kg) and omeprazole (positive control, 10mg/kg) were administered orally 48h after the RE operation for 12 days. CGA reduced the severity of esophageal lesions, and this beneficial effect was confirmed by histopathological observations. CGA reduced esophageal lipid peroxidation and increased the reduced glutathione/oxidized glutathione ratio. CGA attenuated increases in the serum level of tumor necrosis factor-a, and expressions of inducible nitric oxide synthase and cyclooxygenase-2 protein [3]

NATLQ

(+)-6-(3-Chloro-2-hydroxy-3-methylbutyl)-5,7-dimethoxy-

coumarin CAS: 15575-50-5 C₁₆H₁₀CIO₅

Vegetable origin







C27H46O

HO

Vegetable origin

Solubility: DMSO: 0.79mg/mL (Need warming)

Cholesterol is the major sterol in mammals, and its importance in fundamental cellular processes is becoming more appreciated. IC50 value: Target: In vitro: GT1-7 hypothalamic cells subjected to cholesterol depletion in vitro produced 20-31% reductions in cellular cholesterol content, similar to the decrease in cholesterol synthesis observed in diabetes [1]. In vivo.



Synonyms: Cholesteryl myristate; Cholesteryl tetradecanoate Vegetable origin

Solubility: Ethanol: 2mg/mL (Need ultrasonic and warming) Cholesterol myristate is a natural steroid present in traditional Chinese medicine.

NATLW Cholesteryl behenate CAS: 61510-09-6 $C_{46}H_{88}O_2$

Synonyms: Cholesteryl docosanoate; Cholesterol behenate Vegetable origin

Solubility: DMSO: 10mM

and cholesterol excretion.

Cholesteryl behenate is a standard in electrospray ionization tandem mass spectrometry for the analysis of cholesterol and cholesteryl esters.



Advion × ^{*}interchim

NATLY

Chrysin CAS: 480-40-0

Vegetable origin

NATLZ



NATM0

Chrysin 7-O-β-gentiobioside CAS: 88640-89-5

Vegetable origin

NATM1

Chrysin 7-O-beta-D-glucopyranuronoside AND Enantiomer CAS: 35775-49-6 C₂₁H₁₈O₁₀

Vegetable origin

NATM2



NATM3



NATM4

Chrysoeriol-7-O-beta-D-glucopyranoside CAS: 19993-32-9

Vegetable origin

NATM6

Chrysophanol CAS: 481-74-3 C₁₅H₁₀O₄

Vegetable origin

NATM5

Chrysophanol-8-O-beta-D-glucopyranoside CAS: 13241-28-6

Vegetable origin

NATM7

Chrysosplenetin B CAS: 603-56-5

Vegetable origin

NATM8



Synonym: Dicaffeoyltartaric acid Vegetable origin Solubility: DMSO: ≥ 347mg/mL Cichoric Acid is reported to be antioxidative.

NATM9

AND Enantiome

Cimicidanol 3- O-α-L -arabinoside CAS: 161207-05-2

Vegetable origin

NATMA

Cimicifugoside

CAS: 66176-93-0



NATMB

Cimifugin CAS: 37921-38-3 C₁₆H₁₈O₆

Synonym: Cimitin



Vegetable origin Solubility: DMSO: ≥ 3mg/mL

Cimifugin is a major components of Yu-ping-feng-san, a Chinese medical formula that is used clinically for allergic diseases and characterized by reducing allergy relapse.

NATMC

Cimifugin 4'-O-β-D-glucopyranoside CAS: 1632110-81-6

Vegetable origin

NATMD

Cimigenol-3-O-alpha-L-arabinoside CAS: 256925-92-5

Vegetable origin

NATME

Cimigenoside CAS: 27994-11-2 $C_{35}H_{56}O_9$

Synonyms: Cimigeside, CiMigenol 3-O-β-D-xylopyranoside, Cimigenol-3-O-β-Dxylpyranoside, Cimigoside Vegetable origin Plant Source: Actaea racemosa L Specification: 98% min by HPLC

NATMF

Cimiracemoside D

CAS: 290821-39-5

AND Enantiomer



Vegetable origin

Solubility: 10mM in DMSO

Cimiracemoside D is a natural product found in Actaea racemosa with unknown details.

NATMG

 $\begin{array}{l} \textbf{Cinchonidine} \\ \textbf{CAS: } 485\text{-}71\text{-}2 \\ \textbf{C}_{19}\textbf{H}_{22}\textbf{N}_2\textbf{O} \end{array}$

Synonym: α-Quinidine Vegetable origin

NATMH

Cinchonine hydrochloride CAS: 5949-11-1

Vegetable origin

NATMI

Cinerin I CAS: 25402-06-6

NATMJ

Cinerin II CAS: 121-20-0

NATMK

trans-Cinnamaldehyde CAS: 14371-10-9

Vegetable origin

NATMM

Cinnamic acid CAS: 621-82-9

Vegetable origin

NATML

trans-Cinnamic acid CAS: 140-10-3 $C_9H_8O_2$

Vegetable origin

NATMN

2'-cinnamoyl-3'-benzoyl-(2-O-α-glucosyl)-Sucrose CAS: 154287-55-5

Vegetable origin

NATMO



Advion × ^{Pr}interchim

NATMP

Cinnamyl Alcohol CAS: 104-54-1

Vegetable origin

NATMQ





Synonym: Cinobufagine Vegetable origin

Solubility: DMSO: ≥ 43mg/mL

Cinobufagin, a kind of Chinese materia medica with antitumor effect, is widely used in clinical practice, especially in anti-liver cancer. IC50 value: Target: In vitro: Cinobufagin inhibited proliferation of cancer cells at doses of 0.1, 1, or 10µM after 2-4 days of culture. Cytotoxicity of cinobufagin on the DU145 and LNCaP cells was dose-dependent. Cinobufagin increased [Ca²⁻]i and apoptosis in cancer cells after a 24-hr culture as well as caspase 3 activities in DU145 and PC3 cells and caspase 9 activities in LNCaP cells [1]. Cinobufagin suppresses cell proliferation and causes apoptosis in prostate cancer cells via a sequence of apoptotic modulators, including Bax, cytochrome c and caspases [2]. In vivo.



Cinobufotalin is one of the bufadienolides prepared from toad venom; has anticancer activity. IC50 value: Target: in vitro: Cinobufotalin (CB) caused significant DNA fragmentation, decrease of MMP, and an increase in the intracellular (Ca2+) ion and ROS production. In addition, CB induced upregulation of Fas protein, proteolytic activation of cytochrome c, caspase-2, -3, -8 and -9 together with the activation of Bid and Bax [1]. Cinobufotalin displayed considerable cytotoxicity against lung cancer cells (A549, H460 and HTB-58 lines) without inducing significant cell apoptosis. Cinobufotalin mainly induces Cyp-D-dependent non-apoptotic death in cultured lung cancer cells [2]. Cinobufotalin (at nmol/L) significantly inhibited HCC cell growth and survival while inducing considerable cell apoptosis. Further, cinobufotalin inhibited sphingosine kinase 1 (SphK1) activity and induced pro-apoptotic ceramide production. Cinobufotalin inactivated Akt-S6K1 signaling in HepG2 cells, which was again inhibited by ceramide synthase-1 shRNA-depletion [3]. In vivo: Using a mice xenograft model, we found that cinobufotalin inhibited A549 lung cancer cell growth in vivo [2]

NAVYF

Cistanoside A CAS: 93236-42-1

Vegetable origin

NATMS

AND Enantiome

Citric acid CAS: 77-92-9 C₆H₈O₇

Vegetable origin Solubility: DMSO: ≥150mg/mL Citric acid is a weak organic tricarboxylic acid found in citrus fruits. Citric acid is a natural preservative and food tartness enhancer.

NATMT

L-Citrulline CAS: 372-75-8 C₆H₁₃N₃O₃

Vegetable origin

NATMU

Ciwujianoside B CAS: 114902-16-8 C₅₈H₉₂O₂₅

Vegetable origin Specification: 98% min by HPLC

NATMV

Clemaphenol A CAS: 362606-60-8

Vegetable origin

NATMW

Clemastanin A CAS: 172670-47-2

Vegetable origin

NATMX

Clemastanin B CAS: 112747-98-5

Vegetable origin

NATMY

Clematichinenoside AR CAS: 761425-93-8

Vegetable origin

A.48

NATNA

Colchicine CAS: 64-86-8 C22H25NO6

dro-5H-benzo[a]heptalen-7-yl]acetamide Vegetable origin Plant Source: Iphigenia indica Kunth et Benth

NATNB

Colominic Acid Sodium Salt from E.coli CAS: 70431-34-4

NATN7

Coclaurine CAS: 486-39-5 C₁₇H₁₉NO₃

Chemical Name: (1S)-1-[(4-hydroxyphenyl)methyl]-6-methoxy-1,2,3,4-tetrahydroisoquinolin-7-ol Synonyms: (S)-Coclaurine; UNII-CW1576313Y Vegetable origin Plant Source: Nelumbo nucifera, Sarcopetalum harveyanum Specification: 98% min by HPLC

NATN8

Coelonin CAS: 82344-82-9 C₁₅H₁₄O₃

Vegetable origin

NATN9

Coixol CAS: 532-91-2 C₈H₇NO₃

Synonyms: 6-Methoxy-2-benzoxazolinone;6-MBOA Vegetable origin

Solubility: DMSO: ≥ 30mg/mL

Coixol is a natural product extracted from Coix Lachryma-Jobi var. ma-yuen. IC50 value: Target: In vitro: Confluent NCI-H292 cells were pretreated with oleic acid, linoleic acid, glyceryl trilinoleate, beta-stigmasterol or coixol for 30min and then stimulated with PMA (phorbol 12-myristate 13-acetate), EGF (epidermal growth factor) or TNF-α (tumor necrosis factor-α) for 24h. Coixol inhibited the expression of MUC5AC mucin gene and production of MUC5AC mucin protein, induced by EGF or TNF-a from NCI-H292 cells; Coixol decreased PMA-induced MUC5AC mucin secretion from NCI-H292 cells [1]. βTC-6 cells were incubated in 2mM and 20mM glucose in the presence of coixol (200µM) for 60min at 37°C in Krebs-Ringer Bicarbonate buffer. Decreased insulin staining was observed by coixol at 20mM glucose (bottom) suggest that coixol stimulated insulin secretion at high glucose concentration [2]. In vivo.

Chemical Name: N-[(7S)-1,2,3,10-tetramethoxy-9-oxo-6,7-dihy-

NATN5

Cnidilin

Vegetable origin

NATN6

Cochliophilin A CAS: 110204-45-0

Vegetable origin

Clematichinenoside C CAS: 177912-24-2

Vegetable origin

NATN0

NATMZ

Clematiunicinoside E CAS: 916649-92-8

Vegetable origin

NATN1

Clematomandshurica saponin B CAS: 916649-91-7

Vegetable origin

NATN2

Clinodiside A CAS: 916347-31-4 C48H78O19

Vegetable origin Specification: 98% min by HPLC

NATN3

Clove3 CAS: 152041-16-2

NATN4

Clovin CAS: 81970-00-5

Vegetable origin

CAS: 14348-22-2

A.49



Synonyms: Columbamin; Dehydroisocorypalmine Vegetable origin Solubility: DMSO: ≥ 23mg/mL Columbamine is a quaternary isoquinoline alkaloid isolated from

NATND

Columbianadin CAS: 5058-13-9 $C_{19}H_{20}O_5$

Argemone mexicana.



Vegetable origin

Solubility: 10mM in DMSO Columbianadin, a natural coumarin form, is known to have various biological activities including anti-inflammatory and anti-cancer effects.

NATNE

Columbianetin CAS: 3804-70-4

Vegetable origin

NATNF

Columbianetin acetate CAS: 23180-65-6

Vegetable origin

NATNG

Columbin CAS: 546-97-4 C₂₀H₂₂O₆



Vegetable origin Solubility: DMSO: 10mM Columbin is a diterpenoid furanolactone with anti-inflammation activity.

NATNH

Colupulone CAS: 468-27-9 C₂₅H₃₆O₄



Vegetable origin

NATNI

Combretastatin A4 CAS: 117048-59-6 C₁₈H₂₀O₅

10 20 5

Vegetable origin

Synonym: CRC 87-09

Solubility: 10mM in DMSO Combretastatin A4 is a **microtubule**-targeting agent that binds β -tubulin with K₄ of 0.4µM.



Solubility: DMSO≥ 35.7mg/mL

Complanatoside A is a flavonol glycoside isolated from Astragalus complanatus, and currently it is used as a quality control index for A. complanatus in the 2010 edition of the Chinese Pharmacopoeia.



Complanatuside is a flavonoid found in the traditional Chinese medicine Semen Astragali Complanati.

NATNL

Congmunoside V CAS: 340963-86-2

Vegetable origin

NATNM

Congmunoside VII CAS: 340982-22-1

Vegetable origin

NATNN

Congmunoside X CAS: 344911-90-6

Vegetable origin

erchim[®] × Advion

NATNO

Coniferin CAS: 531-29-3

Vegetable origin

NATNP

Convallatoxin CAS: 508-75-8 C₂₀H₄₂O₁₀

Synonyms: Convallotoxin; Corglycone; UNII-JY264VIR1Y; Convallaotoxin Vegetable origin Plant Source: Adonis amurensis Regel et Radde Specification: 98%min by HPLC

NATNQ

Coptisine CAS: 3486-66-6 C₁₉H₁₄NO₄⁺

Synonym: Coptisin Vegetable origin Solubility: 10mM in DMSO

Coptisine is a protoberberine isoquinoline alkaloid, isolated from rhizome of Coptis japonica. IC50 value: Ki value of coptisine was 3.3microM Target: In vitro: Coptisine had strong anti-fungal activity: at a low concentration (45µg/ml) began to inhibit the growth of Candida albicans and at a high concentration (500µg/ml) completely inhibited Candida albicans growth. Coptisine gave big inhibitory zones with diameters between 11 and 43mm within test range, and the MIC of it was 1000µg/ml [1]. Coptisine displayed antiproliferative action against vascular smooth muscle cells by blocking the cell cycle at G(1) and G(2)/M phases [3]. In vivo: Coptisine showed an inhibitory effect on MAO-A activity in a concentration-dependent manner using a substrate kynuramine, and it exhibited 54.3% inhibition of MAO-A activity at 2microM; the Ki value of coptisine was 3.3microM [2].

NATNR

Coptisine (chloride) CAS: 6020-18-4 C₁₉H₁₄CINO₄

Vegetable origin Solubility: DMSO: 10.75mg/mL

NATNS

Coptisine sulfate CAS: 1198398-71-8

Vegetable origin





NATNT

 $\begin{array}{l} \textbf{Cordycepin} \\ \text{CAS: 73-03-0} \\ \text{C}_{10}\text{H}_{13}\text{N}_5\text{O}_3 \end{array}$

Chemical Name: (2R,3R,5S)-2-(6-aminopurin-9-yl)-5-(hydroxymethyl)oxolan-3-ol Vegetable origin Specification: 98% min by HPLC

NATNU

Corilagin CAS: 23094-69-1 C₂₇H₂₂O₁₈

Vegetable origin Specification: 98% min by HPLC

NATNV

Cornuside I CAS: 131189-57-6

Vegetable origin

NATNW

Coronadiene CAS: 1145689-64-0 C₁₇H₂₆O₂

Vegetable origin

NATNX

Coronaridine CAS: 467-77-6 C₂₁H₂₆N₂O₂

Vegetable origin



AND Enantiomer

соон

Advion × ^{Pr}interchim

A.51



Synonyms: Colosic acid;Colosolic acid;Corsolic acid;Glucosol Vegetable origin

Solubility: 10mM in DMSO

Corosolic acid isolated from the fruit of Cratoegus pinnatifida var. psilosa, was reported to have anticancer activity. IC50 value: 26.8µg/ ml in vitro Target: In vitro: Corosolic acid displayed about the same potent cytotoxic activity as ursolic acid against several human cancer cell lines. In addition, the compound displayed antagonistic activity against the phorbol ester-induced morphological modification of K-562 leukemic cells, indicating the suppression of protein kinase C (PKC) activity by the cytotoxic compound. The compound showed PKC inhibition with dose-dependent pattern in an in vitro PKC assay [1]. MTT method was used to detect the influence of corosolic acid on A549 lung cancer cell growth in vitro under different concentrations. The value of IC50 was 26.8µg/ml in vitro experiment. Corosolic acid of different doses had certain therapeutic effects on A549 solid tumor, the content of VEGF and CD34 proteins also had different degrees of influence [2]. Corosolic acid induced apoptosis in CT-26 cells, mediated by the activation of caspase-3. It inhibited the proliferation and tube formation of human umbilical vein endothelial cells and human dermal lymphatic microvascular endothelial cells. decreased the proliferation and migration of human umbilical vein endothelial cells stimulated by angiopoietin-1 [3]. In vivo: A mouse colon carcinoma CT-26 animal model was employed to determine the in vivo anti-angiogenic and anti-lymphangiogenic effects of corosolic acid.

NATNZ Corydaline CAS: 518-69-4 C₂₂H₂₇NO₄



Synonyms: (+)-Corydaline;Corydalin Vegetable origin Solubility: 10mM in DMSO Corydaline is an acetylcholinesterase inhibitor isolated from Corydalis yanhusuo

NATO0 Corydamine CAS: 49870-84-0 C20H18N2O4

Vegetable origin

NATO1

Corydine CAS: 476-69-7

Vegetable origin

NATO2

Corylifol A CAS: 775351-88-7 C25H26O4



Vegetable origin

Solubility: DMSO: ≥ 15.4mg/mL

Corylifol A is a phenolic compound isolated from Psoralea corylifolia; inhibits IL-6-induced STAT3 activation and phosphorylation(IC50=0.8uM). IC50 value: 0.8uM [1] Target: STAT3 inhibitor Corylifol A showed an inhibitory effect on IL-6-induced STAT3 promoter activity in Hep3B cells with IC50 value of 0.81 ± 0.15uM, also inhibited STAT3 phosphorylation induced by IL-6 in Hep3B cells [1]. Corylifol A inhibited SARA PLpro in a dose-dependent manner with IC50 ranging between 4.2 and 38.4µM [2]. Corvlifol A were found to be naturally occurring potent inhibitors of hCE2, with low Ki values ranging from 0.62µM to 3.89µM [3].

NATO3

Corylin CAS: 53947-92-5 C₂₀H₁₆O₄



Vegetable origin Solubility: 10mM in DMSO

Corylin is a major bioactive compound isolated from Psoralea corylifolia L; antibiotic or anticancer compound. IC50 value: Target: in vitro: Corylin showed an inhibitory effect on IL-6-induced STAT3 promoter activity in Hep3B cells with IC50 value of 1.37uM [1].

NATO4

Corynoline CAS: 18797-79-0 C₂₁H₂₁NO_E

Synonym: 13-Methylchelidonan-11β-ol Vegetable origin Plant Source: Corydalis incisa Specification: 98% min by HPLC

NATO9

Corvtuberine CAS: 517-56-6

Vegetable origin

NATOA

Costunolide CAS: 553-21-9 $C_{15}H_{20}O_{2}$

Synonyms: (+)-Costunolide; Costunolid; Costus lactone; NSC 106404 Vegetable origin

Solubility: DMSO: ≥ 49mg/mL

Costunolide, a sesquiterpene lactone, exhibits anti-inflammatory and anti-oxidant properties and mediates apoptosis. IC50 Value: 6.2 - 9.8ug/mL(sarcoma cells viability)[3] Target: Apoptosis inducer in vitro: Costunolide significantly inhibited RANKL-induced BMM differentiation into osteoclasts in a dose-dependent manner without affecting cytotoxicity. Costunolide did not regulate the early signaling pathways of RANKL, including the mitogen-activated protein kinase and NF-kB pathways. However, costunolide suppressed nuclear factor of activated T-cells, cytoplasmic 1 (NFATc1) expression via inhibition of c-Fos transcriptional activity without affecting RANKL-induced c-Fos expression. The inhibitory effects of costunolide were rescued by overexpression of constitutively active (CA)-NFATc1 [1]. Exposure of T24 cells to costunolide was also associated with increased expression of Bax, down-regulation of Bcl-2, survivin and significant activation of caspase-3, and its downstream target PARP [2]. Both costunolide and dehydrocostus lactone inhibited cell viability doseand time-dependently. IC50 values ranged from 6.2ug/mL to 9.8ug/ mL. Cells treated with costunolide showed no changes in cell cycle. little in caspase 3/7 activity, and low levels of cleaved caspase-3 after 24 and 48h [3]. In vivo: Neither costunolide nor alpha-MGBL affected the blood-ethanol elevation in pylorus-ligated rats or that induced by intraperitoneal and intraduodenal ethanol administration [4]. Costunolide and alpha-MGBL suppressed gastric emptying in rats given 20% ethanol and 1% sodium carboxymethyl cellulose. Clinical trial.

NATOB

Coumalic acid CAS: 500-05-0

Vegetable origin

NATOC p-Coumaric acid CAS: 501-98-4 C₀H₀O₂

Synonym: trans-4-Hydroxycinnamic acid Vegetable origin Solubility: DMSO: 150mg/mL p-Coumaric acid is the abundant isomer of cinnamic acid which has antitumor and anti-mutagenic activities.

NATO6

Corvnoxine

Solubility: DMSO: ≥ 3.8mg/mL

5, 20 and 50µM, respectively [1]

Corynoxine is an enantiomer of Corynoxine B; induces autophagy in different neuronal cell lines, including N2a and SHSY-5Y cells. IC50 value: Target: Autophagy inducer In vivo, Cory promotes the formation of autophagosomes in the fat bodies of Drosophila. By inducing autophagy, Cory promotes the clearance of wild-type and A53T a-syn in inducible PC12 cells. Interestingly, different from its enantiomer Cory B, Cory induces autophagy through the Akt/mTOR pathway as evidenced by the reduction in the levels of phospho-Akt, phospho-mTOR and phospho-p70 S6 Kinase [1]. Corynoxine significantly decreased locomotor activity after oral administration to mice [2]



Corynoxine B is an oxindole alkaloid isolated from Uncaria rhynchophylla (Mig.) Jacks (Gouteng in Chinese); a Beclin-1-dependent autophagy inducer. IC50 value: Target: Autophagy inducer in vitro: Corynoxine B, a natural autophagy inducer, restores the deficient cytosolic translocation of HMGB1 and autophagy in cells overexpressing SNCA, which may be attributed to its ability to block SNCA-HMGB1 interaction [1]. In vivo: Corynoxine B exhibited prolongation of the thiopental-induced hypnosis on oral administration in mice [2].

NATO8

(+)-Corypalmine CAS: 13063-54-2

Vegetable origin

Solubility: 10mM in DMSO

CAS: 6877-32-3 C₂₂H₂₈N₂O₄ Vegetable origin

Solubility: 10mM in DMSO



Corynoxeine is a potent ERK1/2 inhibitor of key PDGF-BB-induced

VSMC proliferation; a useful and prospective compound in the

prevention and treatment for vascular diseases. IC50 value: Tar-

get: ERK1/2 inhibitor; Natural compound in vitro: Pre-treatment of VSMCs with corynoxeine (5-50µM) for 24h resulted in significant de-

creases in cell number without any cytotoxicity; the inhibition percen-

tages were 25.0+/-12.5, 63.0+/-27.5 and 88.0+/-12.5% at 5, 20 and

50µM, respectively. Also, corynoxeine significantly inhibited the

50ng/ml PDGF-BB-induced DNA synthesis of VSMCs in a concen-

tration-dependent manner without any cytotoxicity; the inhibitions

were 32.8+/-11.0, 51.8+/-8.0 and 76.9+/-7.4% at concentrations of

AND Enantiome

AND Enantiomer



NATOD

Coumarin CAS: 91-64-5 C₉H₆O₂



Vegetable origin Solubility: 10mM in DMSO

Coumarin is the primary bioactive ingredient in Radix Glehniae, named Beishashen in China, which possesses many pharmacological activities, including anticancer, anti-inflammation and antivirus activities.

NATOG

N-p-coumaroyl-Octopamine CAS: 66648-45-1

Vegetable origin

NATOF



Vegetable origin

NATOE



Vegetable origin

NATOH

Coumestrol CAS: 479-13-0 C₁₅H₈O₅



Vegetable origin Solubility: DMSO

Cournestrol, a phytoestrogen present in soybean products, exhibits activities against cancers, neurological disorders, and autoimmune diseases. It suppresses proliferation of ES2 cells with an IC_{50} of 50µM.

NATOI

Cowaxanthone B CAS: 212842-64-3 C₂₅H₂₈O₆

Chemical Name: 1,3-Dihydroxy-6,7-dimethoxy-2,8-bis(3-methyl-2-butenyl)-9H-xanthen-9-one Vegetable origin Specification: 98% min by HPLC

NATOJ

Crassicauline A CAS: 79592-91-9

Vegetable origin

NATOK

Cratoxylone CAS: 149155-01-1 C₂₄H₂₈O₇

Chemical Name: 1,3,6-Trihydroxy-2-(3-hydroxy-3-methylbutyl)-7methoxy-8-(3-methyl-2-butenyl)-9H-xanthen-9-one Vegetable origin Specification: 98% min by HPLC

NATOL

AND Enantiom

Crocatone CAS: 19937-86-1 C₁₁H₁₂O₄



Vegetable origin

NATOM

Crocetin CAS: 27876-94-4 C₂₀H₂₄O₄

Synonyms: roceic acid,8,8'-diapo-psi, psi-carotenedioic acid, Alpha-Crocetin Vegetable origin Plant Source: Crocus sativus Specification: 98% min by HPLC

NATON

Crocin I CAS: 42553-65-1 C₄₄H₆₄O₂₄

Vegetable origin Specification: 98% min by HPLC

NATOO

Crocin II CAS: 55750-84-0 C38H54O19

Synonyms: Crocin 3; Crocin B; Tricrocin Vegetable origin Specification: 98% min

NATOP

Crotonoside CAS: 1818-71-9 C10H13N5O5

Chemical Name: 6-amino-9-[(2R,3R,4S,5R)-3,4-dihydroxy-5-(hydroxymethyl)oxolan-2-yl]-1H-purin-2-one Synonyms: 2-Hydroxyadenosine, Isoguanine riboside, Crotonosid Vegetable origin Specification: 98% min by HPLC

NATOQ



Synonyms: 4-Caffeoylquinic acid; 4-O-Caffeoylquinic acid Vegetable origin Solubility: 10mM in DMSO

NATOR

Cryptotanshinone CAS: 35825-57-1 C10H2003



AND Enantiome

Synonyms: Cryptotanshinon; Tanshinone c Vegetable origin Solubility: 10mM in DMSO

Cryptotanshinone is a potent STAT3 inhibitor with IC $_{\rm 50}$ of 4.6 $\mu M,$ and inhibits STAT3 Tyr705 phosphorylation in DU145 prostate cancer cells.

NATOS

Cucurbitacin A CAS: 6040-19-3

Vegetable origin

NATOT



Vegetable origin

Solubility: 10mM in DMSO

Cucurbitacin B belongs to a class of highly oxidized tetracyclic triterpenoids; could repress cancer cell progression. IC50 value: Target: anticancer natural compound in vitro: Cucurbitacin-B inhibited growth and modulated expression of cell-cycle regulators in SHSY5Y cells. At the molecular level, we found that Cucurbitacin-B inhibited AKT signaling activation through up-regulation of PTEN [1]. CuB induced apoptosis of A549 cells in a -concentration-dependent manner, as determined by fluorescence microscopy, flow cytometry and transmission electron microscopy. CuB dose-dependently inhibited lung cancer cell proliferation, with cell cycle inhibition and cyclin B1 downregulation. Apoptosis induced by CuB was shown to be associated with cytochrome c release, B-cell lymphoma 2 downregulation and signal transducer and activator of transcription 3 pathway inhibition [2]. CuB inhibited ITGA6 and ITGB4 (integrin α 6 and integrin β 4), which are overexpressed in breast cancer. Furthermore, CuB also induced the expression of major ITGB1and ITGB3, which are known to cause integrin-mediated cell death [3]. Cuc B treatment caused DNA double-strand breaks (DSBs) without affecting the signal transducer and activator of transcription 3 (STAT3), the potential molecular target for Cuc B. Cuc B triggers ATM-activated Chk1-Cdc25C-Cdk1, which could be reversed by both ATM siRNA and Chk1 siRNA. Cuc B also triggers ATM-activated p53-14-3-3-σ pathways, which could be reversed by ATM siRNA [4]. In vivo: Efficacy of CuB was tested in vivo using two different orthotopic models of breast cancer. MDA-MB-231 and 4T-1 cells were injected orthotopically in the mammary fat pad of female athymic nude mice or BALB/c mice respectively. Our results showed that CuB administration inhibited MDA-MB-231 orthotopic tumors by 55%, and 4T-1 tumors by 40%. The 4T-1 cells represent stage IV breast cancer and form very aggressive tumors [3].

NATOU





Synonyms: α -Elaterin; α -Elaterine Vegetable origin

Solubility: 10mM in DMSO

Cucurbitacin E is a widely available plant-derived natural product, making it a useful tool to study actin dynamics in cells and actinbased processes such as cytokinesis. IC50 value: 7-50nM in 2- to 6-day exposures Target: In vitro: In assays using pure fluorescently labeled actin, cucurbitacin E specifically affects depolymerization without affecting polymerization. In assays using pure fluorescently labeled actin, cucurbitacin E specifically affects depolymerization without affecting polymerization. It inhibits actin depolymerization at substoichiometric concentrations up to 1:6 cucurbitacin E:actin. Cucurbitacin E specifically binds to filamentous actin (F-actin) forming a covalent bond at residue Cys257, but not to monomeric actin (G-actin) [1]. Cucurbitacin E at low concentrations (3-50nmol/l) inhibited the growth of HL-60 cells, which was associated with G2/M cell-cycle arrest, decrease in the levels of cyclin-dependent kinase1, and increase in the levels of p21. Cucurbitacin E at high concentrations (1-10mol/l) induced apoptosis of HL-60 cells and activation of caspase-3, caspase-8, and caspase-9 [2]. Cucurbitacin E caused marked disruption of the actin cytoskeleton, and in a series of cucurbitacin analogues, anti-proliferative activity correlated directly with the disruption of the F-actin cytoskeleton [3]. In vivo



Synonyms: Elatericin B; JSI-124; NSC-521777 Vegetable origin Solubility: 10mM in DMSO

Cucurbitacin I is a naturally occurring triterpenoid derived from Cucurbitaceae family plants that exhibits a number of potentially useful pharmacological and biological activities. IC50 value: Target: In vitro: Exposure of the COLO205 cells to cucurbitacin I significantly decreased cell viability. Furthermore our data demonstrated for the first time that in the COLO205 cells, cucurbitacin I could suppress the cell migration and invasion, and harbor chemosensitization activity against colon cancer. The anticancer activity of cucurbitacin I was accomplished by downregulating p-STAT3 and MMP-9 expression [1]. PE-induced cell enlargement and upregulation of ANF and β-MHC were significantly suppressed by pretreatment of the cardiomyocytes with cucurbitacin I. Notably, cucurbitacin I also impaired connective tissue growth factor (CTGF) and MAPK signaling, prohypertrophic factors, as well as TGF-β/Smad signaling, the important contributing factors to fibrosis. The protective impact of cucurbitacin I was significantly blunted in CTGF-silenced or TGF-B1-silenced hypertrophic cardiomyocytes, indicating that the compound exerts its beneficial actions through CTGF [2]. In vivo.

NATOZ

Cucurbitacin IIa CAS: 58546-34-2 C₃₂H₅₀O₈

Vegetable origin Specification: 98% min by HPLC

NATP0

CAS: 50298-90-3

Vegetable origin

NATP1

Cucurbitacin S CAS: 60137-06-6

Vegetable origin



NATP3

Curcolone CAS: 17015-43-9 C₁₅H₁₈O₃

Vegetable origin

NATP4

Curcolonol CAS: 217817-09-9 C₁₅H₂₀O₄

Vegetable origin

AND Enantiomer



NATP5

Curculigoside CAS: 85643-19-2 C₂₂H₂₆O₁₁

Vegetable origin Specification: 98% min by HPLC





Vegetable origin

Solubility: DMSO: ≥ 185mg/mL

Curcumin is a natural phenolic compound with impressive antioxidant properties, exerting chemopreventive effects partly through the activation of nuclear factor (erythroid-2 related) factor 2 (Nrf2).

NATPB

Curcumol CAS: 4871-97-0 $C_{15}H_{24}O_2$ Synonym: (-)-Curcumol

Vegetable origin Solubility: 10mM in DMSO



AND Enantiomer

Curcumol is a sesquiterpene originally isolated from curcuma rhizomes; shows anticancer activities both in vitro and in vivo. IC50 value: Target: Anticancer natural compound in vitro: Curcumol exhibited time- and concentration-dependent anti-proliferative effects in SPC-A-1 human lung adenocarcinoma cells with cell cycle arrest in the G0/G1 phase while apoptosis-induction was also confirmed with flow cytometry and morphological analyses [1]. Curcumol-induced growth inhibition correlated with apoptosis induction as evidenced by Annexin V staining, and cleavage of caspase-3 and poly (ADPribose) polymerase (PARP) in HSC-T6. Suppression of the NF-kB translocation via inhibition of IκB-α phosphorylation by the curcumol led to the inhibition of expression of NF-kB-regulated gene, e.g. BclxL and Bcl-2, in a PI3K-dependent manner, which is upstream of NFκB activation [2]. Curcumol exhibits an inhibitory effect on receptor activator of nuclear factor kappaB ligand (RANKL)-induced osteoclast differentiation with both bone marrow-derived macrophages and RAW264.7 cells in a dose-dependent manner [3]. In vivo: Antineoplastic effects of curcumol were also confirmed in tumor bearing mice. Curcumol (60mg/kg daily) significantly reduced tumor size without causing notable toxicity [1].

NATPC Curdione

CAS: 13657-68-6 C₄₅H₂₄O₂



Synonym: (+)-Curdione Vegetable origin Solubility: 10mM in DMSO

Curdione, one of the major sesquiterpene compounds from Rhizoma Curcumae, has been shown to exhibit multiple bioactive properties. IC50 value: 60-80µM Target: In vitro: The study of the influence of curdione on the hemorheological changes in blood stasis model rats and thrombolysis in vitro showed that curdione only possessed thrombolytic effect in dose of 0.235g·L-1 and 2.35g·L-1, but has not the notable activity of thrombolysis [1]. The effects of curdione on human platelet aggregation induced by thrombin (0.3U/ml) were tested in vitro. Curdione preferentially inhibited PAF- and thrombininduced platelet aggregation in a concentration-dependent manner (IC50: 60-80µM), whereas much higher concentrations of curdione were required to inhibit platelet aggregation induced by ADP and AA. Curdione also inhibited P-selectin expression in PAF-activated platelets. Moreover, curdione caused an increase in cAMP levels and attenuated intracellular Ca2+ mobilization in PAF-activated platelets. In vivo: Curdione showed significant antithrombotic activity [2]

NATPD

Curzerene CAS: 17910-09-7



NATPE

Cyanidin Chloride

CAS: 528-58-5 C₁₅H₁₁CIO₆

Synonyms: Cyanidine, Cyanidol chloride, 2-(3, 4-dihydroxyphenyl) chromenylium-3,5,7-triol Vegetable origin Plant Source: Machaerium floribundum Specification: 98% min by HPLC

NATPH

AND Enantiome Cyanidin-3-O-rutinoside chloride CAS: 18719-76-1 C₂₇H₃₁CIO₁₅ Vegetable origin

NATPI

Cyanidin-3-O-sambubioside chloride CAS: 33012-73-6



NATPJ

Cyasterone CAS: 17086-76-9 C29H44O8

Synonyms: CHEBI:29012; Al3-44890 Vegetable origin Specification: 98% min by HPLC

NATPK

Cycleanine CAS: 518-94-5

Vegetable origin

NATPL

Cycloalliin Hydrochloride Monohydrate



Synonyms: Cyclogalagenin; Cyclogalegenin; Cyclogalegigenin Vegetable origin

Solubility: 10mM in DMSO

Cycloastragenol, a natural tetracyclic triterpenoid, was first identified when screening Astragalus membranaceus extracts for active ingredients with antiaging properties. IC50 value: Target: In vitro: In the study of Cycloastragenolon the treatment of degenerative diseases, the result showed that first-pass intestinal metabolism of cycloastragenol might occur upon passage through the intestinal epithelium. Cycloastragenol underwent extensive metabolism in rat and human liver microsomes with only 17.4% and 8.2%, respectively, of the starting amount of Cycloastragenol remaining after 30min of incubation [1]. The present study demonstrates that cycloastragenol stimulates telomerase activity and cell proliferation in human neonatal keratinocytes. In particular, cycloastragenol promotes scratch wound closure of human neonatal keratinocyte monolayers in vitro [3]. In vivo: Rats were treated with Cycloastragenol (40mg·kg- 1·d- 1) for 7 days to induce hepatic microsomal enzyme. The result showed that compared with the control, cycloastragenol obviously activated CYP2E1, and remarkably inhibited CYP3A4 [2].

NATPO

AND Enantiome

Cyclobuxine D CAS: 2241-90-9 C25H20

Chemical Name: 14-methyl-3,20-bis(methylamino)-4-methylidene-9,19-cyclopregnan-16-ol Vegetable origin Specification: 98% min by HPLC

NATPP Cyclocommunol CAS: 145643-96-5 $C_{20}H_{16}O_{6}$

NATPQ

 $\begin{array}{l} \textbf{Cyclomorusin}\\ \textbf{CAS: 62596-34-3}\\ \textbf{C}_{25}\textbf{H}_{22}\textbf{O}_{6} \end{array}$



Vegetable origin

NATPR

Cyclopamine CAS: 4449-51-8 C₂₇H₄₁NO₂

Synonyms: 11-Deoxojervine; (3b,23b)-17,23-Epoxy-11-deoxoveratraman-3-ol Vegetable origin Specification: 98% min by HPLC

NATPS

Cyclosporin A CAS: 59865-13-3

Vegetable origin

NATPT

Cyclosporin C CAS: 59787-61-0

Vegetable origin

NATPU

Cyclosporin D CAS: 63775-96-2

Vegetable origin

NATPV

Cyclovirobuxine D CAS: 860-79-7

Vegetable origin



Vegetable origin Solubility: DMSO: ≥ 23mg/mL Cynarin is an antichoke agent with a variety of biological activities including antioxidant, antihistamic and antiviral activities.

NATPX

Cynaropicrin CAS: 35730-78-0 C₁₉H₂₂O₆



Vegetable origin Solubility: DMSO

Cynaropicrin is a sesquiterpene lactone which can inhibit tumor necrosis factor (TNF- α) release with IC₅₀s of 8.24 and 3.18µM for murine and human macrophage cells, respectively. Cynaropicrin also inhibits the increase of cartilage degradation factor(MMP13) and suppresses NF- κ B signaling.

NATPY



Synonyms: Luteolin 7-glucoside; Luteolin 7-O-β-D-glucoside Vegetable origin Solubility: DMSO: ≥ 35mg/mL Cynaroside is a flavone, a flavonoid-like chemical compound. It is a 7-O-glucoside of luteolin.

NATPZ

alpha-Cyperone CAS: 473-08-5 C₁₅H₂₂O



Synonyms: α-Cyperone; (+)-α-Cyperone Vegetable origin

Solubility: 10mM in DMSO

Alpha-cyperone is associated with the down-regulation of COX-2,IL-6,Nck-2,Cdc42 and Rac1, resulting in reduction of inflammation. which would be highly beneficial for treatment of inflammatory diseases such as AD. In vitro: The anti-inflammatory activity of alphacyperone is associated with the down-regulation of COX-2 and IL-6 via the negative regulation of the NFkB pathway in LPS-stimulated RAW 264.7 cells.[1] Alpha-Cyperone binds and interacts with tubulin and is capable of distinctly destabilizing microtubule polymerization. The effect of this interaction could result in reduction of inflammatory diseases such as AD. One microliter of alpha-Cyperone was dissolved in DMSO (1:1 v/v) and it was further diluted in double distilled water H₂O (ddH2O) to a final volume of 20 microliter. [2]

NATQ0 Cytidine CAS: 65-46-3



NATQ1

5'-Cytidylic acid CAS: 63-37-6

Vegetable origin

NATQ2

Cytisin CAS: 485-35-8 C₁₁H₁₄N₂O AND Enantiomer

Vegetable origin

NATQ3

Cytosporone B CAS: 321661-62-5 C₁₈H₂₆O₅

Synonyms: Csn-B;Dothiorelone G Vegetable origin Solubility: DMSO: 10mM Cytosporone B (Csn-B;Dothiorelone G) is a naturally occurring nuclear orphan receptor **Nur77** agonist with an **EC**_∞ of 0.278nM.

NATQ4

Daidzein CAS: 486-66-8 C₁₅H₁₀O₄



Synonym: Isoflavone Vegetable origin Solubility: 10mM in DMSO Daidzein is a soy isoflavone, which acts as a **PPAR** activato.

NATQ5



Synonyms: Daidzoside; NPI-031D; Daidzein 7-O-glucoside Vegetable origin

Solubility: DMSO: ≥ 34mg/mL

Daidzin is an isoflavone that has anti-oxidant, anti-carcinogenic, and anti-atherosclerotic activities; directly inhibits mitochondrial aldehyde dehydrogenase 2 (IC_{50} = 80nM) and is an effective anti-dipsotropic isoflavone.



NATQ8

Damnacanthal CAS: 477-84-9

Vegetable origin

NATQA Danshenol A CAS: 189308-08-5 C₂₁H₂₀O₄



AND Enantiomer

Vegetable origin

NATQ9

15-epi-Danshenol-A CAS: 216987-13-2 C₂₁H₂₀O₄



Vegetable origin

NATQB

Danshensu CAS: 76822-21-4 C₉H₁₀O₅



Synonyms: Dan shen suan A; Salvianic acid A Vegetable origin

Solubility: H₂O: 6.2mg/mL (Need ultrasonic or warming) Danshensu, an active ingredient of *Salvia miltiorrhiza*, shows wide cardiovascular benefit by activating **Nrf2** signaling pathway.

NATQC

AND Enantiome

Danshensu (sodium salt)

CAS: 67920-52-9 C₉H₉NaO₅



Synonyms: Sodium Danshensu; (\pm)-DanShenSu sodium sal Vegetable origin

Solubility: $H_2O: \ge 33mg/mL$

Danshensu^{*} (sodium salt) is sodium salt of danshensu from the widely used Chinese herb Danshen. It can inhibited phenylephrineand CaCl2-induced vasoconstriction in Ca²⁺-free medium. In vitro: Sodium danshensu showed a biphasic effects on vessel tension. While low dosage of sodium danshensu produced small contraction possibly through transient enhancement of Ca²⁺ influx, high dosage produced significant vasodilation mainly through promoting the opening of non-selective K⁺ channels and small-conductance calcium-sensitive K⁺ channels in the vascular smooth muscle cells.[1]In vivo: Danshensu did not change the expression of AGEs but partly blocked the increased expression of RAGE in the hippocampus of diabetic mice. Danshensu could ameliorate the cognitive decline in streptozotocin-induced diabetic mice by attenuating advanced glycation end product-mediated neuroinflammation.[2]



NATQE

Daphnelantoxin B CAS: 86517-85-3 C17H16O

Vegetable origin



NATQF

Daphnenone CAS: 936006-13-2 C₁₇H₁₆O₂



Vegetable origin

NATQG

Daphnetin CAS: 486-35-1 C₀H₆O₄

Vegetable origin Chemical Name: 7,8-dihydroxychromen-2-one Specification: 98% min by HPLC

NATQH

Daphnin CAS: 486-55-5 C₁₅H₁₆O₉

Chemical Name: 8-hydroxy-7-[(2S,3R,4S,5S,6R)-3,4,5-trihydroxy-6-(hydroxymethyl)oxan-2-yl]oxychromen-2-one Synonyms: Daphnoside; UNII-K4REW3G17G; 486-55-5; K4REW3G17G Vegetable origin Specification: 98% min by HPLC

NATQI

Daphnoretin CAS: 2034-69-7 C10H12O7



NATQJ Daphylloside CAS: 14260-99-2

Vegetable origin

Vegetable origin

NATOK





AND Enantiome

Vegetable origin

NATQL

Darutoside CAS: 59219-65-7

Vegetable origin

NATQM

Daucosterol CAS: 474-58-8 C35H60O6



Synonyms: Eleutheroside A; β-Sitosterol β-D-glucoside Vegetable origin

Solubility: DMSO: 7.9mg/mL

Daucosterol is a natural sterolin. $\mathrm{IC}_{\scriptscriptstyle 50}$ value: Target: In vitro: In the study of the effects of daucosterol on the survival of cultured cortical neurons after neurons were subjected to oxygen and glucose deprivation and simulated reperfusion (OGD/R)(2), the results showed that post-treatment of daucosterol significantly reduced neuronal loss, as well as apoptotic rate and caspase-3 activity, displaying the neuroprotective activity. We also found that daucosterol increased the expression level of IGF1 protein, diminished the down-regulation of p-AKT(3) and p-GSK-3 β (4), thus activating the AKT(5) signal pathway [1]. Cell counting kit-8 (CCK-8) assay showed that daucosterol significantly increased the quantity of viable cells and the effectiveness of daucosterol was similar to that of basic fibroblast growth factor (bFGF) and epidermal growth factor (EGF) [2]. Daucosterol inhibits the proliferation of human breast cancer cell line MCF-7 and gastric cancer cell lines MGC803, BGC823 and AGS in a dose-dependent manner. Furthermore, daucosterol inhibits murine hepatoma H22 cell growth in ICR mice. Daucosterol treatment induces intracellular ROS generation and autophagy, but not apoptotic cell death. Treatment with ROS scavenger GSH (reduced glutathione), NAC (N-acetyl-I-cysteine) or autophagy inhibitor 3-Methyladenine (3-MA) counteracted daucosterol-induced autophagy and growth inhibition in BGC823 and MCF-7 cancer cells [3]. In vivo.

NATQN Dauricine CAS: 524-17-4 C₂₀H₄₄N₂O₆

Vegetable origin Specification: 98% min
NATQO

Daurinoline CAS: 2831-75-6

Vegetable origin

NATQP

Daurisoline CAS: 70553-76-3 $C_{37}H_{42}N_2O_6$

Synonym: (R,R)-Daurisoline Vegetable origin Solubility: 10mM in DMSO Daurisoline is a hERG inhibitor and also an autophagy blocker.

NATQR

Deacetylasperulosidic acid CAS: 14259-55-3 но C₁₆H₂₂O₁₁ нс OF

Vegetable origin

NATQQ

10-Deacetyl Baccatin III CAS: 32981-86-5 C29H36O10

Vegetable origin Specification: 98% min by HPLC

NATQS

Deacetyl-Ganoderic acid F CAS: 100665-44-9

Vegetable origin

NATQT

10-Deacetyltaxol CAS: 78432-77-6

Vegetable origin

NATQU Deacylmetaplexigenin

CAS: 3513-04-0

Vegetable origin



Vegetable origin AND Enantiomer NATQV Deapi-platycodin D3 CAS: 67884-05-3 C58H94O29

Vegetable origin

NATQX

AND Enantiomer

ноос



Vegetable origin

NATQZ

3-O-(2'E,4'E-decadienoyl)-20-O-acetylingenol CAS: 466663-12-7 AND Enantiomer C₃₂H₄₄O₇ нο но Vegetable origin



NATQY

3-O-(2'E,4'Z-decadienoyl)-20-O-acetylingenol CAS: 158850-76-1

C32H44O7



NATR0

3-O-(2'E,4'Z-decadienoyl)-20-deoxyingenol



NATR2

3-O-(2E,4E-Decadienoyl)ingenol

CAS: 466663-11-6

AND Enantiomer



NATR1

3-O-(2'E,4'Z-Decadienoyl)ingenol CAS: 84680-59-1



NATR3

AND Enantiomer

(3E)-4-[(1S,4aS,8aS)-decahydro-5,5,8a-trimethyl-2-methylene-1-naphthalenyl]-3-Buten-2-one

CAS: 76497-69-3 C₁₈H₂₈O



Vegetable origin

NATR4

Decanoic Acid CAS: 334-48-5

Synonym: Capric Acid

NATR5

Decarine CAS: 54354-62-0 C10H12NO



Vegetable origin

NATR6

Decursin CAS: 5928-25-6 $C_{19}H_{20}O_{5}$

Chemical Name: [(3S)-2,2-dimethyl-8-oxo-3,4-dihydropyrano[3,2-g] chromen-3-yl] 3-methylbut-2-enoate Vegetable origin Plant Source: Angelica decursiva Specification: 98% min by HPLC

NATR7

Decursinol CAS: 23458-02-8 $C_{14}H_{14}O_{4}$

Chemical Name: (3S)-3-hydroxy-2,2-dimethyl-3,4dihydropyrano[3,2-g]chromen-8-one Synonyms: (+)-Decursinol; (S)-(+)-decursinol; UNII-UBI4YB704B; UBI4YB704B Vegetable origin Specification: 98% min by HPLC

NATR8

Decursinol angelate CAS: 130848-06-5

Vegetable origin

NATR9

Decylic acid vanillylamide CAS: 31078-36-1

NATRC

Dehydroabietic Acid CAS: 1740-19-8

Vegetable origin

NATRD

Dehydroandrographolide CAS: 134418-28-3 $C_{20}H_{28}O_4$



AND Enantiome

Vegetable origin Solubility: 10mM in DMSO

Dehydroandrographolide is extracted from herbal medicine Andrographis paniculata (Burm f) Nees; alleviate oxidative stress in LPSinduced acute lung injury possibly by inactivating iNOS.

NATRE

Dehydroandrographolide succinate CAS: 786593-06-4

 $C_{28}H_{36}O_{10}$

Vegetable origin Specification: 98% min by HPLC

NATRF

Dehydrocorydaline CAS: 30045-16-0 C₂₂H₂₄NO₄



Vegetable origin

NATRH

Dehydrocorydaline (chloride) CAS: 10605-03-5 C₂₂H₂₄CINO₄



Synonym: 13-Methylpalmatine chloride Vegetable origin Solubility: 10mM in DMSO Dehydrocorydaline chloride is an alkaloidal that has anti-inflammatory and anti-cancer activities.

NATRI

Dehydrocostus Lactone CAS: 477-43-0 C₁₅H₁₈O₂



AND Enantiomer

Synonyms: (-)-Dehydrocostus lactone; Epiligulyl oxide Vegetable origin

Solubility: 10mM in DMSO Dehydrocostus Lactone is a major sesquiterpene lactone isolated from the roots of Saussurea lappa. IC₅₀ value: Target: In vitro: Dehydrocostus Lactone promoted apoptosis with increased activation of caspases 8, 9, 7, 3, enhanced PARP cleavage, decreased Bcl-xL expression and increased levels of Bax, Bak, Bok, Bik, Bmf, and t-Bid. We have demonstrated that Dehydrocostus Lactone inhibits cell growth and induce apoptosis in DU145 cells [1]. Dehydrocostus Lactone inhibits NF-kappaB activation by preventing TNF-alpha-induced degradation and phosphorylation of its inhibitory protein I-kappaB alpha in human leukemia HL-60 cells and that dehydrocostus lactone renders HL-60 cells susceptible to TNF-alpha-induced apoptosis by enhancing caspase-8 and caspase-3 activities [2]. Dehydrocostus Lactone inhibited the production of NO in lipopolysaccharide

(LPS)-activated RAW 264.7 cells by suppressing inducible nitric

oxide synthase enzyme expression. In vivo: Dehydrocostus Lactone

decreased the TNF-alpha level in LPS-activated systems in vivo [3].

NATRJ

Dehydrodicentrine CAS: 19843-03-9

Vegetable origin

NATRK

Dehydrodiisoeugenol CAS: 2680-81-1 $C_{20}H_{22}O_4$

Chemical Name: 2-methoxy-4-[7-methoxy-3-methyl-5-[(E)-prop-1-enyl]-2,3-dihydro-1-benzofuran-2-yl]phenol Vegetable origin Specification: 98% min by HPLC

NATRM

Dehydroeburicoic acid CAS: 6879-05-6

Vegetable origin

NATRN

Dehydroeburicoic acid monoacetate CAS: 77035-42-8

Vegetable origin

A.64

NATRO

Dehydroeffusol CAS: 137319-34-7

Vegetable origin

NATRP

Dehydroepiandrosterone CAS: 53-43-0

Vegetable origin

NATRQ

Dehydroevodiamine CAS: 67909-49-3

Vegetable origin

NATRR

Dehydroevodiamine hydrochloride CAS: 75853-60-0

Vegetable origin

NATRS

6,7-Dehydroferruginol CAS: 34539-84-9 C₂₀H₂₈O



Vegetable origin

NATRT

5,6-dehydrogensenoside Rd CAS: 1268459-68-2

Vegetable origin

NATRA



NATRB



NATRU

2,3-Dehydrokievitone CAS: 74161-25-4

Vegetable origin

NATRV

20(21)-Dehydrolucidenic acid A CAS: 852936-69-7

Vegetable origin

NATRW

Dehydronuciferin CAS: 7630-74-2

Vegetable origin



NATRY

Dehydrotrametenolic Acid CAS: 29220-16-4 $C_{30}H_{46}O_3$

Chemical Name: 3beta-Hydroxylanosta-7,9(11),24-trien-21-oic acid Vegetable origin





NATS3



NATS2

Delphinidin 3-Glucoside Chloride CAS: 6906-38-3

Synonym: Mirtillin Chloride

NATS4

Delphinidin-3-O-rutinoside chloride CAS: 15674-58-5



NATS5



NATS6

Delsoline CAS: 509-18-2

Vegetable origin



NATS8

AND Enantiome

AND Enantiome

Deltaline CAS: 6836-11-9

Vegetable origin

NATS9

Deltonin CAS: 55659-75-1

Vegetable origin

NATSA



Synonyms: Curcumin II; Desmethoxycurcumin; Monodemethoxycurcumin

Vegetable origin

Solubility: 10mM in DMSO

Demethoxycurcumin(Curcumin II) is a major active curcuminoid; possess anti-inflammatory properties; also exert cytotoxic effects in human cancer cells via induction of apoptosis. IC50 value: Target: in vitro: DMC significantly decreased NO secretion by 35-41% in our inflamed cell model. Decrease in NO production by DMC was concomitant with down-regulation of iNOS at mRNA and protein levels compared to proinflammatory cytokine cocktail and LPStreated controls. Mechanism of action of DMC may be partly due to its potent inhibition of the iNOS pathway [1]. BDMCCN has the strongest inhibitory activity toward BACE-1 with 17µM IC50, which was 20 and 13 times lower than those of CCN and DMCCN respectively [2]. Genes associated with DNA damage and repair, cell-cycle check point and apoptosis could be altered by DMC; in particular, 144 genes were found up-regulated and 179 genes down-regulated in NCI-H460 cells after exposure to DMC [3]. In vivo: At low doses, both the curcuminoid mixture and curcumin I did not affect brain stimulation reward, whereas, higher doses increased ICSS thresholds. Curcumin II and curcumin III did not affect brain stimulation reward at any doses. Subthreshold doses of the curcuminoid mixture and curcumin I inhibited the reward-facilitating effect of morphine.



NATSB



NATSD

3'-O-Demethylarctigenin



NATSE



Vegetable origin

NATSF

4'-Demethylepipodophyllotoxin CAS: 6559-91-7 $C_{21}H_{20}O_8$

Chemical Name: (5S,5aR,8aR,9R)-5-hydroxy-9-(4-hydroxy-3,5dimethoxyphenyl)-5a,6,8a,9-tetrahydro-5H-[2]benzofuro[5,6F][1,3] benzodioxol-8-one Vegetable origin Specification: 98% min

NATSG

 $\begin{array}{l} \textbf{8-Demethyleucalyptin}\\ CAS: 5689-38-3\\ C_{18}H_{16}O_{5} \end{array}$

Vegetable origin

NATSI

3'-DemethyInobiletin CAS: 112448-39-2

Vegetable origin

NATSH

5-O-DemethyInobiletin CAS: 2174-59-6 C₂₀H₂₀O₈

Chemical Name: 2-(3,4-dimethoxyphenyl)-5-hydroxy-6,7,8-trimethoxychromen-4-one Vegetable origin Specification: 98% min by HPLC

NATSJ



NATSK

8-Demethylsideroxylin CAS: 80621-54-1 C₁₇H₁₄O₅



NATSL

Vegetable origin

Demethylwedelolactone CAS: 6468-55-9

Vegetable origin

NATSM Demethylzeylasteral CAS: 107316-88-1



Vegetable origin

NATSN

C29H36O6

Dencichin CAS: 7554-90-7

Vegetable origin

NATSO Dendrobine

CAS: 2115-91-5

Vegetable origin

Advion × ^{red}interchim

NATSP

Dendrophenol CAS: 108853-14-1

Vegetable origin

NATSQ

Denudatine CAS: 26166-37-0 C₂₂H₃₃NO₂

Vegetable origin Chemical Name: (20R)-16,17-Didehydro-21-ethyl-4-methyl-7α,20cycloatidane-11β,15β-diol Specification: 98% min by HPLC

NATSR

20-Deoxocarnosol CAS: 94529-97-2 C₂₀H₂₈O₃



Vegetable origin

NATSS

3-Deoxyaconitine CAS: 3175-95-9 C₃₄H₄₇NO₁₀

Synonym: Deoxyaconitine Vegetable origin Plant Source: Aconitum carmichaeli Debx Specification: 98% min by HPLC

NATST



Vegetable origin

NATSU 11-Deoxyalisol B CAS: 155073-73-7 C₃₀H₄₈O₃ Vegetable origin

NATSW

Deoxyandrographolide CAS: 79233-15-1 C₂₀H₃₀O₄



Vegetable origin Solubility: 10mM in DMSO

Deoxyandrographolide is a natural compound extracted from A. paniculata; potently inhibit the growth of liver (HepG2 and SK-Hep1) and bile duct (HuCCA-1 and RMCCA-1) cancer cells. IC50 value: Target: Anticancer natural compound in vitro: Treatment with 14-DAG activated AMPK through induction of cyclic AMP-protein kinase A pathway. 14-DAG controlled ethanol-induced hepatosteatosis by interfering with dysregulation of lipid metabolism. In conclusion, our results indicated that 14-DAG was capable of preventing the development of fatty liver through AMPK-mediated regulation of lipid metabolism [1]. 14-DAG down-regulated the formation of death-inducing signalling complex, resulting in desensitization of hepatocytes to TNF-alpha-induced apoptosis. Pretreatment of hepatocytes with 14-DAG accentuated microsomal Ca-ATPase activity through induction of NO/cGMP pathway [2]. 14-DAP, in concentrations between 10-100 microM, reduced the extracellular acidification rate and the intracellular alkalinization in a dose-dependent manner. In addition, 14-DAP reduced PAF-induced calcium flux in the presence of extracellular calcium, and tyrosine phosphorylation of a 44 kDa protein corresponding to the MAPK(ERK1) [3]. In vivo: Half of the ethanolfed animals received 14-deoxyandrographolide (14-DAG) treatment for the last 4 weeks of study. protective effect of 14-DAG against ethanol-induced hepatic injury is based on its ability to reduce oxidative stress through cNOS dependent improvement of redox status. 14-DAG mediated activation of adenylate cyclase-cAMP signaling leading to up-regulation of cNOS may provide a promising approach in the prevention of liver diseases during chronic alcoholism [4].



NATSX

AND Enantiome

Deoxyarbutin CAS: 53936-56-4





NATSY



Synonyms: Cholanoic Acid; Desoxycholic acid Vegetable origin

Solubility: DMSO: ≥ 100mg/mL

Deoxycholic acid is specifically responsible for activating the G protein-coupled bile acid receptor TGR5 that stimulates brown adipose tissue (BAT) thermogenic activity.

NATSZ

Deoxycholic acid sodium salt CAS: 302-95-4 C₂₄H₃₉NaO₄

Synonym: Sodium deoxycholate

Vegetable origin

Solubility: DMSO: 6mg/mL (Need ultrasonic)

Deoxycholic acid sodium salt is specifically responsible for activating the G protein-coupled bile acid receptor TGR5 that stimulates brown adipose tissue (BAT) thermogenic activity.

NATT0

26-Deoxycimicifugoside CAS: 214146-75-5

Vegetable origin

NATT1



Synonyms: 14-dehydro Andrographolide; AP10 Vegetable origin

Solubility: 10mM in DMSO

14-Deoxy-11,12-didehydroandrographolide is an analogue of Andrographolide that can be isolated from A.paniculata. 14-Deoxy-11,12didehydroandrographolide inhibits NF-KB activation.



NATT3

1-[4-[[6-O-(6-deoxy-alpha-L-mannopyranosyl)-beta-D-glucopyranosyl]oxy]-2,6-dihydroxyphenyl]-3-(4methoxyphenyl)-1-Propanone



Vegetable origin

NATT4

2-[4-[[6-O-(6-deoxy-beta-L-mannopyranosyl)-beta-D-glucopyranosyl]oxy]-3-hydroxyphenyl]-3,5,7-trihydroxy-4H-1-Benzopyran-4-one

CAS: 845536-67-6 C₂₇H₃₀O₁₆

AND Enantiomer



Vegetable origin

NATT6

AND Enantiomer

1-Deoxynojirimycin CAS: 19130-96-2 C₆H₁₃NO₄

Chemical Name: (2R,3R,4R,5S)-2-(hydroxymethyl)piperidine-3,4,5triol Vegetable origin Specification: 98% min by HPLC

NATT7

3-Deoxysappanchalcone





NATT8

3-Deoxysappanone B CAS: 102067-88-9 C₁₆H₁₄O₅ Vegetable origin



NATT9 Deoxyshikonin

CAS: 43043-74-9 C₁₆H₁₆O₄



Vegetable origin

NATTA

Desacetylcinobufagin CAS: 4026-95-3

 $C_{24}H_{32}O_{5}$

Synonym: Deacetylcinobufagin Vegetable origin Solubility: DMSO: ≥ 26mg/mL Desacetylcinobufagin is a natural compound used for microbial transformation.



Synonym: Deacetylcinobufotalin Vegetable origin

Solubility: 10mM in DMSO

Desacetylcinobufotalin is a natural compound; apoptosis inducer and shows the marked inhibition effect to HepG2 cells and the $IC_{_{50}}$ value is 0.0279µmol/ml.

NATTC

Deslanoside CAS: 17598-65-1

Vegetable origin

NATTD

Desmethoxyyangonin CAS: 15345-89-8 $C_{14}H_{12}O_3$



Synonyms: Demethoxyyangonin; 5,6-Dehydrokavain Vegetable origin Solubility: 10mM in DMSO Desmethoxyyangonin is one of the six major kavalactones found in the Piper methysticum (kava) plant; reversible inhibitor of MAO-B.

NATTE

8-Desoxygartanin CAS: 33390-41-9

Vegetable origin

NATTF

Desoxyrhaponticin CAS: 30197-14-9C₂₁H₂₄O₈

Chemical Name: 2-[3-hydroxy-5-[(E)-2-(4-methoxyphenyl)ethenyl] phenoxy]-6-(hydroxymethyl)oxane-3,4,5-triol Synonyms: Deoxyrhapontigenin O-glucoside Vegetable origin Specification: 98% min by HPLC

NATTG

Dexamethasone 9,11-epoxide CAS: 24916-90-3 C₂₂H₂₈O₅

Solubility: DMSO: ≥150mg/mL

Dexamethasone 9,11-epoxide, a compound extracted from patent CN 106520896 A and RU 2532902 C1, is an intermediate in the preparation of dexamethasone.

NATTH Diacerein CAS: 13739-02-1 C₁₀H₁₀O₈



Synonyms: Diacerhein; Diacetylrhein; Fisiodar; Artrodar Vegetable origin

Solubility: 10mM in DMSO

Diacerein, a interleukin-1 beta inhibitor, is a slow-acting medicine of the class anthraquinone used to treat joint diseases. Target: IL-1 beta Diacerein, a interleukin-1 beta inhibitor, is a slow-acting medicine of the class anthraquinone used to treat joint diseases. Diacerein works by blocking the actions of interleukin-1 beta, a protein involved in the inflammation and destruction of cartilage that play a role in the development of symptoms of degenerative joint diseases such as osteoarthritis. Due to its specific mode of action, which does not involve the inhibition of prostaglandin synthesis, diacerein has been shown to have anti-osteoarthritis and cartilage stimulating properties in vitro and animal models, together with analgesic and anti-inflammatory properties. Due to its excellent gastro-intestinal tolerance, a combination therapy with an analgesic or a NSAID may be recommended during the first 2-4 weeks of treatment.



NATTJ

5,15-Diacetyl-3-benzoyllathyrol CAS: 218916-52-0



5,15-Diacetyl-3-benzoyllathyrol is one of the lathyrane diterpenoids, that has anti-cancer activity.

NATTK

Diasesamin

CAS: 551-30-4

NATTL

Diasesaminol CAS: 110300-35-1

NATTM

3,29-Dibenzoyl rarounitriol CAS: 873001-54-8

Vegetable origin

NATTP

AND Enantiome 1,3-Dicaffeoylquinic acid CAS: 19870-46-3 C₂₅H₂₄O₁₂

Synonyms: 1,3-O-Dicaffeoylquinic acid; 1,5-Dicaffeoylquinic acid Vegetable origin

Solubility: DMSO: ≥ 23mg/mL

1,3-Dicaffeoylquinic acid is a caffeoylquinic acid derivative, and activates PI3K/Akt.

NATTO

AND Enantiomer



Synonym: Isochlorogenic acid B Vegetable origin

Solubility: 10mM in DMSO

3,4-Dicaffeoylquinic acid is a reference substance of a common phytochemical found in Echinacea (Echinacea sp.); dietary supplement, herb, or plant testing applications with this reference material include material characterization, adulterant identification, or method validation.

NATTN



Synonyms: 3,5-CQA; Isochlorogenic acid A Vegetable origin

Solubility: 10mM in DMSO

3,5-Dicaffeoylquinic acid is an isolated compound from Artemisia argyi; its ester derivatives exert anti-leucyl-tRNA synthetase of Giardia lamblia (GILeuRS) and potential anti-giardial effects.



Synonym: Isochlorogenic acid C Vegetable origin Solubility: 10mM in DMSO

4,5-Dicaffeoylquinic acid (Isochlorogenic acid C) possesses potent hepatoprotective and anti-HBV effects. IC50 value: Target: Antihepatitis natural produce. In vitro: To study anti-hepatitis effect of isochlorogenic acid C, anti-apoptotic and anti-injury properties of test compound were evaluated. The results showed that test compound at concentrations of 10 to 100µg/ml significantly reduced the caspase-3 and transformed growth factor β 1 (TGF β 1) levels of the D-GalN-challenged hepatocytes. Also, test compound improved markedly cell viability of the D-GalN-injured hepatocytes and produced a maximum protection rate of 47.28% at a concentration of 100µg/ml. Furthermore, test compound significantly inhibited productions of HBsAg and HBeAg. Its maximum inhibitory rates on the HBsAg and HBeAg expressions were 86.93 and 59.79%, respectively. In addition, test compound significantly induced the HO-1 expression of HepG2.2.15 cells [1]. In vivo.

NATTR

D-Dicentrine CAS: 517-66-8

Vegetable origin

NATTS

L-Dicentrine CAS: 28832-07-7

Vegetable origin

NATTT

Dicoumarol CAS: 66-76-2 C₁₉H₁₂O₆



Synonym: Dicumarol OH о Vegetable origin Solubility: DMSO: 6.4mg/mL (Need ultrasonic) Dicoumarol is an inhibitor of both NAD(P)H: quinone oxidoreductase 1 (NQO1) and PDK1 with IC₅₀s of 0.37 and 19.42µM, respectively.

NATTU

Dictamine CAS: 484-29-7 C₁₂H₀NO₂



Synonyms: Dictamnine; Dectamine Vegetable origin Solubility: 10mM in DMSO

Dictamine (Dictamine) has the ability to exert cytotoxicity in human cervix, colon, and oral carcinoma cells; A natural plant product has been reported to have antimicrobial activity against bacteria and fungi. IC50 value: Target: Dictamnine has antimicrobial activities against the model fungus Saccharomyces cerevisiae, with a minimum inhibitory concentration (MIC) value of 64microg/ml [1]. Dic induced S phase cell cycle arrest at low concentration and cell apoptosis at high concentration in which loss of mitochondrial membrane potential (Δ µmm) was not involved. In addition, inhibition of caspase-3 using the specific inhibitor, z-DQMD-fmk, did not attenuate Dic-induced apoptosis, implying that Dic-induced caspase-3-independent apoptosis [2].



1,2-Didehydrocryptotanshinone CAS: 891854-92-5 $C_{19}H_{18}O_3$

Vegetable origin

NATTX

Vegetable origin

1,2-Didehydromiltirone CAS: 116064-77-8 C₁₀H₂₀O₂

NATTY

Didemethylpseudoaspidin AA



<u>*^interchim</u> × Advion



NATTZ



Vegetable origin

NATU0

1,3-Di-O-galloyl-4,6-O-(S)-hexahydroxydiphenoyl-β-Dglucose



Digitolutein CAS: 477-86-1 C16H12O1



Vegetable origin



NATU4

Digoxin CAS: 20830-75-5 C₄₁H₆₄O₁₄

Synonyms: 12beta-Hydroxydigitoxin, CHEBI:4551, Lanoxicaps, Lanoxin Vegetable origin Specification: 98%

NATUC

Dihydroartemisinic acid CAS: 85031-59-0 C₁₅H₂₄O₂

Chemical Name: (2R)-2-[(1R,4R,4aS,8aS)-4,7-dimethyl-1,2,3,4,4a,5,6,8a-octahydronaphthalen-1-yl]propanoic acid Vegetable origin Plant Source: Artemisia annua L Specification: 98% min by HPLC

NATUD

Dihydroartemisinin CAS: 71939-50-9 C15H24O5



Synonyms: β-Dihydroartemisinin; DHA; Dihydroqinghaosu Vegetable origin Solubility: 10mM in DMSO Dihydroartemisinin, one of the most active artemisinin derivative, exhibits anticancer activity in a number of human cancer cells.

NATUE

Dihydroberberine CAS: 483-15-8 ; 120834-89-1

Vegetable origin

NATUF

Dihydrobonducellin CAS: 103680-87-1 C₁₇H₁₆O₄



NATUG

Vegetable origin

Dihydrocapsaicin CAS: 19408-84-5 C18H29NO3

Vegetable origin Chemical Name: N-[(4-hydroxy-3-methoxyphenyl)methyl]-8-methylnonanamide Specification: 98% by HPLC

NATUH

Dihydrochelerythrine CAS: 6880-91-7 C₂₁H₁₉NO₄



Synonym: 12,13-Dihydrochelerythrine Vegetable origin Solubility: 10mM in DMSO

Dihydrochelerythrine is a natural compound isolated from the leaves of Macleaya microcarpa; has antifungal activity. IC₅₀ value: Target: in vitro: Dihydrochelerythrine showed the highest antifungal activity against B. cinerea Pers, with 98.32% mycelial growth inhibition at 50µg/mL. Dihydrochelerythrine inhibited spore germination in vitro in a concentration-dependent manner [1]. Dihydrochelerythrine appeared to be less cytotoxic since the viability of cells exposed to 20microM dihydrochelerythrine for 24h was reduced only to 53%. A dosedependent induction of apoptosis and necrosis by chelerythrine and dihydrochelerythrine was confirmed by annexin V/propidium iodide dual staining flow cytometry [2]. Dihydrochelerythrine (4) exhibited strong activity against methicillin-resistant Staphylococcus aureus SK1 and moderate activity against Escherichia coli TISTR 780 with MIC values of 8 and 16µg/mL, respectively [3].

NATU

Dihydrocoumarin CAS: 119-84-6

Synonym: Melilotine Vegetable origin

NATUJ



NATUK

Dihydrocurcumenone CAS: 142717-57-5 C15H24O2

Vegetable origin

NATUL

Dihydrocurcumin CAS: 76474-56-1

Vegetable origin

NATU5

2,3-dihydro-8,10-dihydroxy-3,3-dimethyl-1H,7H-Pyrano[2,3-c]xanthen-7-one CAS: 95184-77-3 C₁₈H₁₆O₅ Vegetable origin

NAVJB

9,10-dihydro-4,7-dimethoxy-2-Phenanthrenol

CAS: 1000408-77-4 C₁₆H₁₆O₃



Vegetable origin

NATU6

AND Enantiomer 2,3-dihydro-1,4-dimethyl-6(1H)-Azulenone CAS: 71305-89-0

C₁₂H₁₄O



Vegetable origin

NATU7

AND Enantiomer

AND Enantiomer

1,2-dihydro-1,6-dimethyl-Furo[3,2-c]naphth[2,1-e]oxepin-10,12-dione

CAS: 126979-79-1 $C_{18}H_{14}O_{4}$



Vegetable origin

NATU8

7,8-dihydro-8,8-dimethyl-2-(1-methylethyl)-3,4,5(6H)-Phenanthrenetrione

CAS: 142546-16-5 C10H2003

Vegetable origin

NATUM Dihydroevocarpine CAS: 15266-35-0 C23H35NO





NATUN

Dihydroguaiaretic acid CAS: 66322-34-7

 $C_{20}H_{26}O_{4}$

Vegetable origin Plant Source: Sargentodoxa cuneata Specification: 98% min by HPLC

NATU9

(3R)-3,4-dihydro-3-[(4-hydroxyphenyl)methyl]-2H-1-Benzopyran-7-ol



NATUA



Synonyms: 7,8-Dihydrokawain; 7,8-Dihydrokavain; Marindinin Vegetable origin Solubility: 10mM in DMSO

Dihydrokavain is one of the six major kavalactones found in the kava plant; appears to contribute significantly to the anxiolytic effects of kava, based on a study in chicks.

NATUQ

24,25-Dihydrolanosterol CAS: 911660-54-3

NATUR

Dihydrolycorine CAS: 6271-21-2

Vegetable origin

NATUB

3,4-Dihydro-6,7-(methylenedioxy)-2(1H)-quinolinone CAS: 94527-34-1

 $C_{10}H_9NO_3$



Vegetable origin

C₁₅H₁₆O₅

AND Enantiomer

NATUS Dihydromethysticin CAS: 19902-91-1



Synonym: (+)-Dihydromethysticin Vegetable origin Solubility: 10mM in DMSO Dihydromethysticin is one of the six major kavalactones found in the kava plant; has marked activity on the induction of CYP3A23.



NATUU





Synonyms: Ampeloptin; Ampelopsin Vegetable origin

Solubility: 10mM in DMSO

Dihydromyricetin(Ampeloptin) is a flavonoid compound which possesses potent antitumor activity. IC50 value: Target: in vitro: DHM downregulated TGFB, Smad3, p-Smad2/3 and NOX4 in a concentration dependent manner. A cell counting assay indicated that DHM also inhibited Hepal 6 cell growth in a concentration-dependent manner. TGF ß expression was significantly decreased following DHM treatment [1]. DHM significantly inhibited cell proliferation and induced cell apoptosis in the HCC cell lines. However, DHM exhibited no cytotoxicity to normal human hepatic cell lines. Furthermore, it was found that DHM induced cell apoptosis in a p53-dependent manner. DHM upregulated p53 expression, and the upregulation of p53 increased the levels of the cleaved caspase-3 protein, directly inducing cell apoptosis [2]. DHM was found to strongly inhibit the migration of the hepatoma cell lines SK-Hep-1 (without DHM, 24h: 120 ± 8µmol/L vs 100µmol/L DHM, 24h: 65 ± 10/L, P < 0.001) and MHCC97L (without DHM, 24h: 126 ± 7µmol/L vs 100 µmol/L DHM, 24h: 74 ± 6µmol/L, P < 0.001) [3]. Dihydromyricetin induced increased p21 expression and G2-M cell-cycle arrest, caused DNA damage, activated ATM-CHK2-H2AX signaling pathways, and induced apoptosis in osteosarcoma cells as well as decreasing the sphere formation capability by downregulating Sox2 expression [4]. In vivo: Swedish transgenic (TG-SwDI) mice with AD-like pathology were treated with DHM (2mg/kg) for 3 months. Behaviorally, DHM-treated mice show improved cognition, reduced anxiety level and seizure susceptibility. Pathologically, DHM has high efficacy to reduce amyloid-β (Aβ) peptides in TG-SwDI brain [5]. Co-administration of EtOH (1.5 or 2.5g/kg) with DHM (1.0mg/kg) in pregnant dams prevented all of the behavioral, physiological, and pharmacological alterations observed in FAE offspring. DHM administration alone in pregnant rats had no adverse effect on litter size, progeny weight, anxiety level, PTZ seizure threshold, or DGC GABAAR function [6].

NATUV

Dihydrooroxylin A CAS: 18956-18-8 C₁₆H₁₄O₅



Vegetable origin

NATUW

(-)-Dihydroquercetin CAS: 111003-33-9 C₁₅H₁₂O₇

Vegetable origin

AND Enantiomer

NATUX Dihydrosanguinarine CAS: 3606-45-9 C₂₀H₁₅NO₄ Synonym: 13,14-Dihydrosanguinarine

Vegetable origin Solubility: 10mM in DMSO

Dihydrosanguinarine is a natural compound isolated from the leaves of Macleaya microcarpa; has antifungal and anticancer activity. IC_{50} value: Target: in vitro: Dihydrosanguinarine showed much less cytotoxicity than sanguinarine: at the highest concentration tested (20microM) and 24h exposure, dihydrosanguinarine decreased viability only to 52% [1]. Dihydrosanguinarine showed the highest antifungal activity against B. cinerea Pers, with 95.16% mycelial growth inhibition at 50µg/ml [2]. Dihydrosanguinarine showed the most potent leishmanicidal activities (IC_{50}) value: 0.014microg/ml, respectively) [4]. In vivo: Repeated dosing of DHSG for 90 days at up to 500ppm in the diet (i.e. approximately 58mg/kg/day) showed no evidence of toxicity in contrast to results published in the literature [3].

NATVU



C₂₁H₂₈N₂O₃



Vegetable origin

NATUZ

Dihydrotanshinone I CAS: 87205-99-0 C₁₂H₁₄O₃



AND Enantiomer

AND Enantiomer

Vegetable origin Solubility: DMSO Dihydrotanshinone I is a

Dihydrotanshinone I is a natural compound extracted from *Salvia* miltiorrhiza Bunge which has been widely used for treating cardio-vascular diseases.

NATUY 1,2-Dihydrotanshinone I CAS: 77769-21-2 C₁₈H₁₄O₃



Vegetable origin

NATVV

6,7-dihydro-1,2,3,13-tetramethoxy-6,7-dimethyl-Benzo[3,4]cycloocta[1,2-f][1,3]benzodioxol-8(5H)-one stereoisomer

CAS: 65144-26-5 C₂₃H₂₆O₇

Vegetable origin



Minterchim × Advion

A.76



NATV0

(-)-Dihydrovomifoliol CAS: 39763-38-7 C₁₃H₁₈O₃



Vegetable origin

NATV1

1,8-Dihydroxyanthraquinone CAS: 117-10-2

Vegetable origin

NATV2

3,4-dihydroxy-Benzoic acid (2R,3S)-2-(3,4dihydroxyphenyl)-3,4-dihydro-5,7-dihydroxy-2H-1benzopyran-3-yl ester AND Enantiomer CAS: 71634-86-1 C₂₂H₁₈O₀



Vegetable origin

NATV3

2,6-dihydroxy-Benzoic acid methyl ester CAS: 2150-45-0 C_gH_gO₄



Vegetable origin

NATV4

2,4'-Dihydroxybenzophenone CAS: 606-12-2 C₁₃H₁₀O₃



Vegetable origin

NATV5

5,7-Dihydroxychromone CAS: 31721-94-5 C₀H_cO₄



Vegetable origin

NATV6

6,7-Dihydroxycoumarin CAS: 305-01-1 $C_0H_6O_4$



Vegetable origin



3,5-Dihydroxy-7,4'-dimethoxyflavone CAS: 15486-33-6 C₁₇H₁₄O₆

Vegetable origin

NATV8

16alpha,17-Dihydroxy-ent-kauran-19-oic acid CAS: 74365-74-5

Vegetable origin

NATV9

4',7-Dihydroxyflavone CAS: 2196-14-7 C15H10



Vegetable origin

NATVA

4β,12-dihydroxyguaian-6,10-diene CAS: 461644-90-6

Vegetable origin

NATVB

7,4'-Dihydroxyhomoisoflavanone



NATVC

5,7-dihydroxy-3-[8-hydroxy-2,2-dimethyl-7-(3-methyl-2-buten-1-yl)-2H-1-benzopyran-6-yl]-4H-1-Benzopyran-4-one

CAS: 651750-10-6 $C_{25}H_{24}O_{6}$



Vegetable origin

NATVD

14,15β-dihydroxyklaineanone CAS: 137359-82-1



NATVE

(15alpha,24E)-15,26-dihydroxy-Lanosta-7,9(11),24-trien-3-one AND Enantiomer



NATVF

2',5'-dihydroxy-3'-methoxy-Acetophenone CAS: 90536-47-3 $C_0H_{10}O_4$

Vegetable origin

NATVG

2,4-Dihydroxy-6-methoxy-3-formylacetophenone CAS: 52117-67-6

 $C_{10}H_{10}O_{5}$



Vegetable origin

NATVH

5,8-dihydroxy-7-methoxy-2-(2-methoxyphenyl)-4H-1-Benzopyran-4-one CAS: 859035-26-0

C₁₇H₁₄O₆



Vegetable origin

NATVI

5,4'-Dihydroxy-7-methoxy-6-methylflavane CAS: 770729-34-5 C₁₇H₁₈O₄

Vegetable origin

NATVJ

3-(4,6-dihydroxy-2-methoxy-3-methylphenyl)-1-phenyl-1-Propanone

CAS: 1196133-44-4 C₁₇H₁₈O₄



NATVK

5,7-Dihydroxy-4-methylcoumarin CAS: 2107-76-8 $C_{10}H_8O_4$

Vegetable origin

NATVL

C₃₀H₄₆O₅

2alpha,19alpha-Dihydroxy-3-oxo-urs-12-en-28-oic acid CAS: 176983-21-4 AND Enantiomer



Vegetable origin

NATVP

3,4-Dihydroxyphenylacetic acid CAS: 102-32-9

Vegetable origin

NATVM

2-(2,4-dihydroxyphenyl)-8,9-dihydro-5-hydroxy-8-(1hydroxy-1-methylethyl)-3-(3-methyl-2-butenyl)-4H-Furo[2,3-h]-1-benzopyran-4-one

CAS: 73343-43-8 C25H26O7

NATVN

Vegetable origin

(R)-2-(2,4-dihydroxyphenyl)-3,7-dihydroxy-5-methoxy-8-[5-methyl-2-(1-methylethenyl)-4-hexenyl]-4H-1-Benzopy-

ran-4-one AND Enantiomer CAS: 128879-52-7 C₂₆H₂₈O₇ он Vegetable origin



NATVO

2-(3,4-dihydroxyphenyl)-3-[(6-O-beta-D-galactopyranosyl-beta-D-glucopyranosyl)oxy]-5,7-dihydroxy-4H-1-Benzopyran-4-one

CAS: 878806-08-7



NATVQ



NATVR

3,8-Dihydroxy-2,4,6-trimethoxyxanthone CAS: 65008-17-5 C₁₀H₁₄O₇

Vegetable origin

NATVS

(2alpha,3alpha)-2,3-dihydroxy-Ursa-12,20(30)-dien-28-oic acid AND Enantiomer

CAS: 108908-96-9 C₃₀H₄₆O₄



Vegetable origin

Vegetable origin

NATVT

5,6-Dihydroyangonin CAS: 3328-60-7 C₁₅H₁₆O₄



NATVW

1,2-O-Dilinoleoyl-3-O-β-D-galactopyranosylracglycerol CAS: 111187-15-6

Vegetable origin

NATVX

2,4-Dimethoxybenzoic acid CAS: 91-52-1 $C_9H_{10}O_4$

COOH O QC

NATVY

Vegetable origin

2,6-Dimethoxybenzoic acid CAS: 1466-76-8 $C_9H_{10}O_4$

Vegetable origin Specification: 98% min by HPLC

NATVZ

3,5-Dimethoxybenzyl alcohol CAS: 705-76-0 $C_9H_{12}O_3$

Vegetable origin

NATW0

4,5-Dimethoxycanthin-6-one CAS: 18110-87-7 C₁₆H₁₂N₂O₃





Vegetable origin

NATW2

4,9-Dimethoxycanthin-6-one CAS: 1270001-72-3 C₁₆H₁₂N₂O₃

Vegetable origin

NATW1

9,10-Dimethoxycanthin-6-one CAS: 155861-51-1 C₁₆H₁₂N₂O₃

Vegetable origin

NATW3 5,7-Dimethoxyflavanone CAS: 1036-72-2 C₁₇H₁₆O₄

Vegetable origin



Idvion × **Minterchim**

NATW4

(2R)-5,7-Dimethoxyflavanone CAS: 1277188-85-8

Vegetable origin

NATW5

5,7-Dimethoxyflavone CAS: 21392-57-4 C₁₇H₁₄O₄

Chemical Name: 5,7-Dimethoxy-2-phenyl-4H-chromen-4-one Vegetable origin Specification: 98% min by HPLC

NATW6

4',7-Dimethoxyisoflavone

CAS: 1157-39-7 C₁₇H₁₄O₄

Synonym: Dimethoxydaidzein Vegetable origin Solubility: 10mM in DMSO 4',7-Dimethoxyisoflavone is isolated from the leaves of *Albizzia leb*-

beck, which shows antifungal activity.

NATW7

1-(3,4-dimethoxyphenyl)-2-(4-allly-2,6-dimethoxyphenoxy)propan-1-ol CAS: 41535-95-9

Vegetable origin

NATW8

1-(3,4-Dimethoxyphenyl)-4(3,4methylenedioxyphenyl)-2,3-dimethylbutane CAS: 129684-08-8 C₂₁H₂₆O₄

Vegetable origin

NATW9

3,4-dimethoxy-Quinoline CAS: 76570-19-9 C₁₁H₁₁NO₂



Vegetable origin

NATWD

Beta, beta-Dimethylacrylalkannin CAS: 34539-65-6 $C_{21}H_{22}O_6$

Chemical Name: [(1S)-1-(5,8-dihydroxy-1,4-dioxonaphthalen-2-yl)-4-methylpent-3-enyl] 3-methylbut-2-enoate Vegetable origin Specification: 98% min

NATWE

Beta, beta-dimethylacrylshikonin CAS: 24502-79-2 C₂₁H₂₂O₆

Vegetable origin

NATWF

2-(3,3-Dimethylallyl)-1,3,7-trihydroxyxanthone



Vegetable origin



AND Enantiome

NATWG

7,4'-Di-O-methylapigenin CAS: 5128-44-9

C₁₇H₁₄O₅

Synonym: 4',7-Dimethoxy-5-Hydroxyflavone Vegetable origin Solubility: 10mM in DMSO

The compound 7,4'-Di-O-methylapigenin may be partly responsible for the reported antifungal activity of C. Zeyheri, and may serve as a potential source of lead compounds that can be developed as antifungal phytomedicines. And it also showed inhibition of the drug efflux pumps (with IC₅₀ = 51.64µg/ml). IC50:51.64µg/ml(Candida albicans drug efflux pumps)[2] In vitro: The isolated 7,4'-Di-O-methylapigenin was further investigated for its inhibitory activity on ABC drug efflux pumps in C. albicans by monitoring an increase in ciprofloxacin, assessing the level of its accumulation, in response to reserpine. There was a higher accumulation of ciprofloxacin in Candida cells in the presence of 7,4'-Di-O-methylapigenin than with reserpine. The compound 7,4'-Di-O-methylapigenine demonstrated the activity in a dose-dependent manner with IC50 value of 51.64µg/ml. These results support those obtained from synergism assays where by the underlying synergistic antifungal mechanisms could be due to blockage of ABC efflux pumps and increasing the susceptibility of Candida to miconazole.[2] In vivo: In searching for natural products as potential anti-inflammatory agents, 7,4'-Di-O-methylapigenin wasn't evaluated in vivo for its ability to inhibit acute inflammation.[1]

NATWH

1,1-Dimethylbiguanide hydrochloride CAS: 1115-70-4

Vegetable origin

NATWI

Rel-(8R,8'R)-dimethyl-(7S,7'R)-bis(3,4-methylenedioxyphenyl)tetrahydro-furan CAS: 178740-32-4

NATWB

Dimethyl-Carbamic acid (4-nitrophenyl)methyl ester CAS: 84640-31-3

 $C_{10}H_{12}N_2O_4$

Vegetable origin

NATWJ

Dimethylcurcumin CAS: 52328-98-0 $C_{23}H_{24}O_6$

Chemical Name: (1E,4Z,6E)-1,7-Bis(3,4-dimethoxyphenyl)-5-hydroxy-1,4,6-heptatrien-3-one Vegetable origin Specification: 98% min by HPLC

NATWK

Chemical Name: (1E,6E)-1-(3,4-dimethoxyphenyl)-7-(4-methoxyphenyl)hepta-1,6-diene-3,5-dione Vegetable origin Specification: 98% min by HPLC

NATWL

 $\begin{array}{l} \textbf{3,4'-Di-O-methylellagic acid} \\ \text{CAS: 57499-59-9} \\ \text{C}_{16}\text{H}_{10}\text{O}_{8} \end{array}$



Vegetable origin

NATWM

3,3'-Di-O-methylellagic acid 4'-glucoside CAS: 51803-68-0

Vegetable origin

NATWN

 $\begin{array}{l} \textbf{Dimethylfraxetin}\\ CAS: 6035\text{-}49\text{-}0\\ C_{12}H_{12}O_5 \end{array}$



Synonyms: 6,7,8-Trimethoxycoumarin; Fraxetin dimethyl ether Vegetable origin Solubility: DMSO: 125mg/mL Dimethylfraxetin is a **Carbonic anhydrase** inhibitor, with a **K**_i value of 0.0097µM.

NATWO



 $C_{18}H_{12}O_{4}$



Vegetable origin

NATWA

(3S,5R,8S,9S,10S,13R,14S,17R)-17-[(1R,3E)-1,5-dimethyl-3,5-hexadien-1-yl]-1,3,4,8,10,11,12,13,14,15,16,17dodecahydro-4,4,13,14-tetramethyl-5,9-(Epoxymethano)-



Vegetable origin

NATWC

Dimethyl lithospermate B CAS: 875313-64-7

Vegetable origin

NATWP

Dimethylmangostin CAS: 15404-76-9 $C_{26}H_{30}O_6$

Chemical Name: 1-hydroxy-3,6,7-trimethoxy-2,8-bis(3-methylbut-2-enyl)xanthen-9-one Synonym: Fuscaxanthone C Vegetable origin Plant Source: Garcinia mangostana (mangosteen) Specification: 98% min by HPLC

NATWS

2-[3-[(2E)-3,7-dimethyl-2,6-octadien-1-yl]-2,4dihydroxyphenyl]-5,7-dihydroxy-3-(3-methyl-2-buten-1-

yl)-chromen-4-one CAS: 1334309-44-2 C₃₀H₃₄O₆

NATWT

5-[[(2E)-3,7-dimethyl-2,6-octadienyl]oxy]-7-hydroxy-2H-1-Benzopyran-2-one CAS: 185463-71-2



NATWU

7-[[(2E)-3,7-dimethyl-2,6-octadienyl]oxy]-6-hydroxy-2H-1-Benzopyran-2-one

CAS: 636574-80-6



NATWQ 5,7-Di-O-methylquercetin CAS: 13459-07-9 $C_{17}H_{14}O_7$ Vegetable origin AND Enantiomer NATWR Dimethylwulignan A1 CAS: 117404-43-0 $C_{22}H_{26}O_5$

Vegetable origin

NATWV

Diosbulbin B CAS: 20086-06-0

Vegetable origin

NATWW



Synonyms: Collettiside III; CCRIS 4123 Vegetable origin Solubility: 10mM in DMSO

Dioscin(CCRIS 4123; Collettiside III) is a natural steroid saponin derived from several plants, showing potent anti-cancer effect against a variety of tumor cell lines. IC50 value: Target: Anticancer agent in vitro: dioscin (1, 2 and 4µmol/L) could significantly inhibit the viability of LNCaP cells in a time- and concentration-dependent manner. Flow cytometry revealed that the apoptosis rate was increased after treatment of LNCaP cells with dioscin for 24h, indicating that apoptosis was an important mechanism by which dioscin inhibited cancer [1]. Dioscin abrogated AKT phosphorylation, which subsequently impaired RANKL-induced nuclear factor-kappaB (NF-kB) signaling pathway and inhibited NFATc1 transcriptional activity. Moreover, in vivo studies further verified the bone protection activity of dioscin in osteolytic animal model [2]. Dioscin reduced cell death and lactate dehydrogenase (LDH) release in cells subjected to I/R. I/R induced apoptosis and cytochrome c release from mitochondria to the cytosol and this was prevented by dioscin. In support, dioscin decreased Bax but increased Bcl-2 mRNA expression. Dioscin prevented I/R induced dissipation of $\Delta \Psi m$ [3]



Diosgenin, an important natural source of steroidal hormones, has favorable effects in the improvement of diabetes and regulation of lipid metabolism. IC_{50} value: Target: In vitro: In MC65 cells, a cellular AD model, diosgenin exhibited weak protective abilities at 1µM, may represent a good candidate as a steroidal moiety in our bivalent compounds against AD pathology [1]. In vivo: Diosgenin treatment significantly reduced fasted and refed blood glucose level in HF dietfed mice. Diosgenin treatment significantly reduced blood glucose level in IPGTT test, compared with that of HF diet-fed mice [2].

NATWY

Diosmetin CAS: 520-34-3 C₁₆H₁₂O₆



Vegetable originOHOSolubility: DMSO: \geq 35mg/mLDiosmetin is a natural flavonoid which inhibits human CYP1A enzyme activity with an ICs of 40µM in HepG2 cell.

NATWZ

Diosmetin-7-O-beta-D-glucopyranoside CAS: 20126-59-4

Vegetable origin

NATX0

Diosmin CAS: 520-27-4



Solubility: DMSO: 32mg/mL (Need ultrasonic) Diosmin is a flavonoid found in a variety of citrus fruits and also an agonist of the aryl **hydrocarbon receptor (AhR)**.

NATX1



rogotable on

NATX3



NATX4



Vegetable origin Solubility: 10mM in DMSO Dipsacoside B is a major bioactive saponin, which can be used as a marker.

NATX6

Dipsanoside A CAS: 889678-62-0

Vegetable origin

NATX7

Dipsanoside B CAS: 889678-64-2

Vegetable origin

NATX8

Disaminyl Ether CAS: 30186-93-7

NATX9

3',6-Disinapoylsucrose CAS: 139891-98-8 C₃₄H₄₂O₄₀

Synonym: beta-D-(3-O-Sinapoyl)-fructofuranosyl-(2→1)-alpha-D-[6-O-sinapoyl]-glucopyranoside Vegetable origin Plant Source: Polygala virgata Specification: 98% min by HPLC

NATXA

AND Enantiomer

Docetaxel CAS: 114977-28-5

Vegetable origin

NATXB

Dodecanoic Acid CAS: 143-07-7

Synonym: Lauric Acid

NATXC

Dodecanoic acid ingenol ester CAS: 54706-70-6 $C_{32}H_{50}O_7$

Vegetable origin Solubility: 10mM in DMSO

NATXD

L-DOPA CAS: 59-92-7 C₉H₁₁NO₄



AND Enantiomer

Synonyms: Levodopa; 3,4-Dihydroxyphenylalanine Vegetable origin

Solubility: H2O: 2mg/mL

L-DOPA is a natural form of DOPA used in the treatment of Parkinson's disease. L-DOPA is the precursor of dopamine and product of tyrosine hydroxylase. Target: Dopamine Receptor L-DOPA (L-3,4dihydroxyphenylalanine) is a chemical that is made and used as part of the normal biology of humans, some animals and plants. Some animals and humans make it via biosynthesis from the amino acid L-tyrosine. L-DOPA is the precursor to the neurotransmitters dopamine, norepinephrine (noradrenaline), and epinephrine collectively known as catecholamines. L-DOPA can be manufactured and in its pure form is sold as apsychoactive drug with the INN levodopa; trade names include Sinemet, Parcopa, Atamet, Stalevo, Madopar, Prolopa, etc. As a drug it is used in the clinical treatment of Parkinson's disease and dopamine-responsive dystonia. L-DOPA crosses the protective blood-brain barrier, whereas dopamine itself cannot. Thus, L-DOPA is used to increase dopamine concentrations in the treatment of Parkinson's disease and dopamine-responsive dystonia. This treatment was made practical and proven clinically by George Cotzias and his coworkers, for which they won the 1969 Lasker Prize. In addition, L-DOPA, co-administered with a peripheral DDCI, has been investigated as a potential treatment for restless leg syndrome. However, studieshave demonstrated ""no clear picture of reduced symptoms""

NATXE

1-dotriacontanol CAS: 6624-79-9

Synonym: Laccerol Vegetable origin

NATXF

Doxycycline (hyclate) CAS: 24390-14-5

Synonyms: Doxycycline hydrochloride hemiethanolate hemihydrate; WC2031 Vegetable origin Solubility: H₂O: 26mg/mL Doxycycline (hyclate) is a tetracycline antibiotic and broad-spectrum metalloproteinase (**MMP**) inhibitor.

NATXG

Doxycycline (hydrochloride) CAS: 10592-13-9 $C_{22}H_{25}CIN_2O_8$

Vegetable origin Solubility: 10mM in DMSO Doxycycline hydrochloride is a tetracycline antibiotic and broadspectrum metalloproteinase (MMP) inhibitor.









NATXK

Dracorhodin CAS: 643-56-1 C₁₇H₁₄O₃

Chemical Name: 5-methoxy-6-methyl-2-phenylchromen-7-one Vegetable origin Plant Source: RESINA DRACONIS Specification: 98% min by HPLC

NATXL

Dryocrassin CAS: 12777-70-7

Synonym: Dryocrassin ABBA Vegetable origin

NATXM

Dulcitol CAS: 608-66-2 $C_{6}H_{14}O_{6}$

Chemical Name: (2R,3S,4R,5S)-hexane-1,2,3,4,5,6-hexol Synonyms: dulcite, dulcose, Euonymit, D-Galactitol, Melampyrin, Melampyrit, meso-galactitol Vegetable origin Specification: 99% min



NATXO

Ebenifoline E-II CAS: 133740-16-6 C48H51NO18

Vegetable origin

NATXP Ebracteolata cpd B CAS: 83459-37-4 C10H12O1

Vegetable origin

NATXO AND Enantiomer **Beta-Ecdysone** ŌН CAS: 5289-74-7 C27H44O7



NATXR



Solubility: 10mM in DMSO

Echinacoside is a natural polyphenolic compound, has various kinds of pharmacological activities, such as antioxidative, anti-inflammatory, neuroprotective, hepatoprotective, nitric oxide radical-scavenging and vasodilative ones. IC₅₀ value: Target: in vitro: Echinacoside(ECH) dose dependently inhibited HEWL aggregation, and this inhibition occurred in different fiber-forming stages. ECH could also scavenge the DPPH and OH free radicals in a concentration-dependent manner. ECH could increase viability of rat pheochromocytoma PC12 cells injured by AB and suppress the increase in intracellular reactive oxygen species (ROS) triggered by Aß [1]. Transient treatment with echinacoside inhibits cytochrome c release and caspase-3 activation caused by ensuing rotenone exposure via activating Trk-extracellular signal-regulated kinase (ERK) pathway in neuronal cells [2]. ECH caused a significant increase in cell proliferation, ALP activity, COL I contents, OCN levels and an enhancement of mineralization in osteoblasts at the concentration range from 0.01 to 10nmol·L(-1) (p<0.05), suggesting that ECH has a stimulatory effect on osteoblastic bone formation or has potential activity against osteoporosis [4]. In vivo: In OVX rats, the increases of body weight, serum hydroxyproline (HOP) levels, and the decreases of uterus wet weight and BMD were significantly reversed by ECH treatment [3]. Echinacoside (60mg/kg) was given intraperitoneally to mice at 1h prior to GalN/LPS exposure. Pretreatment with echinacoside remarkably improved the survival rate of GaIN/LPS-treated mice and attenuated acute hepatotoxicity, as demonstrated by decreased ALT levels and improved histological signs. Echinacoside shows both anti-apoptotic and anti-inflammatory properties, characterized by a substantial inhibition of hepatocyte apoptosis and a significant reduction in the inflammatory markers, including myeloperoxidase, extracellular nucleosomes, high-mobility group box 1, and inflammatory cytokines in the plasma of mice, which may be important mechanisms related to its protective effect [5].

NATXS

Echinatin CAS: 34221-41-5

Vegetable origin

NATXT

Echinocystic acid CAS: 510-30-5 $C_{30}H_{48}O_4$



AND Enantiomer

Vegetable origin Solubility: 10mM in DMSO

Echinocystic acid a pentacyclic triterpene isolated from the fruits of Gleditsia sinensis Lam, has potent antioxidant, anti-inflammatory and anti-tumor properties. In vitro: Echinocystic acid (EA) inhibit the formation of osteoclast. EA inhibit RANKL-induced NF-κB activation and ERK phosphorylation in BMMs. [1] EA inhibit IL-1β-induced inflammation in chondrocytes. [2] In vivo: Echinocystic acid reduces reserpine-induced pain/depression dyad in mice. [3]

NATXU

Ecliptasaponin A CAS: 78285-90-2 C₃₆H₅₈O₀

Other Name: Echinocystic acid-3-O-glucoside Vegetable origin Specification: 98% min by HPLC

NATXV

Ecliptasaponin D CAS: 206756-04-9 $C_{36}H_{58}O_9$

Synonym: (3beta,16beta)-3-(beta-D-Glucopyranosyloxy)-16-hydroxyolean-12-en-28-oic acid Vegetable origin Plant Source: Eclipta prostrata Specification: 98% min by HPLC

NATXW

Edpetiline CAS: 32685-93-1

Vegetable origin

NATXX Effusanin E CAS: 76470-15-0 C₂₀H₂₈O₆

Vegetable origin

NATXY

Effusol CAS: 73166-28-6

Vegetable origin

NATXZ

EGCG Octaacetate CAS: 148707-39-5

Vegetable origin

NATY0

Beta-Elemene CAS: 515-13-9

Vegetable origin

NATY1

Elemicin CAS: 487-11-6

Vegetable origin

NATY2

Beta-Elemonic acid CAS: 28282-25-9 C₃₀H₄₆O₃

Vegetable origin Specification: 98% min by HPLC

NATY3

Eleutheroside B CAS: 118-34-3 C₁₇H₂₄O₉

Vegetable origin Specification: 98% min by HPLC

NATY4

Eleutheroside D CAS: 79484-75-6

Vegetable origin



AND Enantiomer

NATY5



Eleutheroside E, a principal component of Eleutherococcus enticosus, has anti-inflammatory and protective effects in ischemia heart. IC50 value: Target: In vitro: Treatment of 10 μ M Eleutheroside E (EE) for 24h increased basal glucose uptake as well as improved TNF- α -mediated suppression of glucose uptake. [2] In vivo: To investigate the effect of Eleutheroside E (EE) on arthritis, the CIA model in DBA/1 mice was used. Compared to vehicle-treated CIA mice, 15mg/kg TG treatment and 30 and 60mg/kg EE treatment obviously decreased the arthritis scores and body weight loss in CIA mice (P<0.01) [1].



CAS: 476-66- $C_{14}H_6O_8$

Vegetable origin

NATY8

Embelin CAS: 550-24-3

Vegetable origin

NATY9

Emetine CAS: 483-18-1 C₂₉H₄₀N₂O₄

Synonyms: Emetin; Cephaeline methyl ether; Methyl cephaeline; Ipecine; Methylcephaeline Vegetable origin Plant Source: Uragoga ipecacuanha Baill Specification: 98% min by HPLC

NATYA

Emetine dihydrochloride CAS: 316-42-7 $C_{20}H_{42}Cl_2N_2O_4$

Vegetable origin Plant Source: Uragoga ipecacuanha Baill Specification: USP

NATYB

Emetine Hydrochloride CAS: 14198-59-5

Vegetable origin

NATYC

Emodin CAS: 518-82-1 C₁_EH₄₀O₂



Vegetable origin

NATYD

Emodin 1-glucoside CAS: 38840-23-2

Vegetable origin

NATYE

Emodin-8-glucoside CAS: 23313-21-5

Synonym: Emodin-8-O-β-D-glucopyranoside Vegetable origin

NATYF

Engelitin CAS: 572-31-6 C₂₁H₂₂O₁₀

Vegetable origin Plant Source: Engelhardtiar oxburghiana Specification: 98% min by HPLC

NATYG

Epiberberine CAS: 6873-09-2 C₂₀H₁₈NO₄



Vegetable origin

NATYH

Epiberberine (chloride) CAS: 889665-86-5C₂₀H₁₈CINO₄

Vegetable origin

Solubility: DMSO: 7.4mg/mL (Need ultrasonic)

Epiberberine chloride, a natural alkaloid, is a **BACE1** inhibitor, which also exhibits inhibition activity on CYP2D6 and aldose reductase, alpha-adrenoceptors, acetylcholinesterase (AChE), butyrylcholinesterase, and b-site amyloid precursor protein cleaving enzyme 1.

NATYI Epibrassinolide CAS: 78821-43-9 C₂₈H₄₈O₆

Synonyms: 24-Epibrassinolide; B1105; BP55 Vegetable origin

Solubility: DMSO: ≥ 5mg/mL

Epibrassinolide is a natural brassinosteroid (BR) derivative, is a plant regulator with a similar structure to mammalian steroids. Epibrassinolide is a potential **apoptotic inducer** in various cancer cells without affecting the non-tumor cell growth.

NATYJ

(-)-Epicatechin CAS: 490-46-0 C₁₅H₁₄O₆



Synonyms: (-)-Epicatechol; Epicatechin; epi-Catechin Vegetable origin

Solubility: DMSO: ≥ 34mg/mL

(-)-Epicatechin is a naturally occurring flavanol; a likely candidate for cocca-based product reported reductions in cardiometabolic risk.



Synonyms: ECG; Epicatechin gallate; (-)-Epicatechin 3-O-gallate Vegetable origin

Solubility: DMSO: ≥ 30mg/mL

(-)-Epicatechin gallate is a flavan-3-ol, a type of flavonoid, present in green tea. IC50 value: Target: in vitro: epicatechin gallate, a constituent of an extract of tea leaves (green tea) markedly lowered the minimum inhibitory concentration (MIC) of oxacillin and other betalactams, but not of other antibacterial agents tested, in strains of methicillin-resistant Staphylococcus aureus [1]. Epicatechin, as well as many other flavonoids, has been found to act as a non-selective antagonist of the opioid receptors, albeit with somewhat low affinity [2].

NATYL



Vegetable origin

NATYN

4-Epi-curcumenol CAS: 350602-21-0 C₁₅H₂₂O₂

Vegetable origin

NATYO

Epicurzerenone CAS: 20085-85-2 C₁₅H₁₈O₂



AND Enantiomer

AND Enantiomer





NATYQ



NATYR



NATYS

Epifriedelanol CAS: 16844-71-6

Vegetable origin



Synonyms: EGC; Epigallocatechin; I-Epigallocatechin; epi-Gallocatechin

Vegetable origin

AND Enantiomer

AND Enantiomer

Solubility: 10 mM in H₂O

(-)-Epigallocatechin is the most abundant flavonoid in green tea, can bind to unfolded native polypeptides and prevent conversion to amyloid fibrils. IC50 value: Target: in vitro: EGCG is a potent inhibitor of amyloidogenic cystatin I66Q amyloid fibril formation in vitro. Computational analysis suggests that EGCG prevents amyloidogenic cystatin fibril formation by stabilizing the molecule in its native-like state as opposed to redirecting aggregation to disordered, amorphous aggregates [1]. Combined curcumin and EGCG treatment reduced the cancer stem-like Cluster of differentiation 44 (CD44)-positive cell population. Western blot and immunoprecipitation analyses revealed that curcumin and EGCG specifically inhibited STAT3 phosphorylation and STAT3-NFkB interaction was retained [2]. EGCG exhibited a MIC and MBC of 5µg/mL and 20µg/mL respectively and effectively eradicated E. faecalis biofilms. EGCG induced the formation of hydroxyl radicals in E. faecalis. The addition of DIP protected E. faecalis against EGCG-mediated antibacterial effects. At sub-MIC, EGCG induced significant down-regulation of E. faecalis virulence genes [3]

NATYU

Epigallocatechin gallate CAS: 989-51-5

Vegetable origin

NATYV



Epigoitrin CAS: 1072-93-1

NATYX

Epigomisin O CAS: 73036-31-4 C₂₃H₂₈O₇

Vegetable origin Specification: 98% min

NATYY

Epimagnolin B CAS: 1134188-26-3

Vegetable origin

NATYZ



Solubility: 10mM in DMSO oH Epimedin A is a natural compound extracted from Herba Epimedii.

NATZ0

Epimedin A1 CAS: 140147-77-9

Vegetable origin

NATZ1



Solubility: 10mM in DMSO

Epimedin B, a component extracted from Epimedii Folium, is reported to have antiosteoporotic activity. IC50 value: Target: In vitro: In vivo: Prednisolone-induced osteoporosis model using zebrafish was used to evaluate the antiosteoporotic activity of micro amount epimedin B. The result showed that 1 μ mol·L- 1epimedin B groups were significantly increased when compared with model group; Epimedin B can prevent zebrafish osteoporosis induced by prednisolone [1].



Epimedoside A CAS: 39012-04-9

Vegetable origin

NATZ3

12-Epinapelline CAS: 110064-71-6 C₂₂H₃₃NO₃

Vegetable origin Specification: 98% min

NATZ4

Epinodosin CAS: 20086-60-6 C₂₀H₂₆O₆



Vegetable origin

NATZ5 AND Enantiomer Epinortrachelogenin CAS: 125072-69-7 C₂₀H₂₂O₇ Vegetable origin AND Enantiome NATZ6 3-Epioleanolic acid CAS: 25499-90-5 C₃₀H₄₈O₃ Vegetable origin AND Enantiomer NATZ7 (-)-Epipinoresinol CAS: 10061-38-8 C20H22O6

Vegetable origin

<u>* interchim</u> × Advion

A.90



Vegetable origin

NATZ9

NATZ8

C20H22O6

(+)-Episesamin CAS: 133-03-9

NATZA

2-Episesaminol CAS: 104319-96-2

NATZB

6-Episesaminol CAS: 105616-55-5

NATZC

7-Epitaxol CAS: 105454-04-4

Vegetable origin

NATZD



Vegetable origin Solubility: 10mM in DMSO

Epmedin C, a natural product, has estrogen-like effects for ovariectomized mice. IC50 value: Target: In vitro: In vivo: Anesthetized with 0.4% pentobarbital sodium, mice of the ovariectomized group were conducted with Bilateral oophorectomy, while fat beside ovaries were removed on mice of the sham-operation group. Compared with the sham-operation group, body weight of mice of model group were significantly increased, uterus weight and uterine factor and estradiol levels were significantly reduced, which suggested a significant difference. In comparison of the ovariectomized group, body weight of mice were relieved significantly and uterus weight and uterine factor and estradiol levels were increased significantly in all Epmedin C groups [1].

NATZE

6,17-Epoxylathyrol CAS: 28649-60-7

Vegetable origin

NATZF

Epoxymicheliolide CAS: 1343403-10-0 C15H2004



Synonym: 1β,10β-Epoxymicheliolide Vegetable origin Solubility: 10mM in DMSO Epoxymicheliolide is a micheliolide derivative

NATZG

Ergosterol CAS: 57-87-4 C28H44O

Vegetable origin Specification: 98%min by HPLC

NATZH

Erianin CAS: 95041-90-0

Vegetable origin

NATZI

Erigeroside CAS: 59219-76-0

Vegetable origin

NATZJ Erigoster B

CAS: 849777-61-3

Vegetable origin



Navion x 18

NATZL

Eriodictyol CAS: 552-58-9 C₁₅H₁₂O₆

Chemical Name: 2-(3,4-dihydroxyphenyl)-5,7-dihydroxy-2,3-dihydrochromen-4-one Vegetable origin Specification: 98% min by HPLC

NATZN

Erysubin B CAS: 221150-19-2 $C_{20}H_{16}O_{6}$

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Vegetable origin

NATZO

Escin IA CAS: 123748-68-5 C55H86O24

Synonym: Aescin IA Vegetable origin Specification: 98% min by HPLC

NATZP

Escin Ib CAS: 26339-90-2 C55H88O24

Vegetable origin Specification: 98% min by HPLC

NATZQ

Esculentoside A CAS: 65497-07-6 $C_{42}H_{66}O_{16}$

Vegetable origin Specification: 98% min

NATZR

Esculentoside B CAS: 60820-94-2

Vegetable origin

NATZS

Esculentoside H CAS: 66656-92-6 C₄₈H₇₆O₂₁

Vegetable origin Specification: 98% min

NATZT

Esculin CAS: 531-75-9

Vegetable origin

NATZU

1-Ethoxycarbonyl-beta-carboline

CAS: 72755-19-2 C₁₄H₁₂N₂O₂

Synonym: Kumujian A Vegetable origin



NATZV

5-Ethoxychelerthrine CAS: 79559-55-0

Vegetable origin

NATZW

(3S,5R,8S,9S,10S,13R,14S,17R,20R)-20-ethoxy-17-[(1R,3E)-5-hydroxy-1,5-dimethyl-3-hexen-1-yl]-1,3,4,8,10,11,12,13,14,15,16,17-dodecahydro-4,4,13,14tetramethyl-5,9-(Epoxymethano)-2H-cyclopenta[a] AND Enantiomer

phenanthren-3-ol CAS: 1301267-02-6





NATZX



NATZY

8-(3-Ethoxy-2-hydroxy-3-methylbutyl)-5,7-dimethoxy-2H-chromen-2-one CAS: 70849-88-6 C₁₈H₂₄O₆



NATZZ

6-Ethoxysanguinarine CAS: 28342-31-6

Vegetable origin

NAUA1

Ethyl caffeate CAS: 102-37-4 C₁₁H₁₂O₄



Vegetable origin

NAUAC

 25-O-ethylcimigenol-3-O-beta-D-xylopyranoside

 CAS: 914086-57-0
 AND Enantiomer

 C₃₇H₆₀O₉
 QH



Vegetable origin

NAUA3

Ethyl ganoderate J CAS: 1189555-95-0 C₃₂H₄₆O₇

Vegetable origin

NAUAD

2-Ethylhexyl salicylate CAS: 118-60-5

Vegetable origin

NAUA0

7-Ethyl-10-Hydroxy-Camptothecin CAS: 86639-52-3,64439-81-2

Vegetable origin

NAUA4

Ethyl (E)-3'-hydroxy-4'-methoxycinnamate CAS: 155401-23-3 $C_{12}H_{14}O_4$

vegetable oligi

NAUA5 Ethyl 4-methoxycinnamate CAS: 24393-56-4

Vegetable origin

NAUA6

Ethyl 4-methoxysalicylate CAS: 35031-00-6C $_{10}H_{12}O_4$



Vegetable origin

NAUAE

7-O-Ethylmorroniside CAS: 945721-10-8

Vegetable origin

NAUA7

Ethyl p-nitrobenzyl carbonate CAS: 943409-69-6 $C_{10}H_{12}N_2O_4$



Vegetable origin

NAUA8

Ethyl 2,3,4,6-Tetra-O-acetyl-1-thio-β-D-glucopyranoside CAS: 52645-73-5

NAUA9

Ethyl 1-Thio-β-D-glucopyranoside CAS: 7473-36-1

NAUAA

(E)-Ethyl 3-(3,4,5-trimethoxyphenyl)acrylate CAS: 31892-98-5 $C_{14}H_{18}O_5$



Vegetable origin

NAUAB

Ethyl vanillate CAS: 617-05-0 $C_{10}H_{12}O_4$

Vegetable origin

NAUAF

Eucalyptin CAS: 3122-88-1 C₁₉H₁₈O₅









Vegetable origin

NAUAH

Eucalyptol CAS: 470-82-6 C₁₀H₁₈O



Synonym: 1,8-Cineole Vegetable origin Solubility: 10mM in DMSO Eucalyptol is an inhibitor of 5-HT₃ receptor, potassium channel, TNF-α and IL-1β.

NAUAI



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NAUAJ

Euchrestaflavanone A CAS: 80510-05-0 C₂₅H₂₈O₅

Vegetable origin

NAUAK

Eudesmin CAS: 526-06-7

Vegetable origin

NAUAL **B-Eudesmol** CAS: 473-15-4

Vegetable origin

NAUAM

Eugenol CAS: 97-53-0 C₁₀H₁₂O₂



Vegetable origin Solubility: 10mM in DMSO Eugenol is an essential oil found in cloves with antibacterial, anthelmintic and antioxidant activity. Eugenol is shown to inhibit lipid peroxidation.

NAUAN

Eugenol acetate CAS: 93-28-7

Vegetable origin

NAUAO

Euojaponine D CAS: 128397-42-2

Vegetable origin

NAUAP

AND Enantiomer

Eupafolin CAS: 520-11-6 C₁₆H₁₂O₇ Vegetable origin



NAUAQ

Eupalinilide B CAS: 757202-08-7

Vegetable origin

NAUAR

Eupalinilide C CAS: 757202-11-2

Vegetable origin

NAUAS

Eupalinilide D CAS: 757202-14-5

Vegetable origin

NAUAT

Eupalinolide A CAS: 877822-40-7

Vegetable origin

<u>nterchim</u>[®] × Advion

NAUAU

Eupalinolide B CAS: 877822-41-8

Vegetable origin

NAUAV

Eupalinolide K CAS: 108657-10-9

Vegetable origin

NAUAW

Eupatilin CAS: 22368-21-4 C₁₈H₁₆O₇





Eupatilin, a flavone derived from Artemisia princepsPampanini, has various pharmacological activities, including antioxidant, anti-tumor, and anti-inflammatory capacities. IC50 value: Target: In vitro: The present study aimed to investigate the effects of eupatilin on this malignant bone tumor, using the U-2 OS cell line. The experimental results revealed that eupatilin inhibited U-2 OS cell growth in a concentration-dependent manner and induced G2/M phase cell cycle arrest and apoptosis [1]. Eupatilin reduced U937 cells adhesion to TNF-α-stimulated HUVECs and attenuated TNF-α-induced the expression of vascular cell adhesion molecule-1 (VCAM-1) and intercellular adhesion molecule-1 (ICAM-1) in HUVECs, as well as the production of intracellular reactive oxygen species (ROS). Moreover, eupatilininhibits TNF-a-induced phosphorylation of NF-kB p65 and MAPKs in HUVECs [2]. In vivo.

NAUAX



NAUAY

Euphobiasteroid CAS: 28649-59-4 C₃₂H₄₀O₈

Vegetable origin Specification: 98% min by HPLC

NAUAZ



NAUB0 AND Enantiomer Euphorbia factor L2 CAS: 218916-51-9 C₃₈H₄₂O₉ Vegetable origin AND Enantiomer



NAUB1





NAUB4

Eupteleasaponin I CAS: 290809-29-9

Vegetable origin

NAUB5 Eurycomalactone CAS: 23062-24-0





Eurycomalin A CAS: 790234-20-7 C₂₄H₂₂O₆



Vegetable origin

NAUB7

Eurycomanone CAS: 84633-29-4 C₂₀H₂₄O₉



Vegetable origin

NAUB8

Eurylactone B CAS: 149180-47-2 C₁₉H₂₂O₉



Vegetable origin

NAUB9

Euscaphic acid CAS: 53155-25-2 $C_{30}H_{48}O_5$



Vegetable origin

NAUBA

 $\begin{array}{l} \textbf{Evodiamine} \\ \text{CAS: 518-17-2} \\ \text{C}_{19}\text{H}_{17}\text{N}_3\text{O} \end{array}$



Synonyms: (+)-Evodiamine; d-Evodiamine Vegetable origin Solubility: DMSO: ≥ 37mg/mL

Evodiamine is an alkaloid isolated from the fruit of *Evodia rutaecarpa* Bentham with diverse biological activities including anti-inflammatory, anti-obesity, and antitumor.

NAUBB

Evodine CAS: 6989-38-4

Vegetable origin

NAUBC

Evonimine CAS: 41758-69-4 C₃₈H₄₇NO₁₈



NAUBD

Vegetable origin

Evonine CAS: 33458-82-1 C₃₈H₄₇NO₁₈



Vegetable origin

NAUBE

Fabiatrin CAS: 18309-73-4

Vegetable origin

NAUBF

Fagarine CAS: 524-15-2 C₁₃H₁₁NO₃

Vegetable origin

NAUBG

Falcarindiol CAS: 225110-25-8

Vegetable origin

NAUBH

Fangchinoline CAS: 436-77-1 C₃₇H₄₀N₂O₆

Vegetable origin Specification: 98% min by HPLC

NAUBI

Fargesin CAS: 31008-19-2 $C_{21}H_{22}O_{6}$

Vegetable origin Specification: 98% min by HPLC



NAUBJ

Farrerol CAS: 24211-30-1 C₁₇H₁₆O₅

Vegetable origin Specification: 98% min by HPLC

NAUBK AND Enantiomer Febrifugine CAS: 24159-07-7 C16H10N2O2 Vegetable origin AND Enantiome NAUBL Fenfangjine G CAS: 205533-81-9 C₂₂H₂₇NO₈ Vegetable origin O F OAc NAUBM Feretoside CAS: 27530-67-2 Vegetable origin AND Enantiomer NAUBN Ferruginol CAS: 514-62-5 C₂₀H₃₀O Vegetable origin NAUBP Ferulic acid CAS: 1135-24-6 $C_{10}H_{10}O_{4}$

Chemical Name: (E)-3-(4-hydroxy-3-methoxyphenyl)prop-2-enoic acid Vegetable origin Specification: 98% min by HPLC

NAUBO

Trans-Ferulic acid CAS: 537-98-4 $C_{10}H_{10}O_4$



Vegetable origin

NAUBQ

Ferulic acid ethyl ester CAS: 4046-02-0 C₁₂H₁₄O₄



Vegetable origin

NAUBR

Ferulic acid (sodium) CAS: 24276-84-4 C₄₀H₀NaO₄



Synonym: Sodium ferulate Vegetable origin

Solubility: DMSO: 16.66mg/mL Ferulic acid (4-hydroxy-3-methoxycinnamic acid) is a phenolic com-

pound present in several plants with claimed beneficial effects in prevention and treatment of disorders linked to oxidative stress and inflammation. IC50 value: Target: 5-HT Receptor In vitro: In the present study we have showed that pre-treatment with Ferulic Acid (FA) reduces NO accumulation in the culture medium of LPS-induced macrophage cells. Moreover, real-time experiments have revealed that FA has an inhibitory effect at the transcriptional level on the expression of some inflammatory mediators such as IL-6, TNF-a and iNOS and an activation effect on the expression of some antioxidant molecules such as Metallothioneins (MT-1, MT-2). Importantly, we have found that FA reduced the translocation of NF-E2-related factor 2 (Nrf2) and nuclear transcription factor-kB (NF-kB) into the nuclei through a reduction of the expression of phosphorylated IKK and consequently inhibited IL-6 and NF-kB promoter activity in a luciferase assay [1]. FA treatment significantly, although not completely, protected the cells against lead acetate-induced neurite outgrowth inhibition. The effects of FA could be blocked by PD98059, zinc protoporphyrin (Zn-PP), and Nrf2 shRNA. In addition, FA induced heme oxygenase 1 (HO-1) gene expression, enhanced antioxidant response element (ARE) promoter activity, promoted ERK1/2 phosphorylation, and Nrf2 translocation in PC12 cells exposed to lead acetate. ERK1/2 locate upstream of Nrf2 and regulate Nrf2-dependent HO-1 expression in antioxidative effects of FA [2]. In vivo: We aimed to verify the possible antidepressant-like effect of acute oral administration of Ferulic acid produced an antidepressant-like effect in the FST and TST (0.01-10mg/kg, p.o.), without ccompanying changes in ambulation. The pretreatment of mice with WAY100635 (0.1mg/ kg, s.c., a selective 5-HT1A receptor ntagonist) or ketanserin (5mg/ kg, i.p., a 5-HT2A receptor ntagonist) was able to reverse the antiimmobility effect of ferulic acid (0.01mg/kg, p.o.) in the TST. The combination of fluoxetine (5mg/kg, p.o.), paroxetine (0.1mg/kg, p.o.) or sertraline (1mg/kg, p.o.) with a sub-effective dose of ferulic acid (0.001mg/kg, p.o.) produced a synergistic antidepressant-like effect in the TST, without causing hyperlocomotion in the open-field test. ferulic acid in the forced swimming test (FST) and tail suspension test (TST) in mice [3]

NAUBY

N-feruloyl-Octopamine CAS: 66648-44-0
NAUBS



NAUBU

4-O-Feruloylquinic Acid

NAUBV

5-O-Feruloylquinic Acid

NAUBZ

3-Feruloyl-1-Sinapoyl sucrose CAS: 98942-06-4

Vegetable origin

NAUBW

6"-FeruloyIspinosin CAS: 77690-92-7 C₃₈H₄₀O₁₈

Vegetable origin Specification: 98% min

NAUBX

N-trans-feruloyltyramine CAS: 66648-43-9

CAS. 00040-43-5 C₁₈H₁₉NO₄

Vegetable origin

NAUC0

Filixic acid ABA CAS: 38226-84-5

Vegetable origin



Vegetable origin

NAUC2

Fisetin CAS: 528-48-3 C₁₅H₁₀O₆



Vegetable origin Solubility: DMSO: ≥50mg/mL

Fisetin is a natural flavonol found in many fruits and Vegetables with various benefits, such as antioxidant, anticancer, neuroprotection effects.



Synonyms: Acetylaconitine; 3-Acetylaconitine Vegetable origin

Solubility: 10mM in DMSO

Flaconitine is a alkaloid isolated from Aconitum flavum. IC50 value: Acute ig LD50 was 3.09mg/kg in mice Target: In vitro: In histo-pathological examinations all of the animals treated with AAC showed degenerative change in heart muscle cells and slight damage in liver cells [1]. The effects of the Aconitum alkaloid flaconitine on neuronal activity were investigated in the slice preparation and on cultivated neurons of rat hippocampus by extracellular and patch-clamp recordings, respectively. Flaconitine (0.01-1µM) diminished the orthodromic and antidromic population spite in a concentration-dependent manner [2]. In vivo: In subacute experiments, the main toxic manifestations of AAC were respiratory depression which usually caused death in rats and abnormal ECG in rabbits.



Vegetable origin

NAUC5 Flavidinin CAS: 83925-00-2 C₁₆H₁₄O₃



Vegetable origin

NAUC6 Flavokawain A CAS: 64680-84-8

Vegetable origin

AND Enantiome

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Natural compounds

NAUC7

Flavokawain B CAS: 1775-97-9 C₁₇H₁₆O₄

Vegetable origin

NAUC8

Flavokawain C CAS: 56798-34-6

Vegetable origin

NAUC9

Flemiphilippinin A CAS: 140366-64-9

Vegetable origin

NAUCA

Fluoranthene CAS: 206-44-0

Vegetable origin

NAUCB

Foresaconitine CAS: 73870-35-6 C₃₅H₄₉NO₉



AND Enantiomer

Synonym: Vilmorrianine C Vegetable origin Solubility: 10mM in DMSO

Foresaconitine (Vilmorrianine C) is a norditerpenoid alkaloid isolated from the processed tubers of Aconitum carmichaeli.

NAUCC

Formononetin CAS: 485-72-3 $C_{16}H_{12}O_4$



Synonyms: Biochanin B; Flavosil; Formononetol Vegetable origin

Solubility: DMSO: ≥ 35mg/mL

Formononetin (Formononetol; Flavosil) is a bioactive component extracted from the red clover; inhibits the proliferation of DU-145/PC-3 cells in a dose-dependent manner. IC50 value: Target: anti-cancer in vitro: formononetin inhibited the proliferation of DU-145 cells in a dose-dependent manner. DU-145 cells treated with different concentrations of formononetin displayed obvious morphological changes of apoptosis under fluorescence microscopy. In addition, formononetin increased the proportion of early apoptotic DU-145 cells, down-regulated the protein levels of Bcl-2 and up-regulated those of RASD1 and Bax [1]. Formononetin significantly inhibited the cell growth of PC-3 in a dose-dependent manner, but no such effect was observed in RWPE1 cells. Formononetin treatment contributed to the reduced Bcl-2 protein level and the elevated Bax expression in PC-3 cells, thereby resulting in the increasing Bax/Bcl-2 ratios. Furthermore, the phosphorylated level of p38 in PC-3 cells was activated through the FN treatment, whereas the endogenous Akt phosphorylation was blocked [2]. Compared with the control, formononetin inhibited the proliferation of MCF-7 cells and effectively induced cell cycle arrest. The levels of p-IGF-1 R, p-Akt, cyclin D1 protein expression, and cyclin D1 mRNA expression were also downregulated [3]. In vivo: formononetin also prevented the tumor growth of human breast cancer cells in nude mouse xenografts [3].

NAUCD

6-Formyllimetin CAS: 88140-31-2 C₁₂H₁₀O₅



Vegetable origin

NAUCE

Forskolin CAS: 66575-29-9 C₂₂H₃₄O₇

Synonym: Colforsin Vegetable origin Specification: 98% min by HPLC

NAUCF

Forsythoside CAS: 79916-77-1 C₂₉H₃₆O₁₅

Vegetable origin Specification: 98% min by HPLC



NAUCG



Solubility: DMSO

Forsythoside B is a phenylethanoid glycoside isolated from the leaves of Lamiophlomis rotata Kudo, a Chinese folk medicinal plant for treating inflammatory diseases and promoting blood circulation.

NAUCH

Forsythoside E CAS: 93675-88-8

Vegetable origin

NAUCI

Forsythoside H CAS: 1178974-85-0

Vegetable origin

NAUCJ

Forsythoside I CAS: 1177581-50-8

Vegetable origin

NAUCK

Fraxetin CAS: 574-84-5 $C_{10}H_{g}O_{5}$

Chemical Name: 7,8-dihydroxy-6-methoxychromen-2-one Synonyms: 7,8-Dihydroxy-6-methoxycoumarin; 7,8-Dihydroxy-6-methoxy-2-benzopyrone Vegetable origin Specification: 98% min

NAUCL

Fraxidin CAS: 525-21-3 $C_{11}H_{10}O_{5}$



Vegetable origin

NAUCM Fraxin

CAS: 524-30-1 C16H18O10

Chemical Name: 7-hydroxy-6-methoxy-8-[(2S,3R,4S,5S,6R)-3,4,5trihydroxy-6-(hydroxymethyl)oxan-2-yl]oxychromen-2-one Vegetable origin Specification: 98% min

NAUCN

Fraxinellone CAS: 28808-62-0 C₁₄H₁₆O₃

Chemical Name: (3R,3aR)-3-(furan-3-yl)-3a,7-dimethyl-3,4,5,6-tetrahydro-2-benzofuran-1-one Vegetable origin Plant Source: CORTEX DICTAMNI Part Used: Roots and Skin Specification: 98% min by HPLC

NAUCO

Fraxinol CAS: 486-28-2

Vegetable origin

NAUCP

Friedelin CAS: 559-74-0 C₃₀H₅₀O

Synonym: Friedelan-3-one Vegetable origin Specification: 98% min by HPLC

NAUD5

Fructo-oligosaccharide DP5 (GF4) [Fructofuranosylnystose]

NAUD3

Fructo-oligosaccharide DP6 (GF5) [1-F-(1-β-Fructofuranosyl)-2-nystose]

NAUD4

Fructo-oligosaccharide DP7 (GF6) [1-F-(1-β-Fructofuranosyl)-3-nystose]

NAUCQ

Fructo-oligosaccharide DP8 (GF7)



NAUCR

Fructo-oligosaccharide DP9 (GF8)

NAUCS

Fructo-oligosaccharide DP10 (GF9)

NAUCT Fructo-oligosaccharide DP11 (GF10)

NAUCU Fructo-oligosaccharide DP12 (GF11)

NAUCV Fructo-oligosaccharide DP13 (GF12)

NAUCW Fructo-oligosaccharide DP14 (GF13)

NAUCX Fructo-oligosaccharide DP15 (GF14)

NAUCY Fructo-oligosaccharide DP16 (GF15)

NAUCZ Fructo-oligosaccharide DP17 (GF16)

NAUD0 Fructo-oligosaccharide DP18 (GF17)

NAUD1 Fructo-oligosaccharide DP19 (GF18)

NAUD2 Fructo-oligosaccharide DP20 (GF19)

NAUD6 Fructo-oligosaccharides Kit (DP3~DP11, GF2~GF10)

NAUD7

Fructo-oligosaccharides Kit (DP12~DP20, GF11~GF19)

NAUD8

Fructose CAS: 7660-25-5 C₆H₁₂O₆

Vegetable origin

AND Enantiome

Solubility: H₂O: 6.8mg/mL Fructose is a simple ketonic monosaccharide found in many plants, where it is often bonded to glucose to form the disaccharide sucrose.

NAUD9

D-Fructose CAS: 57-48-7

Vegetable origin

NAUDA

L-Fructose CAS: 7776-48-9

NAUDB

L-Fucitol CAS: 13074-06-1 C₆H₁₄O₅

Chemical Name: (2R,3S,4R,5S)-hexane-1,2,3,4,5-pentol Synonym: 6-Deoxy-L-galactitol Vegetable origin Specification: 98% min by HPLC

NAUDC

D-(+)-Fucose CAS: 3615-37-0

Vegetable origin

NAUDD

Fucosterol CAS: 17605-67-3 C₂₀H₄₈O

Vegetable origin Plant Source: Seaweeds Specification: 98%

NAUDE

Fucoxanthin CAS: 3351-86-8 C₄₂H₅₈O₆

Synonym: all-trans-Fucoxanthin Vegetable origin Solubility: 10mM in DMSO Fucoxanthin is a marine carotenoid and shows anti-obesity, anti-diabetic, anti-oxidant, anti-inflammatory and anticancer activities. Advion × ^{red}interchim



NAUDF

Fumaric acid CAS: 110-17-8

Vegetable origin



Fumitremorgin C CAS: 118974-02-0 $C_{22}H_{25}N_3O_3$



AND Enantiome

Synonym: 12α-Fumitremorgin C Vegetable origin Solubility: DMSO Fumitremorgin C is a potent and selective **ABCG2/BRCP** inhibitor.

NAUDH

Furanodienone CAS: 24268-41-5 C₁₅H₁₈O₂



Vegetable origin

NAUDI

Furomollugin CAS: 61658-41-1 C₁₄H₁₀O₄



Vegetable origin

NAUDJ

Fuziline CAS: 80665-72-1 C₂₄H₃₉NO₇

Vegetable origin Specification: 98% min by HPLC OtherName: Senbusine C

NAUDK

2"-O-beta-L-galactopyranosylorientin CAS: 861691-37-4

C₂₇H₃₀O₁₆

Chemical Name: 2-(3,4-DIHYDROXYPHENYL)-8-(2-O-BETA-L-GALACTOPYRANOSYL-BETA-D-GLUCOPYRANOSYL)-5,7-DIHY-DROXY-4H-1-BENZOPYRAN-4-ONE Synonyms: Orientin-2"-O-β-L-galactoside; 2""-O-β-L-Galorientin Vegetable origin Specification: 98% min by HPLC

NAUDL

D-Galactose CAS: 59-23-4

C₆H₁₂O₆



Synonym: D-(+)-Galactose Vegetable origin Solubility: $H_2O: \ge 100$ mg/mL D-Galactose is a natural aldohexose and C-4 epimer of glucose.

NAUDM

Galangin CAS: 548-83-4 C₁₅H₁₀O₅



Synonyms: Norizalpinin; 3,5,7-Trihydroxyflavone Vegetable origin Solubility: DMSO: ≥ 36mg/mL Galangin is an agonist/antagonist of the arylhydrocarbon receptor, and also shows inhibition of **CYP1A1** activity.

NAUDN

Galangin 3-methyl ether CAS: 6665-74-3 C₁₆H₁₂O₅



Vegetable origin

NAUDO

Galanthamine hydrobromide CAS: 1953-04-4

Vegetable origin

NAUDP

Galgravin CAS: 528-63-2

Vegetable origin

NAUDQ

Gallic acid CAS: 149-91-7 $C_7H_6O_5$



Synonym: 3,4,5-Trihydroxybenzoic acid Vegetable origin Solubility: DMSO: 100mg/mL Gallic acid is an antioxidant which can inhibit both **COX-2** and **acetyl CoA carboxylase (ACC)**.

NAUDR

Gallic aldehyde CAS: 13677-79-7

NAT_J3 AND Enantiomer Gamabufotalin

Natural compounds

AND Enantiomer

CAS: 465-11-2

C24H34O5

Vegetable origin

NAUDS

NAUDU

(+)-Gallocatechin CAS: 970-73-0

Gallocatechin (GC)

CAS: 3371-27-5

Vegetable origin



(-)-Gallocatechin gallate is the polyphenol isolated from tea, with cancer-preventive activities.

NAUDV

2'-O-Galloyl hyperin

CAS: 53209-27-1 C28H24O16

Vegetable origin Plant Source: Apocynum L. Specification: 98%

NAUDW

Galloylpaeoniflorin CAS: 122965-41-7

Vegetable origin

Synonym: Gamabufagin Vegetable origin Solubility: 10mM in DMSO

Gamabufotalin (Gamabufagin), a major bufadienolide of Chansu, has been used for cancer therapy due to its desirable metabolic stability and less adverse effect. IC50 value: Target: in vitro: Gamabufotalin (CS-6) strongly suppressed COX-2 expression by inhibiting the phosphorylation of IKK β via targeting the ATP-binding site, thereby abrogating NF-KB binding and p300 recruitment to COX-2 promoter. In addition, CS-6 induced apoptosis by activating the cytochrome c and caspase-dependent apoptotic pathway [1]. Gamabufotalin significantly potentiated human breast cancer cells with different status of ER-alpha to apoptosis induction of TRAIL, as evidenced by enhanced Annexin V/FITC positive cells (apoptotic cells), cytoplasmic histone-associated-DNA-fragments, membrane permeability transition (MPT), caspases activation and PARP cleavage [2]. In vivo: CS-6 markedly down-regulated the protein levels of COX-2 and phosphorylated p65 NF-kB in tumor tissues of the xenograft mice, and inhibited tumor weight and size [1]





Solubility: 10mM in DMSO

Gambogic Acid activates caspases with EC50 of 0.78-1.64 µM and competitively inhibits Bcl-XL, Bcl-2, Bcl-W, Bcl-B, Bfl-1 and Mcl-1 with IC50 of 1.47, 1.21, 2.02, 0.66, 1.06 and 0.79µM, respectively. IC50 Value: 1.21µM (Bcl-2); 1.47µM (Bcl-xl) Target: Bcl-2 Family in vitro: Gambogic acid is a xanthonoid that is derived from the brownish or orange resin from Garcinia hanburyi. This natural chemical has shown promising antitumor activity in clinical trials with mice. Gambogic Acid activates caspases with EC50 of 0.78-1.64µM and competitively inhibits Bcl-xl, Bcl-2, Bcl-w, Bcl-B, Bfl-1 and Mcl-1 with IC50 of 1.47 μ M, 1.21 μ M, 2.02 μ M, 0.66 μ M, 1.06 μ M and 0.79 μ M, respectively. Gambogic Acid significantly inhibited the growth of JeKo-1 cells in a dose- and time-dependent manner. The maximum GA-induced cytotoxity was evident at 36 hrs exposure to 4 µg/mL GA. The IC50 of 12, 24 and 36 hrs of GA treatment for JeKo-1 cells was 0.73, 0.72 and 0.55 µg/mL respectively. GA induces apoptosis in JeKo-1 cells but not in normal bone marrow cells, which was involved in reducing the membrane potential of mitochondria, activating caspases-3, -8 and -9 and decreasing the ratio of Bcl-2 and Bax without cell cycle arresting [1]. GA potentially enhanced level of PHD2, the most important HIF hydroxylase, and showed no effect on PHD1 and PHD3. Transient transfection of siRNA of PHD2 could eliminate GAinduced VEGF secretion increase [2]. In vivo: GA showed a higher absorption rate than other intestinal segments (P < 0.05) and kept unchanged in duodenum after addition in drug concentration in rats [3]. GBA significantly inhibited the LPS-induced release of pro-inflammatory factors both in cell lines and mice serum, thereby protecting mice from endotoxin shock [4]. Clinical trial: Gambogic Acid is currently being tested as an anti-cancer agent in a phase II clinical trial approved by the Chinese FDA.

NAUE0

Ganglioside GM2 (18,18) CAS: 127663-77-8

NAUDZ

Ganglioside GM3 (18,2) CAS: 11545-33-6

NAUE1

Ganglioside GM3 (18,8)

NAUE2

Ganglioside GM3 (18,12)

NAUE3

Ganglioside GM3 (18,16)

NAUE4

Ganglioside GM3 (18,18)

NAUE5

Ganglioside GM3 (18,24)



NAUEA

 $\begin{array}{l} \textbf{Ganoderenic acid D} \\ \textbf{CAS: 100665-43-8} \\ \textbf{C}_{30}\textbf{H}_{40}\textbf{O}_{8} \end{array}$

NAUEB Ganoderic acid A CAS: 81907-62-2 C₃₀H₄₄O₇

Vegetable origin

Solubility: DMSO: ≥ 29mg/mL

Ganoderic acid can Inhibitt of the JAK-STAT3 signaling pathway, also inhibit proliferation, viability, ROS. In vitro: A lower doses of Ganoderic acid enhance HLA class II-mediated antigen presentation and CD4+ T cell recognition of lymphoma. [1] ganoderic acid A promots cisplatin-induced cell death by enhancing the sensitivity of HepG2 cells to cisplatin mainly via the signal transducer and activator of transcription 3 suppression. [2] Ganoderic acid A inhibits proliferation, viability, ROS, DPPH, and analyzed the expression of SOD1, SOD2, and SOD3 by Real time PCR in a PC-3 cell in a dosedependent manner.[3] GA-A effectively inhibites the proliferation of human osteosarcoma HOS and MG-63 cells in a dose-dependent manner, and induced obvious cell apoptosis in both cells.[4] In vivo: Ganoderic acid -treatment significantly prolonged survival of EL4 challenged mice and decreased tumor metastasis to the liver.[1]



NAUEH AND Enantiomer Ganoderic acid C6 CAS: 105742-76-5 C₃₀H₄₂O₈

Å

NAUEI

Vegetable origin

Ganoderic acid D CAS: 108340-60-9 C₃₀H₄₀O₇

Vegetable origin Plant Source: Ganoderma lucidum

NAUEJ

Ganoderic acid D2 CAS: 97653-94-6



NAUEM

Ganoderic Acid G CAS: 98665-22-6

Vegetable origin NAUEN Ganoderic acid H CAS: 98665-19-1 $C_{32}H_{44}O_9$ Vegetable origin NAUEO Ganoderic acid I CAS: 98665-20-4

Vegetable origin

Advion × Yinterc



AND Enantiome **Ganoderiol F** CAS: 114567-47-4 он Vegetable origin

Ganoderlactone D CAS: 1801934-15-5

Vegetable origin

Ganodermanondiol CAS: 107900-76-5



Ganoderol B CAS: 104700-96-1

Vegetable origin

Ganolactone B CAS: 1028449-53-7





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Vegetable origin

NAUF5

Garcinone C CAS: 76996-27-5 C₂₃H₂₆O₇

Chemical Name: 1,3,6,7-tetrahydroxy-8-(3-hydroxy-3-methylbutyl)-2-(3-methylbut-2-enyl)xanthen-9-one Synonym: 1,3,6,7-Tetrahydroxy-8-(3-hydroxy-3-methylbutyl)-2-(3methyl-2-buten-1-yl)-9H-xanthen-9-one Vegetable origin Plant Source: Garcinia mangostana (mangosteen) Specification: 98% min by HPLC

NAUF6

Garcinone D CAS: 107390-08-9 C₂₄H₂₈O₇

Chemical Name: 1,3,6-trihydroxy-8-(3-hydroxy-3-methylbutyl)-7-methoxy-2-(3-methylbut-2-enyl)xanthen-9-one Vegetable origin Plant Source: Garcinia mangostana (mangosteen) Specification: 98% min by HPLC

NAUF7



NAUF8

Gardenin B CAS: 2798-20-1

Vegetable origin

NAUF9

Gardenoside CAS: 24512-62-7

C₁₇H₂₄O₁₁

Chemical Name: METHYL (1R,4AR,7S,7AR)-7-HYDROXY-7-(HYDROXYMETHYL)-1-[(2S,3R,4S,5S,6R)-3,4,5-TRIHYDROXY-6-(HYDROXYMETHYL)OXAN-2-YL]OXY-4A,7A-DIHYDRO-1H-CYCLOPENTA[C]PYRAN-4-CARBOXYLATE Vegetable origin Plant Source: Gardenia jasminoides Specification: 98% min by HPLC

NAUFA

Gartanin CAS: 33390-42-0

Vegetable origin

NAUFB

Gastrodin CAS: 62499-27-8 C₁₃H₁₈O₇



Synonym: Gastrodine Vegetable origin

Solubility: 10mM in DMSO

Gastrodin, a main constituent of a Chinese herbal medicine Tianma, has been known to display anti-inflammatory effects. Gastrodin, has long been used for treating dizziness, epilepsy, stroke and dementia.



NAUFD

Gaultherin CAS: 490-67-5

Vegetable origin

NAUFE

Gelsemine CAS: 509-15-9

Vegetable origin

NAUFF

Gengkwanin CAS: 437-64-9 C₁₆H₁₂O₅

Chemical Name: 5-hydroxy-2-(4-hydroxyphenyl)-7-methoxychromen-4-one Synonyms: 4',5-Dihydroxy-7-methoxyflavone; 5,4'-Dihydroxy 7-methoxyflavone; 7-Methylapigenin Vegetable origin Specification: 98%min

NAUFG

Genipin CAS: 6902-77-8

NAUFH

Genipin 1-gentiobioside CAS: 29307-60-6

Vegetable origin

NAUFI

Geniposide

CAS: 24512-63-8 C₁₇H₂₄O₁₀ AND Enantiomer

Vegetable origin Solubility: DMSO: ≥ 32mg/mL

Geniposide is an iridoid glucoside extracted from *Gardenia jasminoides Ellis* fruits; exhibits a varity of biological activities such as anti-diabetic, antioxidative, antiproliferative and neuroprotective activities.



Geniposidic acid is an effective anticancer and radioprotection agent. Target: Others Mice were given an intraperitoneal injection of Geniposidic acid (GA) (12.5, 25, 50mg/kg) 1h before receiving GA against d-galactosamine (GalN) (800mg/kg)/LPS (40µg/kg). Liver and blood samples were collected 1 and 8h after GalN/LPS injection. The survival rate of the GA group was significantly higher than the control. GalN/LPS increased serum aminotransferase activity, serum tumor necrosis factor-a level and hepatic lipid peroxidation and decreased hepatic glutathione content [1]. GA enhanced significantly the postirradiation responses of splenic blastogenesis by PHA. In addition, GA is a potent tumor growth inhibitor when combined with the X-irradiation, though there was no significant synergetic effect on their combined antitumor activity. The preliminary results of GA on hematological and blastogenic observations in this study suggested that it may very well, partially, play a role in an effective anticancer product with the ability to decrease undesirable radiation damage to the hematologic tissue after high dose irradiation [2]

NAUFK

Genistein CAS: 466-72-0 C₁₅H₁₀O₅



Vegetable origin

NAUFL

Genistein 7,4'-di-O-β-D-glucopyranoside CAS: 36190-98-4

Vegetable origin



Synonyms: Genistine; Genistoside; Genistein 7-O-β-Dglucopyranoside Vegetable origin

Solubility: DMSO: ≥ 43mg/mL

Genistin is commonly found in soy and soy products. IC50 value: Target: In vitro: Genistin significantly decreased the vitality of M14 cells, confirming the importance of the 5,7-dihydroxy structure in the a ring in anticarcinogenic effects [1]. The effect of genistin on bone components in the femoral-metaphyseal tissues obtained from elderly female rats was investigated in vitro. The results suggest that genistin has an anabolic effect on bone metabolism in the femoralmetaphyseal tissues of elderly rats [2]. In vivo: Female CD-1 mice were treated on postnatal days 1-5 with oral genistin (6.25, 12.5, 25, or 37.5mg/kg/day; Oral genistin elicited an estrogenic response in the neonatal uterus, altered ovarian differentiation (i.e., multioocyte follicles), delayed vaginal opening, caused abnormal estrous cycles, decreased fertility, and delayed parturition [3].

NAUFN

Gentioflavin CAS: 18058-50-9 C₁₀H₁₁NO₃



Vegetable origin

NAUFO

Gentiopicroside CAS: 20831-76-9 C₁₆H₂₀O₉

Vegetable origin Specification: 98% min by HPLC

NAUFP

Gentisein CAS: 529-49-7 C₁₃H₈O₅

Vegetable origin

NAUFQ

Gentisic acid CAS: 490-79-9

Vegetable origin

NAUFR

Geraniin CAS: 60976-49-0 C₄₁H₂₈O₂₇

Vegetable origin Specification: 98% min by HPLC

A.108

NAUFS

Geraniol CAS: 106-24-1 C₁₀H₁₈O

Chemical Name: (2E)-3,7-dimethylocta-2,6-dien-1-ol Vegetable origin Specification: 98% min by GC

NAUFT

8-Geranopsoralen CAS: 7437-55-0

Vegetable origin

NAUFU

Geranyl acetate CAS: 105-87-3

Vegetable origin

NAUFV



NAUFW



NAUFX



NAUFY

Germacrone CAS: 6902-91-6 C₁₅H₂₂O

Vegetable origin

NAUFZ

Gibberellic acid CAS: 77-06-5

Vegetable origin

NAUG1



NAUG0



NAUG2

AND Enantiomer



Advion » Minterchim

NAUG3 Ginkgetin CAS: 481-46-9C₃₂H₂₂O₁₀ HO O O

Vegetable origin

Solubility: DMSO: ≥ 83.3mg/mL

Ginkgetin is a natural biflavonoid isolated from leaves of Ginkgo biloba L; effects of anti-inflammation and anticancer have been reported. IC50 value: Target: in vitro: Ginkgetin inhibits COX-2 dependent phases of prostaglandin D(2) (PGD(2)) generation in bone marrowderived mast cells (BMMC) in a concentration-dependent manner with IC(50) values of 0.75µM. Ginkgetin consistently inhibited the production of leukotriene C(4) (LTC(4)) in a dose dependent manner, with an IC(50) value of 0.33 microM. Ginkgetin also inhibited degranulation reaction in a dose dependent manner, with an IC(50) value of 6.52µM [1]. Ginkgetin inhibited both inducible and constitutively activated STAT3 and blocked the nuclear translocation of p-STAT3 in DU-145 prostate cancer cells. Furthermore, ginkgetin selectively inhibited the growth of prostate tumor cells stimulated with activated STAT3. Ginkgetin induced STAT3 dephosphorylation at Try705 and inhibited its localization to the nucleus, leading to the inhibition of expression of STAT3 target genes such as cell survival-related genes (cyclin D1 and survivin) and anti-apoptotic proteins (Bcl-2 and Bcl-xL) [2]. Ginkgetin suppressed the viability of PC-3 cells in a concentration-dependent manner and also significantly increased the sub-G1 DNA contents of cell cycle in PC-3 cells. Ginkgetin activated caspase-3 and attenuated the expression of survival genes such as Bcl-2, Bcl-xL, survivin and Cyclin D1 at protein and mRNA levels [3]. Ginkgetin (1 - 10µM) and the biflavonoid mixture (10 -50microg/ml), mainly a 1: 1 mixture of ginkgetin and isoginkgetin, from G. biloba leaves, inhibited production of prostaglandin E2 from lipopolysaccharide-induced RAW 264.7 cells [4]. In vivo: Ginkgetin inhibited tumor growth in xenografted nude mice and down-regulated p-STAT3Tyr705 and survivin in tumor tissues [2]. At total doses of 1,000microg/site on the dorsal skin (15mm x 15mm), ginkgetin inhibited prostaglandin E2 production by 65.6% along with a marked suppression of COX-2 induction. In addition, ginkgetin and the biflavonoid mixture (100 - 1,000microg/ear) dose-dependently inhibited skin inflammation of croton oil induced ear edema in mice by topical application [4]

NAUG4

C₂₂H₃₄O₃

Ginkgolic Acid

CAS: 22910-60-7

NAUG5

Ginkgolic A CAS: 20261	Acid (C13:0 -38-5	0)			
C ₂₀ H ₃₂ O ₃	OH C	он	~~~	\sim	

Synonyms: Ginkgolic acid (13:0); Ginkgoneolic Acid; 6-Tridecylsalicylic acid

Vegetable origin

Solubility: 10mM in DMSO

Ginkgolic Acid (C13:0) is a natural anticariogenic agent in that it exhibits antimicrobial activity against S. mutans and suppresses the specific virulence factors associated with its cariogenicity. IC50 value: Inhibiting the biofilm formation of S. mutans (MBIC (50) = 4µg/mL); reduced 1-day-developed biofilm of S. mutans by 50 % or more at low concentration (MBRC (50) = 32µg/mL). Target: In vitro: Ginkgolic Acid (C13:0) inhibited not only the growth of S. mutans planktonic cells at minimum inhibitory concentration (MIC) of 4µg/mL and minimum bactericidal concentration (MBC) of 8µg/mL but also the acid production and adherence to saliva-coated hydroxyapatite of S. mutans at sub-MIC concentration. In addition, this agent was effective in inhibiting the biofilm formation of S. mutans (MBIC (50) = 4µg/mL), and it reduced 1-day-developed biofilm of S. mutans by 50 % or more at low concentration (MBRC (50) = 32µg/mL). Furthermore Ginkgolic Acid (C13:0) disrupted biofilm integrity effectively [1]. In vivo.

NAUG6

Ginkgolic acid (С17:1) CAS: 111047-30-4 C₂₄H₃₈O₃

NAUG7

Ginkgolic Acids

Synonym: Anacardic Acids



Synonyms: Ginkgolic acid (15:1); Ginkgolic acid I; Romanicardic acid Vegetable origin

Solubility: 10mM in DMSO

Ginkgolic Acid is a natural compound with suspected cytotoxic, allergenic, mutagenic and carcinogenic properties, and it can inhibit protein SUMOylation both in vitro and in vivo without affecting in vivo ubiquitination.

NAUG9 AND Enantiomer Ginkgolide B CAS: 15291-77-7 C20H24O10 Synonym: BN-52021 Vegetable origin Ōн

Solubility: DMSO: ≥ 30mg/mL

Ginkgolide B, an important active terpenoid from Ginkgo biloba leaves, is reported to increase cell viability and decrease cell apoptosis. IC50 value: Target: In vitro: Ginkgolide B (0.2 or 0.4µg/ml) was added to the culture medium in vitro led to increases in cell viability and decreases in the number of hippocampal cells undergoing AAPH-induced apoptosis [1]. Ginkgolide B caused a dose-related protection against dysrhythmias; the antiarrhythmic effect of ginkgolide B was comparable to that of diltiazem and superior to the activity of metoprolol. Ginkgolide B can presumably prevent the re-entry mechanism involved in the development of ischemia-induced rhythm disturbances [2]. In vivo: Oral administration of ginkgolide B (2mg/kg/ day, p.o.) caused a significant increase in cell viability and a highly significant decrease in the numbers of both spontaneously occurring and AAPH-induced apoptoses.



Synonyms: BN-52022; Ginkgolide-C Vegetable origin Solubility: 10mM in DMSO

Ginkgolide C, a natural product, can enhance the cardiac function of rats in the body. IC50 value: Target: In vitro: Ginkgolide C directly stimulates CFTR-mediate anion transport. Ginkgolide C may be a promising drug for the prevention and treatment of CFTR-related diseases such as idiopathic chronic pancreatitis (ICP), habitual constipation, and keratoconjunctivitis sicca (KCS) [2]. In vivo: Normal rats after anesthetized,inserted the intubate which connecting the pressure transducer into left ventricular from the right common carotid artery. Compared with normal conditions, when given 100µ mol / L Ginkgolide C, there are no significant effect on cardiac function; when given 1 000µ mol / L Ginkgolide C, it showed inotropic activity by increasing Δ LVP,+dp / dtmax, -dp / dtmax significantly, but had no significant effect on heart rate [1].



NAUGC



Synonyms: Ginsenoside K; Ginsenoside compound K Vegetable origin

Solubility: 10mM in DMSO

Ginsenoside C-K(Ginsenoside compound K) is an intestinal microbiota metabolite of ginsenoside Rb1; possessing anti-proliferative and anti-inflammatory activities. IC50 value: Target: in vitro: C-K showed significant anti-proliferative effects in HCT-116 and SW-480 cells at concentrations of 30-50µM. C-K activated expression of caspases 8 and 9, consistent with docking analysis [1]. In mononuclear phagocytes, C-K significantly repressed the activation of TLR4/lipopolysaccharide (LPS)-induced NF-kappaB and mitogen-activated protein kinases (MAPKs), as well as the secretion of pro-inflammatory cytokines. C-K competed with the synthetic glucocorticoid dexamethasone for binding to GR and activated glucocorticoid responsive element (GRE)-containing reporter plasmids in a dose-dependent manner [2]. In vivo: C-K treatment significantly ameliorated the pathologic manifestations of CIA mice, remarkably inhibited T lymphocyte proliferation, and marginally inhibited the proliferation of B lymphocytes. C-K treatment significantly suppressed TNF-a and anti-CII antibody levels, and increased IFN-y level in the joints of CIA mice, but did not alter IL-4 production. Treatment of CIA mice with C-K significantly decreased the percentages of activated T cells, co-stimulatory molecule-expressing T cells and effector memory T cells, and increased the frequencies of naive T cells and regulatory T cells [3].



Vegetable origin

Solubility: 10mM in DMSO

Ginsenoside F1, a metabolite of ginsenoside Rg1, is reported to be antiaging and antioxidative, and to have beneficial effects on skin. IC50 value: Target: In vitro: Ginsenoside F1 reduced α-melanocytestimulating hormone-induced melanin secretion in B16F10 cell culture media by 60%. Immunofluorescence assay showed that ginsenoside F1 significantly induced dendrite retraction. Pull-down assay demonstrated that ginsenoside F1 primarily modulates the Rho family GT-Pases resulting in dendrite retraction [1]. Ginsenoside F1 enhanced production of interleukin 13 (IL-13) from human epidermal γδ T cells. IL-13 significantly reduced the mRNA expression and protein amount of both tyrosinase and DCT and reduced melanin synthesis activities in NHEMs, resulting in visible brightening of NHEM pellet [2]. Ginsenoside F1 significantly reduced ultraviolet-B-induced cell death and protected HaCaT cells from apoptosis caused by ultraviolet B irradiation. Ginsenoside F1 prevented ultraviolet-B-induced cleavage of poly(ADP-ribose) polymerase in HaCaT cells [3]. In vivo.

NAUGE

Ginsenoside F2 CAS: 62025-49-4

Vegetable origin

NAUGF

Ginsenoside F3 CAS: 62025-50-7

Vegetable origin

NAUGG

Ginsenoside F4 CAS: 181225-33-2

Synonym: 20(E)-Ginsenoside F4 Vegetable origin

NAUGH

Ginsenoside Ra1 CAS: 83459-41-0

Vegetable origin

NAUGI

Ginsenoside Ra2 CAS: 83459-42-1

Vegetable origin

NAUGJ

Ginsenoside Ra3 CAS: 90985-77-6

Vegetable origin



have properties that inhibit or prevent the growth of tumors. IC50 value: Target: in vitro: Rb1 inhibited melanogenesis in α-melanocytestimulating hormone (a-MSH)-stimulated B16 cells in a dose-dependent manner, which collectively indicated that Rb1 may have skin-whitening effects and may be formulated into skin-whitening products for skin care [1]. In vivo: Application of 0.56mg of ginsenoside Rb1 resulted in significant decrement of scar elevation index, in comparison with control and lower dosage groups, furthermore achieved broader and randomly arranged collagen fibers resembling findings in normal dermis. Ginsenoside Rb1 concentration inversely correlated with the mRNA expression and immunohistochemical reactivity of scar related factors; MMP2, TIMP1, α-SMA, and TGF-β1 [2]. Ginsenoside Rb1 treatment significantly attenuated this decrease and protected the integrity of and reduced the apoptotic rate in spinal cord neurons [3]. Ginsenoside Rb1 treatment significantly ameliorated the LPS-induced lung injury, as judged by the marked improvement in all these indices [4].

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Synonym: Ginsenoside C

Vegetable origin

Solubility: $H_2O: \ge 100$ mg/mL; DMSO: 9.5 mg/mL (Need ultrasonic and warming)

Ginsenoside Rb2 is a 20(S)-protopanaxadiol glycoside extracted from ginseng, shows potent antioxidant and anticancer biological activities. IC50 value: Target: in vitro: Treatment of 0.1 to 10µM Rb2 promoted the proliferation of MC3T3-E1 cells, improved alkaline phosphatase (ALP) expression, elevated calcium mineralization and mRNA expressions of Alp, Col1a1, osteocalcin (Ocn) and osteopontin (Opn) against oxidative damage induced by H₂O₂. Importantly, Rb2 reduced the expression levels of receptor activator of nuclear factor kappa-B ligand (RANKL) and IL-6 and inhibited the H₂O₂-induced production of ROS [1]. Ginsenoside-Rb2 showed the highest protective activity, although other dammarane-type and oleanolic acid-type ginsenosides also induced a significant protection against HVJ [2]. Rb2 (3~30µM), perfused into an adrenal vein for 90min, inhibited ACh (5.32mM)-evoked CA secretory response in a dose- and time-dependent fashion. Rb2 (10µM) also time-dependently inhibited the CA secretion evoked by DMPP (100µM, a selective neuronal nicotinic receptor agonist) and high K(+) (56mM, a direct membrane depolarizer) [3]. In vivo: Multiple administrations of ginsenoside-Rb2 after the intravenous inoculation of B16-BL6 melanoma cells resulted in a significant inhibition of lung metastasis as compared with the untreated control [1]

Synonym: Gypenoside IV Vegetable origin Solubility: 10mM in DMSO

Ginsenoside Rb3 is a natural triterpenoid saponin; has various pharmacological effects. IC50 value: Target: in vitro: Ginsenoside Rb3 suppresses OGD-Rep-induced cell apoptosis by the suppression of ROS generation. Ginsenoside Rb3 inhibits the upregulation of phospho-IkB-a and nuclear translocation of NF-kB subunit p65 which are induced by ORD-Rep injury. In addition, the extract also inhibits the OGD-Rep-induced increase in the expression of inflammation-related factors, such as IL-6, TNF-α, monocyte chemotactic protein-1 (MCP-1), MMP-2 and MMP-9 [1]. ginsenoside Rb3 decreased cell cycle progression from G(0)/G(1) to S phase. Furthermore, ginsenoside Rb3 significantly attenuated the expression of mRNA of proto-oncogene c-myc, c-fos and c-jun [2]. Ginsenoside Rb(3) (0.1-10micromol/L) significantly increased cell viability and inhibited LDH release in a dose-dependent manner on the ischemic model. In addition, ginsenoside Rb(3) also significantly inhibited ischemic injury-induced apoptosis, [Ca(2+)](i) elevation, and decrease of MMP [3]. In vivo: Ex vivo treatment with Rb3 concentration-dependently augmented endothelium-dependent relaxations, suppressed endothelium-dependent contractions and reduced ROS production and expressions of NOX-2, NOX-4 and p67(phox) in arterial rings from SHR. Rb3 treatment also normalized angiotensin II (Ang II)-stimulated elevation in ROS and expression of NOX-2 and NOX-4 in arterial rings from WKY rats [4]

NAUGN



Synonym: Panaxoside Rc Vegetable origin Solubility: 10mM in DMSO

Ginsenoside Rc is a steroid glycoside, and triterpene saponins, found exclusively in the plant genus Panax (ginseng); have properties that inhibit or prevent tumors growth. IC50 value: Target: in vitro: Rc reduced the proliferation and viability of 3T3-L1 preadipocytes in a dose-dependent manner. Treatment with Rc decreased the number of adipocytes and reduced lipid accumulation in maturing 3T3-L1 preadipocytes, demonstrating an inhibitory effect on lipogenesis. Rc directly induced lipolysis in adipocytes and down-regulated the expression of major transcription factors of the adipogenesis pathway, such as PPARy and C/EBPa [1]. overexpression of catalase induced by Rc resulted in suppression of RS production in kidney human embryo kidney 293T cells (HEK293T) cells, and that oxidative stress induced activation of PI3K/Akt and inhibition of the AMPK pathway and FoxO1 phosphorylation, leading to down-regulation of catalase, a FoxO1-targeting gene. In addition, treatment of HEK293T cells with Rc resulted in cAMP-response element-binding protein (CREB)binding protein (CBP) regulated FoxO1 acetylation [2].



Synonym: Gypenoside VIII Vegetable origin Solubility: 10mM in DMSO

Ginsenoside Rd is a protopanaxadiol which has diverse in vitro and in vivo effects, including cardioprotective, neuroprotective, and antiinflammatory actions.



Synonyms: Ginsenoside B2; Panaxoside Re; Chikusetsusaponin IVc; Sanchinoside Re

Vegetable origin Solubility: 10mM in DMSO

Ginsenoside Re is a panaxatriol saponin that has diverse in vitro and in vivo effects, including vasorelaxant, antioxidant, antihyperlipidemic, and angiogenic actions.

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NAUGQ

Ginsenoside Rf CAS: 52286-58-5

C42H72O14



Synonym: Panaxoside Rf Vegetable origin Solubility: 10mM in DMSO

Ginsenoside Rf, extracted from the traditional Chinese herb ginseng, is a novel natural anticancer products known for its favorable safety and efficacy profiles. IC50 value: Target: In vitro: The cytotoxicity of ginsenoside Rf to the five human osteosarcoma cell lines (MG-63, OS732, U-2OS, HOS and SAOS-2) was dose-dependent, and the MG-63 cells were the most sensitive to exposure to ginsenoside Rf. Additionally, ginsenoside Rf induced G2/M phase cell cycle arrest and apoptosis in MG-63 cells [1]. Ginsenoside Rf showed a relatively weak effect on CYP3A4 promoter activation only in HepG2 cells [3]. In vivo: Ginsenoside Rf was responsible for the effects of ginseng on lipoprotein metabolism. The inhibition of PPARa-dependent transactivation by ginsenoside Rf seems to occur at the level of DNA binding. Ginsenoside Rf regulates apo A-I and C-III mRNA and the actions of ginsenoside Rf on lipoprotein metabolism are mediated via interactions with PPARa [2]



Synonyms: Panaxoside A; Panaxoside Rg1 Vegetable origin Solubility: DMSO: ≥ 7.6mg/mL Ginsenoside Rg1 is part of a class of triterpene saponins and steroid glycosides; possess anti-inflammatory and anticancer activities.

NAUGV



Synonyms: Chikusetsusaponin I; Panaxoside Rg2; Prosapogenin C2 Vegetable origin

Solubility: 10mM in DMSO

Ginsenoside Rg2, a steroid glycosides, is abundant in Panax ginseng root, which has been used for prevention of illness. IC50 value: Target: In vitro: Ginsenoside Rg2 prevented LPS-mediated increase of VCAM-1 and ICAM-1 expression. Ginsenoside Rg2 prevented the decrease of IkBa expression stimulated with LPS. Moreover, ginsenoside Rg2 reduced LPS-mediated THP-1 monocyte adhesion to HUVEC, in a concentration-dependent manner [1]. Ginsenoside Rg2 acts specifically on heteromeric human nAChRs modulating their desensitization and suggest a possible mechanism by which this saponin contributes to the multiple therapeutic effects of ginseng [2]. In vivo.

NAUGW

20(R)-Ginsenoside Rg2 CAS: 80952-72-3

NAUGS



Synonyms: 20(S)-Ginsenoside-Rg3; Rg3; S-Ginsenoside Rg3 Vegetable origin

Solubility: 10mM in DMSO

Ginsenoside Rg3 is a steroid glycoside derivative which affects endothelium relaxation in the aorta. Target: Others ginsenoside Rg3 is one of the main active components responsible for ginseng actions. Ginsenoside Rg3 was the most potent fraction of ginseng saponins and a more marked inhibitor of IBa2+ than is ginsenoside Rf. Ginsenoside Rg3 as a new active component is well consistent with results of the previous study which examined the effects of ginsenosides on neuroprotection in cultured cortical cells (Kim et al., 1998). They found ginsenoside Rg3 to be one of the major active components for inhibiting glutamate-induced neuronal cell death and Ca2+ influx through glutamate receptors [1]



NAUGY





Ginsenoside Rg5 is a major constituent of steamed ginseng; shows anti-inflammatory effect. IC50 value: Target: in vitro: Rg5 inhibited the expression of proinflammatory cytokines, IL-1 β and TNF- α , as well as inflammatory enzymes, COX-2 and iNOS in LPS-stimulated alveolar macrophages. Rg5 also reduced LPS-induced phosphorylation of IL-1 receptor-associated kinases (IRAK)-1 and IKK-B, as well as the degradation of IRAK-1 and IRAK-4. Rg5 inhibited the phosphorylation of NF-KB as well as the translocation of p65 into the nucleus [1]. Angiogenic activity of Rg5 was highly associated with a specific increase in insulin-like growth factor-1 receptor (IGF-1R) phosphorylation and subsequent activation of multiple angiogenic signals, including ERK, FAK, Akt/eNOS/NO, and Gi-mediated phospholipase C/Ca(2+)/eNOS dimerization pathways. The vasodilative activity of Rg5 was mediated by the eNOS/NO/cGMP axis. IGF-1R knockdown suppressed Rg5-induced angiogenesis and vasorelaxation by inhibiting key angiogenic signaling and NO/cGMP pathways [3]. Ginsenoisde Rg5 or Rh3 (10mg/kg) significantly shortened the escape latencies prolonged by treatment with scopolamine on the last day of training trial sessions in Morris water maze task. Furthermore, ginsenosides Rg5 and Rh3 inhibited acetylcholinesterase activity in a dose-dependent manner, with IC50 values of 18.4 and 10.2µM, respectively [4]. In vivo: Rg5 improved cognitive dysfunction and attenuated neuroinflammatory responses in streptozotocin (STZ)-induced memory impaired rats. Cognitive deficits were ameliorated with Rg5 (5, 10 and 20mg/kg) treatment in a dose-dependent manner together with decreased levels of inflammatory cytokines TNF-α and IL-1β (P<0.05) in brains of STZ rats [2].

NAUGX





Vegetable origin Solubility: 10mM in DMSO

Ginsenoside Rg6 is a compound extracted from steamed notoginseng; apoptosis indecer. IC50 value: Target: GRg6 can inhibit the proliferation of human lymphocytoma JK cells. GRg6 blocks an S arrest in the cell cycle. With the increase in GRg6 concentration, the potential in the cell decreased in a dose dependent manner, and Bax protein expression gradually increased, whereas Bcl-2 protein expression gradually decreased. GRg6 can inhibit JK cell proliferation in human lymphocytoma and induce its apoptosis [1].



 $\label{eq:synonyms: Prosapogenin A2; Sanchinoside B2; Sanchinoside Rh1; \\ Ginsenoside-Rh1$

Vegetable origin

Solubility: 10mM in DMSO

Ginsenoside Rg1, one of the main constituents of Panax ginseng, exhibits anti-inflammatory effect. IC50 value: Target: In vitro: In a invitro model, ginsenoside Rh1 was capable to stimulate cell growth, ALP activity, Coll-I synthesis, mineralization and glutathione content in the MC3T3-E1 cells. BMP-2 and Runx2 expression were also increased by Rh1 concentration dependently. Additionally, Ginsenoside Rh1 also showed inhibitory action on the level of ROS production enhanced by AMA in MC3T3-E1 cells. Ginsenoside Rh1 could increase the expression level of BMP-2/Runx2 signal-regulated osteogenic markers such as ALP, Coll-I and OCN [3]. In vivo: Orally administered ginsenoside Rg1 inhibited 2,4,6-trinitrobenzene sulfonic acid (TNBS)-induced colon shortening, myeloperoxidase activity, and expression of IL-1β, IL-17, and tumor necrosis factor-α in mice with TNBS-induced colitis [1]. Ginsenoside Rh1 is able to upregulate glucocorticoid receptor (GR) level, suggesting ginsenoside Rh1 may improve glucocorticoid efficacy in hormone-dependent diseases. Ginsenoside Rh1 could enhance the effect of dexamethasone (Dex) in the treatment of MRL/lpr mice through regulating CD4+ T cells activation and Th1/Th2 balance [2].

NAUH1

20(R)-Ginsenoside Rh1 CAS: 80952-71-2

Vegetable origin

NAUH0



Synonyms: 20(S)-Ginsenoside Rh2;20(S)-Rh2; Ginsenoside-Rh2 Vegetable origin

Solubility: DMSO: ≥ 300mg/mL

Ginsenoside Rh2, an extract of red Panax ginseng, is a potent anti-inflammatory and anticancer drug. IC50 value: Target: In vitro: Ginsenoside Rh2 inhibited the growth of cultured human UL cells in vitro. Using ELISA, real-time RT-PCR and Western blot methods, we found that Ginsenoside Rh2 significantly reduced the activity of oestrogen receptor alpha (ERq) and c-Src, increased p38 MAPK activity, and reversed ERα activity mediated by PP2 and SB203580, specific inhibitors of c-Src and p38 MAPK, respectively, in UL cells [1]. Ginsenoside Rh2 dose-dependently inhibited the protein, but not messenger RNA (mRNA) of vascular endothelial growth factor A (VEGF-A) in glioblastoma multiforme cells. GRh2 increased the levels of miR-497, which bound to 3'UTR of VEGF-A mRNA to inhibit its translation [2]. In vivo: Ginsenoside Rh2 suppressed growth of uterine leiomyomas (ULs) in a rat model and decreased serum hormone levels in a dose-dependent manner [1].

NAUH3

(20R)-Ginsenoside Rh2 CAS: 112246-15-8 C₃₆H_{e9}O₈

Vegetable origin Specification: 98% min by HPLC

NAUH2



Vegetable origin

Solubility: 10mM in DMSO

Ginsenoside Rh3, metabolized from ginsenoside Rg5 which is isolated from red ginseng can be anti-inflammatory. IC50 value: Target: In vitro: Ginsenoside Rh3 can induce differentiation of HL-60 cells into granulocytes and modulation of PKC isoform levels may contribute to differentiation of HL-60 cells by G-Rh2 [2]. In vivo: Ginsenoside Rh3 suppressed swelling of oxazolone-induced mouse ear contact dermatitis, reduced mRNA expressions of cyclooxygenase-2, interleukin (IL)-1beta, tumor necrosis factor (TNF)-alpha and interferon (IFN)-gamma [1].



Solubility: 10mM in DMSO

Ginsenoside Rh4 is a saponin isolated from the roots of Panax notoginseng (Burk.) F. H. Chen; used as adjuvant with low or non-haemolytic effect

NAUH7



NAUH5

Ginsenoside RK2 CAS: 364779-14-6

Vegetable origin

NAUH6





AND Enantiomer

Solubility: 10mM in DMSO

Ginsenoside Rk3 is reportedly present in the processed Radix notoginseng that is often used as a major ingredient of the compound preparation for ischemic heart diseases.



Synonyms: Polysciasaponin P3; Chikusetsusaponin 5; Chikusetsusaponin V; Ginsenoside-Ro

Vegetable origin Solubility: 10mM in DMSO

Ginsenoside Ro, the predominant ginsenoside in the rhizome, is reported to have anti-infllammtory, anti-hepatitic activities, and showed inhibitory activity against 50R with IC(50) value of 259.4µm IC50 value: 259.4µm (for 5α-reductase) Target: In vitro: Ginsenoside Ro exhibited suppressive activities on reactive oxygen species and matrix metalloproteinase-2 elevation in UV-B-irradiated fibroblasts. Ginsenoside Ro could overcome the reduction of the total glutathione contents in UV-B-irradiated fibroblasts. In IL-1β-induced rat chondrocytes, ginsenoside Ro exerted anti-apoptosis and anti-inflammation. Ro could improve IL-1β-induced chondrocytes viability. Ginsenoside Ro could suppress IL-1β-induced apoptosis by inhibiting levels of Bax and Bad, decreasing p53 phosphorylation and promoting the expression of Bcl-xL and PCNA. Ginsenoside Ro inhibited caspase 3 activity. IL-1β-induced inflammation and matrix degration were also alleviated by Ginsenoside Ro with down-regulating the expression of MMP 3, MMP 9 and COX-2. Moreover, ginsenoside Ro inhibited NFκB p65 phosphorylation induced by IL-1β [2]. In vivo: Topical administration of ginsenoside Ro (0.2mg/mouse) to shaved skin inhibited hair re-growth suppression after shaving in the testosterone-treated C57BL/6 mice. Ginsenoside Ro showed inhibitory activity against 5αR with IC(50) value of 259.4µm [3].

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NAUH9

Gitogenin CAS: 511-96-6

Vegetable origin

NAUHA

 $\begin{array}{l} \textbf{Glabridin} \\ \text{CAS: 59870-68-7} \\ \text{C}_{20}\text{H}_{20}\text{O}_{4} \end{array}$

Vegetable origin

NAUHB

Glaucocalyxin A CAS: 79498-31-0

Vegetable origin

NAUHC

Glaucocalyxin B CAS: 80508-81-2 C₂₂H₃₀O₅



нс

Vegetable origin Solubility: DMSO

Glaucocalyxin B is an ent kaurane diterpenoid isolated from the Chinese traditional medicine *Rabdosia japonica* with anticancer and antitumor activity; decreases the growth of HL-60 cells with an IC₅₀ of approximately 5.86 \muM at 24h.

NAUHD

Gliotoxin CAS: 67-99-2

Vegetable origin

NAUHE

Glomeratose A CAS: 202471-84-9

Vegetable origin

NAUHF

Glucoiberin CAS: 554-88-1

NAUHH

4-O-beta-Glucopyranosyl-cis-coumaric acid CAS: 117405-48-8

Vegetable origin

NAUHI

28-O-glucopyranosylepiederagenin CAS: 53931-25-2

Vegetable origin

NAUHJ

AND Enantiomer

4-(beta-D-glucopyranosyloxy)-1-hydroxy-3-(3-methyl-2-butenyl)-2-Naphthalenecarboxylic acid methyl ester CAS: 133361-27-0 AND Enantiomer



NAUHK

3-O-β-D-Glucopyranosylplatycodigenin CAS: 38337-25-6

Vegetable origin

NAUHL

Glucoraphanin CAS: 21414-41-5 C₁₂H₂₃NO₁₀S₃



AND Enantiomer

Vegetable origin Solubility: DMSO

Glucoraphanin, a natural glucosinolate found in cruciferous Vegetable, is a stable precursor of the Nrf2 inducer sulforaphane, which possesses antioxidant, anti-inflammatory, and anti-carcinogenic effects.

NAUHM

C_eH₁₄CINO_E

Glucosamine (hydrochloride) CAS: 66-84-2



Synonyms: D-(+)-Glucosamine hydrochloride; Chitosamine hydrochloride

Vegetable origin

Solubility: $H_2 \hat{O} \ge 34$ mg/mL; DMSO: 6.2/mL (Need ultrasonic) Glucosamine (hydrochloride) is a natural product. IC50 value: Target: In vitro: Glucosamine hydrochloride exhibited dose-dependent DPPH antioxidant activity [1]. Short-term (4h) glucosamine hydrochloride treatment inhibited HIF-1 α at the protein level, decreased phosphorylation of p70S6K and S6, translation-related proteins [2]. In the obstructed kidneys and TGF- β 1-treated renal cells, glucosamine hydrochloride significantly decreased renal expression of α -smooth muscle actin, collagen I, and fibronectin [3]. In vivo.

NAUHN

D-Glucose CAS: 50-99-7

Vegetable origin

NAUHO

Glucosylceramide from Hen of the Woods (Maitake)(Glucosylceramide mix.)

Origin: Hen of the Woods (Maitake)

NAUHP Glucosylceramide from Konjac (Glucosylceramide mix.)

Origin: Konjac

NAUHQ Glucosylceramide from Maize (Glucosylceramide mix.)

Origin: Maize

NAUHR Glucosylceramide from Rice (Glucosylceramide mix.)

Origin: Rice

NAUHS Glucosylceramide from Soybean (Glucosylceramide mix.)

Origin: Soybean

NAUHT Glucosylceramide from Sugar Beet (Glucosylceramide mix.)

Origin: Sugar Beet

NAUHU

Glucosylceramide from Tamogitake (Glucosylceramide mix.)

Origin: Tamogitake

NAUHV Glucosylceramide from Wheat (Glucosylceramide mix.)

Origin: Wheat

NAUHW Glucosylceramide (d18:24E,8E-C16h:0) from Konjac

Origin: Konjac

NAUHX

Glucosylceramide (d18:24E,8E-C18h:0) from Konjac

Origin: Konjac

NAUHY

Glucosylceramide (d18:24E,8E-C20h:0) from Konjac

Origin: Konjac

NAUHZ

Glucosylceramide (d18:24E,8E-C20h:0) from Rice

Origin: Konjac

NAUI0

Glucosylceramide (d18:24E,8Z-C20h:0) from Konjac

Origin: Rice

NAUI1

Glucosylceramide (d18:24E,8Z-C20h:0) from Rice

Origin: Konjac

NAUI2

Glucosylceramide (d18:24E,8Z-C22h:0) from Rice

Origin: Rice

NAUI3

Glucosylceramide (d18:24E,8Z-C24h:0) from Rice

Origin: Rice

NAUI4

Glucosylceramide(9-Me d18:24E,8E-C15h:0) from Hen of the Woods (Maitake)

Origin: Hen of the Woods (Maitake)

NAUI5

Glucosylceramide (9-Me d18:24E,8E-C16h:0) from Hen of the Woods (Maitake)

Origin: Hen of the Woods (Maitake)

NAUI6

Glucosylceramide (9-Me d18:24E,8E-C17h:0) from Hen of the Woods (Maitake)

Origin: Hen of the Woods (Maitake)

NAUI7

Glucosylceramide (9-Me d18:24E,8E-C18h:0) from Hen of the Woods (Maitake)

Origin: Hen of the Woods (Maitake)



NAUI8

Glucosylceramide (9-Me d18:24E,8E-C16h:0) from Tamogitake

Origin: Tamogitake

NAUI9

Glucosylceramide (9-Me d18:24E,8E-C18h:0) from Tamogitake

Origin: Tamogitake

NAUIA

Glucosylceramide (t18:18Z-C22h:0) from Konjac

Origin: Konjac

NAUIB

Glucosylceramide (t18:18Z-C23h:0) from Konjac

Origin: Konjac

NAUIC

Glucosylceramide (t18:18Z-C24h:0) from Konjac

Origin: Konjac

NAUID

Glucosylceramide (t18:18Z-C22h:0) from Rice

Origin: Rice

NAUIE

Glucosylceramide(t18:18Z-C24h:0) from Rice

Origin: Rice

NAUIG

6'-O-β-D-Glucosylgentiopicroside CAS: 115713-06-9

Vegetable origin

NAUII

L-Glutamine CAS: 56-85-9 $C_5H_{10}N_2O_3$



Synonym: L-Glutamic acid 5-amide Solubility: H₂O: \geq 40mg/mL

L-Glutamine is a non-essential amino acid present abundantly throughout the body and is involved in gastrointestinal disorders. Target: mGluR Glutamine (abbreviated as Gln or Q) is one of the 20 amino acids encoded by the standard genetic code. It is not recognized as an essential amino acid, but may become conditionally essential in certain situations, including intensive athletic training or certain gastrointestinal disorders. Its side-chain is an amide formed by replacing the side-chain hydroxyl of glutamic acid with an amine functional group, making it the amide of glutamic acid. Its codons are CAA and CAG. In human blood, glutamine is the most abundant free amino acid, with a concentration of about 500-900µmol/L. Glutamine is synthesized by the enzyme glutamine synthetase from glutamate and ammonia. The most relevant glutamine-producing tissue is the muscle mass, accounting for about 90% of all glutamine synthesized. Glutamine is also released, in small amounts, by the lung and the brain. Although the liver is capable of relevant glutamine synthesis, its role in glutamine metabolism is more regulatory than producing, since the liver takes up large amounts of glutamine derived from the gut. The most eager consumers of glutamine are the cells of intestines, the kidney cells for the acid-base balance, activated immune cells, and manycancer cells. In respect to the last point mentioned, different glutamine analogues, such as DON, Azaserine or Acivicin, are tested as anticancer drugs.

NAUIJ

Glychionide A CAS: 119152-50-0 С₂₁Н₁₈О₁₁ но

н



NAUIK

Vegetable origin

Glycitein CAS: 40957-83-3 C₁₆H₁₂O₅



Synonym: Glycetein Vegetable origin Solubility: 10mM in DMSO Glycitein is a soybean (yellow cultivar) isoflavonoid; used in combination with other isoflavonoids such as genistein and daidzein to study apoptosis and anti-oxidation processes. Advion × 🕆 interchim



Synonym: Glycitein 7-O-B-glucoside Vegetable origin

Solubility: DMSO: ≥ 38mg/mL

Glycitin is a natural isoflavone isolated from legumes; promotes the proliferation of bone marrow stromal cells and osteoblasts and suppresses bone turnover.

NAUIM

Glycochenodeoxycholic acid



Synonym: Chenodeoxycholylglycine Solubility: DMSO: ≥ 29mg/mL

Glycochenodeoxycholic acid is a bile salt formed in the liver from chenodeoxycholate and glycine; used to induce hepatocyte apoptosis in research.

NAUIN

Glycocholic acid CAS: 475-31-0

C26H43NO6

Vegetable origin

NAUIO

Glycosmisic acid CAS: 443908-19-8 C20H207



Vegetable origin

NAUIP



Synonym: Ursodeoxycholylglycine Solubility: DMSO: ≥ 23mg/mLL

Glycoursodeoxycholic acid, a acyl glycine and a bile acid-glycine conjugate, is a metabolite of ursodeoxycholic acid.

NAUIQ

AND Enantiomer

Glycycoumarin CAS: 94805-82-0 $C_{21}H_{20}O_{6}$

Chemical Name: 3-(2,4-dihydroxyphenyl)-7-hydroxy-5-methoxy-6-(3-methylbut-2-enyl)chromen-2-one Synonyms: CHEMBL1223642; CHEBI:69087 Vegetable origin Plant Source: Glycyrrhiza uralensis Fisch Specification: 98% min by HPLC

NAUIR

Glycyrol CAS: 23013-84-5

Vegetable origin

AND Enantiomer NAUIS 18α-Glycyrrhetinic acid CAS: 1449-05-4 C₃₀H₄₆O₄ Vegetable origin Solubility: DMSO: 150mg/mL

 $18\alpha\text{-}Glycyrrhetinic$ acid is an inhibitor of NF-kB and an activator of proteasome

NAUIT

18β-Glycyrrhetinic acid CAS: 471-53-4 $C_{30}H_{46}O_{4}$

Vegetable origin

NAUIU

Glycyrrhisoflavone CAS: 116709-70-7

Vegetable origin

A.122

NAUIV Clycyrrhizic acid CAS: 1405-86-3 $C_{42}H_{62}O_{16}$ H_{0} H_{0} H_{1} $H_{$

Synonym: Glycyrrhizin Vegetable origin Solubility: DMSO: ≥ 10mM Glycyrrhizic acid is a triterpenoid saponinl, extracted from the licorice root, with anti-tumor, anti-diabetic activities.

NAUIW

Glycyrrhizic acid ammonium salt CAS: 53956-04-0 $C_{42}H_{61}O_{16}$.NH₄

Vegetable origin Specification: 98% min by HPLC

NAUIX

Gnetifolin M CAS: 439900-84-2 C₁₅H₁₂O₄

AND Enantiomer

Vegetable origin



Vegetable origin



NAUJ0

Gnetol CAS: 86361-55-9 C₁₄H₁₂O₄

Vegetable origin

NAUJ1 Gnetucleistol B CAS: 864763-60-0 C₁₅H₁₄O₅

Vegetable origin

CAS: 152340-24-4

NAUJ2

Gnetulin

C30H26O8





AND Enantiomer



Vegetable origin

NAUJ3



Vegetable origin

NAUJ4 Goitrin

CAS: 13190-34-6

Vegetable origin

NAUJ5 Gomisin D CAS: 60546-10-3



NAUJ7 Gomisin G CAS: 62956-48-3 C₄₀H₄₂O₉



Vegetable origin

Solubility: 10mM in DMSO Gomisin G is an ethanolic extract of the stems of Kadsura interior; exhibits potent anti-HIV activity with EC50 and therapeutic index (TI) values of 0.006microgram/mL and 300, respectively.

NAUJ8

Gomisin H CAS: 66056-20-0

Vegetable origin

NAUJ9

Gomisin J CAS: 66280-25-9 C₂₂H₂₈O₆



Vegetable origin

NAUJA Gomisin M1 CAS: 82467-50-3 C₂₂H₂₆O₆ AND Enantiomer

Vegetable origin

NAUJB Gomisin M2

CAS: 82425-45-4 C₂₂H₂₆O₆



Vegetable origin

NAUJC

Gomisin N CAS: 69176-52-9

Vegetable origin

NAUJD

Gomisin O CAS: 72960-22-6

Vegetable origin

NAUJE

Gomisin S CAS: 119239-49-5 C₂₃H₃₀O₇



Vegetable origin

NATA4

Gossipol Acetate CAS: 12542-36-8

Vegetable origin

NAUJF

Gossypol CAS: 303-45-7

Vegetable origin



A.124

QÔ

NAUJG



NAUJK



NAUJL

Guaiacin CAS: 36531-08-5

Vegetable origin

NAUJM

Guaiacol CAS: 90-05-1 C₇H₈O₂

Synonyms: Methylcatechol; NSC 3815; O-Methyl catechol; Pyrocatechol monomethyl ether; Pyroguaiac acid; o-Guaiacol; o-Hydroxyanisole; o-Methoxyphenol Vegetable origin

NAUJN

AND Enantiomer

1αH,5αH-guaia-6-ene-4β,10β-diol CAS: 2013537-81-8

Vegetable origin

NAUJO

Guaiazulene CAS: 489-84-9

Vegetable origin

NAUJP Guaifenesin CAS: 93-14-1

Vegetable origin

Vegetable origin

Solubility: 10mM in DMSO

Gracillin is a kind of steroidal saponin isolated from the root bark of wild yam Dioscorea nipponica with antitumor agent. Gracillin could induce cell cycle arrest, oxidative stress, and apoptosis in HL60 cells.[1]

NAUJH

Gramine CAS: 87-52-5 $C_{11}H_{14}N_{2}$

Chemical Name: 1-(1H-indol-3-yl)-N,N-dimethylmethanamine Vegetable origin Specification: 98% min by HPLC

NAUJI

Griffonilide CAS: 61371-55-9 C₈H₈O₄

Chemical Name: 6,7-dihydroxy-7,7a-dihydro-6H-1-benzofuran-2-one Vegetable origin Specification: 98% min by HPLC

NAUJJ





NAUJQ

Guajavarin CAS: 22255-13-6 C₂₀H₁₈O₁₁

Chemical Name: 2-(3,4-dihydroxyphenyl)-5,7-dihydroxy-3-[(2S,3R,4S,5S)-3,4,5-trihydroxyoxan-2-yl]oxychromen-4-one Synonyms: Guaijaverin; Guajaverin; CHEMBL464507; Quercetin 3-arabinoside Vegetable origin Specification: 98% min

NAUJR

Guanosine CAS: 118-00-3

Vegetable origin

NAUJS

5'-Guanylic acid CAS: 85-32-5

Vegetable origin

NAUJT

Guggulsterone E&Z CAS: 95975-55-6

Vegetable origin

NAUJU

Gymnemagenin CAS: 22467-07-8

Vegetable origin

NAUJV

Gymnemic acid I CAS: 122168-40-5

Vegetable origin

NAUJW

Gymnestrogenin CAS: 19942-02-0

Vegetable origin

NAUJX



Synonyms: Ginsenoside C-Mx1; Gynosaponin I; Gypenoside IX; Notoginsenoside Fd Vegetable origin Solubility: 10mM in DMSO

NAUK0



NAUJZ

Gypenoside XLVI CAS: 94705-70-1 C48H82O19

Vegetable origin Plant Source: Gynostemma pentaphyllum Specification: 98% min by HPLC

NAUJY

Gypenoside XLIX CAS: 94987-08-3 C₅₂H₈₆O₂₁

Vegetable origin Plant Source: Gynostemma pentaphyllum Specification: 98% min by HPLC



Vegetable origin

Natural compounds

NAUK2

Halofuginone CAS: 55837-20-2 C₁₆H₁₇BrClN₃O₃

Synonyms: Tempostatin; RU-19110 Vegetable origin Solubility: DMSO: 9mg/mL

Halofuginone is a plant derivative that has been shown to inhibit Th17 differentiation, and recently tested as a potential immunosuppressant. IC50 value: Target: In vitro: The addition of halofuginone can significantly inhibit the migratory and invasive trend induced by irradiation, and the TGF-ß pathway was also inhibited [1]. In the study, we observed the strong inhibitory activity of halofuginone on HepG2 cell growth and the cell cycle and apoptosis assays showed that halofuginone arrested the cell cycle and inhibited the induction. And we found that halofuginone inhibits tumor cell cycle possibly by up-regulating p15 and p21 of expression. Then, we found that the proportion of cleaved PARP, caspase-3, 8 and 9 in HepG2 cells increased after halofuginone treatment. And the results showed that halofuginone down-regulated Mcl-1 and c-IAP1 expression. Finally, our results showed halofuginone regulated the activities of JNK and MEK/ERK signaling pathways in hepatocellular carcinoma cells [3]. In vivo: In animal xenograft model, the addition of halofuginone to irradiation inhibited the growth of subcutaneously implanted xenografts, reduced hepatic and pulmonary metastases, and improved survival of the mice [1]. C57BL/6 recipient mice received an orthotopic left lung transplant, and Lung transplant recipients received daily intraperitoneal injections of 2.5µg halofuginone or vehicle alone. Lung grafts were assessed on Days 7, 14, and 28 post-transplant. Compared with control mice, on Day 28 post-transplant, lung grafts of mice treated with halofuginone showed a significant reduction in the percentage of obliterated airways (6.8 \pm 4.7% vs 52.5 \pm 13.8%, p < 0.01), as well as significantly reduced parenchymal fibrosis (5.5 ± 2.3% vs 35.9 ± 10.9%, p < 0.05) [2].

NAUK3

Hamamelitannin CAS: 469-32-9

C₂₀H₂₀O₁₄

Synonyms: SCHEMBL934789; CHEMBL491592 Vegetable origin Plant Source: witch hazel bark Specification: 98% min by HPLC

NAUK4

NAUK5

C20H206

Handelin CAS: 62687-22-3

Synonym: Yejuhualactone Vegetable origin

AND Enantiome (-)-Haplomyrfolin CAS: 85404-48-4

NAUK6

Harmine CAS: 442-51-3 C13H12N2O



Synonym: Telepathine Vegetable origin Solubility: DMSO: 10mg/mL

Harmine, a tricyclic b-carboline alkaloid that was originally isolated from seeds of Peganum harmala, has been reported to possess anxiolytic, behavioral effects. IC50 value: 1.47µM (EC50) and 337.10µM (CC50) [3]. Target: 5-HT2A In vitro: In the study, harmine negatively regulates HR but not NHEJ by interfering Rad51 recruitment, resulting in severe cytotoxicity in hepatoma cells. Furthermore, NHEJ inhibitor Nu7441 markedly sensitizes Hep3B cells to the anti-proliferative effects of Harmine [1]. In vivo: The present study demonstrated that administration of harmine significantly attenuated cerebral edema, and improved learning and memory ability [2].

NAUK7

Harmine hydrochloride CAS: 343-27-1

Vegetable origin

NAUK8

Harpagide CAS: 6926-08-5 $C_{45}H_{24}O_{40}$

Vegetable origin

NAUK9

Harpagoside CAS: 19210-12-9 C., H., O.,

Vegetable origin Specification: 98% min by HPLC

NAUKA

Harringtonine CAS: 26833-85-2 C28H37NO9

Vegetable origin Solubility: 10 mM in DMSO Harringtonine, a natural Cephalotaxus alkaloid, is an inhibitor of protein synthesis.

NAUKB

Hastatoside CAS: 50816-24-5

NAUKC

Hecogenin CAS: 467-55-0 C₂₇H₄₂O₄

Vegetable origin

NAUKD

Hederacolchiside A1 CAS: 106577-39-3

Vegetable origin

NAUKE

Hederacolchiside E CAS: 33783-82-3

Vegetable origin

NAUKF



Hederacoside C is a principal bioactive pharmaceutical ingredient of Hedera helix leaf that can treat respiratory disorders, because of its expectorant, bronchodilator, antibacterial, and bronchospasmolytic effects.





Solubility: 10mM in DMSO Hederagenin is a triterpenoid saponin. It can inhibit LPS-stimulated expression of iNOS, COX-2, and NF-kB Hederagenin can Exhibits multiple pharmacological activities in the treatment of hyperlipidemia, antilipid peroxidation, antiplatelet aggregation, liver protection, antidepression, anti-inflammation.[1] In vitro:1) Hederagenin can correct the imbalance of endothelial function by inhibiting the release of large amounts of iNOS and increasing eNOS contents and inhibits the IKK β /NF- κ B signaling pathway to reduce the release of IL-6, IFN-γ, TNF-α, and other inflammatory factors. [1] 2) The EC50 of hederagenin is 39 ± 6 µM in A549 cancer cell line, but it's inactive for DLD-1 cells. [2] 3) Hederagenin inhibited LPS-induced production of NO, PGE2and cytokines in cells.[3] 4) Hederagenin had an anti-edema effect on the CA-induced mouse hind paw edema assay. [3] 5) Hederagenin inhibited the CA-induced increase in skin thicknesses. [3] In vivo: The rats in the hederagenin group were administered hederagenin at 20mg/kg/d via gavage.(More details please refer to the protocol below). In AS rat models induced by a high-lipid diet plus VD3, hederagenin can effectively reduce serum lipid, ALT, and AST levels, in addition to improving liver function, relieving high blood coagulation, and slowing blood flow and stasis by improving blood rheology. [1]

NAUKI

AND Enant

Hederasaponin B CAS: 36284-77-2

Vegetable origin



Vegetable origin

Solubility: 10mM in DMSO; H₂O: < 0.1mg/mL

Alpha-hederin is a water-soluble pentacyclic triterpenoid saponin, possessing several biological properties such as antispasmodic, moliscicidic, anthelmithic and inhibiting cell proliferation. In vitro: a-hederin is cytotoxic and inhibits proliferation in both cel lines at rather low concentrations. , a-hederin reduces the mitotic activity in treated cels.[1] In vivo: alpha-hederin had preventive effect on sensitized rats like thymoquinone. It may intervene in miRNA-126 expression, which consequently could interfere with IL-13 secretion pathway leading to a reduction in inflammatory responses. [2]

A.128



NAUKL

 $\begin{array}{l} \mbox{Helichrysetin} \\ \mbox{CAS: 62014-87-3} \\ \mbox{C}_{16}\mbox{H}_{14}\mbox{O}_5 \end{array}$



Vegetable origin

NAUKM

Helicid CAS: 80154-34-3 C₁₃H₁₆O₇

Chemical Name: 4-[3,4,5-trihydroxy-6-(hydroxymethyl)oxan-2-yl] oxybenzaldehyde Vegetable origin Specification: 98% min by HPLC

NAUKN

 $\begin{array}{l} \textbf{Hematoxylin} \\ \text{CAS: 517-28-2} \\ \text{C}_{16}\text{H}_{14}\text{O}_{6} \end{array}$



AND Enantiomer

Synonyms: Natural Black 1; Haematoxylin Vegetable origin Solubility: 10mM in DMSO

NAUKO

Heneicosanoic Acid CAS: 2363-71-5

NAUKP

Heptacosanoic Acid CAS: 7138-40-1

NAUKQ

Heptadecanoic Acid CAS: 506-12-7

NAUKR

3,5,6,7,8,3',4'-Heptamethoxyflavone CAS: 1178-24-1

Vegetable origin

NAUKS Herbacetin CAS: 527-95-7

Vegetable origin

NAUKT

Hernandezine CAS: 6681-13-6

Vegetable origin

NAUKU

Herniarin CAS: 531-59-9

Synonym: 7-Methoxycoumarin Vegetable origin

NAUKV

Herpetone CAS: 951677-22-8

Vegetable origin

NAUKW

Hesperetin CAS: 520-33-2

 $C_{16}H_{14}O_{6}$



Vegetable origin Solubility: DMSO: ≥ 33mg/mL

Hesperetin is a natural flavanone, and acts as a potent and broadspectrum inhibitor against human **UGT** activity.



NAUKY

(2R)-Hesperidin CAS: 369593-42-0



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Advion × ^{*}interc

`ОН

AND Enantiomer



NAUL1

Heterophyllin B CAS: 145459-19-4

Vegetable origin

NAUL2

Hexacosanoic Acid CAS: 506-46-7

NAUL3

Hexahydrocurcumin

CAS: 36062-05-2 C₂₁H₂₆O₆

Vegetable origin

Solubility: 10mM in DMSO

Hexahydrocurcumin is a natural compound which posesses anticancer and anti-inflammatory activities; selective COX-2 inhibitor. IC50 value: Target: in vitro: The relative antioxidant potencies of ginger compounds decreased in similar order of 1-dehydro-[6]gingerdione, hexahydrocurcumin > 6-shogaol > 6-dehydroshogaol in both 1,1-diphenyl-2-picyrlhydrazyl (DPPH) radical-scavenging and trolox equivalent antioxidant capacity (TEAC) assays [1]. HHC alone markedly decreased the viability of HT-29 human colon cancer cells compared to control. HHC significantly down-regulates COX-2 mRNA expression compared to the control (control: 100.05% ± 0.03% vs HHC: 61.01% ± 0.35%, P < 0.05) but does not alter COX-1 mRNA. In combined treatment, addition of HHC to a low dose of 5-FU exerts a synergistic effect against the growth of HT-29 cells by markedly reducing cell viability to a greater degree than monotherapy [2]. In vivo: The combined effects of HHC with 5-FU exhibit a synergistic inhibition by decreasing ACF formation mediated by down-regulation of COX-2 expression in rats [3].

NAUL4

1,2,6,7,8,9-Hexahydro-1,6,6-trimethyl-3,11-AND Enantiome dioxanaphth[2,1-e]azulene-10,12-dione CAS: 126979-78-0 $C_{10}H_{20}O_{4}$

Vegetable origin

NAUL5

3,5,6,7,3',4'-Hexamethoxyflavone CAS: 1251-84-9

Vegetable origin

NAUL6

Higenamine CAS: 5843-65-2 C₁₆H₁₇NO₃

Chemical Name: 1-[(4-hydroxyphenyl)methyl]-1,2,3,4-tetrahydroisoquinoline-6,7-diol Vegetable origin Specification: 98% min by HPLC

NAUL7

Higenamine hydrochloride CAS: 11041-94-4

Vegetable origin

NAUL8



Vegetable origin

NAUL9



NAULA Hirsuteine CAS: 35467-43-7

Vegetable origin

A.130



NAULB

Hirsutine CAS: 7729-23-9

Vegetable origin

NAULC

L-Hisidine CAS: 71-00-1 $C_6H_9N_3O_2$



Vegetable origin Solubility: 10mM in DMSO

L-Hisidine is an essential amino acid for infants. L-Hisidine is an inhibitor of mitochondrial glutamine transport.

NAULD

Hispidulin CAS: 1447-88-7 C₁₆H₁₂O₆



Synonym: Dinatin Vegetable origin Solubility: DMSO: 10mM

Hispidulin is a natural flavone with a broad spectrum of biological activities. Hispidulin is a Pim-1 inhibitor with an IC_{so} of 2.71µM.

NAULE

(-)-Holostyligone CAS: 887501-28-2

Vegetable origin

NAULF

Homoarbutin CAS: 25712-94-1

Vegetable origin

NAULG Homodihydrocapsaicin I

CAS: 20279-06-5

Vegetable origin

NAULH

Homoharringtonine CAS: 26833-87-4 C₂₉H₃₉NO₉

Vegetable origin Specification: 98% min by HPLC

NAULI



Homoplantaginin is a flavonoid from a traditional Chinese medicine Salvia plebeia with antiinfammatory and antioxidant properties.

NAULJ

Homovanillic acid CAS: 306-08-1

Vegetable origin

NAULK

Honokiol CAS: 35354-74-6 C₁₈H₁₈O₂



Synonym: NSC 293100 Vegetable origin Solubility: 10mM in DMSO

Honokiol is a hydroxylated biphenyl compound, which inhibits the activation of **Akt** and enhances the phosphorylation of **ERK1/2**.

NAULL

Hordenine CAS: 539-15-1

Vegetable origin

NAULM

Hosenkoside A CAS: 156791-82-1 C₄₈H₈₂O₂₀

Vegetable origin Specification: 98% min

NAULN

Hosenkoside B CAS: 156764-82-8 C₄₈H₈₂O₂₀

Vegetable origin Specification: 98% min

NAULO

Hosenkoside C CAS: 156764-83-9 C₄₈H₈₂O₂₀

Vegetable origin Specification: 98% min

NAULP

Hosenkoside F CAS: 160896-45-7

Vegetable origin

NAULQ

Hosenkoside G CAS: 160896-46-8

Vegetable origin

NAULR

Hosenkoside K CAS: 160896-49-1 C₅₄H₉₂O₂₅

Vegetable origin Specification: 98% min

NAULS

Hosenkoside M CAS: 161016-51-9

Vegetable origin

NAULT

HuangjiangSuA CAS: 1026020-27-8

Vegetable origin



NAULV

Hupehenine CAS: 98243-57-3

Vegetable origin

NAULW

Huperzine A CAS: 102518-79-6

Vegetable origin

NAULX

Huperzine B CAS: 103548-82-9

Vegetable origin

NAULY

Huperzine C CAS: 163089-71-2

Vegetable origin

NAULZ

Hyaluronic Acid from Streptococcus

Origin: Streptococcus

NAUM0

Hyaluronic Acid Sodium Salt from Streptococcus

Origin: Streptococcus

NAUM1 Hydrocortisone CAS: 50-23-7

 $C_{21}H_{30}O_5$



Synonym: Cortisol Solubility: DMSO: ≥ 31mg/mL Hydrocortisone is a steroid hormone or glucocorticoid secreted by the adrenal cortex.

NAUM2

Hydroprotopine CAS: 128397-41-1 C₂₀H₂₀NO₅



Vegetable origin

NAUM3

Hydroquinidine CAS: 1435-55-8

Vegetable origin

NAUM4

Hydroquinone CAS: 123-31-9

Vegetable origin

NAUM8

Ent-11-alpha.-Hydroxyabieta-8(14),13(15)-dien-16,12-alpha-olide CAS: 130466-20-5 C₂₀H₂₈O₃



NAUM9

P-hydroxyacetophenone CAS: 99-93-4 C₈H₈O₂

Chemical Name: 1-(4-hydroxyphenyl)ethanone Vegetable origin Specification: 98% min by HPLC



NAUMC

3-Hydroxybaku	AND Enantiomer	
CAS: 178765-54	-3 🥢	1
$C_{18}H_{24}O_2$	HOHO	
vegetable origin		



p-Hvdroxvbenzaldehvde CAS: 123-08-0 C₇H₆O₂

Vegetable origin

NAUME

p-Hydroxybenzoic acid ethyl ester CAS: 120-47-8 C₀H₁₀O₂

Vegetable origin

NAUMF

p-Hydroxybenzoic acid methyl ester CAS: 99-76-3 C₈H₈O₃

Vegetable origin

NAUMG

p-Hydroxybenzyl alcohol CAS: 623-05-2

Vegetable origin

NAUMH



23-hydroxybetulinic acid is one of the bioactive components responsible for its anticancer activity. In vitro: 23-hydroxybetulinic acid also shows different proliferation inhibitory activity against B16, HeLa, and HUVEC, with the IC50 value of 78.5, 80, and 94.8uM, respectively. 23-hydroxybetulinic acid can promote cell cycle arrest at S phase and induce apoptosis via intrinsic pathway. 23-hydroxybetulinic acid disrupts mitochondrial membrane potential significantly (p<0.01) and selectively downregulates the levels of Bcl-2, survivin and upregulates Bax, cytochrome C, cleaved caspase-9 23-hydroxybetulinic acid can induce apoptosis in K562 cells. [1] 23-hydroxybetulinic acid enhances sensitivity of doxorubicin (DOX, ADR) on MCF-7/ADR cell lines, indicating its potential to be developed as a novel MDR modulator.[2] 23-HBA significantly improve the sensitivity of the tumor to doxorubicin. [3]



Synonyms: 10-HCPT; 10-Hydroxycamptothecin Vegetable origin

Solubility: DMSO: ≥ 39mg/mL

(S)-10-Hvdroxycamptothecin is a clinical therapy agent against hepatoma. IC50 value: Target: In vitro: In vitro, the 10-hydroxycamptothecin nanosuspensions released the encapsulated drug with nearly zero-order kinetics, and the accumulative release reached 90% within 72hours. In vitro cytotoxicity assay showed that the 10-hydroxycamptothecin nanosuspensions had significantly enhanced cytotoxicity against HepG2 cells compared to the commercially available 10-hydroxycamptothecin injections [1]. In vivo: The in vivo study with H22 tumor-bearing mice and intravenous injection of the drug showed that in contrast to the 10-hydroxycamptothecin injections, the 10-hydroxycamptothecin nanosuspensions exhibited significantly enhanced biodistribution, particularly in the lung (393.40-fold AUC0-24h, liver (192.35-fold AUC0-24h, spleen (141.67-fold AUC0-24h and tumor (64.21-fold AUC0-24h. The 10-hydroxycamptothecin nanosuspensions also showed improved antitumor therapeutic efficacy over the injections (89.83% vs. 30.56%) [1].

NAUMK 1-Hydroxycanthin-6-one CAS: 80787-59-3 C14H8N2O2


NAUML

 $\begin{array}{l} \textbf{9-Hydroxycanthin-6-one}\\ CAS: 138544-91-9\\ C_{14}H_8N_2O_2 \end{array}$



Vegetable origin

NAUMJ

 $\begin{array}{l} \textbf{11-Hydroxycanthin-6-one}\\ CAS: 75969-83-4\\ C_{14}H_8N_2O_2 \end{array}$



Vegetable origin

NAUMM

3-(7-Hydroxy-beta-carbolin-1-yl)propionic acid CAS: 215934-15-9

C₁₄H₁₂N₂O₃



AND Enantiome

Vegetable origin

NAUMN

24-Hydroxycholesterol CAS: 30271-38-6

C₂₇H₄₆O₂



Vegetable origin Solubility: DMSO

24-Hydroxycholesterol is a natural sterol, which serves as a positive allosteric modulator of **N-Methyl-d-Aspartate (NMDA) receptorsR**, and a potent activator of the transcription factors LXR.

NAUMO

27-Hydroxycholesterol CAS: 20380-11-4 C₂₇H₄₆O₂



Vegetable origin Solubility: DMSO 27-Hydroxycholesterol is a selective **estrogen receptor** modulator and an agonist of the **liver X receptor**.

NAUMP

p-Hydroxycinnamic acid CAS: 7400-08-0 $C_9H_8O_3$

Synonyms: NSC 59260; NSC 674321; p-Coumaric acid; p-Cumaric acid acid Vegetable origin

NAUMQ

Hydroxycitric acid CAS: 6205-14-7

Vegetable origin

NAUMR

4-Hydroxycoumarin CAS: 1076-38-6

Vegetable origin

NAUMS

7-Hydroxycoumarin CAS: 93-35-6

Vegetable origin

NAUMT

16α-Hydroxydehydrotrametenolic acid CAS: 176390-66-2

Vegetable origin

NAUMU

4-hydroxy-3,5-dimethoxy-Benzoic acid 2-(4-hydroxyphenyl)ethyl ester CAS: 1428533-01-0 C₁₇H₁₈O₆

Vegetable origin

NAUMV

5-Hydroxy-6,7-dimethoxylflavone CAS: 740-33-0

Vegetable origin

NAUMW

3-Hydroxy-9,10-Dimethoxypterocarpan CAS: 73340-41-7

Vegetable origin

NAUMX





NAUMY

[R-(E)]-5-Hydroxy-1,7-diphenyl-6-hepten-3-one CAS: 87095-74-7 $C_{19}H_{20}O_2$

Vegetable origin Specification: 98% min

NAUN0

9R-10alpha-Hydroxyepigambogic acid



NAUMZ

9S-10alpha-Hydroxyepigambogic acid(C2-S)



NAUN1

18-Beta-hydroxy-3-epi-alpha-yohimbine



Vegetable origin

NAUN2

7-Hydroxyflavone CAS: 6665-86-7 $C_{15}H_{10}O_3$



Vegetable origin

NAUN3

6-alpha-Hydroxygeniposide CAS: 52613-28-2

Synonym: Deacetylasperulosidic acid methyl ester Vegetable origin

NAUN4

Hydroxygenkwanin CAS: 20243-59-8 C₁₆H₁₂O₆

Chemical Name: 3,5-dihydroxy-2-(4-hydroxyphenyl)-7-methoxychromen-4-one Synonyms: Rhamnocitrin; Hydroxygenkwanin; 7-Methylkaempferol; 3,4',5-Trihydroxy-7-methoxyflavone Vegetable origin Specification: 98% min

NAUN5

13-Hydroxygermacrone CAS: 103994-29-2 C₁₅H₂₂O₂



NAUN6

Vegetable origin

2-Hydroxy-3-(hydroxymethyl)anthraquinone CAS: 68243-30-1

CAS: 68



ОН

C18H24O2

NAUN7 12-Hydroxyisobakuchiol CAS: 178765-55-4

 \sim

Vegetable origin

NAUN8 10beta-Hydroxyisodauc-6-en-14-al

CAS: 1304007-40-6 C₁₅H₂₄O₂

Vegetable origin

NAUN9

17-Hydroxyisolathyrol CAS: 93551-00-9

Vegetable origin

NAUNB

4-Hydroxyisoleucine CAS: 781658-23-9

Synonym: Hydroxyisoleucine Vegetable origin



AND Enantiomer

ÓН

NAUNA

(4S)-4-Hydroxy-L-isoleucine CAS: 55399-93-4 $C_6H_{13}NO_3$

Chemical Name: (2S,3R,4S)-2-amino-4-hydroxy-3-methylpentanoic acid Vegetable origin Specification: 98% min by HPLC

NAUNC

6-Hydroxykaempferol-3,6,7-triglucoside AND Enantiome CAS: 145134-62-9



NAUND



NAUNE

7beta-Hydroxylathyrol CAS: 34208-98-5C₂₀H₃₀O₅

Vegetable origin Solubility: 10mM in DMSO

NAUNF

23-Hydroxylongispinogenin CAS: 42483-24-9

Vegetable origin

NAUNG

2-Hydroxy-1-methoxyanthraquinone CAS: 6170-06-5 C₁₅H₁₀O₄

Vegetable origin

NAUNH

2-Hydroxy-4-methoxybenzaldehyde CAS: 673-22-3 $C_8H_8O_3$

Vegetable origin

NAUNI

3-Hydroxy-4-methoxycinnamic acid CAS: 537-73-5 $C_{10}H_{10}O_4$

Vegetable origin



NAUNK

4-hydroxy-5-methoxy-1,3-lsobenzofurandione

CAS: 116315-03-8 C₉H₆O₅

Vegetable origin

NATH8

7-hydroxy-5-methoxy-6-(3-methyl-2-butenyl)-2H-1-Ben-

zopyran-2-one CAS: 77636-11-4 $C_{15}H_{16}O_4$ Vegetable origin



NAUNL

(+)-6-(2-Hydroxy-3-methoxy-3-methylbutyl)-5,7-dimethoxycoumarin AND Enantiomer CAS: 137182-35-5

C₁₇H₂₂O₆

Vegetable origin

NAUNM

3-(2-hydroxy-4-methoxyphenyl)-1-(4-hydroxyphenyl)-

1-Propanone CAS: 98094-90-7 C₁₆H₁₆O₄

Vegetable origin



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NAUNO

7-(4"-Hydroxy-3"-methoxyphenyl)-1-phenylhept-4-en-3one



NAUNN

(2E)-3-(4-hydroxy-3-methoxyphenyl)-2-Propenoic acid (2E)-3,7-dimethyl-2,6-octadien-1-yl ester CAS: 1206615-69-1



Vegetable origin

NAUNP

1-Hydroxy-2-methylanthraquinone CAS: 6268-09-3 $C_{12}H_{10}O_{2}$



Vegetable origin

NAUNQ

5-Hydroxy-2-methylchromanone CAS: 14153-17-4 $C_{10}H_{10}O_3$



Vegetable origin

NAUNR

5-Hydroxymethylfurfural CAS: 67-47-0

Vegetable origin

NAUNS

6-Hydroxymethylherniarin CAS: 117597-79-2 $C_{11}H_{10}O_4$

Vegetable origin

NAUNT

4-Hydroxyphenethylanisate CAS: 87932-34-1

Vegetable origin

NAUNU

3-(4-Hydroxyphenyl)propionic acid CAS: 501-97-3 $C_9H_{10}O_3$

Vegetable origin

NAUNV



NAUNW

11beta-Hydroxyprogesterone CAS: 600-57-7 $C_{21}H_{30}O_3$



Synonym: 11β-Hydroxyprogesterone Vegetable origin Solubility: 10mM in DMSO 11beta-Hydroxyprogesterone is a potent inhibitors of **11β-Hydroxysteroid dehydrogenase**; also activates human mineralocorticoid receptor in COS-7 cells with an **ED**₅₀ of 10nM.

NAUM5

3'-hydroxy Puerarin CAS: 117060-54-5 C₂₁H₂₀O₁₀

Synonyms: Pueraria glycoside,8-C-Glucosyl-7,3',4'-trihydroxyisoflav one,Puerariaglycoside 1 Vegetable origin Plant Source: Pueraria lobata Specification: 98% min by HPLC

NAUNX

4-Hydroxyquinazoline CAS: 491-36-1

Vegetable origin

NAUNY



Vegetable origin

Solubility: DMSO: ≥ 34mg/mL

Hydroxysafflor yellow A is a flavonoid derived and isolated from traditional Chinese medicine Carthamus tinctorius L., possesses anti-tumor activity. IC50 value: Target: in vitro: HYSA could inhibit LPS-induced VSMCs proliferation and migration, accompanied by the downregulated levels of several key pro-inflammatory cytokines, including TNF-a, IL-6, and IL-8. We further showed that HYSA inhibited LPS-induced upregulation of TLR-4 expression as well as the activation of Rac1/Akt pathway [1]. HSYA protected EC viability against LPS-induced injury (P<0.05). LPS-induced NF-kB p65 subunit DNA binding (P<0.01) and nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor -a (I-kB-a) phosphorylation was inhibited by HSYA. HSYA attenuated LPS triggered ICAM-1 and E-selectin mRNA levels elevation and phosphorylation of p38 MAPK or c-Jun N-terminal kinase MAPK [2]. HSYA inhibited the proliferation of 3T3-L1 preadipocytes and cell viability greatly decreased in a dose and time dependent manner. HSYA (1mg/l) notably reduced the amount of intracellular lipid and triglyceride content in adipocytes by 21.3 % (2.13 \pm 0.36 vs 2.71 \pm 0.40, P < 0.01) and 22.6 % (1.33 \pm 0.07 vs 1.72 ± 0.07, P < 0.01) on days 8 following the differentiation, respectively [3]. In vivo: HSYA treatment ameliorated serum biochemical indicators by reducing the levels of alanine aminotransferase (ALT), aspartate aminotransferase (AST), hyaluronan (HA), laminin (LN), and type III precollagen (III-C) in rats [4].



Vegetable origin

NAUO1

4-Hydroxy-cis-8-sphingenine CAS: 218786-92-6

NAUHG

(3beta,25R)-17-hydroxyspirost-5-en-3-yl O-alpha-L-arabinopyranosyl-(1-4)-O-[6-deoxy-alpha-L-mannopyranosyl-(1-2)]-beta-D-Glucopyranoside



NAUM7

14-Hydroxy Sprengerinin C CAS: 1111088-89-1

Vegetable origin

NAUM6

17-Hydroxy sprengerinin C CAS: 1029017-75-1

Vegetable origin

NAUO2 6alpha-Hydroxysugiol CAS: 55898-07-2 C₂₀H₂₈O₃



AND Enantiomer

Vegetable origin

NAUO3

Hydroxytanshinone IIA CAS: 18887-18-8 C₁₉H₁₈O₄

Vegetable origin

NAUO4

16α-Hydroxytrametenolic acid CAS: 176390-68-4

Vegetable origin

NAUO5

5-Hydroxy-DL-tryptophan CAS: 56-69-9

Vegetable origin

NAUO6

Hydroxytyrosol CAS: 10597-60-1

C₈H₁₀O₃

Chemical Name: 4-(2-hydroxyethyl)benzene-1,2-diol Synonym: 3,4-Dihydroxyphenylethanol Vegetable origin Plant Source: Olive leaf Specification: 98% min by HPLC

NAU07

Hydroxytyrosol Acetate CAS: 69039-02-7

Vegetable origin

NAUO8

Hyodeoxycholic acid CAS: 83-49-8

Vegetable origin

NAUO9

L-Hyoscyamine CAS: 101-31-5 C₁₇H₂₃NO₃

Synonym: Daturine



Vegetable origin Solubility: DMSO: ≥ 36mg/mL

L-Hyoscyamine is a chemical compound, a tropane alkaloid it is the levo-isomer to atropine. It is a secondary metabolite of some plants, particularly henbane (Hyoscamus niger.) Hyoscyamine is used to provide symptomatic relief to various gastrointestinal disorders including spasms, peptic ulcers, irritable bowel syndrome, pancreatitis, colic and cystitis. It has also been used to relieve some heart problems, control some of the symptoms of Parkinson's disease, as well as for control of respiratory secretions in end of life care [1].

NAUOA

Hyoscyamine sulfate hydrate CAS: 620-61-1

Vegetable origin

NAUOB

Hypaconitine CAS: 6900-87-4 C33H45NO10



AND Enantiomer

Vegetable origin Solubility: 10 mM in DMSO

Hypaconitine, an active and highly toxic constituent derived from Aconitum species, is widely used to treat rheumatism. IC50 value: Target: In vitro: The present study investigated the metabolism of hypaconitine in vitro using male human liver microsomes. The primary contributors toward HA metabolism were CYP3A4 and 3A5, with secondary contributions by CYP2C19, 2D6 and CYP2E1 [1]. In vivo.

NAUOC

Hypaphorine CAS: 487-58-1

Vegetable origin

NAUOD

NAUOE

Hypericin

C₃₀H₁₆O₈

Hyperectine CAS: 94656-46-9 C24H21N2O6



Vegetable origin Solubility: DMSO: 6.2mg/mL

Hypericin is a photosensitive antiviral with anticancer and antidepressant agent derived from Hypericum perforatum. It can inhibit tyrosine kinases with IC50 of 7.5µM. IC50: 7.5µM In vitro: The photosensitive of hypericin can induce both apoptosis and necrosis in a concentration and light dose-dependent fashion. PDT with hypericin results in the activation of multiple pathways that can either promote or counteract the cell death program. It can effect cytotoxic to tumor cells by visible light.

NAUOF

Hypocrellin A CAS: 77029-83-5 C30H26O10

Vegetable origin Plant Source: Hypocrella bambusae or Shiraia bambusicola Specification: 98% min by HPLC

NAUOG

Hypocrellin B CAS: 123940-54-5

Vegetable origin

NAUOH

 $\begin{array}{l} \textbf{Hypocrellin C} \\ \textbf{CAS: } 149457\text{-}83\text{-}0 \\ \textbf{C}_{_{30}}\textbf{H}_{_{24}}\textbf{O}_{_{9}} \end{array}$

Chemical Name: 3-Acetyl-5,12-dihydroxy-4,8,9,13-tetramethoxy-2-methyl-1H-cyclohepta[ghi]perylene-6,11-dione Vegetable origin Specification: 98% min by HPLC

NAUOI

Hypoglaunine A CAS: 228259-16-3 C₄₁H₄₇NO₂₀



Vegetable origin

NAUOJ

Hyponine D CAS: 259823-31-9

Vegetable origin

NAUOK

Hyponine E CAS: 226975-99-1

Vegetable origin

NAUOL

Hypophyllanthin CAS: 33676-00-5 $C_{24}H_{30}O_7$



Vegetable origin

NAUOM

Hypoxanthine CAS: 68-94-0

Vegetable origin

NAUON

Icariin CAS: 489-32-7 C₃₃H₄₀O₁₅

Synonym: leariline Vegetable origin Solubility: DMSO: ≥ 34mg/mL

Icariin(leariline) is a major constituent of flavonoids from the Chinese medicinal herb Epimedium brevicornum; exhibits multiple biological properties, including anti-inflammatory, neuroregulatory and neuroprotective activities. IC50 value: Target: in vitro: Icariin significantly protected pulmonary function and attenuated CS-induced inflammatory response by decreasing inflammatory cells and production of $TNF\mbox{-}\alpha,$ IL-8 and MMP-9 in both the serum and BALF of CS-exposed mice and decreasing production of TNF-α and IL-8 in the supernatant of CSE-exposed A549 cells [1]. 4µM or 20µM Icariin treatment significantly inhibited the cholesterol ester (CE)/total cholesterol (TC) and oxLDL-mediated foam cell formation (P < 0.05). The binding of oxLDL to LPS-activated macrophages was also significantly hindered by Icariin (P < 0.05). Furthermore, Icariin down-regulated the expression of CD36 in LPS-activated macrophages in a dose-dependent manner and CD36 over-expression restored the inhibitory effect of Icariin on foam cell formation [2]. In vivo: icariin treatment leads to alleviated inflammatory infiltration and reduced blood-brain barrier leakage (BBB) of the paracellular tracer (FITC-dextran) in EAE. Mice that received icariin-treated T cells also displayed lower EAE scores and better clinical recovery from EAE. Icariin administration suppresses the frequencies of Th1 and Th17 cells in the splenocytes and lymph node cells. Icariin-treated mice also show lower frequency of Th17 cells in CNS mononuclear cells [3]. Icariin was suspended in carboxymethylcellulose and given orally to APP/PS1 mice. Following an oral treatment of 10 days, Icariin significantly attenuated Aß deposition, microglial activation and TGF-B1 immunoreactivity at amyloid plaques in cortex and hippocampus of transgenic mice 5 months of age, and restored impaired nesting ability [4].





AND Enantiome

AND Enantiomer

NAUOP

Icaritin CAS: 118525-40-9 C₂₁H₂₀O₆



Synonym: Anhydroicaritin Vegetable origin Solubility: DMSO: 14mg/mL

Icaritin(Anhydroicaritin) is a component of Epimedium flavonoid isolated from Herba Epimedii; enhances osteoblastic differentiation of mesenchymal stem cells (MSCs) while it inhibits adipogenic differentiation of MSCs by inhibiting PPAR-g pathway. IC50 value: Target: in vitro: Icaritin was unable to promote proliferation, migration and tube like structure formation by human umbilical vein endothelial cells (HUVECs) in vitro [1]. Icaritin potently inhibited proliferation of K562 cells (IC50 was 8µM) and primary CML cells (IC50 was 13.4µM for CML-CP and 18µM for CML-BC), induced CML cells apoptosis and promoted the erythroid differentiation of K562 cells with timedependent manner. Furthermore, Icaritin was able to suppress the growth of primary CD34+ leukemia cells (CML) and Imatinib-resistant cells, and to induce apoptosis [2]. Icaritin strongly inhibited the growth of breast cancer MDA-MB-453 and MCF7 cells. At concentrations of 2-3µM, icaritin induced cell cycle arrest at the G(2)/M phase accompanied by a down-regulation of the expression levels of the G(2)/M regulatory proteins such as cyclinB, cdc2 and cdc25C. Icaritin at concentrations of 4-5µM, however, induced apoptotic cell death characterized by the accumulation of the annexin V- and propidium iodide-positive cells, cleavage of poly ADP-ribose polymerase (PARP) and down-regulation of the Bcl-2 expression [3]. In vivo: In mouse leukemia model, Icaritin could prolong lifespan of NOD-SCID nude mice inoculated with K562 cells as effective as Imatinib without suppression of bone marrow. Icaritin could up-regulate phospho-JNK or phospho-C-Jun and down-regulate phospho-ERK, phospho-P-38, Jak-2, phospho-Stat3 and phospho-Akt expression with dose- or time-dependent manner [2]

NAUOR

D-Iditol CAS: 25878-23-3

NAUOS

L-Iditol CAS: 488-45-9



Synonyms: Icarisoside-A; Baohuoside II Vegetable origin

Solubility: 10mM in DMSO

IKarisoside A(Icarisoside-A) is a natural compound isolated from Epimedium koreanum (Berberidaceae); has anti-inflammatory properties. IC50 value: Target: in vitro: Ikarisoside A inhibited the expression of LPS-stimulated inducible nitric oxide synthase (iNOS) and the production of nitric oxide (NO) in LPS-stimulated RAW 264.7 cells and mouse bone marrow-derived macrophages (BMMs) in a concentration-dependent manner. In addition, Ikarisoside A reduced the release of pro-inflammatory cytokines, such as tumor necrosis factor-alpha (TNF-alpha) and interleukin-1 beta (IL-1 beta). Furthermore, Ikarisoside A inhibited the activity of p38 kinase and nuclear factor-kappaB (NF-kappaB) [1]. Ikarisoside A is a potent inhibitor of osteoclastogenesis in RANKL-stimulated RAW 264.7 cells as well as in bone marrow-derived macrophages. The inhibitory effect of Ikarisoside A resulted in decrease of osteoclast-specific genes like matrix metalloproteinase 9 (MMP9), tartrate-resistant acid phosphatase (TRAP), receptor activator of NF-kappaB (RANK), and cathepsin K. Moreover, Ikarisoside A blocked the resorbing capacity of RAW 264.7 cells on calcium phosphate-coated plates. Ikarisoside A also has inhibitory effects on the RANKL-mediated activation of NF-kappaB, JNK, and Akt [2]

NAUOU



Ikarisoside F is a flavonol glycoside from Vancouveria hexandra; could bind to AdoHcy hydrolase.

NAUOV

Ilexgenin A CAS: 108524-94-3

Vegetable origin

NAUOW Ilexhainanoside D CAS: 1137648-52-2

Vegetable origin

Advion × Minterchim

NAUOX

Ilexoside D CAS: 109008-27-7

Vegetable origin

NAUOY

Ilexoside K CAS: 109008-26-6

Vegetable origin

NAUOZ

Ilexsaponin A CAS: 108524-93-2

Vegetable origin

NAUP0

5'-IMP disodium salt CAS: 4691-65-0

Vegetable origin

NAUP1

Imperatorin CAS: 482-44-0 $C_{16}H_{14}O_4$



Synonym: Ammidin Vegetable origin Solubility: 10mM in DMSO

Imperatorin is an effective of **NO synthesis** inhibitor (**IC**₅₀=9.2µmol), which also is a **BChE** inhibitor (**IC**₅₀=31.4µmol). Imperatorin is a weak agonist of **TRPV1** with **IC**₅₀ of 12.6 \pm 3.2µM.

NAUP2

Incensole CAS: 22419-74-5 $C_{20}H_{34}O_2$

Chemical Name: (1S,2R,5E,9E,12R)-1,5,9-Trimethyl-12-(1methylethyl)-15-oxabicyclo[10.2.1]pentadeca-5,9-dien-2-ol Vegetable origin Plant Source: Boswellia carteri/Boswellia serrata Specification: 98% min by HPLC

NAUP3

Incensole acetate CAS: 34701-53-6

 $C_{22}H_{36}O_{3}$

Vegetable origin Plant Source: Boswellia carteri/Boswellia serrata Specification: 98% min by HPLC

NAUP4

Indaconitine CAS: 4491-19-4 C₃₄H₄₇NO₁₀



AND Enantiome

Synonym: 15-Deoxyaconitine Vegetable origin Solubility: 10mM in DMSO

NAUP5

Indigotin CAS: 482-89-3 C₁₆H₁₀N₂O₂

Chemical Name: (2Z)-2-(3-oxo-1H-indol-2-ylidene)-1H-indol-3-one Vegetable origin

Specification: 98% min by HPLC

NAUP6 Indirubin CAS: 479-41-4 C₁₆H₁₀N₂O₂



Synonyms: C.I.73200; Couroupitine B; Indigo red; Indigopurpurin Vegetable origin

Solubility: DMSO: ≥ 41mg/mL

Indirubin(Couroupitine B) is a purple 3,2- bisindole and a stable isomer of indigo isolated from Indigo naturalis (Apiaceae); anti-inflammatory and anticancer activities. IC50 value: Target: in vitro: The activation of EGF receptor, known to be highly expressed in psoriatic lesions, was inhibited by indigo naturalis or indirubin. The cell proliferation and CDC25B expression of epidermal keratinocytes were induced by EGF alone and confirmed to be inhibited by indigo naturalis or indirubin [2]. Indirubin inhibited prostate tumor growth through inhibiting tumor angiogenesis. Indirubin inhibited angiogenesis in vivo. We also showed the inhibition activity of indirubin in endothelial cell migration, tube formation and cell survival in vitro [3]. In vivo: Indirubin treatment suppressed skin inflammation in DNCB-exposed mice. The skin lesions were significantly thinner in the Indirubin-treated group than in untreated controls, and the hyperkeratosis disappeared. Indirubin reduced the total serum IgE level and cytokines production. In addition, it normalized NF- κB , $I\kappa B-\alpha$ and MAP kinase expression [1]. Indirubin dose-dependently inhibited intersegmental vessel formation in zebrafish embryos. It also inhibited HUVEC proliferation by the induction of cellular apoptosis and cell-cycle arrest at the G0/G1 phase [4].

NAUP7

Indole-3-acetic acid CAS: 87-51-4

Vegetable origin



NAUP8

Indole-3-butyric acid CAS: 133-32-4 C₁₂H₁₃NO₂



Synonym: 3-indolebutyric acid Vegetable origin Solubility: DMSO: ≥ 35mg/mL

Indole-3-butyric acid (3-indolebutyric acid; IBA) is a plant growth auxin and a good rooting agent. It can promote herbs and woody ornamental plant rooting and used for improving fruit rate.

NAUP9

Indole-3-carbinol CAS: 700-06-1 C₀H₀NO



Synonym: 3-Indolemethanol Vegetable origin Solubility: DMSO: 150 mg/mL Indole-3-carbinol suppresses NF-kB activity and also is an Aryl hydrocarbon receptor (AhR) agonist.

NAUPA

Indolo[2,3-a]quinolizine, corynan-16-carboxylic acid deriv. AND Enantiome

CAS: 130061-75-5 C21H28N2O3



Vegetable origin

NAUPE

Ingenol CAS: 30220-46-3 C₂₀H₂₈O₅

Synonym: (-)-Ingenol Vegetable origin Solubility: 10mM in DMSO

Ingenol is an extremely weak PKC (protein kinase C) activator; has been found to induce apoptosis and act as an anticancer agent. IC50 value: Target: anticancer natural compound in vitro: ingenol indeed binds to protein kinase C with a Ki of 30microM and activates the enzyme. In addition, ingenol was biologically active in 3 separate cell systems, showing effects similar to the phorbol esters on morphological change, cell-cell communication, epidermal growth factor binding, arachidonic acid metabolite release, and ornithine decarboxylase activity [1]

NAUPB





AND Enantiomer

Vegetable origin

Solubility: 10mM in DMSO

Ingenol-5,20-acetonide is an intermediate from ingenol for synthesis of ingenoids, improved stability compared to ingenol.

NAUPC

Ingenol-5,20-acetonide-3-O-angelate CAS: 87980-68-5

C, H, O,



Synonyms: Ingenol 5,20-acetonide 3-angelate; Ingenol 3-angelate 5.20-acetonide Vegetable origin

Solubility: 10mM in DMSO

NAUPD

Synonym: Ingenol 3,4:5,20-bisacetonide



Vegetable origin

NAUPH

25R-Inokosterone CAS: 19682-38-3

Vegetable origin

NAUPI 25S-Inokosterone

CAS: 19595-18-7

Vegetable origin

AND Enantiomer

Ingenol-3.4.5.20-diacetonide CAS: 77573-44-5 C26H36O5

Vegetable origin Solubility: 10mM in DMSO



NAUPJ

Inosine CAS: 58-63-9 C₁₀H₁₂N₄O₅



Solubility: DMSO: 9.66mg/mL

Inosine, an endogenous purine nucleoside, has immunomodulatory, neuroprotective, and analgesic properties. In vitro: Inosine has been shown to stimulate axonal growth in cell culture and promote corticospinal tract axons to sprout collateral branches after stroke, spinal cord injury and TBI in rodent models.[1] Inosine dose-dependently stimulates cAMP production mediated through the A2AR. Inosine dose-dependently induces A2AR-mediated ERK1/2 phosphorylation.[2] In vivo: The reference for Inosine is 1 or 10mg/kg, i.p. Preventive treatment with inosine inhibits the development and progression of EAE in C57BI/6 mice. neuroinflammation and demyelinating processes are blocked by inosine treatment. Additionally, inosine consistently inhibits IL-17 levels in peripheral lymphoid tissue, as well as IL-4 levels and A2AR up-regulation in the spinal cord, likely, through an ERK1-independent pathway. [3] Inosine acting through adenosine receptors (ARs) exerts a wide range of anti-inflammatory and immunomodulatory effects in vivo. [2]



NAUPL Interiotherin C CAS: 460090-65-7 $C_{30}H_{36}O_{10}$

Vegetable origin





Inulicin is a sesquiterpene isolated from the medicinal plant Inula britannica; anticancer and anti-inflammation acitvity. IC50 value: Target: in vitro: 1-O-Acetylbritannilactone significantly reduced melanin production in a dose-dependent manner with IC50 value of 13.3µM. inhibited melanogenesis by activating extracellular signal-regulated kinase (ERK) and Akt signaling and also inhibiting cAMP related binding protein, which regulates its downstream pathway, including tyrosinase, tyrosinase related protein-1 and TRP-2 [2]. ABL (5, 10, 20 micrommol/l) had several concentration-dependent effects, including inhibition of lipopolysaccharide (LPS)-induced PGE(2) production and COX-2 expression, and blockade of NF-kappaB activation and translocation [3]. 1-O-Acetylbritannilactone is a potent inhibitor of LPS-stimulated VSMC inflammatory responses through blockade of NF-kappaB activity and inhibition of inflammatory gene COX-2 expression.

NAUPN

N-lodosuccinimide CAS: 516-12-1

NAUPP

Iridin CAS: 491-74-7

Vegetable origin

NAUPQ

Irigenin CAS: 548-76-5

Vegetable origin

NAUPR

Irinotecan Hydrochloride CAS: 100286-90-6

Vegetable origin

NAUPS

Irisflorentin CAS: 41743-73-1 C₂₀H₁₈O₈

Chemical Name: 9-methoxy-7-(3,4,5-trimethoxyphenyl)-[1,3] dioxolo[4,5-g]chromen-8-one Vegetable origin Specification: 98% min by HPLC

NAUPT

3,'6-d isinapoyl sucrose CAS: 76656-80-9

Vegetable origin

NAUPU



Vegetable origin

Solubility: DMSO: ≥ 48mg/mL

Isoacteoside is a natural compound which exhibit significant inhibition of advanced glycation end product formation with IC50 values of 4.6-25.7µM, compared with those of aminoguanidine (IC50=1,056µM) and quercetin (IC50=28.4µM) as positive controls. IC50 value: Target: In the rat lens aldose reductase assay, acteoside, isoacteoside, and poliumoside exhibited greater inhibitory effects on rat lens aldose reductase with IC50 values of 0.83, 0.83, and 0.85µM, respectively, than those of the positive controls, 3,3-tetra-methyleneglutaric acid (IC50=4.03µM) and quercetin (IC50=7.2µM).

NAUPV

Isoalantolactone CAS: 470-17-7 C₁₅H₂₀O₂



Synonyms: (+)-Isoalantolactone; Isohelenin Vegetable origin

Solubility: 10mM in DMSO

Isoalantolactone, isolated from Inula spp., has been reported to inhibit the growth of several types of cancer cells. IC50 value: Target: In vitro: Isoalantolactone induces ROS-dependent apoptosis in U2OS cells via a novel mechanism involving inhibition of NF-кBp65 and provide the rationale for further in vivo and preclinical investigation of isoalantolactone against osteosarcoma [1]. Isoalantolactone significantly inhibited K562/A02 cell growth by downregulating Bcr/Abl expression. Isoalantolactone also induced apoptosis via increase generation of reactive oxygen species, modulation of the protein levels of Bcl-2 family members, caspase activation, poly ADP-ribose polymerase (PARP) cleavage, and release of cytochrome c. We also observed that isoalantolactone inhibited proliferation by inducing cell cycle arrest in the S phase [2]. In vivo: Isoalantolactone produced a 37.5% protection against MES-induced tonic seizures in mice, when administered i.p. at 15min. prior to the MES test. The experimentally derived ED50 value for isoalantolactone, administered intraperitoneally at 15min, before the MES test, were 336 (285-396) mg/kg [3].

NAUPW

Isoalliin

NAUPX

Isoanhydroicaritin CAS: 28610-30-2

Vegetable origin

NAUPY

Isoarjunolic acid CAS: 102519-34-6 C₃₀H₄₈O₅



Vegetable origin



Synonym: Isoastragaloside-I Vegetable origin

Solubility: 10mM in DMSO

Isoastragaloside I is a natural compound from the medicinal herb Radix Astragali; possesses the activity of elevating adiponectin production. IC50 value: Target: Astragaloside II and isoastragaloside I selectively increased adiponectin secretion in primary adipocytes without any obvious effects on a panel of other adipokines. Furthermore, an additive effect on induction of adiponectin production was observed between these two compounds and rosiglitazone, a thiazolidinedione class of insulin-sensitizing drugs. Chronic administration of astragaloside II and isoastragaloside I in both dietary and genetic obese mice significantly elevated serum levels of total adiponectin and selectively increased the composition of its high molecular weight oligomeric complex.





CAS: 20784-50-3 C₂₀H₂₀O₄

Vegetable origin

NAUQ2

Isobavachin CAS: 31524-62-6 C₂₀H₂₀O₄



Vegetable origin

NAUQ3



Vegetable origin

NAUQ4

Isobergapten CAS: 482-48-4

Vegetable origin

NAUQ5

Isoborneol CAS: 124-76-5

Vegetable origin

NAUQ6

IsobutyIshikonin CAS: 52438-12-7 C₂₀H₂₂O₆

Vegetable origin



AND Enantiomer

NAUQ7



Vegetable origin

NAUQ8

Isochlorogenic acid C CAS: 32451-88-0C₂₅H₂₄O₁₂

Vegetable origin Specification: 98% min by HPLC

NAUQ9

Isocorydine CAS: 475-67-2

Vegetable origin

NAUQA





Synonym: 7-Isocorynoxeine Vegetable origin Solubility: 10mM in DMSO

Isocorynoxeine, a major alkaloid found in Uncaria rhynchophylla, exhibits wide beneficial effects on the cardiovascular and cardiocerebral vascular systems.



Synonyms: Tetrahydrocolumbamine; (S)-Tetrahydrocolumbamine Solubility: 10mM in DMSO

(-)-Isocorypalmine is a metabolite of the isoquinoline alkaloid biosynthesis pathway.

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Natural compounds

NAUQC

Isocurcumenol CAS: 24063-71-6 C₁₅H₂₂O₂



Vegetable origin

NAUQD

Isodemethylwedelolactone CAS: 350681-33-3

Vegetable origin

NAUQE

Isoderrone CAS: 121747-89-5 C20H16O5



NAUQF

Isodiospyrin CAS: 20175-84-2 C₂₂H₁₄O₆



Vegetable origin

NAUQG

(-)-Isodocarpin CAS: 10391-08-9 $C_{20}H_{26}O_{5}$



Vegetable origin

NAUQH

Isodonal CAS: 16964-56-0 C22H28O7



Vegetable origin

NAUQI

Isoescin IA CAS: 219944-39-5 C55H86O24

Synonym: Aescin C Vegetable origin Plant Source: Aesculus hippocastanum / Aesculus chinensis Specification: 98% min by HPLC

NAUQJ

Isoescin IB CAS: 219944-46-4 C55H86O24

Synonym: Aescin D Vegetable origin Plant Source: Aesculus hippocastanum / Aesculus chinensis Specification: 98% min by HPLC

NAUQK

Isoeugenol acetate CAS: 93-29-8

Vegetable origin





NAUQM

Isoforsythiaside CAS: 1357910-26-9

Vegetable origin

NAUQN

Isofraxidin CAS: 486-21-5 $C_{11}H_{10}O_{5}$

Chemical Name: 7-hydroxy-6,8-dimethoxychromen-2-one Vegetable origin Specification: 98% min by HPLC

NAUQO



Advion × Yinterc



Solubility: DMSO: ≥83.3mg/mL

Isoginkgetin is a MMP-9 inhibitor, also a Pre-mRNA Splicing Inhibitor with IC 50 of 30 uM. target: MMP-9 [1], Pre-mRNA Splicing [2] IC 50: 30μM (Pre-mRNA Splicing) In vitro: Isoginkgetin inhibits HT1080 tumor cell invasion substantially. Isoginkgetin is also quite effective in inhibiting the activities of Akt and MMP-9 in MDA-MB-231 breast carcinomas and B16F10 melanoma. Isoginkgetin treatment result in marked decrease in invasion of these cells. Isoginkgetin inhibited activities of both Akt and NF-xB. Isoginkgetin markedly decreased MMP-9 expression and invasion through inhibition of this pathway. [1] Splicing inhibition is the mechanistic basis of the anti-tumor activity of isoginkgetin. [2] Isoginkgetin inhibits tumor cell invasion by regulating phosphatidylinositol 3-kinase/Akt-dependent matrix metalloproteinase-9 expression. [3]

NAUQR

Isoginsenoside Rh3 CAS: 166040-90-0

Vegetable origin

NAUQS

Isograndifoliol CAS: 1445475-53-5 $C_{19}H_{26}O_3$



Vegetable origin

NAUQT

Isohyperectine CAS: 170384-75-5 C₂₄H₂₁N₃O₆



Vegetable origin

NAUQU

Isoimperatorin CAS: 482-45-1 $C_{16}H_{14}O_4$



Vegetable origin Solubility: 10mM in DMSO

Isoimperatorin is a methanolic extract of the roots of *Angelica dahurica* shows significant inhibitory effects on acetylcholinesterase (AChE) with the IC₅₀ of 74.6 μ M.

NAUQV

Isoimpinellin CAS: 482-27-9 C₁₃H₁₀O₅



Vegetable origin

NAUQW

Isokadsuranin CAS: 82467-52-5

Vegetable origin

NAUQX Isokurarinone CAS: 97938-31-3 C₂₆H₂₀O₆



AND Enantiomer

NAUQY

 $\begin{array}{l} \textbf{L-Isoleucine} \\ \text{CAS: 73-32-5} \\ \text{C}_{6}\text{H}_{13}\text{NO}_{2} \end{array}$

Vegetable origin

Vegetable origin

NAUQZ

Isolicoflavonol CAS: 94805-83-1

Vegetable origin

NAUR0

C₂₀H₁₈O₆

Isoliensinine CAS: 6817-41-0

Vegetable origin

NAUR1

(1R)-(+)-TRANS-ISOLIMONENE CAS: 5113-87-1 C₁₀H₁₆

Vegetable origin

NAUR2

Isoliquiritigenin CAS: 961-29-5 C₁₅H₁₂O₄



Synonyms: GU17; ISL; Isoliquiritigen Vegetable origin Solubility: 10mM in DMSO Isoliquiritigenin is an anti-tumor flavonoid from the root of *Glycyrrhiza glabra*, which inhibits **aldose reductase** with an **IC**⁵⁰ of 320nM.





NAUR3

Isoliquiritin CAS: 5041-81-6 $C_{21}H_{22}O_{9}$

Vegetable origin Specification: 98% min by HPLC

NAUR4

Isoliquiritin apioside CAS: 120926-46-7

Vegetable origin

NAUR5

Isomahanimbine CAS: 26871-46-5 C₂₃H₂₅NO



Vegetable origin

NAUR6



Vegetable origin

NAUR7

Isomangiferin CAS: 24699-16-9 C₁₀H₁₈O₁₁



Solubility: 10mM in DMSO OH C Isomangiferin is reported to have antiviral activity.

NAUR8

3-Isomangostin CAS: 19275-46-8

Vegetable origin

Vegetable origin

NAUR9

Isomogroside V CAS: 1126032-65-2

Vegetable origin

NAURA

Isomorellic acid CAS: 5262-69-1 C₃₃H₃₆O₈



Vegetable origin

NAURB Isomorellinol CAS: 149655-53-8 C₃₃H₃₈O₇

Vegetable origin

NAURC

Isomucronulatol CAS: 52250-35-8

Vegetable origin

NAURD

Isomucronulatol 7-O-glucoside CAS: 94367-43-8 $C_{23}H_{28}O_{10}$

Chemical Name: (3R,4S,5S,6R)-2-[[3-(2-HYDROXY-3,4-DIMETHOXYPHENYL)-3,4-DIHYDRO-2H-CHROMEN-7-YL]OXY]-6-(HYDROXYMETHYL)OXANE-3,4,5-TRIOL Synonym: 7,2'-Dihydroxy-3',4'-dimethoxyisoflavane-7-O-glucoside Vegetable origin Plant Source: Astragalus Root Specification: 98% min by HPLC

NAURE

Isoolivil CAS: 3064-05-9







NAURI



NAURJ Isorhamnetin CAS: 480-19-3 C₁₆H₁₂O₇



Synonym: 3'-Methylquercetin Vegetable origin

Solubility: DMSO: ≥ 28mg/mL

Isorhamnetin, a flavonoid compound extracted from the Chinese herb *Hippophae rhamnoides* L., is well known for its anti-inflammatory, anti-oxidative, anti-adipogenic, anti-proliferative, and anti-tumor activities.

NAURM

Isorhamnetin-3-O-galactoside CAS: 6743-92-6

Vegetable origin

NAURN

Isorhamnetin-3-O-glucoside CAS: 5041-82-7 $C_{22}H_{22}O_{12}$ AND Enantiome

он

Vegetable origin

NAURK

Isorhamnetin 3-glucoside-7-rhamnoside CAS: 17331-71-4

Vegetable origin

NAURO

Isorhamnetin-3-O-neohespeidoside CAS: 55033-90-4 $C_{28}H_{22}O_{46}$

Synonyms: Isorhamnetin 3-O-neohesperidin; Isorhamnetin 3-Oneohesperidosid Vegetable origin Specification: 98% min by HPLC

NAURP

Isorhamnetin-3-O-robinobioside CAS: 53584-69-3

Vegetable origin

NAURL

Isorhamnetin 3-sophoroside-7-rhamnoside CAS: 41328-75-0

Vegetable origin





Solubility: 10mM in DMSO

Isorhynchophylline (IRN), an alkaloid isolated from Uncaria rhynchophylla, possesses the effects of lowered blood pressure, vasodilatation and protection against ischemia-induced neuronal damage. IC50 value: Target: In vitro: Isorhynchophylline concentration-dependently inhibited the platelet-derived growth factor (PDGF)-BB-induced proliferation of PASMCs. Fluorescence-activated cell-sorting analysis showed that isorhynchophylline caused G0/G1 phase cell cycle arrest [2]. Isorhynchophylline can significantly attenuate the cardiomyocyte hypertrophy induced by Ang II [3]. In vivo: lsorhynchophylline significantly improved spatial learning and memory function in the D-gal-treated mice. Isorhynchophylline significantly increased the level of glutathione (GSH) and the activities of superoxide dismutase (SOD) and catalase (CAT), while decreased the level of malondialdehyde (MDA) in the brain tissues of the D-gal-treated mice [1]. Isorhynchophylline prevented monocrotaline induced pulmonary arterial hypertension in rats, as assessed by right ventricular (RV) pressure, the weight ratio of RV to (left ventricular+septum) and RV hypertrophy. Isorhynchophylline significantly attenuated the percentage of fully muscularized small arterioles, the medial wall thickness, and the expression of smooth muscle a-actin (a-SMA) and proliferating cell nuclear antigen (PCNA) [2].

NAURT

Isosalviamine A CAS: 878475-29-7 C₁₀H₁₃NO₂



Vegetable origin

NAURU

Isosaponarin CAS: 19416-87-6

Vegetable origin



Isoscoparin CAS: 20013-23-4

Vegetable origin

NAURX



Isosilybin (Isosilybinin) is a flavonoid from milk thistle; inhibits CY-P3A4 induction with an IC₅₀ of 74µM.

NAURY

Isosinensetin

CAS: 17290-70-9

Vegetable origin

NAURZ

C₂₀H₃₀O₃

Isosteviol CAS: 27975-19-5



AND Enantiomer

Synonyms: (-)-Isosteviol: iso-Steviol Vegetable origin Solubility: 10mM in DMSO

Isosteviol is a derivative of stevioside, a constituent of Stevia rebaudiana, which is commonly used as a noncaloric sugar substitute in Japan and Brazil. Target: Isosteviol dose-dependently relaxed the vasopressin (10-8 M)-induced vasoconstriction in isolated aortic rings with or without endothelium. However, in the presence of potassium chloride (3×10-2 M), the vasodilator effect of isosteviol on arterial strips disappeared. Only the inhibitors specific for the ATP-sensitive potassium (KATP) channel or small conductance calcium-activated potassium (SKCa) channel inhibited the vasodilator effect of isosteviol in isolated aortic rings contracted with 10-8 M vasopressin [1]. The attenuation by isosteviol of the vasopressinand phenylephrine-induced increase in [Ca (2+)]i was inhibited by glibenclamide, apamin and 4-aminopyridine but not by charybdotoxin. Furthermore, the inhibitory action of isosteviol on [Ca (2+)]i was blocked when A7r5 cells co-treated with glibenclamide and apamin in conjunction with 4-aminopyridine were present [2]. Isosteviol (1-100 micromol/I) inhibits angiotensin-II-induced DNA synthesis and endothelin-1 secretion. Measurements of 2'7'-dichlorofluorescin diacetate, a redox-sensitive fluorescent dye, showed an isosteviol-mediated inhibition of intracellular reactive oxygen species generated by the effects of angiotensin II [3].



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NAUS1

Isovanillin CAS: 621-59-0

Vegetable origin



NAUS4

Isoxanthohumol CAS: 70872-29-6 C₂₁H₂₂O₅

Vegetable origin Plant Source: Sophora angustifolia/Sophora flavescens Specification: 98% min by HPLC

NAUS5

Ivangustin CAS: 14164-59-1 C₁₅H₂₀O₃



Vegetable origin

NAUS6

Jaceosidin CAS: 18085-97-7

Vegetable origin



Vegetable origin

NAUS8 Jasminoside B

CAS: 214125-04-9

Vegetable origin

NAUS9

Jasmolin I CAS: 4466-14-2

NAUSA

Jasmolin II CAS: 1172-63-0

NAUSB

Jatrorrhizine CAS: 3621-38-3

Vegetable origin

NAUSC

Jatrorrhizine hydrochloride CAS: 6681-15-8C₂₀H₂₁CINO₄+

Chemical Name: 2,9,10-trimethoxy-5,6-dihydroisoquinolino[2,1-b] isoquinolin-7-ium-3-ol hydrochloride Vegetable origin Specification: 98%min by HPLC

NAUSD

Jervine CAS: 469-59-0 C₂₇H₃₉NO₃



AND Enantiome

Synonym: 11-Ketocyclopamine Vegetable origin Solubility: 10mM in DMSO

Jervine(11-Ketocyclopamine) is a naturally occuring steroidal alkaloid that causes cyclopia by blocking sonic hedgehog(Shh) signaling; Jervine is an inhibitor of Smo. IC50 value: Target: sonic hedgehog is derived from the Veratrum plant species. It is a close structural analog of cyclopamine which specifically inhibits the hedgehog (Hh) pathway by interaction with the hedgehog signaling protein Smo. Jervine can be used to induce abnormal morphogenesis in a number of experimental models. Jervine is an inhibitor of Smo.

NAUSE

AND Enantiomer

Jionoside A1 CAS: 120444-60-2

Vegetable origin

NAUSF

Jionoside B1 CAS: 120406-37-3

Vegetable origin

erchim Park Advion Cvs Advion









Vegetable origin

NAUSH

Jolkinolide B CAS: 37905-08-1 C₂₀H₂₆O₄

Vegetable origin



NAUSI

Jolkinolide E CAS: 54494-34-7 C₂₀H₂₈O₂



Vegetable origin

NAUSJ

Juglalin CAS: 99882-10-7

Vegetable origin

NAUSK



NAUSL

Jujuboside A CAS: 55466-04-1



NAUSM

Jujuboside B CAS: 55466-05-2 $C_{52}H_{84}O_{21}$

Vegetable origin Specification: 98% min by HPLC

NAUSN

Jujuboside B1 CAS: 68144-21-8

Vegetable origin

NAUSO

Jujuboside D CAS: 194851-84-8

Synonym: Jujuboside A1 Vegetable origin

NAUSP

Juncusol CAS: 62023-90-9

Vegetable origin

NAUSQ

C24H30O7

Kadsulignan N CAS: 163564-58-7



AND Enantiomer

Vegetable origin

NAUSR



Vegetable origin

NAUSY

Kaempferol CAS: 520-18-3 C₁₅H₁₀O₆

Vegetable origin



NAUST

Kaempferol-3-O-(2,6-di-O-trans-p-coumaroyl)-beta-Dglucopyranoside





NAUSZ

Kaempferol 3-O-(6"-galloyl)-beta-D-glucopyranoside CAS: 56317-05-6



Vegetable origin

NAUSU

Kaempferol-3-O-gentiobioside CAS: 22149-35-5 C₂₇H₃₀O₁₆

Synonym: Kaempferol 3-gentiobioside,3-(6-O-β-D-Glucopyranosylβ-D-glucopyranosyloxy)-4',5,7-trihydroxyflavone Vegetable origin Plant Source: Ochradenus baccatus Specification: 98% min by HPLC

NAUSV

Kaempferol-7-O-beta-D-glucopyranoside CAS: 16290-07-6

Vegetable origin

NAUSW

Kaempferol-3-O-(2"-O-β-D- glucopyl)-β-D-rutinoside CAS: 55696-58-7

Vegetable origin

NAUSX

Kaempferol-4'-glucoside CAS: 52222-74-9

Vegetable origin

NAUT5

Kaempherol 4'-O-methyl ether CAS: 491-54-3 $C_{16}H_{12}O_{6}$ Vegetable origin

NAUT4



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NAUT2

Kaempferol 3-sophoroside-7-glucoside CAS: 55136-76-0

Vegetable origin

NAUT3

Kaempferol 3-sophoroside-7-rhamnoside CAS: 93098-79-4

Vegetable origin

NAUT6

Kaerophyllin CAS: 75590-33-9

Vegetable origin

NAUT7

Kahweol CAS: 6894-43-5

Vegetable origin

NAUT8 Kajiichigoside F1

CAS: 95298-47-8

Vegetable origin

NAUT9

Kakuol CAS: 18607-90-4

Vegetable origin

NAUTA

Kalopanaxsaponin H CAS: 128730-82-5

Vegetable origin

NAUTB

Kansuinin A CAS: 57701-86-7 C37H46O15

AcC

AND Enantiome

AND Enantiomer

QÔ

NAUTC Kansuinine B

CAS: 57685-46-8 C38H42O14

Vegetable origin



Vegetable origin

NAUTD

Kansuinine E CAS: 672945-84-5 C₄₁H₄₇NO₁₄

AND Enantiomer

Vegetable origin

AND Enantiomer

NAUTE Kansuiphorin C CAS: 133898-77-8 C29H34O6



Vegetable origin

NAUTF Karacoline

CAS: 39089-30-0

Vegetable origin

NAUTG

Kauniolide CAS: 81066-45-7 C₁₅H₁₈O₂

Vegetable origin Solubility: DMSO







Kawain CAS: 500-64-1 C₁₄H₁₄O₃



Vegetable origin

NAUTJ

1-Ketoaethiopinone CAS: 105062-36-0 C₂₀H₂₂O₃



Vegetable origin

NAUTI

11-Keto-beta-boswellic acid CAS: 17019-92-0

Vegetable origin

NAUTK

Khasianine CAS: 32449-98-2

Vegetable origin

NAUTL cis-Khellactone CAS: 15645-11-1 C₁₄H₁₄O₅

Vegetable origin



NAUTM

Kinetin CAS: 525-79-1 C₁₀H₉N₅O



Synonyms: 6-Furfuryladenine; N6-Furfuryladenine Vegetable origin

Solubility: DMSO: 8.8mg/mL (Need warming)

Kinetin (N6-furfuryladenine) belongs to a group of plant growth hormones involved in cell division, differentiation and other physiological processes. IC50 Value: Target: Kinetin is one of the widely used components in numerous skin care cosmetics and cosmeceuticals, such as Valeant products kinerase. Recently, kinetin has the potential to be a treatment for the human splicing disease familial dysautonomia. In vitro: Kinetin-induced cell death reflected by the morphological changes of nuclei including their invagination, volume increase, chromatin condensation and degradation as well as formation of micronuclei showed by AO/EB and 4,6-diamidino-2-phenylindol staining was accompanied by changes including increase in conductivity of cell electrolytes secreted to culture media, decrease in the number of the G1- and G2-phase cells and appearance of fraction of hypoploid cells as the effect of DNA degradation without ladder formation [1]. The plant cytokinin kinetin dramatically increases exon 20 inclusion in RNA isolated from cultured FD cells [3]. In vivo: Subjects received 23.5mg/Kg/d for 28 d. An increase in WT IKBKAP mRNA expression in leukocytes was noted after 8 d in six of eight individuals; after 28 d, the mean increase compared with baseline was significant (p = 0.002) [2]. Toxicity: On mice with leukaemia P388, kinetin has no effect on the tumour growth, and it appears to be toxic at the dose of 25mg/kg [4].

NAUTN

Kinsenoside CAS: 151870-74-5 C₁₀H₁₆O₈

Synonym: (4R)-4-(beta-D-Glucopyranosyloxy)dihydro-2(3H)-furanone Vegetable origin Specification: 98% min by HPLC



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NAUTP



NAUTQ

Koumine CAS: 1358-76-5



NAUTT

Kuguacin R CAS: 191097-54-8 C₃₀H₄₈O₄

Vegetable origin

NAUTU



Vegetable origin

NAUTV

Kukoamine A CAS: 75288-96-9 C28H42N4O6

Synonym: N1,N12-Bis(dihydrocaffeoyl) spermine Vegetable origin Plant Source: Lycium chinense (Chinese boxthorn)/Solanum tuberosum (potatoes) Specification: 98% min by HPLC

NAUTW

Kukoamine B CAS: 164991-67-7

 $C_{28}H_{42}N_4O_6$

Vegetable origin Plant Source: Lycium chinense (Chinese boxthorn)/Solanum tuberosum (potatoes) Specification: 98% min by HPLC

NAUTX

Kuraridine AND Enantiomer CAS: 34981-25-4 C₂₆H₃₀O₆ нс Vegetable origin

NAUTY Kurarinol

CAS: 855746-98-4 C26H32O7 нο Vegetable origin

AND Enantiomer

NAUTZ

AND Enantiomer





Synonyms: Chrysontemin; Cyanidin 3-O-glucoside chloride Vegetable origin

Solubility: DMSO: 30mg/mL

Kuromanin (chloride), extracted from mulberry leaves, has been shown to improve blood glucose concentrations and lipid homeostasis and to reduce obesity.





NAUU3



Vegetable origin





Vegetable origin









NAUU9 AND Enantiomer Kushenol X CAS: 254886-77-6 C25H28O7 но όн Vegetable origin

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NAUUA

Kuwanon A CAS: 62949-77-3 C25H24O6



Vegetable origin Solubility: DMSO

Kuwanon A is a flavone derivative isolated from the root barks of the mulberry tree (Morus alba L.); inhibits nitric oxide production with an IC 50 of 10.5µM



Vegetable origin

NAUUC



Vegetable origin

NAUUD

Kuwanon G CAS: 75629-19-5

Vegetable origin

NAUUE

Kuwanon H CAS: 76472-87-2

Vegetable origin

NAUUF

Lanatoside C CAS: 17575-22-3

Vegetable origin

NAUUG

Lancerin CAS: 81991-99-3 C10H18O10

Synonym: 4-beta-D-Glucopyranosyl-1,3,7-trihydroxy-9H-xanthen-9-one Vegetable origin Plant Source: Polygala sibirica Specification: 98% min by HPLC

NAUUH

Lancifodilactone C CAS: 663176-26-9

Vegetable origin

NAUUI

Lancifodilactone F CAS: 850878-47-6

Vegetable origin

NAUUJ





AND Enantiomer

NAUUK

Lapachol CAS: 84-79-7

Vegetable origin

Vegetable origin



CAS: 32854-75-4 C₃₂H₄₄N₂O₈



Synonym: (+)-Lappaconitine Vegetable origin Solubility: 10mM in DMSO

Lappaconitine, isolated from Aconitum sinomontanum Nakai, was characterized as analgesic principle. IC50 value: Target: In vitro: In vivo: Lappaconitine was characterized as analgesic principle by our laboratory. The results suggest that lappaconitine can produce analgesia, possibly through a decrease in cellular calcium availability and PAG may be involved in the Ca2+ antagonistic effect on lappaconitine analgesia [1]. Changes in lappaconitine levels in blood, brain and spinal cord following subcutaneous (s.c.) injection were correlated with the analgesic activity at intervals up to 90 minutes after injection. The equianalgesic doses of lappaconitine (ED50 by the s.c. route and additive ED50 by the i.c.v. plus i.t. route) gave closely similar concentrations of the drug in brain and spinal cord. These results indicate that a simultaneous action of lappaconitine on supraspinal and spinal sites is likely to be important for the analgesia produced by systemically administered lappaconitine [2].



Lappaconitine hydrobromide, a diterpene alkaloid, is a drug for the treatment of cardiac arrhythmias. IC50 value: Target: A natural product for anti-cardiac arrhythmias In vitro: Lappaconitine hydrobromide was found to exert an inhibitory effect on inward tetrodotoxinsensitive sodium currents without changing their voltage dependence [1]. In vivo: The effect of Lappaconitine hydrobromide on aconitine--induced arrhythmias is due to modulation of genes encoding Na(+)-, K(+)-, Ca(2+)-channels, conducting ionic currents (I(Na), I(to), I(Ks), I(K1), I(CaT)), which are involved in the formation of different phases of the action potential [2]. Lappaconitine hydrobromide was found to be beneficial both in ventricular and supraventricular premature beats. Oral allapinine usually showed its effect 40-60minutes following its administration, its maximum action being 4-5hours later, its duration was some 8hours. The optimal dose of the drug amounted to 75mg/day [3]



NAUUO Lasiodin CAS: 28957-08-6 C₂₂H₃₀O₇

Vegetable origin

NAUUP

Lathyrol CAS: 34420-19-4 C20H30O4



AND Enantiomer

Vegetable origin Solubility: 10mM in DMSO Lathyrol is used for cancer treatment

NAUUQ

Laurolitsine (hydrochloride) C₁₀H₂₀CINO₄



H-C

AND Enantiomer

Synonym: (+)-Norboldine hydrochloride

Vegetable origin

Solubility: DMSO: 83mg/mL

Laurolitsine hydrochloride is an alkaloid isolated from Phoebe formosana, and shows weak anti-inflammatory activity.

NAUUR

Laurycolactone A CAS: 85643-76-1 C18H2205

Vegetable origin

Laurycolactone B

CAS: 85643-77-2

Vegetable origin

NAUUS

C18H2005





AND Enantiome

NAUUT Leachianone G CAS: 152464-78-3

C₂₀H₂₀O₆

Vegetable origin



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AND Enantiomer

AND Enantiomer







NAUUV



Vegetable origin

Solubility: DMSO: 6mg/mL (Need ultrasonic)

Leonurine, a natural alkaloid extracted from Herba leonuri, has been proved to have anti-inflammatory effect.

NAUUW





н-

Synonym: SCM-198 hydrochloride Vegetable origin

Solubility: DMSO: ≥ 31mg/mL

Leonurine (hydrochloride), a major alkaloid compound extracted from Leonurus japonicas Houtt. (Labiatae), is considered to have antitumor roles.

NAUUX

L-Leucine CAS: 61-90-5 C₆H₁₃NO₂

Vegetable origin

NAUUY

Leucoside CAS: 27661-51-4 C26H28O15

Vegetable origin Specification: 98% min by HPLC

NAUUZ

Levistilide A CAS: 88182-33-6

C24H28O4

Synonyms: Levistolid A, Levistolide A, Diligustilide, Z, Z'-6,6', 7, 3'a-Diligustilide Vegetable origin Plant Source: Ligusticum chuanxiong Specification: 98% min by HPLC

NATXD

Levodopa CAS: 59-92-7 C₀H₁NO₄

Vegetable origin

NAUV1

Licarin A CAS: 51020-86-1

Vegetable origin

NAUV2

Licochalcone A





Synonym: Licochalcone-A Vegetable origin Solubility: DMSO: ≥ 31mg/mL

Licochalcone A, a flavonoid isolated from the famous Chinese medicinal herb Glycyrrhiza uralensis Fisch, presents obvious anti-cancer effects. The IC50 value is 0.97µM for UGT1A1.

NAUV3

Licochalcone B CAS: 58749-23-8

Vegetable origin

NAUV4 Licoflavone C CAS: 72357-31-4 C20H18O5

Vegetable origin



NAUV5

Licoisoflavone A CAS: 66056-19-7

Vegetable origin

NAUV6

Liensinine CAS: 2586-96-1 C37H42N2O6

Vegetable origin Specification: 98% min by HPLC

NAUV7

Liensinine diperchlorate CAS: 5088-90-4

Vegetable origin



NAUV8

Lignoceric Acid CAS: 557-59-5

NAUV9

Ligupurpuroside A CAS: 147396-01-8

Vegetable origin

NAUVA

Ligupurpuroside B CAS: 147396-02-9

Vegetable origin

NAUVB

Ligupurpuroside C CAS: 1194056-33-1

Vegetable origin

NAUVC

Ligustilide CAS: 4431-01-0 C₁₂H₁₄O₂



Vegetable origin Solubility: 10mM in DMSO

Ligustilide is an effective constituent extracted from Angelica sinensis. IC50 value: Target: In vitro: To investigate the neuroprotective of ligustilide (LIG) against glutamate-induced apoptosis of PC12 cells, cell viability were examined by MTT assay. Pretreatment with ligustilide (1, 5, 15 µmol · L(-1)) significantly improved cell viability. The apoptosis rate in glutamate-induced PC12 cells was 13.39%, and decreased in the presence of ligustilide (1, 5, 15µmol · L(-1)) by 9.06%, 6.48%, 3.82%, separately. Extracellular accumulation of Ca²⁺ induced by glutamate were significantly reduced by ligustilide [1]. In vivo.

NAUVD

Z-Ligustilide CAS: 81944-09-4

Vegetable origin

NAUVE

Ligustrazine (hydrochloride) CAS: 76494-51-4 $C_8H_{12}N_2$



Synonyms: Chuanxiongzine hydrochloride; Tetramethylpyrazine hydrochloride Vegetable origin

Solubility: 10mM in DMSO

Ligustrazine (hydrochloride) is a natural product. IC50 value: Target: In vitro: Ligustrazine hydrochloride displayed a protection effect on injured ECV304 cells, NOS and NO formation were significantly increased compared with the model group [1]. In vivo.

NAUVF

Ligustroflavone CAS: 260413-62-5 C₃₃H₄₀O₁₈

Vegetable origin Specification: 98% min by HPLC

NAUVG

Limocitrin CAS: 489-33-8 C₁₇H₁₄O₈



Vegetable origin

NAUVH

Limonene CAS: 138-86-3

Vegetable origin

NAUVI

Linalool CAS: 78-70-6

Vegetable origin

NAUVJ

L-Linalool CAS: 126-91-0

Vegetable origin

NAUVK

Linalyl Acetate CAS: 115-95-7

Vegetable origin

NAUVL

Linderalactone CAS: 728-61-0

Vegetable origin

NAUVM

Linderane CAS: 13476-25-0 C₁₅H₁₆O₄

Vegetable origin Specification: 98% min by HPLC

NAUVN

Linderene CAS: 26146-27-0

Vegetable origin



NAUVO

Lindleyin CAS: 59282-56-3

Vegetable origin

NAUVP

Linoleic acid CAS: 60-33-3

Vegetable origin

NAUVQ

 $\begin{array}{l} \textbf{\alpha-Lipoic Acid} \\ \text{CAS: 1077-28-7} \\ \text{C}_8\text{H}_{14}\text{O}_2\text{S}_2 \end{array}$



Synonyms: (±)-α-Lipoic acid;DL-α-Lipoic acid;Thioctic acid Vegetable origin

Solubility: 10mM in DMSO

α-Lipoic Acid, is reported to have antioxidative property. IC50 value: Target: In vitro: The effects of α-Lipoic Acid on thioacetamide-induced liver fibrosis in rats and the possible underlying mechanisms in hepatic stellate cells in vitro was examined. Co-administration of α-Lipoic Acid to rats chronically treated with TAA inhibited the development of liver cirrhosis, as indicated by reductions in cirrhosis incidence, hepatic fibrosis, and AST/ALT activities [3]. In vivo: In the study on the antioxidative activity of a-Lipoic Acid, the result showed that on the micronutrient functions of α-Lipoic Acid may be more as an effector of important cellular stress response pathways that ultimately influence endogenous cellular antioxidant levels and reduce proinflammatory mechanisms [1]. α-Lipoic Acid exerts antioxidant effects in biological systems through ROS quenching but also via an action on transition metal chelation. Dietary supplementation with α-Lipoic Acid has been successfully employed in a variety of in vivo models of disease associated with an imbalance of redox status: diabetes and cardiovascular diseases [2].

NAUVR

Liquidambaric lactone CAS: 185051-75-6

Vegetable origin

NAUVS

Liquiritigenin CAS: 578-86-9 C₁₅H₁₂O₄

Synonym: 4',7-Dihydroxyflavanone Vegetable origin Solubility: DMSO: ≥150mg/mL Liquiritigenin, a flavanone isolated from *Glycyrrhiza uralensis*, is a highly selective estrogen receptor β (**ER** β) agonist with an **EC**₅₀ of 36.5nM for activation of the ERE tk-Luc.

NAUVT

 $\begin{array}{l} \text{Liquiritin} \\ \text{CAS: 551-15-5} \\ \text{C}_{_{21}}\text{H}_{_{22}}\text{O}_{_9} \end{array}$

Synonym: Liquiritoside Vegetable origin Specification: 98% min by HPLC

NAUVU

Liquiritin apioside CAS: 74639-14-8

Vegetable origin

NAUVV

Liriope muscari baily saponins CAS: 130551-41-6 $C_{44}H_{70}O_{47}$

Synonym: Saponin C from Liriope muscari Vegetable origin Specification: 98% min by HPLC

NAUVX

Liriopeside B CAS: 87425-34-1

Vegetable origin

NAUVY

Lirioprolioside B CAS: 182284-68-0

Vegetable origin

NAUVZ

Lithospermic acid CAS: 28831-65-4

Vegetable origin

NAUW0

Lithospermoside CAS: 63492-69-3 C₁₄H₁₀NO₈

Synonym: Griffonin Vegetable origin Specification: 98% min by HPLC

NAUW1

Lobetyol CAS: 136171-87-4 C, ,H, ,O₂



Vegetable origin

A.163

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NAUW2

Lobetyolin CAS: 136085-37-5 C₂₀H₂₈O₈

Synonyms: Lebetyolin,(4E,12E)-6-(β-D-Glucopyranosyloxy)-4,12tetradecadiene-8,10-diyne-1,7-diol Vegetable origin Plant Source: Radix Codonopsis Specification: 98% min by HPLC

NAUW3

Loganic acid CAS: 22255-40-9

 $C_{16}H_{24}O_{10}$

Vegetable origin Specification: 98% min by HPLC

NAUW4

Loganin CAS: 18524-94-2 C₁₇H₂₆O₁₀



Synonym: Loganoside Vegetable origin

Solubility: 10mM in DMSO

Loganin, a major iridoid glycoside obtained from Corni fructus, has been shown to have anti-inflammatory and anti-shock effects. Loganin exhibits an anti-inflammatory effect in cases of AP and its pulmonary complications through inhibition of NF-kB activation.

NAUW5

Loliolid CAS: 5989-02-6 C₁₁H₁₆O₃



Vegetable origin

NAUW6

(2RS)-Lotaustralin CAS: 1973415-50-7

Vegetable origin

NAUW7

Lotusine CAS: 6871-67-6

Vegetable origin

NAUW8

Loureirin A CAS: 119425-89-7 C₁₇H₁₈O₄



Vegetable origin Solubility: DMSO

Loureirin A is a flavonoid extracted from Dragon's Blood, can inhibit **Akt** phosphorylation, and has antiplatelet activity.

NAUW9

Loureirin B CAS: 119425-90-0 C₁₈H₂₀O₅



Vegetable origin Solubility: DMSO

Loureirin B, a flavonoid extracted from **Dracaena cochinchinensis**, is an inhibitor of plasminogen activator inhibitor-1 (**PAI-1**), with an $IC_{_{50}}$ of 26.10µM; also inhibits $K_{_{ATP}}$, the phosphorylation of **ERK** and **JNK**, and has anti-diabetic activity.

NAUWA

Loureirin C CAS: 116384-24-8 C₁₆H₁₆O₄



Vegetable origin

NAUWB

Lovastatin CAS: 75330-75-5 C₂₄H₃₆O₅

Synonym: Mevinolin Vegetable origin

Solubility: DMSO: ≥ 215mg/mL

Lovastatin, a HMG-CoA reductase inhibitor, is a cholesterol-lowering

drug.







NAUWE



NAUWF

Lucidenic acid B CAS: 95311-95-8

Vegetable origin

NAUWG

Lucidenic acid C CAS: 95311-96-9

Vegetable origin

NAUWH

Lucidenic acid E CAS: 98665-17-9

Vegetable origin

NAUWI

Lucidin CAS: 478-08-0

Vegetable origin

NAUWJ

Lucyoside B CAS: 91174-19-5

Vegetable origin

NAUWK

Lupanine CAS: 550-90-3 C₁₅H₂₄N₂O



AND Enantiome

Vegetable origin

NAUWL

Lupeol CAS: 545-47-1 C₃₀H₅₀O

Synonym: Fagarasterol Vegetable origin Solubility: 10mM in DMSO Lupeol is a novel **androgen receptor** inhibitor

NAUWM

AND Enantiomer

Lushanrubescensin H CAS: 476640-22-9 $C_{22}H_{30}O_6$



AND Enantiomer

Vegetable origin

NAUWN

Lusianthridin CAS: 87530-30-1C₁₅H₁₄O₃



Vegetable origin

NAUWO

Lutein CAS: 127-40-2

Synonym: Xanthophyll Vegetable origin

NAUWP

Luteolin CAS: 491-70-3 C₁₅H₁₀O₆



Synonyms: Luteolol; Digitoflavone; Flacitran; Luteoline Vegetable origin

Solubility: DMSO: ≥ 37mg/mL

Luteolin is a falconoid compound, which exhibits anticancer properties. IC50 value: Target: A natural for anticancer. In vitro: Luteolin exerted an anticancer effect against NCI-H460 cells through Sirt1mediated apoptosis and the inhibition of cell migration [1]. The treatment of luteolin upregulated the expression levels of transforming growth factor β 1 (TGF- β 1), p21WAF1/CIP1, p27KIP1, Smad4, and Fas in HCC cells. Luteolin induced apoptotic cell death in Hep3B cells while caused G1 arrest in HepG2 cells. And it induces apoptosis from G1 arrest via three signaling pathways of TGF- β 1, p53, and Fas/Fas-ligand in HCC cells [2]. In vivo: The study of the effect of Luteolin on the improvement of cancerous cachexia in model mice showed that luteolin can improve the symptoms of cancer cachexia model mice. The mechanism may be related to inhibition of proteasome and calcium activated protease activity and lower the levels of cytokines [3].

NAUWQ

Luteolin 7-apiosyl-(1->2)-glucoside CAS: 506410-53-3

Vegetable origin

NAUWS

Luteolin-5-O-glucoside CAS: 20344-46-1

Vegetable origin

Advion × 😤 interchim

NAUWR

Luteolin 3'-O-beta-D-glucuronide CAS: 53527-42-7 $C_{21}H_{18}O_{12}$

Synonym: Luteolin 3'-O-glucuronide Vegetable origin Plant Source: Rosmarinus officinalis Specification: 98% min by HPLC

NAUWT

Luteolin-7-beta-D-glucuronide CAS: 29741-10-4 C₂₁H₁₈O₁₂

Chemical Name: (2S,3S,4S,5R,6S)-6-((2-(3,4-DIHYDROXYPHENYL)-5-HYDROXY-4-OXO-4H-CHROMEN-7-YL) OXY)-3,4,5-TRIHYDROXYTETRAHYDRO-2H-PYRAN-2-CAR-BOXYLIC ACID Synonyms: Luteolin 7-O-beta-D-glucuronopyranoside; Luteolin 7-Obeta-glucuronide Vegetable origin Plant Source: Antirrhinum majus Specification: 98% min by HPLC

NATPY

Luteoloside CAS: 5373-11-5 C₂₁H₂₀O₁₁

Vegetable origin Specification: 98% min by HPLC

NAUWV

Lycopene

CAS: 502-65-8

C40H56

Vegetable origin Solubility: DMSO: 6.4 mg/mL

Lycopene is naturally occurring carotenoids found in tomato, tomato products, and in other red fruits and Vegetables; exhibits antioxidant effects.

NAUWW

Lycorenine CAS: 477-19-0

Vegetable origin

NAUWX

Lycorine (hydrochloride) CAS: 2188-68-3 $C_{16}H_{18}CINO_4$



Vegetable origin Solubility: DMSO: ≥ 31mg/mL

CIH Lycorine (hydrochloride) is VE-cadherin inhibitor, and has IC50 of 1.2µM in Hey1B cell. IC50: 1.2µM (Hey1B cell)[2] In vitro:Lycorine (hydrochloride) executed an anti-melanoma vasculogenic effect by inhibiting VE-cadherin gene expression in C8161 cells and caused a decrease in cell surface exposure of VE-cadherin protein. Consistently, LH significantly suppressed VE-cadherin gene promoter activity. [1] Lycorine (hydrochloride) effectively inhibited mitotic proliferation of Hey1B cells (half maximal inhibitory concentration = 1.2µM) with very low toxicity, resulting in cell cycle arrest at the G2/M transition through enhanced expression of the cell cycle inhibitor p21 and marked down-regulation of cyclin D3 expression. Moreover, LH suppressed both the formation of capillary-like tubes by Hey1B cells cultured in vitro.[2] In vivo: Lycorine effectively suppressed C8161 cell-dominant tumor formation and generation of tumor blood vessels in vivo with low toxicity.[1] Lycorine (hydrochloride) suppressed the formation of the ovarian cancer cell-dominant neovascularization in vivo when administered to Hey1B-xenotransplanted mice, suggest that LH selectively inhibits ovarian cancer cell proliferation and neovascularization and is a potential drug candidate for anti-ovarian cancer therapy.[2]

NAUWY

(-)-Lyoniresinol CAS: 31768-94-2 C₂₂H₂₈O₈



Vegetable origin

NAUWZ

L-Lysine CAS: 56-87-1 C₆H₁₄N₂O₂



L-lysine hydrochloride is an essential amino acid for humans with various benefits including treating herpes, increasing calcium absorption, reducing diabetes-related illnesses and improving gut health.



NAUX1

Lysionotin CAS: 152743-19-6

Vegetable origin

NAUX3

dl-Maackiain CAS: 19908-48-6 C₁₆H₁₂O₅

Vegetable origin

NAUX4

Macamide B CAS: 74058-71-2

Vegetable origin

NAUX5

Macelignan CAS: 107534-93-0 C₂₀H₂₄O₄



Synonyms: (+)-Anwulignan; Anwuligan Vegetable origin

Solubility: DMSO: ≥ 30mg/mL

Macelignan(Anwuligan) is a natural compound isolated from Myristica fragrans Houtt; possesses therapeutic potentials against neurodegenerative diseases with oxidative stress and neuroinflammation. IC50 value: Target: in vitro: Macelignan significantly attenuated the ROS production and neurotoxicity induced by glutamate in HT22 cell [1]. At 24h of biofilm growth, S. mutans, A. viscosus and S. sanguis biofilms were reduced by up to 30%, 30% and 38%, respectively, after treatment with 10microg/mL macelignan for 5min [2]. Cisplatininduced phosphorylation of c-Jun N-terminal kinase1/2 (JNK1/2) and extracellular signal-regulated kinase1/2 (ERK1/2) was abrogated by pretreatment with macelignan, however, that of p38 was not significantly affected [3]. In vivo: Macelignan attenuated the expression of phosphorylated c-Jun in cisplatin-treated mice [3]. Daily administration of macelignan reduced the spatial memory impairments induced by the chronic LPS infusions [4].

NAUX6

 $\begin{array}{l} \mbox{Macranthoidin A} \\ \mbox{CAS: } 140360\mbox{-}29\mbox{-}8 \\ \mbox{C}_{59}\mbox{H}_{96}\mbox{O}_{27} \end{array}$

Synonyms: Giganteaside J; Giganteoside J Vegetable origin Plant Source: Flos Lonicerae Specification: 98% min by HPLC

NAUX7

AND Enantiome

AND Enantiomer



Synonym: Macranthoiside I Solubility: 10mM in DMSO

Macranthoidin B is a major bioactive saponin in rat plasma after oral administration of extraction of saponins from Flos Lonicerae.



NAUXD

Macrocarpal F CAS: 146324-03-0

Vegetable origin

NAUXE

Madecassic acid CAS: 18449-41-7 C₃₀H₄₈O₆

Vegetable origin Specification: 98% min by HPLC



matecassoside is a periacyclic therpene isolated from Centeria asitica (L.), as an anti-inflammatory, anti-oxidative activities and anti-aging agent. [1] In vitro: Madecassoside exhibit significant antiproliferative and anti-invasive effect in HGF-induced HepG2 and SMMC-77 cells. Madecassoside inhibit the HGF-induced activation of cMET-PKC-ERK1/2-COX-2-PGE2cascade. [1] In vivo: Administration of madecassoside, p.o., exhibit a direct anti-PF effect in mice. Madecassoside increase the expression of hepatocyte growth factor (HGF) in colon tissues, and HGF receptor antagonists attenuated its anti-PF effect. madecassoside in mice are not mediated by its metabolites or itself after absorption into blood. Instead, madecassoside increases the activity of PPAR- γ , which subsequently increases HGF expression in colonic epithelial cells. [2] The reference for administration is 12mg/kg. [3]

NAUXG

Magnoflorine CAS: 2141-09-5

Vegetable origin

NAUXH

Magnoflorine lodide CAS: 4277-43-4

Vegetable origin

NAUXI

Magnolin CAS: 31008-18-1 C₂₃H₂₈O₇



Vegetable origin Solubility: DMSO

Magnolin, a major component of *Magnolia* flos (Shin-Yi), inhibits the Ras/ERKs/RSK2 signaling axis by targeting the active pocket of **ERK1** and **ERK2** with **IC**₅₀S of 87 and 16.5nM, respectively.

NAUXJ

Magnolol CAS: 528-43-8 C₁₈H₁₈O₂



Vegetable origin

Solubility: DMSO: ≥ 37mg/mL

Magnolol, the main polyphenol compound of the bark of Magnolia officinalis, has a variety of pharmacological activities.

NAUXK

Mahanimbine

CAS: 21104-28-9



Vegetable origin



NAUXM

6"-O-Malonylgenistin CAS: 51011-05-3 $C_{24}H_{22}O_{13}$ OH HO HO OH OH OH OH OH OH

Synonyms: Malonylgenistin; Genistin malonate Vegetable origin Solubility: 10mM in DMSO 6"-O-Malonylgenistin(Malonylgenistin) is an isoflavone derivative.

NAUXN

Maltol CAS: 118-71-8

Vegetable origin

NAUXO

Maltose CAS: 69-79-4 C₁₂H₂₂O₁₁

Vegetable origin

NAUXP

Malvidin-3-O-glucoside chloride CAS: 7228-78-6 C₂₃H₂₅ClO₁₂ HO



AND Enantiomer

Vegetable origin

NAUXQ

Mangiferin CAS: 4773-96-0 C₁₉H₁₈O₁₁



Vegetable origin

Solubility: DMSO: \geq 10mM; DMSO: < 8mg/mL

Mangiferin isolated from Anemarrhena asphodeloides Bunge rhizome, is used for antidiabetes. IC50 value: Target: In vitro: Mangiferin is an O(2)(-) scavenger and that it inhibits expression of the iNOS and TNF-alpha genes, suggesting that it may be of potential value in the treatment of inflammatory and/or neurodegenerative disorders. In addition, mangiferin enhancing TGF-beta gene expression suggests that this polyphenol might also be of value in the prevention of cancer, autoimmune disorders, atherosclerosis and coronary heart disease [3]. In vivo: Mangiferin was tested for antidiabetic activity in KK-Ay mice, an animal model of type-2 diabetes. Mangiferin lowered the blood glucose level of KK-Ay mice 3 weeks after oral administration (p < 0.01). However, no effect on the blood glucose level in normal mice was seen, indicating that mangiferin could be useful in treating type-2 diabetes. In addition, mangiferin improved hyperinsulinemia and, on insulin tolerance test, reduced blood glucose levels of KK-Ay mice [1]. The effect of mangiferin (10 and 20mg/kg, i.p., 28days) was investigated in STZ-induced diabetic male rats. Insulintreated rats (6U/kg, i.p., 28days) served as positive control. Intraperitoneal administration of mangiferin exhibited significant decrease in glycosylated haemoglobin and CPK levels along with the amelioration of oxidative stress that was comparable to insulin treatment [2].

NAUXR

Alpha-Mangostin

CAS: 6147-11-1

 $C_{24}H_{26}O_{6}$



Synonym: α-Mangostin Vegetable origin

Solubility: DMSO: ≥ 37mg/mL Alpha-mangostin is a dietary xanthone with broad biological activitice, such as antioxidant anti-alercic, antiviral antibacterial activi-

ties, such as antioxidant, anti-allergic, antiviral, antibacterial, anti-inflammatory and anticancer effects. It is an inhibitor of mutant IDH1 (IDH1-R132H) with a K_i of 2.85 μ M.

NAUXS

Beta-Mangostin CAS: 20931-37-7 C₂₅H₂₈O₆



Synonym: β-Mangostin Vegetable origin Solubility: 10mM in DMSO

NAUXT

Gama-Mangostin

C₂₃H₂₄O₆ Synonym: Normangostin

Vegetable origin

NAUXU Manninotriose

CAS: 13382-86-0 C₁₈H₃₂O₁₆



AND Enantiomer



Vegetable origin

Solubility: 10mM in DMSO; H₂O: 83.3mg/mL OH Manninotriose is a novel and important player in the RFO(Raffinose family oligosaccharides) metabolism of red dead deadnettle; potential to improve the side effects of MTX for ALL treatment

NAUXX

Mannitol CAS: 87-78-5

Vegetable origin
NAUXW





Synonyms: Mannitol; Mannite Vegetable origin Solubility: H₂O: ≥ 36mg/mL

Solubility. $\Pi_2 O. \ge 30119/111$

D-Mannitol is an osmotic diuretic agent and a weak renal vasodilator. Target: Others D(-)Mannitol is a sugar alcohol that can be used as an inert osmotic control substance. The uptake and phosphorylation of d-mannitol is catalyzed by the mannitol-specific phosphoenolpyruvate-dependent phosphotransferase systems (PTS). Mannitol can interact with neutrophils and monocytes. Experiments have shown that it is able to decrease neutrophil apoptosis in vitro. The compound has been used in studies as a stimulator of cecal microbial growth and cellulolytic activity in rabbits. It has been observed that toth normal and cecectomized rats, as well as upregulate monocyte HLA-DR, monocyte and neutrophil CD11b. Studies show that the mannitol operon is repressed by the transcription factor, mannitol operon repressor (MtIR) in Escherichia coli [1-3].

NAUXY

L-Mannitol CAS: 643-01-6

NAUXZ

L-Mannomethylose CAS: 3615-41-6 C₆H₄₂O₅

Synonyms: Isodulcit; Isodulcitol; L-(+)-Rhamnose; L-Rhamnose; Locaose; NSC 2056; Rhamnose Vegetable origin

NAUY0

Maoecrystal A CAS: 96850-30-5



Vegetable origin



S-(+)-Marmesin CAS: 13849-08-6 C₁₄H₁₄O₄



AND Enantiomer

Synonyms: (+)-Marmesin; (S)-Marmesin Vegetable origin Solubility: DMSO S-(+)-Marmesin is a natural coumarin, exhibiting **COX-2/5-LOX** dual inhibitory activity.



Synonyms: Crategolic acid; 2α -Hydroxyoleanolic acid Vegetable origin

Solubility: DMSO: ≥ 28mg/mL

Maslinic acid(Crategolic acid) is a pentacyclic triterpene found in a variety of natural sources; exerts a wide range of biological activities, i.e. antitumor, antidiabetic, antioxidant, cardioprotective, neuroprotective, antiparasitic and growth-stimulating. IC50 value: Target: in vitro: MA was able to suppress the viability of cardiac carcinoma cells in both a time- and dose-dependent manner. MA induced the activation of p38 MAPK in cardiac carcinoma cells and, in turn, changed their mitochondrial membrane potential (MMP) [1]. MA exerts anti-diabetic effects by increasing glycogen content and inhibiting glycogen phosphorylase activity in HepG2 cells. Furthermore, MA was shown to induce the phosphorylation level of IRβ-subunit, Akt, and GSK3B. The MA-induced activation of Akt appeared to be specific, since it could be blocked by wortmannin [2]. The combination of MA and GEM inhibited constitutive NF-kB activation and NF-kBregulated gene products, including cyclin D1, Bcl-2, Bax, MMP-2 and MMP-9, to a greater extent [4]. In vivo: Maslinic acid exhibits the growth-suppressing activity of MA on T24 and 253J xenograft tumor in mouse models [3]. The group that was treated with MA + GEM showed significant reductions in tumor volume and a decreased expression of NF-kB-regulated gene products [4].



NAUY8

Matairesinol 4'-O-β-gentiobioside CAS: 106647-14-7

Vegetable origin

NAUY9

Matrine CAS: 519-02-8 C₁₅H₂₄N₂O



Synonyms: Sophocarpidine; Matridin-15-one; Vegard; α -Matrine Vegetable origin

Solubility: 10mM in DMSO

Matrine(Sophocarpidine; α-Matrine) is an alkaloid found in plants from the Sophora genus. It has a variety of pharmacological effects, including anti-cancer effects, and action as a kappa opioid receptor and u-receptor agonist. IC50 Value: 540µg/ml (inhibit gastric cancer cell line MNK45, MTT) [1] Target: u-receptor/kappa opioid in vitro: MTT assay showed that the matrine was able to inhibit gastric cancer cell line MNK45 in a dose-dependent manner. The concentration required for 50% inhibition (IC50) was found to be 540µg/ml. This anti-tumor function was achieved through modulation of the NFκB, XIAP, CIAP, and p-ERK proteins expression in cell line MNK45. Matrine induces apoptosis of human NSCLC cells with anti-apoptotic factors inhibited and dependent on caspase activity. In addition, we found that matrine increases the phosphorylation of p38 but not its total protein, and inhibition of the p38 pathway with SB202190 partially prevents matrine-induced apoptosis. Furthermore, matrine generates reactive oxygen species (ROS) in a dose- and time-dependent manner, which is reversed by pretreatment with N-acetyl-Lcysteine (NAC) [2]. In vivo: Oral administration of matrine (200, 100 and 50mg/kg) significantly attenuated isoproterenol-induced cardiac necrosis and left ventricular dysfunction [3]. High dose of matrine significantly reduced the mortality rate of mice with LPS administration. Treatment with matrine improved LPS-induced lung histopathologic changes, alleviated pulmonary edema and lung vascular leak, inhibited MPO and MDA activity, and reduced the production of inflammatory mediators including TNF-a, IL-6 and HMGB1 [4]. Toxicity: N/A Clinical trial: N/A

NAUYA

Mauritianin CAS: 109008-28-8

Vegetable origin

NAUYB

Medicagenic acid CAS: 599-07-5 C₃₀H₄₆O₆

Chemical Name: 2-beta,3-beta-Dihydroxyolean-12-ene-23,28-dioic acid Vegetable origin Specification: 98% min by HPLC

NAUYC

Medicagol CAS: 1983-72-8

Vegetable origin



Solubility: $H_0 O: \ge 31 \text{ mg/mL}$

D-(+)-Melezitose can be used to identify clinical isolates of indolepositive and indole-negative *Klebsiella* spp.

NAUYH

Melissic acid CAS: 506-50-3



NAUYJ

Menisdaurin CAS: 67765-58-6

Vegetable origin

NAUYK

4-p-Menthan-1,8-diol CAS: 565-48-0

Vegetable origin

NAUYL

Menthol CAS: 89-78-1 C10H20

Chemical Name: (1R,2S,5R)-5-methyl-2-propan-2-ylcyclohexan-1-ol Vegetable origin

NAUYM

DL-Menthol CAS: 1490-04-6

Vegetable origin

NAUYN

L-Menthol CAS: 2216-51-5

Vegetable origin

NAUYO

Mesaconitine CAS: 2752-64-9 C33H45NO11



Vegetable origin Solubility: 10mM in DMSO

Mesaconitine is the main active component of genus aconitum plants. IC50 value: Target: in vitro: In HUVECs, 30microM mesaconitine increased the Ca2+ level in the presence of extracellular CaCl, and NaCl, and the response was inhibited by KBR7943. Mesaconitine increased intracellular Na⁺ concentration level in HUVECs. The Ca2+ response by mesaconitine was inhibited by 100microM D-tubocurarine [1]. Mesaconitine at 30microM inhibited 3microM phenylephrine-induced contraction in the endothelium-intact, but not endothelium-denuded, aortic rings [2]. MA promoted the alpha-MTinduced decrease in NE levels in hippocampus, medulla oblongata plus pons and spinal cord [3].

NAUYP

Mesembrenone CAS: 468-54-2 C₁₇H₂₁NO₃



Vegetable origin

NAUYQ Methiin

NAUYR

L-Methionin CAS: 63-68-3 C5H11NO2S

Vegetable origin

NAUYS

4-Methoxybenzoic acid CAS: 100-09-4 C_gH_gO_g

Synonyms: 4-Anisic acid; Anisic acid; Dermosoft 688; Draconic acid; NSC 32742; NSC 7926; p-Methoxybenzoic acid Vegetable origin

NAUYT

Vegetable origin

NAUYV

9-Methoxycamptothecin CAS: 39026-92-1 C₂₁H₁₈N₂O₅

Vegetable origin Specification: 98% min

NAUYU

10-Methoxycamptothecin CAS: 19685-10-0

Vegetable origin

NAUYW

9-Methoxycanthin-6-one CAS: 74991-91-6 C₁₅H₁₀N₂O₂

Vegetable origin



terchim[®] × Advion

AND Enantiome

(9Z,12Z)-N-(3-Methoxybenzyl)octadeca-9,12-dienamide CAS: 883715-22-8

NAUYX

9-Methoxycanthin-6-one N-oxide CAS: 137739-74-3 C15H10N2O3



Vegetable origin

NAUYY

7-Methoxy-beta-carboline-1-propionic acid CAS: 137756-13-9 C15H14N2O3



Vegetable origin

NAUYZ

3"-Methoxydaidzein CAS: 21913-98-4

Vegetable origin

NAUZ0

6-Methoxydihydrosanguinarine CAS: 151890-26-5

Vegetable origin

NAUZ1

(2S)-5-Methoxy-7-flavanol CAS: 35290-20-1 C₁₆H₁₆O₃

Vegetable origin

NAUZ2

5-Methoxy-7-hydroxycoumarin CAS: 3067-10-5 $C_{10}H_{8}O_{4}$

AND Enantiomer

Vegetable origin

NAUZ3

8-Methoxykaempferol CAS: 571-74-4 C16H12O7



Vegetable origin

NAUZ4

6-Methoxykaempferol 3-O-rutinoside CAS: 403861-33-6

Vegetable origin

NAUZ5



NAUZ6

(2S)-5-Methoxy-6-methylflavan-7-ol CAS: 35290-19-8 C₁₇H₁₀O₂

Vegetable origin



NAUZ9

4-Methoxyphenyl 2,3-Di-O-benzyl-β-D-galactopyranoside

NAUZ8

4-Methoxyphenyl2,6-Di-O-benzyl-β-D-galactopyranoside CAS: 159922-50-6

NAUZA

4-Methoxyphenyl β-D-Galactopyranoside CAS: 3150-20-7

NAUZB

4-Methoxyphenyl 4-O-β-D-Galactopyranosyl-β-Dglucopyranoside CAS: 150412-80-9

NAUZC

4-Methoxyphenyl β-D-Glucopyranoside CAS: 6032-32-2

NAUZE

4-Methoxyphenyl 2,2',3,3',6,-Penta-O-benzyl-4-O-β-Dgalactopyranosyl-*β*-D-glucopyranoside

NAUZD

4-Methoxyphenyl 2,2',3,6,6'-Penta-O-benzyl-4-O-β-Dgalactopyranosyl-β-D-glucopyranoside CAS: 358681-61-5

NAUZG

4-Methoxyphenyl 2,3,4,6-Tetra-O-acetyl-β-Dgalactopyranoside CAS: 2872-65-3

NAUZH

4-Methoxyphenyl 2,3,4,6-Tetra-O-acetyl-β-Dglucopyranoside CAS: 14581-81-8

NAUZI

3'-Methoxypuerarin CAS: 117047-07-1 C₂₂H₂₂O₁₀

Vegetable origin Plant Source: Pueraria lobata Specification: 98% min by HPLC

NAVA4

2-O-Methyl-α-D-N-acetylneuraminic Acid CAS: 50930-22-8

NAVA5

N6-Methyladenosine CAS: 1867-73-8 $C_{44}H_{45}N_{5}O_{4}$



Synonyms: 6-Methyladenosine; N-Methyladenosine Solubility: DMSO: ≥ 31mg/mL

N6-Methyladenosine is the most prevalent internal (non-cap) modification present in the messenger RNA (mRNA) of all higher eukaryotes.



NAVA7

3-Methylalizarin CAS: 602-63-1 C₁₅H₁₀O₄



Vegetable origin

NAVA8

7-O-Methylaloeresin A CAS: 329361-25-3

Vegetable origin

NAVA9

 $C_{21}H_{22}O_{4}$

4'-O-Methylbavachalcone

Vegetable origin

CAS: 20784-60-5

NAVAA

3-(4'-Methylbenzylidene)camphor CAS: 36861-47-9

Vegetable origin

NAVAB

(Z,Z)2-methyl-2-Butenoic acid 2-carboxy-2-butenyl ester CAS: 69188-40-5 C₁₀H₁₄O₄

Vegetable origin

NAUZJ

Methyl beta-carboline-1-carboxylate CAS: 3464-66-2 C₁₃H₁₀N₂O₂ Vegetable origin

.

NAVAC O-Methylcedrelopsin CAS: 72916-61-1 C_{4e}H₄₀O₄

Vegetable origin

Vegetable origin

NAUZK

Methyl chanofruticosinate CAS: 14050-92-1 $C_{25}H_{26}N_2O_5$

AND Enantiomer



erchim[®] × Advion



NAVAD

25-O-Methylcimigenol-3-O-beta-D-xylopyranoside AND Enantiomer CAS: 27994-13-4



Vegetable origin

NAVAE

N-Methylcorydaldine CAS: 6514-05-2 C₁₂H₁₅NO₃



Vegetable origin

NAVAF

6-Methylcoumarin CAS: 92-48-8

Vegetable origin

NAVAG

N-Methylcytisine CAS: 486-86-2

Vegetable origin

NAUZL



NAUZM

Methyl 2,3-Didehydro-4,7,8,9-tetra-O-acetyl-N-acetylneuraminate CAS: 73960-72-2

NAVAH

3,3'-Di-O-methylellagic acid CAS: 2239-88-5

Vegetable origin

NAVAI

trans-3,4-Methylenedioxycinnamyl alcohol

CAS: 58095-76-4 C10H10O3



Vegetable origin

NAVAJ

Methylenetanshinquinone CAS: 67656-29-5 C18H14O3



NAVAK

Vegetable origin

4-O-Methylepisappanol



Vegetable origin

NAVAL

Methyleugenol CAS: 93-15-2 C₁₁H₁₄O₂

Chemical Name: 1,2-dimethoxy-4-prop-2-enylbenzene Vegetable origin Specification: 98% min by HPLC

NAVAM

O-Methylferulic acid CAS: 2316-26-9 $C_{11}H_{12}O_{4}$

Synonyms: Methylferulic acid; NSC 4323; NSC 43569 Vegetable origin

NAUZN

Methyl 3-O-feruloylquinate CAS: 154418-15-2

C18H22O9

Vegetable origin

NAVAN **N-Methylflindersine** CAS: 50333-13-6

C₁₅H₁₅NO₂

Vegetable origin



AND Enantiomer

NAUZO

Methyl gallate CAS: 99-24-1

Vegetable origin



NAUZQ



NAVAO

methyl(gypsogenin-3-O-β-D-glucopyranoside)uronate CAS: 96553-02-5

Vegetable origin

NAUZR

Methyl Hesperidin CAS: 11013-97-1

Vegetable origin

NAVAP

Methyllycaconitine citrate CAS: 112825-05-5

C43H58N2O17

Synonym: B6556 Vegetable origin Specification: 98% min by HPLC

NAVAQ

7-O-Methylmangiferin CAS: 31002-12-7 C₂₀H₂₀O₁₁

Synonym: 2-beta-D-Glucopyranosyl-1,3,6-trihydroxy-7-methoxy-9Hxanthen-9-one Vegetable origin Plant Source: Polygala tenuifolia Specification: 98%min by HPLC

NAUZS

Methyl 3-methoxy-4,5-dihydroxybenzoate CAS: 3934-86-9 $C_0H_{10}O_5$

Vegetable origin

NAVBA

[1(E),2Z,4(Z)]2-methyl-4-[(2-methyl-1-oxo-2-butenyl) oxy]-2-Butenoic acid 3-(7-methoxy-1,3-benzodioxol-5-yl)-2-propenyl ester

CAS: 194422-20-3

C₂₁H₂₄O₇

Vegetable origin

NAUZT

7-O-Methyl morroniside CAS: 41679-97-4

Vegetable origin

NAVAR

Methylnissolin-3-O-glucoside CAS: 94367-42-7 C23H26O10

Synonym: 9-O-Methylnissolin 3-O-glucoside Vegetable origin Plant Source: Astragalus Root Specification: 98% min by HPLC

NAVAS

N-Methylnuciferine CAS: 754919-24-9

Vegetable origin

NAVAT

Methylophiopogonanone A CAS: 74805-92-8 $C_{10}H_{18}O_{6}$

Chemical Name: 3-(1,3-benzodioxol-5-ylmethyl)-5,7-dihydroxy-6,8dimethyl-2,3-dihydrochromen-4-one Synonyms: AC1NSYJ4; SCHEMBL6341028; R-METHYLOPHIOPO-GONANONE A Vegetable origin Plant Source: Ophiopogon japonicus Specification: 98% min by HPLC

NAVAU

Methylophiopogonanone B CAS: 74805-91-7

 $C_{10}H_{20}O_{5}$

Chemical Name: (3R)-5,7-dihydroxy-3-[(4-methoxyphenyl) methyl]-6,8-dimethyl-2,3-dihydrochromen-4-one Synonyms: CHEMBL1098293; ZINC13327529; 4CN-2934 Vegetable origin Plant Source: Ophiopogon japonicus Specification: 98% min by HPLC

NAVAV

Methylophiopogonone A

CAS: 74805-90-6 C₁₉H₁₆O₆

Chemical Name: 3-(1,3-benzodioxol-5-ylmethyl)-5,7-dihydroxy-6,8dimethylchromen-4-one Vegetable origin Specification: 98% min

NAVAW

4"-methyloxy-Daidzin CAS: 1195968-02-5

Vegetable origin

NAVAX

4"-methyloxy-Genistin CAS: 950910-16-4

Vegetable origin

NAUZU

Methyl palmitate CAS: 112-39-0 $C_{17}H_{34}O_2$

Synonyms: NSC 4197; Pastell M 16; Uniphat A60; n-Hexadecanoic acid methyl ester Vegetable origin

NAVAY

3-methyl-Pentanoic acid (3aR,4S,7aR)-2,3,3a,4,7,7ahexahydro-5-[(1S)-4-hydroxy-1-methylbutyl]-6-methyl-3-methylene-2-oxo-4-benzofuranyl ester AND Enantiomer



NAVAZ

2-methyl-Propanoic acid (3aR,4S,7aR)-2,3,3a,4,7,7ahexahydro-5-[(1S)-4-hydroxy-1-methylbutyl]-6-methyl-3-methylene-2-oxo-4-benzofuranyl ester CAS: 1259933-02-2 AND Enantiomer

CAS: 125993. C₁₉H₂₈O₅



Vegetable origin

NAUZV

Methyl protodioscin



Synonyms: NSC-698790;Smilax saponin B Vegetable origin

Solubility: 10mM in DMSO

Methyl protodioscin(NSC-698790) is a furostanol bisglycoside with antitumor properties; shows to reduce proliferation, cause cell cycle arrest. IC50 value: Target: in vitro: MPD showed growth inhibitory effects in A549 cells in a dose- and time-dependent manner. The significant G2/M cell cycle arrest and apoptotic effect were also seen in A549 cells treated with MPD. MPD-induced apoptosis was accompanied by a significant reduction of mitochondrial membrane potential, release of mitochondrial cytochrome c to cytosol, activation of Bax [1]. In THP-1 macrophages, MPD increases levels of ABCA1 mRNA and protein in dose- and time-dependent manners, and apoA-1-me-diated cholesterol efflux. MPD also decreases the gene expressions of HMGCR, FAS and ACC for cholesterol and fatty acid synthesis [2].

NAVB0

Methylprotogracillin CAS: 54522-53-1

Vegetable origin



NAVB1

4'-O-Methylpuerarin CAS: 92117-94-7

Vegetable origin

NAUZX

 $\begin{array}{l} \textbf{Methyl reserpate} \\ \textbf{CAS: 2901-66-8} \\ \textbf{C}_{23}\textbf{H}_{30}\textbf{N}_{2}\textbf{O}_{5} \end{array}$

Vegetable origin

NAUZY

Methyl rosmarinate CAS: 99353-00-1

Vegetable origin

NAUZZ

Methyl salicylate CAS: 119-36-8

Vegetable origin

NAVA0

9"-Methyl salvianolate B CAS: 1167424-31-8

Vegetable origin

NAVA1

9"'-Methyl salvianolate B CAS: 1167424-32-9

Vegetable origin

NAVB2



Vegetable origin

NAVB3



NAVB4

Methylsynephrine Hydrochloride CAS: 365-26-4

Vegetable origin

NAVA2

Methyl syringate CAS: 884-35-5 $C_{10}H_{12}O_5$

Vegetable origin

NAVB5

Methylsyringol CAS: 6638-05-7C₄H₁₂O₃



Vegetable origin

NAVB6

1-methyl-2-(10Z)-10-tridecen-1-yl-4(1H)-Quinolinone CAS: 1265226-86-5

C₂₃H₃₃NO



Vegetable origin

NAVA3

Methyl trans-3-(3,4,5-trimethoxyphenyl)acrylate CAS: 20329-96-8

C₁₃H₁₆O₅



Vegetable origin

NAVB7

4-Methylumbelliferone CAS: 90-33-5 C₁₀H₈O₃



Synonyms: Hymecromone; 4-MU Vegetable origin Solubility: DMSO: ≥ 300mg/mL 4-Methylumbelliferone is a hyaluronic acid biosynthesis inhibitor with antitumoral and antimetastatic effects.

iterchim[®] × Advion

QC

NAVB8

5-O-Methylvisammioside



Synonym: 4'-O-β-D-Glucosyl-5-O-methylvisamminol Vegetable origin Solubility: 10mM in DMSO

5-O-Methylvisammioside is a natural product isolated from Saposhnikovia Divaricata.

NAVB9

O-Methylzanthoxyline CAS: 6900-99-8 $C_{20}H_{15}NO_4$

Vegetable origin

NAVBC

Methysticin CAS: 20697-20-5 C₁₅H₁₄O₅



Synonyms: DL-Methysticin; (±)-Methystici Vegetable origin Solubility: 10mM in DMSO

Methysticin is one of the six major kavalactones found in the kava plant; has CYP1A1 inducing effects which may be responsible for their toxicity.

NAVBB

D-Methysticin CAS: 495-85-2 C₁₅H₁₄O₅



AND Enantiomer

Vegetable origin

NAVBD Micheliolide





Vegetable origin Solubility: 10mM in DMSO

Micheliolide could effectively attenuate the high glucose-stimulated activation of NF- κ B, the degradation of I κ B α , and the expression of MCP-1, TGF- β 1 and FN in rat mesangial cells (MCs).

NAVBE

Micromelin CAS: 15085-71-9 C₁₅H₁₂O₆



AND Enantiomer

AND Enantiomer

Vegetable origin

NAVBF Microstegiol CAS: 143246-41-7

 $C_{20}H_{26}O_2$ Vegetable origin

NAVBG

Miltipolone CAS: 131086-61-8 C₁₀H₂₄O₃

Vegetable origin

NAVBH

Miltirone CAS: 27210-57-7 C₁₉H₂₂O₂

Vegetable origin

NAVBI

Mirificin CAS: 103654-50-8

Vegetable origin

NAVBJ

Mitoridine CAS: 3911-19-1

Vegetable origin



Mogrol is a biometabolite of mogrosides, and acts via inhibition of the ERK1/2 and STAT3 pathways, or reducing CREB activation and activating AMPK signaling.







AND Enantiomer

NAVBL



NAVBM

Mogroside lle CAS: 88901-38-6 C42H72O14



Vegetable origin

NAVBN

Mogroside III CAS: 130567-83-8 C48H82O19

Vegetable origin Plant Source: Momordica grosvenorii/Siraitia siamensis Specification: 98% min by HPLC

NAVBP

Mogroside III-A1 CAS: 88901-42-2 C48H82O19



NAVBO

Mogroside III E CAS: 88901-37-5

Vegetable origin

NAVBQ

AND Enantiomer

AND Enantiome

Mogroside IV CAS: 89590-95-4 C₅₄H₉₂O₂₄

Vegetable origin Plant Source: Momordica grosvenorii/Siraitia siamensis Specification: 98% min by HPLC



Vegetable origin

NAVBS





A.180

NAVBU

Mollugin CAS: 55481-88-4 C17H16O4



Vegetable origin

NAVBV

Moluccanin CAS: 116521-73-4 C20H18O8

Vegetable origin Specification: 98% min by HPLC

NAVBW

Momordicoside F1



Vegetable origin



NAVBY



NAVBZ

Momordin Ic CAS: 96990-18-0 C41H64O13

Vegetable origin Specification: 98% min by HPLC

NAVC0



Vegetable origin

NAVC1

Monnieriside G

CAS: 1401799-34-5

Vegetable origin

NAVC2

Monocrotaline CAS: 315-22-0 C₁₆H₂₃NO₆



Synonym: Crotaline Vegetable origin

Solubility: DMSO: ≥ 25mg/mL

Monocrotaline is an pyrrolizidine alkaloid extracted from the seeds of the Crotalaria spectabilis plant to induce pulmonary hypertension in rodents.

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ыc

NAVC3 Monomelittoside CAS: 20633-72-1

C15H22O10

Synonym: Danmelittoside Vegetable origin Solubility: 10mM in DMSO

NAVC4

1-Monomyristin CAS: 589-68-4

Vegetable origin

NAVC5

Monotropein CAS: 5945-50-6 C16H22O11

Vegetable origin Specification: 98% min





NAVC6

Moracin M CAS: 56317-21-6 $C_{14}H_{10}O_{4}$



Vegetable origin

NAVC7

Moracin P CAS: 102841-46-3 C₁₉H₁₈O₅

Vegetable origin



NAVC8

Morellic acid CAS: 5304-71-2 C33H36O8

Synonym: (-)-Morellic acid Vegetable origin Plant Source: Garcinia lateriflora Specification: 98% min by HPLC

NAVC9

Morin CAS: 480-16-0 C₁₅H₁₀O₇



Vegetable origin

NAVCA

Morroniside CAS: 25406-64-8 C17H26O11

Vegetable origin Specification: 98% min by HPLC

NAVCB

Morusin CAS: 62596-29-6 C25H24O6

Synonym: Mulberrochromene Vegetable origin Solubility: DMSO: ≥ 125mg/mL

Morusin is a prenylated flavonoid isolated from M. australis with various biological activities, such as antitumor, antioxidant, and antibacteria property.

NAVCC Morusinol CAS: 62949-93-3 C25H26O7



Vegetable origin

NAVCD

Morusinon CAS: 1505566-13-1 C₂₅H₃₂O₈



Vegetable origin

NAVCE

Moslosooflavone CAS: 3570-62-5 C₁₇H₁₄O₅



Vegetable origin

NAVCF

Mudanpioside C CAS: 172760-03-1

Vegetable origin

NAVCG





NAVCI

Mulberrofuran H CAS: 89199-99-5 AND Enantiome $C_{27}H_{22}O_{6}$ Vegetable origin

iterchim[®] × Advion

NAVCJ



Vegetable origin

Solubility: DMSO: \geq 40mg/mL

Mulberroside A, the major active anti-tyrosinase compound in the root bark extract of Morus alba L. (Moraceae), is widely employed as an active ingredient in whitening cosmetics. IC50 value: 1.29µmol/L (inhibition of the monophenolase activity); KI value: 0.385µmol/L (the inhibition constant of the effectors on tyrosinase); KIS value: 0.177µmol/L (the inhibition constant of the enzyme-substrate complex) [3] Target: In vitro: Mulberroside A decreased the expressions of tumor necrosis factor- α (TNF- α), interleukin (IL)-1 β , and IL-6 and inhibited the activation of NALP3, caspase-1, and nuclear factor-ĸB and the phosphorylation of extracellular signal-regulated protein kinases, the c-Jun N-terminal kinase, and p38 exhibiting anti-inflammatory antiapoptotic effects [1]. Mulberroside A treatment significantly decreased the mRNA and protein expression of P-gp in Caco-2 cells after treatment with Mulberroside A (5-20µM). PKC and NF-kB might play crucial roles in Mulberroside A-induced suppression of P-gp [2]. In vivo.

NAVCK

Mulberroside C CAS: 102841-43-0

Vegetable origin

NAVCL

Mulberroside F CAS: 193483-95-3

Vegetable origin

NAVCM

Multicaulisin CAS: 286461-76-5

Vegetable origin

NAVCN

Mumefural CAS: 222973-44-6

NAVCO

Mumefural isomer CAS: 1025890-42-9

NAVCP

Murrayacarpin B CAS: 120693-44-9 C₁₂H₁₂O₅

NAVCQ

Murrayanol CAS: 144525-81-5 C₂₄H₂₀NO₂

Vegetable origin

NAVCS

Myricetin CAS: 529-44-2 C₁₅H₁₀O₈

Chemical Name: 3,5,7-trihydroxy-2-(3,4,5-trihydroxyphenyl) chromen-4-one Vegetable origin Plant Source: M. pennsylvanica Specification: 98% min by HPLC

NAVCT

Myricetin 3-O-galactoside CAS: 15648-86-9

Vegetable origin

NAVCU

Myricitrin CAS: 17912-87-7 C₂₁H₂₀O₁₂

Synonyms: Myricitroside; Myricitrine; Myricetol 3-rhamnoside; Myricetrin; Myricetin 3-O-rhamnoside Vegetable origin Plant Source: M. pennsylvanica Specification: 98% min by HPLC

NAVCV

Myrislignan CAS: 52190-21-3

Vegetable origin

NAVCW Myristic acid CAS: 544-63-8

Vegetable origin



NAVCX

 $\begin{array}{l} \mbox{Myristicin} \\ \mbox{CAS: 607-91-0} \\ \mbox{C}_{11}\mbox{H}_{12}\mbox{O}_{3} \end{array}$

Chemical Name: 4-methoxy-6-prop-2-enyl-1,3-benzodioxole Synonym: 6-Allyl-4-methoxy-1,3-benzodioxole Vegetable origin Specification: 98% min by HPLC

NAVD0

1-Naphthaleneacetic acid CAS: 86-87-3

Vegetable origin

NAVD1

Narciclasine CAS: 29477-83-6 C₁₄H₁₃NO₇

Chemical Name: (2S,3R,4S,4aR)-2,3,4,7-tetrahydroxy-3,4,4a,5-tetrahydro-2H-[1,3]dioxolo[4,5-j]phenanthridin-6-one Vegetable origin Plant Source: Daffodil Bulb Specification: 98% min by HPLC

NAVD2

Narcissin CAS: 604-80-8 C₂₈H₃₂O₁₆

Synonyms: Narcissoside, Isorhamnestin-3-O-rutinoside Vegetable origin Plant Source: Fissistigma acuminatissima Specification: 98% min by HPLC

NAVD3

Nardosinone CAS: 23720-80-1 C₁₅H₂₂O₃

Chemical Name: (3aR,9R,9aR,9bS)-1,3a,4,7,8,9,9a,9b-Octahydro-1,1,9,9a-tetramethyl-5H-naphtho[2,1-c][1,2]dioxol-5-one Vegetable origin Plant Source: Nardostachys chinensis Specification: 98% min by HPLC

NAVD4

Naringenin CAS: 480-41-1 C₁₅H₁₂O₅



Vegetable origin Solubility: DMSO: ≥ 42mg/mL

Naringenin is the predominant flavanone in grapefruit; displays strong anti-inflammatory and antioxidant activities.

NAVD5

Naringenin chalcone CAS: 73692-50-9

Vegetable origin

NAVD6



NAVD7

Naringenin-7-O-glucuronide CAS: 158196-34-0

Vegetable origin



NAVD9

Naringin CAS: 10236-47-2 C₂₇H₃₂O₁₄

AND Enantiomer



Synonym: Naringoside

Vegetable origin

Solubility: DMSO: 6.2mg/mL (Need ultrasonic and warming) Naringin is a major flavanone glycoside obtained from tomatoes, grapefruits, and many other citrus fruits. Naringin exhibits biological properties such as antioxidant, anti-inflammatory, and antiapoptotic activities.

NAVDA

(2R)-Naringin CAS: 58001-41-5

A.184

NAVDC



NAVDD



Synonym: (-)-Neferine Vegetable origin

Solubility: 10mM in DMSO Neferine, is a major alkaloid present in the green embryos of Nelumbo nucifera Gaertn with anti-arrhythmia, anti-hypertensive and vasorelaxant properties, also a NF-kB inhibitor. Target: NF-kB [1] IC50: 1.25µM (neonatal rat CMs) [4] In vitro: protective role of neferine against hypoxia induces oxidative stress by reactive oxygen species (ROS) scavenging and prevention of NF-kB nuclear translocation. Pretreatment with neferine inhibits autophagy induction by activating Akt/mTOR pathway and down regulating Beclin 1, PI3KCIII and LC3B-II in cells exposed to hypoxia. [1] Nef inhibits NF-kB there by inhibiting the expression of its downstream regulator COX-2. Nef significantly inhibited the ROS dependent mitochondrial mediated apoptosis induced during hypoxia. [2] Neferine inhibits ceardiac fibroblast proliferation, migration, and differentiation into myofibroblasts. Neferine reduced high-glucose-induced collagen production and inhibited TGF-B1-Smad, ERK and p38 MAPK signaling activation in cardiac fibroblasts. [3] In vivo: Neferine prevented diabetesinduced cardiac fibrosis in vivo. [3] Neferine shows stronger blocking effect in rat neonatal CMs than liensinine. The IC50 of neferine was 1.25µM on neonatal rat CMs. [4]

NAVDE

Negsehisandrin G CAS: 1023744-69-5

Vegetable origin



Neoandrographolide is a diterpenoid from the Andrographis paniculata (Acanthaceae).

NAVDG

AND Enantiomer

Neobavaisoflavone

CAS: 41060-15-5 C₂₀H₁₈O₄



Vegetable origin Solubility: DMSO: ≥ 31mg/mL

Neobavaisoflavone, an isoflavone isolated from Psoralea corylifolia, has striking anti-inflammatory and anti-cancer effects. IC50 value: 42.93µM (toward CCRF-CEM cells); 114.64µM [against HCT116 (p53(+/+)) cells] [2] Target: In vitro: In the cancer cells, neobavaiso-flavone sensitizes human U373MG glioma cells to TRAIL-mediated apoptosis; upregulated DR5 expression; induced TRAIL-mediated apoptosis in human glioma cells by suppressing migration and invasion, and by inhibiting anoikis resistance [1]. In caner cell lines, neo-bavaisoflavone is selectively active, and IC50 values below 115µM were obtained on 6/9 cell lines, with values ranging from 42.93µM (toward CCRF-CEM cells) to 114.64µM [against HCT116 (p53(+/+)) cells] [2]. In vivo.



Advion × Pinterchim



NAVDK



Synonym: trans-5-O-Caffeoylquinic acid Vegetable origin

Solubility: DMSO: 11mg/mL

Neochlorogenic acid, a natural polyphenolic compound found in dried fruits and other plants, is reported to have outstanding antioxidant, antibacterial, antiviral and antipyretic activities.

NAVDL

C10H22O3

Neocryptotanshinone O CAS: 27468-20-8



Vegetable origin

NAVDM

Neocurdione CAS: 108944-67-8

Vegetable origin

NAVDN

Neocyclomorusin CAS: 62596-35-4 $C_{25}H_{24}O_{7}$



Vegetable origin

NAVDO Neodiosmin

CAS: 38665-01-9 C28H32O15

Synonym: diosmetin 7-O-neohesperidoside. Vegetable origin Plant Source: Citrus aurantium Specification: 98% min by HPLC

NAVDP



Vegetable origin

NAVDQ

Neogambogic acid CAS: 93772-31-7

Vegetable origin

NAVDR

Neohesperidin CAS: 13241-33-3

C28H34O15 HC нс

AND Enantiomer

Synonym: Hesperetin 7-O-neohesperidoside Vegetable origin

Solubility: DMSO: ≥ 30mg/mL

Neohesperidin is a flavonoid compound found in high amounts in Poncirus trifoliata with anti-oxidant and anti-inflammatory effects.

NAVDT

Neoisoliquiritin CAS: 7014-39-3

Vegetable origin

NAVDU

Neoliquiritin CAS: 5088-75-5

Vegetable origin



A.186



NAVDV

Neomangiferin CAS: 64809-67-2

 $C_{25}H_{28}O_{18}$

Vegetable origin Specification: 98% min by HPLC

NAVDW

Neoprzewaquinone A CAS: 630057-39-5

Vegetable origin

NAVDX

Neoruscogenin CAS: 17676-33-4

Vegetable origin



NAVDZ

Neotriptophenolide CAS: 81827-74-9 $C_{21}H_{26}O_4$

Chemical Name: (3bR,9bS)-9-hydroxy-6-methoxy-9b-methyl-7propan-2-yl-3,3b,4,5,10,11-hexahydronaphtho[2,1-e][2]benzofuran-1-one

Synonyms: AC1Q6AXP, AC1L33E3, KST-1A8624, AR-1A4094 Vegetable origin

Plant Source: Roots of Tripterygium wilfordii Specification: 98% min

NAVE0



NAVE1

Nepodin CAS: 3785-24-8

Vegetable origin

NAVE2

Nerolidol CAS: 7212-44-4

Vegetable origin

NAVE3

Nicotinamide CAS: 98-92-0 C_cH_cN_cO

Chemical Name: pyridine-3-carboxamide Vegetable origin Specification: 98% min by HPLC

NAVE4

L-Nicotine CAS: 54-11-5

Vegetable origin



NAVE7

Nitidine chloride CAS: 13063-04-2 C₂₁H₁₈CINO₄

Chemical Name: 2,3-dimethoxy-12-methyl-[1,3]benzodioxolo[5,6-c] phenanthridin-12-ium chloride Vegetable origin Specification: 98% min by HPLC

NAVE8

10-Nitro Camptothecin CAS: 104195-61-1

Vegetable origin







Vegetable origin Solubility: DMSO: ≥ 31mg/mL

Nobiletin, a natural polymethoxylated flavone, is identified as a clock amplitude-enhancing small molecule. IC50 value: Target: In vitro: Although NGF alone had little effect on the CRE-dependent transcription, NGF markedly enhanced the CRE-dependent transcription induced by nobiletin[1]. Nobiletin, up to 100µM without cytotoxicity, significantly decreased motility, migration and invasion as well as enzymatic activities, protein levels and mRNA expressions of matrix metalloproteinase (MMP)-2 and MMP-9 in U2OS and HOS cells[3]. In vivo: When administered to diet-induced obese (DIO) mice, NOB strongly counteracted metabolic syndrome and augmented energy expenditure and locomotor activity in a Clock gene-dependent manner. In db/db mutant mice, the clock is also required for the mitigating effects of NOB on metabolic disorders[2].

NAVEB

Nodakenin CAS: 495-31-8 C₂₀H₂₄O₉

Synonym: 2-(7-Oxo-2,3-dihydro-7H-furo[3,2-g]chromen-3-yl)-2-propanyl β-D-glucopyranoside Vegetable origin Plant Source: Angelica gigas Specification: 98% min by HPLC

NAVEC

Nodakenitin CAS: 495-32-9

Vegetable origin

NAVED

Nomilin CAS: 1063-77-0 C₂₈H₃₄O₉

Vegetable origin Specification: 98% min by HPLC

NAVEE

Nonacosane CAS: 630-03-5 C₂₉H₆₀

Vegetable origin Specification: 98% min

NAVEF

Nonacosanoic Acid CAS: 4250-38-8

NAVEG

Nonadecanoic Acid CAS: 646-30-0

NAVEH

(+)-Nootkatone CAS: 4674-50-4

Vegetable origin

NAVEI

Noranhydroicaritin CAS: 28610-31-3

C₂₀H₁₈O₆

Vegetable origin

NAVEJ

Norbraylin CAS: 60796-64-7 C₁₄H₁₂O₄



Vegetable origin

NAVEK

Norcantharidin CAS: 29745-04-8

Vegetable origin

NAVEL

Nordihydrocapsaicin CAS: 28789-35-7

Vegetable origin



A.188



NAVEM

Nordihydroguaiaretic acid CAS: 500-38-9

C₁₈H₂₂O₄

Synonym: NDGA Vegetable origin Solubility: DMSO: ≥ 43mg/mL

Nordihydroguaiaretic acid (NDGA) is a natural phenolic compound isolated from the creosote bush Larrea divaricata, which has anti-tumor activities both in vitro and in vivo. Its analogs are in clinical development for use in refractory solid tumors. IC50 Value: Target: mTOR in vitro: NDGA may also direct target mTORC1 complex because NDGA suppressed amino acids- and insulin-stimulated mTORC1 and acted like rapamycin to disrupt mTOR-Raptor interaction [1]. NDGA increased PPARa promoter activity in AML12 hepatocytes and also prevented the fatty acid suppression of PPARa expression. In contrast, PPARa siRNA abrogated the stimulatory effect of NDGA on fatty acidcatabolism [2]. In vivo: NDGA was able to induce Nrf2 translocation in vivo in kidneys of rats submitted to both U-NX and I/R injury and to protect against renal histological damage and apoptosis [3]. Comparison of the proportion of live mice at the age of 90% mortality was used as a surrogate for measurement of maximum lifespan;neither NDGA (p=0.12) nor aspirin (p=0.16) had a significant effect in this test. Measures of blood levels of NDGA or aspirin and its salicylic acid metabolite suggest that the observed lack of effects of NDGA or aspirin on life span in females could be related to gender differences in drug disposition or metabolism [4]. Clinical trial: Nordihydroguaiaretic Acid in Treating Patients With Nonmetastatic Relapsed Prostate Cancer . Phase 1.

NAVEN

Norisoboldine

CAS: 23599-69-1 C₁₈H₁₉NO₄

Synonym: (+)-Laurelliptine Vegetable origin Solubility: DMSO: ≥62.5mg/mL Norisoboldine is an isoquinoline alkaloid which acts as an AhR agonist, and enhances the function of the adenosine A1 receptor.

NAVE9

N-Nornuciferine CAS: 4846-19-9

Vegetable origin

NAVEP

Nortracheloside CAS: 33464-78-7

Vegetable origin

NAVEQ



Vegetable origin





NAVES

Notoginsenoside Fa CAS: 88100-04-3C₅₀H₁₀₀O₂₇

Vegetable origin Plant Source: Panax notoginseng Specification: 98% min by HPLC

NAVET

Notoginsenoside Fc CAS: 88122-52-5

Vegetable origin

NAVEU

Notoginsenoside Fe



AND Enantiome

Synonyms: Notoginseng triterpenes; Ginsenoside Mb Vegetable origin Solubility: 10mM in DMSO Notoginsenoside Fe is a natural compound isolated from Panax japlcus var.







Vegetable origin Solubility: 10mM in DMSO

Notoginsenoside R1, the main bioactive component in panaxnotoginseng, is reported to have some neuronal protective, antihypertensive effects. IC50 value: Target: In vitro: In vivo: Notoginsenoside R1 significantly reduce blood pressure in spontaneously hypertensive rats and induce nitric oxide generation through increasing the phosphorylation of iNOS. Notoginsenoside R1 reduces the caudal blood pressure of spontaneously hypertensive rats through induction of iNOS regulated by long non-coding RNA AK094457 [1]. The mice with notoginsenoside R1 treatment showed significant amelioration in the cognitive function and increased choline acetyl transferase expression, as compared to the vehicle treated mice. Notoginsenoside R1 treatment inhibited AB accumulation and increased insulin degrading enzyme expression in both APP/PS1 mice and N2a-APP695sw cells [2]. In Notoginsenoside R1 treated rats, expression of TGFβ1and Smad3 at each time point was down-regulated, with statistical significance(P0.05) compared with that in the NDMA group [3].



Synonyms: 20(S)-Notoginsenoside R2; Ginsenoside Ng-R2 Vegetable origin

Solubility: 10mM in DMSO

Notoginsenoside R2 is a newly isolated notoginsenoside from Panax notoginseng, showed neuroprotective effects against 6-OHDA-induced oxidative stress and apoptosis.

NAVEY

20(R)-Notoginsenoside R2 CAS: 948046-15-9

Vegetable origin

Vegetable origin Solubility: 10mM in DMSO

Notoginsenoside Ft1 is a saponin isolated from Panax notoginseng; stimulator of angiogenesis. IC50 value: Target: angiogenesis stimulator in vitro: Ft1 increases translocalization of hypoxia-inducible factor-1a (HIF-1a) from cytoplasm to nuclei, where it binds to the vascular endothelial growth factor (VEGF) promoter, increasing the expression of VEGF mRNA and the subsequent secretion of the growth factor. Ft1 induces the activation of PI3K/AKT and Raf/MEK/ ERK signaling pathways [1]. Among the saponins examined, Ft1 was the most potent procoagulant and induced dose-dependent platelet aggregation. Ft1 reduced plasma coagulation indexes, decreased tail bleeding time and increased thrombogenesis. Moreover, it potentiated ADP-induced platelet aggregation and increased cytosolic Ca2+ accumulation, effects that were attenuated by clopidogrel. Ft1 binds to platelet P2Y12 receptors. The increase in intracellular Ca2+ evoked by Ft1 in HEK293 cells overexpressing P2Y12 receptors could be blocked by ticagrelor [2]. Ft1 caused endothelium-dependent relaxations, which were abolished by I-NAME (inhibitor of nitric oxide synthases) and ODQ (inhibitor of soluble guanylyl cyclase). Ft1 increased the cGMP level in rat mesenteric arteries. GR and ER were present in the endothelial laver and their antagonism by RU486 and PHTPP, respectively, inhibited Ft1-induced endothelium-dependent relaxations and phosphorylations of eNOS, Akt and ERK1/2 [3]. Ft1 showed the best inhibitory effect on cell proliferation of SH-SY5Y cells with IC50 of 45µM. Ft1 not only arrested the cell cycle at S, G2/M stages, but also promoted cell apoptosis. Ft1 up-regulated the protein expressions of cleaved caspase 3, phospho-p53, p21, and cyclin B1, but down-regulated that of Bcl-2. Moreover, Ft1 enhanced the phosphorylation of ERK1/2, JNK and p38 MAPK [4]. In vivo: Ft1 promotes the formation of blood vessels in Matrigel plug and wound healing in mice [1].



QC

NAVEZ

Notoginsenoside S CAS: 575446-95-6

Vegetable origin



NAVF1

Notopterol CAS: 88206-46-6 $C_{21}H_{22}O_5$

Chemical Name: 4-[(2E)-5-hydroxy-3,7-dimethylocta-2,6-dienoxy] furo[3,2-g]chromen-7-one Vegetable origin Specification: 98% min by HPLC

NAVF2

Notoptol CAS: 88206-49-9

NAVF3

NSC 27460 CAS: 156-38-7 C₈H₈O₃

Synonyms: 4-(Carboxymethyl)phenol; Hydroxyphenylacetic acid; NSC 25066; p-Hydroxybenzeneacetic acid Vegetable origin

NAVF5

NSC 140927 CAS: 2033-89-8 C₈H₁₀O₃

Synonyms: 3,4-Dimethoxyphenol; 3,4-Bis(methyloxy)phenol Vegetable origin

NAVF4

NSC 338218 CAS: 705-15-7 C₉H₁₀O₃

Synonyms: 2-Hydroxy-5-Methyloxyacetophenone; 5-Methoxy-2-hydroxyacetophenone Vegetable origin

NAVF6

Nuciferine CAS: 475-83-2 C₁₉H₂₁NO₂



AND Enantiomer

Vegetable origin Solubility: DMSO: ≥ 10mM

Nuciferine is an antagonist at 5-HT_{2A} (IC₅₀=478nM), 5-HT_{2C} (IC₅₀=131nM), and 5-HT_{2B} (IC₅₀=1µM), an inverse agonist at 5-HT₇ (IC₅₀=150nM), a partial agonist at D₂ (EC₅₀=64nM), D₅ (EC₅₀=2.6µM) and 5-HT₆ (EC₅₀=700nM), an agonist at 5-HT_{1A} (EC₅₀=3.2µM) and D₄ (EC₅₀=2µM) receptor.

NAVF7

Nudicaucin A CAS: 211815-97-3

Vegetable origin

NAVF8

Nudicaucin B CAS: 211557-36-7

Vegetable origin

NAVF9

Nuezhenidic acid CAS: 183238-67-7

Vegetable origin

NAVFA Obaculactone CAS: 1180-71-8 C₂₆H₃₀O₈



AND Enantiome

Vegetable origin

NAVFB Obacunone CAS: 751-03-1 C₂₆H₃₀O₇



Vegetable origin

NAVFC (+)-Oblongine CAS: 60008-01-7

CAS: 60008-01-C₁₉H₂₄NO₃

Vegetable origin

NAVFD

Obtusifolin CAS: 477-85-0

Vegetable origin

NAVFE

Obtusin CAS: 70588-05-5

Vegetable origin

NAVFF

20(S),24(R)-Ocotillol CAS: 69926-31-4

Vegetable origin

NAVFG

Octacosanoic Acid CAS: 506-48-9

NAVFH

Octacosanol CAS: 557-61-9

Vegetable origin

NAVFJ

Octahydrocurcumin CAS: 36062-07-4

 $C_{21}H_{28}O_6$ HO

Synonym: Hexahydrobisdemethoxycurcumin Vegetable origin

Solubility: 10mM in DMSO

Octahydrocurcumin is a hydrogenated derivatives of curcumin; metabolite of curcumin. IC50 value: Target: OKT3-induced PBMC proliferation was inhibited by octahydrocurcumin with IC50 of 82µM. The investigated substances with the strongest effect on radical scavenging were tetrahydro-, hexahydro-, and octahydrocurcumin with IC50 values of 10.0, 11.7, and 12.3microM, respectively [1]. Curcumin and tetrahydrocurcumin significantly inhibited the release of prominent cytokines, including tumor necrosis factor α (TNF α) and interleukin 6 (IL 6); however, hexahydrocurcumin and octahydrocurcumin did not significantly alter cytokine release [2]. Hydrogenated derivatives of curcumin exhibited stronger DPPH scavenging activity compared to curcumin and a reference antioxidant, trolox. The scavenging activity significantly decreased in the order THC>HHC=OHC>trolox>curcum in>Dmc>>>Bdmc [3].

NAVFK

(4bS-trans)-4b,5,6,7,8,8a,9,10-octahydro-2,4b,8,8-tetramethyl3-Phenanthrenol AND Enantiomer CAS: 72444-79-2 C₁₈H₂₆O

Vegetable origin

NAVFL

Octocrilene CAS: 6197-30-4

Vegetable origin

NAVFM

Octyl gallate CAS: 1034-01-1

Vegetable origin

NAVFN

Octyl 4-methoxycinnamate CAS: 5466-77-3

Vegetable origin

NAVFO

Odoratisol A CAS: 891182-93-7

Vegetable origin

NAVFP

Officinalisinin I CAS: 57944-18-0

Vegetable origin

NAVFQ Officinaruminane B CAS: 1246282-67-6 C₂₀H₂₆O



Vegetable origin

NAVFR OJV-VI CAS: 125150-67-6

Vegetable origin

AND Enantiomer

NAVFS

Olaquindox CAS: 23696-28-8 C₁₂H₁₃N₃O₄

Chemical Name: N-(2-hydroxyethyl)-3-methyl-4-oxido-1-oxoquinoxalin-1-ium-2-carboxamide Vegetable origin Specification: 98% min by HPLC

NAVFT

Oleandrin CAS: 465-16-7

Vegetable origin

NAVFU

Oleanolic Acid CAS: 508-02-1 C₃₀H₄₈O₃



Synonyms: Oleanic acid; Caryophyllin Vegetable origin

Solubility: DMSO: ≥ 4.8mg/mL

Oleanolic acid (Caryophyllin) is a natural compound from plants with anti-tumor activities. IC50 value: Target: in vitro: OA suppressed the proliferation of lung cancer cells in both dose- and time-dependent manners, along with an increase in miR-122 abundance. The suppression of miR-122 abolished the effect of OA on lung cancer cells. CCNG1 and MEF2D, two putative miR-122 targets, were found to be downregulated by OA treatment [1]. OA induced autophagy in normal tissue-derived cells without cytotoxicity. OA-induced autophagy was shown to decrease the proliferation of KRAS-transformed normal cells and to impair their invasion and anchorage-independent growth [2]. In vivo: Mouse model experiments also demonstrated that OA suppressed the growth of KRAS-transformed breast epithelial cell MCF10A-derived tumor xenograft by inducing autophagy [2]. Activation of MAPK pathways, including p-38 MAPK, JNK and ERK, was triggered by OA in both a dose and time-dependent fashion in all the tested cancer cells. OA induced p38 MAPK activation promoted mitochondrial translocation of Bax and Bim, and inhibited Bcl-2 function by enhancing their phosphorylation. OA can induce reactive oxygen species (ROS)-dependent ASK1 activation, and this event was indispensable for p38 MAPK-dependent apoptosis in cancer cells [3]. In vivo: In vivo, p38 MAPK knockdown A549 tumors proved resistant to the growth-inhibitory effect of OA [3]. In OA-treated EAM mice the number of Treg cells and the production of IL-10 and IL-35 were markedly increased, while proinflammatory and profibrotic cytokines were significantly reduced [4].

NAVFV

Oleanonic acid CAS: 17990-42-0 C₃₀H₄₆O₃

Synonym: 3-Oxooleanolic acid Vegetable origin Solubility: 10mM in DMSO

Oleanolic acid is a triterpenoid, inhibits infection by HIV-1 in vitro infected PBMC, naturally infected PBMC and monocyte/macrophages with EC50 of 22.7mM, 24.6mM and 57.4mM, respectively. Besides, it has IC50 of 17µM for the production of leukotriene B4 from rat peritoneal leukocytes. IC50:17µM(The production of leukotriene B4 from rat peritoneal leukocytes)[1] IC50:22.7mM, 24.6mM and 57.4mM(in vitro infected PBMC, naturally infected PBMC and monocyte/macrophages by HIV-1, respectively.[2] In vitro: The highest of the four tested doses (100µM), showed only a slight inhibition approximately, 30%. In contrast, the more powerful effect of oleanonic acid in this system, suggests that it acts through a mechanism related to the inhibition of 5-lipoxygenase, either directly or interfering with some of the mechanisms that participate in the complex activation of this enzyme. Oleanonic acid also acts by reducing prostaglandin synthesis.[1] Oleanolic acid inhibits the HIV-1 replication in all the cellular systems used (EC50 values: 22.7microM, 24.6microM and 57.4microM for in vitro infected PBMC, naturally infected PBMC and M/M, respectively). As regards the mechanism of action, oleanolic acid inhibits in vitro the HIV-1 protease activity.[2] In vivo: Oleanonic acid exerted no activity on the oedema induced by application of ethyl phenylpropiolate after a pre-treatment of 16h. In the TPA ear oedema test, it showed a non-significant 28% inhibition. However, when assayed on the ear oedema induced by DPP, oleanonic acid reduced the swelling by 40%, an effect similar to that of the standard carbamazepine. In the mouse model of delayed hypersensitivity induced by dinitrofluorobenzene, oleanonic acid was ineffective at both 24 and 96 h, while oleanolic acid reduced non-significantly the oedema at 96 h by 32%. In the TPA model of chronic inflammation induced by multiple applications, oleanonic acid showed a significant effect, with 45% inhibition. In contrast, oleanolic acid was inactive. Both inhibited the neutrophil infiltration measured as myeloperoxidase activity by 84% and 67%, respectively. The inhibition observed for dexamethasone on the swelling and myeloperoxidase activity was around 90%. The histological study of ears treated only with repeated doses of TPA showed an extensive diffusive inflammatory lesion with microabscesses affecting dermis and epidermis. The main infiltrating cells in the skin were neutrophils and epithelial thickness was 6.6±1.0 cells. In the tissues treated only with the solvent acetone, epithelial thickness was 2.1±0.5 and no signs of lesion or leukocyte infiltration were detectable. The multidose treatment with oleanonic acid reduced both the intensity and extension of the damage produced by TPA, as this was localized in the dermis, where the main infiltrating cells were lymphocytes, and where fibrosis was observed. In this case, epithelium thickness was 4.4±0.7 cells. The ears treated with dexamethasone showed minimal inflammatory lesions and sometimes none at all, and the epithelium thickness was 4.3±0.7 cells. The paw oedema induced by bradykinin was significantly reduced (61%) by oleanonic acid, whereas isoprenaline had a slightly lower effect (52%). Both oleanolic and oleanonic acid also reduced the paw oedema induced by phospholipase A2; the latter showing its strongest effect at 60min, with an 84% inhibition, and maintaining activity at 90min. Oleanolic acid also had its maximum effect at 60min, vanishing at 90min, while the activity of cyproheptadine was uniform along the experiment, ranging 80-90% inhibition .[1]

NAVFW

Oleaside A CAS: 89686-84-6

Vegetable origin

NAVFX

Oleic acid CAS: 112-80-1

Vegetable origin

NAVFY

Oleuropein CAS: 32619-42-4 C₂₅H₃₂O₁₃

Vegetable origin Plant Source: Olive Tree Part Used: Leaf Specification: Oleuropein 20%; Oleuropein 40%; Oleuropein 98% Biological Activity: Antioxidants

NAVFZ

Ombuin CAS: 529-40-8 C₁₇H₁₄O₇

Vegetable origin



AND Enantiome

NAVG0

Ombuoside CAS: 20188-85-6 C₂₉H₃₄O₁₆



Vegetable origin

NAVG1

Onjisaponin B CAS: 35906-36-6

Synonym: Senegin III Vegetable origin

NAVG2

Onjisaponin Z CAS: 1078708-72-1

Vegetable origin

NAVG3



Synonyms: Ononoside; Formononetin 7-O-β-D-glucopyranoside Vegetable origin Solubility: DMSO: ≥ 32mg/mL

Ononin is an isoflavonoid, is an additional growth inhibitor in soils associated with the weed, Pluchea lanceolata.

NAVG4

Onysilin CAS: 73695-94-0 C₁₇H₁₆O₅



Vegetable origin

NAVG5

Oolonghomobisflavan A CAS: 126737-60-8

NAVG6

Oolonghomobisflavan B CAS: 176107-91-8

NAVG7

Oolonghomobisflavan C CAS: 126716-06-1

NAVG8

Ophiogenin 3-O-α-L-rhamnopyranosyl- $(1 \rightarrow 2)$ -β-D-glucopyranoside CAS: 128502-94-3

Vegetable origin

NAVG9

Ophiogenin 3-O- α -L-rhamnopyranosyl(1 \rightarrow 2)[β -D-xylopyranosyl(1 \rightarrow 3)]- β -D-glucopyranoside CAS: 288143-27-1

Vegetable origin

NAVGA

Ophiohayatone C CAS: 84-33-3 C₁₅H₈O₅

Vegetable origin

A.194



NAVGB

Ophiopogonanone A CAS: 75239-63-3

Vegetable origin

NAVGC

Ophiopogonanone B CAS: 88700-33-8

Vegetable origin

NAVGD

Ophiopogonanone C CAS: 477336-75-7

Vegetable origin

NAVGE

Ophiopogonanone E CAS: 588706-66-5

Vegetable origin

NAVGF

Ophiopogonin B CAS: 38971-41-4

Vegetable origin

NAVGG

Ophiopogonin C CAS: 65586-25-6

Vegetable origin

NAVGH

Ophiopogonin D CAS: 41753-55-3 C₄₄H₇₀O₁₆

Vegetable origin Specification: 98% min by HPLC

NAVGI

Ophiopogonin D' CAS: 65604-80-0

Vegetable origin

NAVGK

 $\begin{array}{l} \textbf{Orcinol glucoside} \\ \textbf{CAS: 21082-33-7} \\ \textbf{C}_{13}\textbf{H}_{18}\textbf{O}_{7} \end{array}$

Vegetable origin



NAVGL

Oridonin CAS: 28957-04-2 C₂₀H₂₈O₆



AND Enantiomer

Vegetable origin

NAVGM Orientin CAS: 28608-75-5 C₂₁H₂₀O₁₁



NAVGO

Vegetable origin

Orientin-2"-O-p-trans-coumarate CAS: 1229437-75-5, 73815-15-3

Vegetable origin

NAVGP

Orotic acid CAS: 65-86-1 C₅H₄N₂O₄



Synonyms: 6-Carboxyuracil; Vitamin B13 Solubility: DMSO: 2mg/mL; H₂O: < 1mg/mL

Orotic acid (OA) is an intermediate in pyrimidine metabolism. IC50 Value: Target: Nucleoside antimetabolite/analog in vitro: OA increases cell proliferation and decreases apoptosis in serum-starved SK-Hep1 hepatocellular carcinoma cells, which may ascribe to the inhibition of AMP-activated protein kinase (AMPK) phosphorylation and thus activation of mammalian target of rapamycin complex 1 (mTORC1) [1]. In vivo: male Fischer 344 rats (130-150g) to twothirds PH in the absence or in the presence of OA (a 300mg tablet of OA methyl ester implanted intraperitoneally at the time of two-thirds PH). Treatment with OA resulted in a near-100% inhibition of RNR induced by two-thirds PH in rat liver, as monitored by enzyme activity and protein level [2]. The increases of hepatic OA and betaine levels in OA feeding rats was also found when compared to the normal rats [3]. Feeding 1% OA with diet decreased the phosphorylation of AMPK and increased the maturation of SREBP-1 and the expression of SREBP-responsive genes in the rat liver. OA-induced lipid accumulation was also completely inhibited by rapamycin. Mouse hepatocytes and mice were resistant to OA-induced lipogenesis because of little if any response in AMPK and downstream effectors [4].





Synonyms: Baicalein 6-methyl ether; 6-Methoxybaicalein Vegetable origin

Solubility: DMSO: ≥ 32mg/mL

Oroxylin A is a natural active flavonoid with strong anticancer effects. IC50 value: Target: In vitro: Oroxylin A suppressed the MDM2-mediated degradation of p53 via downregulating MDM2 transcription in wt-p53 cancer cells [1]. Oroxylin A remarkably reduced the generation of lactate and glucose uptake under hypoxia in HepG2 cells, inhibited HIF-1a expression and its stability [2]. Oroxylin A promotes superoxide dismutase (SOD2) gene expression through SIRT3-regulated DNA-binding activity of FOXO3a and increases the activity of SOD2 by promoting SIRT3-mediated deacetylation [3]. In vivo: Oroxylin A inhibited the tumor growth of nude mice-inoculated MCF-7 or HCT116 cells. The expression of MDM2 protein in tumor tissue was downregulated by oroxylin A as well [1].

NAVGR

Oroxylin A 7-O-beta-D-glucuronide methyl ester

CAS: 82475-02-3 AND Enantiomer C₂₂H₂₂O₁₁



Vegetable origin

NAVGS

Oroxyloside CAS: 36948-76-2

Synonym: Oroxylin A 7-glucuronide Vegetable origin

NAVGT

Osthole CAS: 484-12-8 $C_{15}H_{16}O_{3}$



Synonyms: NSC 31868; Osthol; Ostol Vegetable origin Solubility: 10mM in DMSO Osthole is a natural antihistamine alternative. Osthole may be a potential inhibitor of histamine H1 receptor activity.

NAVGU 8-Oxo-epiberberine CAS: 19716-60-0



Vegetable origin

NAVGW

Oxohydrastinine CAS: 552-29-4 C₁₁H₁₁NO₂



Vegetable origin

NAVGX



NAVGY

1-Oxomicrostegiol CAS: 1631054-68-6

C₂₀H₂₄O₃

Vegetable origin



AND Enantiomer



Vegetable origin



Solubility: 10mM in H₂O

11-oxo-mogroside V is a natural sweetener, isolated from the fruits of Momordica grosvenori, exhibits strong antioxidant activity. It exhibits significant inhibitory effects on reactive oxygen species (0, H,O, and *OH) with EC₅₀ of 4.79, 16.52, and 146.17µg/mL, respectively.

terchim[®] × Advion C₂₀H₁₇NO₅

NAVFI

13-Oxo-9E,11E-octadecadienoic acid CAS: 29623-29-8

Vegetable origin

NAVH0





Vegetable origin

NAVH1

3-Oxosapriparaquinone CAS: 119139-56-9 $C_{20}H_{24}O_4$

Vegetable origin

NAVH2

8-Oxyberberine CAS: 549-21-3 C₂₀H₁₇NO₅

Vegetable origin

NAVH3

8-Oxycoptisine CAS: 19716-61-1 C₁₉H₁₃NO₅

Vegetable origin

NAVH4

Oxyimperatorin CAS: 35740-18-2

Vegetable origin

NAVH5

Oxymatrine CAS: 16837-52-8 C₁₅H₂₄N₂O₂



Vegetable origin Solubility: DMSO: ≥ 10mM

Oxymatrine, an alkaloid from the roots of Sophora species, with antiinflammatory, antifibrosis, and antitumor effects, inhibits the **iNOS** expression and **TGF-** β /**Smad** pathway.

NAVH6

Oxypaeoniflorin

CAS: 39011-91-1 C₂₃H₂₈O₁₂



Vegetable origin Solubility: 10mM in DMSO

Oxypaeoniflorin is a natural product derived from Radix Paeoniae Rubra and Radix Paeoniae Alba.

NAVH7

Oxypalmatine CAS: 19716-59-7 C₂₁H₂₁NO₅

Vegetable origin



NAVH8

Oxypeucedanin CAS: 26091-73-6 $C_{16}H_{14}O_{5}$

Chemical Name: 4-[[(2S)-3,3-dimethyloxiran-2-yl]methoxy]furo[3,2g]chromen-7-one Vegetable origin Specification: 98% min by HPLC

NAVH9

Oxypeucedanin hydrate CAS: 2643-85-8

Vegetable origin

NAVHB

Oxyresveratrol CAS: 29700-22-9 C₁₄H₁₂O₄



Synonym: trans-Oxyresveratrol Vegetable origin

Solubility: DMSO: ≥ 34mg/mL

Oxyresveratrol is neuroprotective and inhibits the apoptotic cell death in transient cerebral ischemia. It effectively scavenges H_{2Q_2} , NO (IC50 = 45.3µM), and the artificial free radical 2,2-diphenyl-ipicrylhydrazyl (IC50 = 28.9µM) In vitro: 1)oxyresveratrol exhibited more than 50% inhibition at 100µM on L-tyrosine oxidation by murine tyrosinase activity. 2) oxyresveratrol showed an IC50 value of 52.7µM on the enzyme activity. 3) oxyresveratrol works through reversible inhibition of tyrosinase activity rather than suppression of the expression and synthesis of the enzyme.[2] In vivo: 1) Oxyresveratrol low 20mg/kg) significantly reduced the brain infarct volume by approximately 54% and 63%, respectively, when compared to vehicle-treated MCAO rats. 2) oxyresveratrol treatment diminished cytochrome c release and decreasedcaspase-3 activation in MCAO rats. [3]





NAVHD

Oxyresveratrol 2-O-β-D-glucopyranoside CAS: 392274-22-5

Vegetable origin

NAVHC

Oxyresveratrol 3'-O-β-D-glucopyranoside CAS: 144525-40-6

Vegetable origin

NAVHE

Oxysophocarpine CAS: 26904-64-3

Vegetable origin

NAVHF

Pachymic acid CAS: 29070-92-6 C₃₃H₅₂O₅



Synonym: 3-O-Acetyltumulosic acid Vegetable origin Solubility: 10mM in DMSO Pachymic acid is a lanostrane-type triterpenoid from P. cocos. Pachymic acid inhibits Akt and ERK signaling pathways.

NAVHG

Paclitaxel CAS: 33069-62-4 C47H51NO14

Vegetable origin

NAVHH

Paederoside CAS: 20547-45-9

Vegetable origin



NAVHJ



Paeoniflorin is a herbal constituent extracted from the root of Paeonia albiflora Pall. Target: Others Paeoniflorin (PF) is the principal bioactive component of Radix Paeo- niae alba, which is widely used in Traditional Chinese Medicine for the treatment of neurodegenerative disorders such as Parkinson's disease(PD) [1]. Paeoniflorin, a compound found in white peony that inhibited the production of testosterone and promoted the activity of aromatase, which converts testosterone into estrogen [2]. Treatment of cells with paeoniflorin but not glycyrrhizin resulted in enhanced phosphorylation and acquisition of the deoxyribonucleic acid-binding ability of heat shock transcription factor 1 (HSF1), as well as the formation of characteristic HSF1 granules in the nucleus, suggesting that the induction of HSPs by paeoniflorin is mediated by the activation of HSF1. Also, thermotolerance was induced by treatment with paeoniflorin but not glycyrrhizin. Paeoniflorin had no toxic effect at concentrations as high as 80microg/ mL (166.4microM). To our knowledge, this is the first report on the induction of HSPs by herbal medicines [3].

NAVHL

Paeonol CAS: 552-41-0 C₀H₁₀O₃

Vegetable origin

Solubility: DMSO: ≥ 38mg/mL Paeonol is an active extraction from the root of Paeonia suffruticosa, Paeonol inhibits MAO-A and MAO-B with IC₅₀ of 54.6 and 42.5µM, respectively.

NAVHM

Paeonolide CAS: 72520-92-4 C₂₀H₂₈O₁₂

Synonyms: 2-Acetyl-5-methoxyphenyl O-alpha-L-arabinosyl-beta-Dglucopyranoside, C10715 Vegetable origin Plant Source: Paeonia anomala Specification: 98% min by HPLC

nterchim[®] × Advion



NAVHN





NAVHO

Palmatine CAS: 3486-67-7 C21H22NO4

Vegetable origin

NAVHP

Palmatine (chloride) CAS: 10605-02-4 C21H22CINO4



AND Enantiomer

Vegetable origin

Solubility: DMSO: ≥ 32mg/mL

Palmatine chloride an isoquinoline alkaloid, is an important medicinal herbal extract with diverse pharmacological and biological properties. IC50 value: Target: In vitro: Experimental set examined the influence of palmatine on osteoblast-like cells in vitro. In the culture supernatant of MC3T3-E1 cells, RANKL and OPG levels were significantly reduced by palmatine addition [1]. In vivo: The first experimental set was designed to histologically and biochemically examine mice randomly divided into four groups: sham-operated, OVX, and OVX-palmatine intake groups (1mg/kg and 10mg/kg). In palmatinetreated mice, RANKL and OPG expression decreased [1].

NAVHQ

Palmatrubine CAS: 16176-68-4

Vegetable origin

NAVHR

Palmitelaidic Acid CAS: 10030-73-6 C₁₆H₃₀O₂

Synonyms: 9-trans-Hexadecenoic acid; trans-Palmitoleic acid Solubility: Ethanol: 100mg/mL Palmitelaidic acid is the trans isomer of palmitoleic acid. Palmitoleic

acid is one of the most abundant fatty acids in serum and tissue.

NAVHS

Palmitic acid CAS: 57-10-3 C16H32O2

Synonym: Hexadecoic acid Vegetable origin

NAVHT

Panasenoside CAS: 31512-06-8

Synonym: Kaempferol-3-O-glucosyl (1-2) galactoside Vegetable origin

AND Enantiomer **NAVHU** Panaxadiol CAS: 19666-76-3 C₃₀H₅₂O₃

Synonym: 20(R)-Panaxadiol Vegetable origin

Solubility: 10mM in Ethanol Panaxadiol is a novel antitumor agent extracted from the Chinese medical herb Panax ginseng

NAVHV

Panaxatriol CAS: 32791-84-7 C₂₀H₂₀O₄



AND Enantiomer

Vegetable origin Solubility: 10mM in DMSO

Panaxatriol can relieve myelosuppression induced by radiation injury.

NAVHW

Panaxydol CAS: 72800-72-7

Vegetable origin

NAVHX Panaxynol CAS: 81203-57-8

Vegetable origin

Advion × Printerc

NAVHY



Synonyms: Calcium D-pantothenate; Vitamin B5 calcium salt; Calcium pantothenate

Vegetable origin

Solubility: $H_2O: \ge 200 \text{ mg/mL}$

D-Pantothenic acid hemicalcium salt, a kind of water soluble vitamin, can reduce the patulin content of the apple juice. IC50 value: Target: In vitro: In human dermal fibroblasts from three different donors, D-Pantothenic acid hemicalcium salt accelerates the wound healing process by increasing the number of migrating cells, their distance and hence their speed. In addition, cell division is increased and the protein synthesis changed [1]. In vivo.

NAVHZ

Paprazine

CAS: 36417-86-4

Vegetable origin

NAVI0

Paraben-acid CAS: 99-96-7 C₇H₆O₃



Vegetable origin

NAVI1

Parishin CAS: 62499-28-9 C₄₅H₅₆O₂₅

Vegetable origin Plant Source: Gastrodia elata/Vanda parishii Specification: 98% min by HPLC

NAVI2

Parishin B CAS: 174972-79-3 C₃₂H₄₀O₁₉

Vegetable origin Plant Source: Gastrodia elata rhizomes Specification: 98% min by HPLC

NAVI3

Parishin C CAS: 174972-80-6 C₃₂H₄₀O₁₉

Vegetable origin Plant Source: Gastrodia elata rhizomes Specification: 98% min by HPLC

NAVI4

Parishin E CAS: 952068-57-4 C₁₉H₂₄O₁₃

Synonym: 4-[(3,4-Dicarboxy-3-hydroxy-1-oxobutoxy)methyl]phenyl beta-D-glucopyranoside Vegetable origin Plant Source: Gastrodia elata Specification: 98% min by HPLC

NAVI5

Parthenolide CAS: 20554-84-1

 $C_{15}H_{20}O_{3}$

Synonym: (-)-Parthenolide Vegetable origin Solubility: 10mM in DMSO

Parthenolide is an $NF\-\kappa B$ inhibitor, reduces histone deacetylase 1 (HDAC-1) and DNA methyltransferase 1 independent of NF- κB inhibition.

NAVI6

Pasakbumin B CAS: 138809-10-6 C₂₀H₂₄O₁₀



AND Enantiomer

Vegetable origin

NAVI7

Pashanone CAS: 42438-78-8

Vegetable origin

NAVI8

Patchouli alcohol CAS: 5986-55-0 C₁₅H₂₆O

Vegetable origin Specification: 98% min by HPLC

NAVI9

Pectolinarin CAS: 28978-02-1 $C_{29}H_{34}O_{15}$

Vegetable origin Specification: 98% min by HPLC





NAVIA

Pectolinaringenin CAS: 520-12-7

C₁₇H₁₄O₆

Vegetable origin Plant Source: Clerodendrum phlomidis L Specification: 98% min by HPLC

NAVIB

Pedunculoside CAS: 42719-32-4 C36H58O10

Vegetable origin Specification: 98% min

NAVIC

Peimine CAS: 23496-41-5 C₂₇H₄₅NO₃



AND Enantiomer

Synonyms: Verticine; Dihydroisoimperialine Vegetable origin

Solubility: 10mM in DMSO

Peimine(Dihydroisoimperialine; Verticine) is a natural compound with good anti-inflammatory effects in vivo. IC50 value: Target: Peimine (0-25mg/L) significantly inhibited tumor necrosis factor (TNF)-α, interleukin (IL)-6. IL-1B. and increased IL-10 production. Furthermore. peimine significantly inhibited the phosphorylation of p38, ERK and c-jun N-terminal kinase (JNK) as well as decreased p65 and IkB.



Solubility: 10mM in DMSO

Peiminine(Verticinone; Raddeanine) is a natural compound with anti-inflammatory activity. IC50 value: Target: Peiminine and DXS significantly reduced alveolar inflammation and pulmonary interstitial inflammation in rats with bleomycin-induced lung injury. Peiminine inhibits lung inflammation and pulmonary fibrosis in a rat model of bleomycin-induced lung injury, by reducing circulating IFN-y levels and inhibiting signal transduction pathways involving TGF-B, CTGF, ERK1/2, NF-KB and FasL.

NAVIE



Solubility: 10mM in DMSO

Peimisine(Ebeiensine) is a steroidal alkaloid which is the major biologically active component in Bulbus Fritillariae; possess a variety of toxicological and pharmacological effects on humans.







Vegetable origin



Jvion × 玲

NAVIJ

Penduletin CAS: 569-80-2 C₁₈H₁₆O₇



Vegetable origin

NAVIK

2,4,7,8,9-Pentaacetate-N-Acetylneuraminic Acid Methyl Ester CAS: 73208-82-9

NAVIL

Pentacosanoic Acid CAS: 506-38-7

NAVIM

Pentadecanoic Acid CAS: 1002-84-2

NAVIN

1,2,3,4,6-Penta-O-galloyl-beta-D-glucopyranose CAS: 14937-32-7 AND Enantiomer C41H32O26



Synonym: Penta-O-galloyl-B-D-glucose Vegetable origin

Solubility: DMSO: 10mM; H₂O: 6mg/mL (Need ultrasonic and warming)

1,2,3,4,6-Penta-O-galloyl-β-D-glucopyranose is a gallotannin isolated from various plants. It suppressed interleukin (IL)-4 induced signal pathway in B cell, and inhibited IgE production partially caused by increasing a population of Treg cells in conjunction with Treg-inducing factors.

NAVIO

1,2,3,6,7-pentamethoxy-Anthraquinone CAS: 102019-25-0

C₁₉H₁₈O₇



NAVIP

Peonidin chloride CAS: 134-01-0 C₁₆H₁₃CIO₆



нс

Vegetable origin

AND Enantiomer



Vegetable origin

AND Enantiome

NAVIR Peonidin-3-O-glucoside chloride CAS: 6906-39-4 C₂₂H₂₃CIO₁₁ Vegetable origin

NAVIS

Perakine CAS: 4382-56-3

Vegetable origin

NAVIT

Perillartine CAS: 30950-27-7 C10H15NO

Synonym: DL-Perillartine Vegetable origin Solubility: 10mM in DMSO Perillartine is a sweetener, which activates the taste receptor type 1 member 2 (Tas1r2) subunit in a species-dependent manner.

NAVIU

Perillene CAS: 539-52-6

Vegetable origin

NAVIV

Periplocin CAS: 13137-64-9 C₃₆H₅₆O₁₃

Synonym: Periplocoside Vegetable origin Plant Source: Periploca sepium Specification: 98% min by HPLC

NAVIW

Periplocymarin CAS: 32476-67-8

Vegetable origin

NAVIX

Periplogenin CAS: 514-39-6

Vegetable origin

NAVIY

Periplogenin 3-[O- β -glucopyranosyl-(1 \rightarrow 4)- β sarmentopyranoside] CAS: 1253421-94-1

Vegetable origin

NAVIZ

Peritassine A CAS: 262601-67-2

Vegetable origin

NAVJ0

Perivine CAS: 2673-40-7

Vegetable origin



NAV_{J3}

C₂₂H₂₃CIO₁₂



Vegetable origin

NAVJ4

Peucedanocoumarin II CAS: 130464-56-1

C₂₁H₂₂O₇



Vegetable origin

NAVJ5 Peucedanocoumarin III CAS: 130464-57-2 C₂₁H₂₂O₇

AND Enantiome



Vegetable origin

NAVJ7

Peucedanol CAS: 46992-81-8 C14H16O5

Vegetable origin

NAVJ6

(+)-Peucedanol CAS: 20516-23-8 $C_{14}H_{16}O_{5}$

Vegetable origin Plant Source: Peucedanum japonicum Specification: 98% min by HPLC

NAVJ8

Phellodendrine CAS: 6873-13-8 C20H24NO4

Synonym: Phellodendrine chloride Vegetable origin Plant Source: Cortex Phellodendri Specification: 98% min by HPLC



Phellopterin CAS: 2543-94-4 C₁₇H₁₆O₅



Vegetable origin

NAVJD

N-Phenethylbenzamide CAS: 3278-14-6

Vegetable origin

NAVJE

2-O-Phenyl α-D-N-Acetylneuraminic Acid CAS: 15964-32-6

NAVJJ

L-Phenylalanine CAS: 63-91-2 C_aH₁₁NO₂



Synonym: (S)-2-Amino-3-phenylpropionic acid Solubility: H₂O: ≥ 46mg/mL

L-Phenylalanine is an antagonist at α2δ calcium channels with a Ki of 980 nM. IC50 Value: 980nM [1] Target: Calcium Channel L-Phenylalanine (LPA) is an electrically neutral amino acid, one of the twenty common amino acids used to biochemically form proteins. In the brain, L-phenylalanine is a competitive antagonist at the glycine binding site of NMDA receptor and at the glutamate binding site of AMPA receptor [2, 3]. At the glycine binding site of NMDA receptor L-phenylalanine has an apparent equilibrium dissociation constant (KB) of 573M estimated by Schild regression [4] which is considerably lower than brain L-phenylalanine concentration observed in untreated human phenylketonuria [5]. L-Phenylalanine also inhibits neurotransmitter release at glutamatergic synapses in hippocampus and cortex with IC50 of 980nM, a brain concentration seen in classical phenylketonuria, whereas D-phenylalanine has a significantly smaller effect [3].

NAVJK

(2R,3S)-3-Phenylisoserine hydrochloride CAS: 132201-32-2 $C_{g}H_{12}CINO_{3}$

Synonym: ($\alpha R,\beta S$)- β -amino- α -hydroxy-Benzenepropanoic acid hydrochloride Vegetable origin

NAVJL

(2E)-3-phenyl-2-Propenoic acid (3R,5S,5aS,6S,9S,9aS,10R)-6-(benzoyloxy)octahydro-9,10-dihydroxy-2,2,5a,9-tetramethyl-2H-3,9a-methano-1-benzoxepin-5-yl ester CAS: 268541-27-1



rogotable on

NAVJG

Phenyl 2,3,4,6-Tetra-O-acetyl-1-thio-β-D-galactopyranoside CAS: 24404-53-3

NAVJF

Phenyl 2,3,4,6-Tetra-O-acetyl-1-thio-β-D-glucopyranoside CAS: 23661-28-1

NAVJH

Phenyl 1-Thio-β-D-galactopyranoside CAS: 16758-34-2

NAVJI

Phenyl 1-Thio-β-D-glucopyranoside CAS: 2936-70-1



Synonyms: Phillygenol; Epipinoresinol methyl ether; Forsythigenol; (+)-Phillygenin

Vegetable origin

Solubility: 10mM in DMSO

Phillygenin is an active ingredient from Forsythia with many medicinal properties, such as antioxidant, reducing blood lipid, inhibition of low density lipoprotein oxidation. In vitro: 1) Phillygenin shows a greater inhibition on mouse B16 melanoma cells potential than vincristine. 2) phillygenin had notable scavenging activity against DPPH, ABTS radicals, as well as potent reducing power in FRAP assay. In vivo: The reference for rat is 5.6mg/m I (i.v).

NAVJN

Phillyrin CAS: 487-41-2 C₂₇H₃₄O₁₁

Synonyms: Forsythin; Phillyroside; Phyllyrin Vegetable origin Specification: 98% min by HPLC

NAVJO

Phloretin CAS: 60-82-2 C15H14O5



Synonyms: NSC 407292;RJC 02792 Vegetable origin

Solubility: 10mM in DMSO

Phloretin (NSC 407292; RJC 02792) is a dihydrochalcone, a type of natural phenols. Phloretin inhibits the active transport of glucose into cells by SGLT1 and SGLT2. IC50 Value: 49 +/- 12microM [4] Target: SGLT1/2 in vitro: Phlorizin blocks glucose transport across the renal tubule at concentrations in renal blood and tissue in the range of 10-5 to 10-7M [1]. PT significantly enhanced glycerol release and inhibited the adipogenesis-related transcription factors. PT also promoted phosphorylation of AMP-activated protein kinase and increased activity of adipose triglyceride lipase and hormone-sensitive lipase in 3T3-L1 cells [2]. Phloretin induced obvious cytotoxicity against BEL-7402 cells with IC50 of 89.23microg/mL. The growth curve demonstrated decreased growth of the cells as phloretin concentration increased [3]. D-glucose-transport activity was observed with a Km for D-glucose of 3.4 +/- 0.2mM (mean +/- S.E.M.) and was inhibited by cytochalasin B (IC50= 0.44 +/- 0.03microM), HgCl2 (IC50)= 3.5 +/- 0.5microM), phloretin (IC50= 49 +/- 12 microM) and phloridzin (IC50= 355 +/- 67microM) [4]. In vivo: The effect of phloridzin orally doses 5, 10, 20 and 40mg/kg body weight on diabetes was tested in a streptozotocin-induced rat model of diabetes type 1. From beneficial effect of this compound is significant reduction of blood glucose levels and improve dyslipidemia in diabetic rats [5]

NAVJP AND Enantiomer Phlorizin CAS: 60-81-1 C21H24O10 Synonyms: Floridzin; NSC 2833 нс

Vegetable origin Solubility: 10mM in DMSO

Phlorizin, a natural product and dietary constituent found in a number of fruit trees, is a 2'-glucoside of phloretin, Phlorizin is a competitive and classic inhibitor of hSGLT1(Ki=300nM) and hSGLT2(Ki= 39nM). IC50 value: 300nM (Ki, SGLT1); 39nM (Ki, SGLT2) [1] Target: SGLT1; SGLT2 in vitro: Inhibition by phlorizin was competitive, with K(i) values of 0.3muM in hSGLT1 and 39nM in hSGLT2 [1]. Phlorizin was unable to exchange with dapagliflozin bound to hSGLT2. In contrast, dapagliflozin, fluoro-dapagliflozin, and galacto-dapagliflozin dissociated quickly from hSGLT1 (t(1/2,Off) = 1-2s), and phlorizin readily exchanged with dapagliflozin bound to hSGLT1 [2]. In vivo: A PK-PD model was developed next to analyze the inhibitory effect of phlorizin on renal glucose reabsorption. The model suitably expressed the concentration-dependent inhibitory effect of phlorizin on renal glucose reabsorption. The in vivo inhibition constants of phlorizin for SGLT in rats were estimated to be 67nM for SGLT1 and 252nM for SGLT2, which are similar to the in vitro data reported previously [3]. Phlorizin significantly decreased body weight gain and the levels of serum fasting blood glucose (FBG), triglycerides (TG), total cholesterol (TC), and advanced glycation end products (AGEs). Morphologic observations showed that normal myocardial structure was better preserved after phlorizin treatment [4].

NAVJQ Phorbol

CAS: 17673-25-5 C20H28O6

Synonym: 4_β-Phorbol Vegetable origin Solubility: $H_0O: \ge 20 \text{mg/mL}$



AND Enantiomer

Phorbol is a highly toxic diterpene, whose esters have important biological properties.

NAVJR

Phosphoramidon (Disodium) CAS: 164204-38-0 C23H32N3Na2O10P

Vegetable origin

Solubility: H_aO : \geq 140ma/mL

Phosphoramidon disodium is a metalloprotease inhibitor. Phosphoramidon inhibits endothelin-converting enzyme (ECE), neutral endopeptidase (NEP), and angiotensin-converting enzyme (ACE) with IC 50 values of 3.5, 0.034, and 78µM, respectively.

Advion × Minterc


NAVJT

Phyllanthin CAS: 10351-88-9 C₂₄H₃₄O₆



NAVJU

Phyllemblin CAS: 831-61-8 $C_0H_{10}O_5$

Vegetable origin



Vegetable origin

NAVJV

Phyltetralin CAS: 123048-17-9 C₂₄H₃₂O₆



Vegetable origin

NAVJW

Physalin L CAS: 113146-74-0

Vegetable origin

NAVJX

Physcion CAS: 521-61-9 C₁₆H₁₂O₅



Vegetable origin

NAVJY Phytic acid CAS: 83-86-3 C₆H₁₈O₂₄P₆



Synonyms: myo-Inositol, hexakis(dihydrogen phosphate); Inositol hexaphosphate Vegetable origin Solubility: $H_0O: \ge 30 \text{ mg/mL}$ Phytic acid is a major phosphorus storage compound of most seeds

and cereal grains.

NAVJZ

Phytol CAS: 150-86-7

Vegetable origin

NAVK0

Phytolaccagenic Acid CAS: 54928-05-1

Vegetable origin

NAVK1

Phytolaccagenin CAS: 1802-12-6 C31H48O7



AND Enantiomer

Vegetable origin

NAVK3

cis-Piceatannol CAS: 106325-86-4

NAVK2

Trans-Piceatannol CAS: 10083-24-6 C₁₄H₁₂O₄



Vegetable origin

NAVK4

Piceatannol 3'-O-glucoside CAS: 94356-26-0

Vegetable origin



NAVK6

Picfeltarraenin IA CAS: 97230-47-2 $C_{41}H_{62}O_{13}$

Vegetable origin Specification: 98% min





NAVK7

Picfeltarraenin IB CAS: 97230-46-1 $C_{42}H_{64}O_{14}$

Vegetable origin Specification: 98% min

NAVK8

Picfeltarraenin IV CAS: 184288-35-5

Vegetable origin

NAVK9

Picfeltarraenin X CAS: 1391826-61-1

Vegetable origin

NAVKA

 $\begin{array}{l} \textbf{Picrasidine Q} \\ \textbf{CAS: 101219-61-8} \\ \textbf{C}_{15}\textbf{H}_{10}\textbf{N}_{2}\textbf{O}_{3} \end{array}$



Vegetable origin

NAVKB

Picrocrocin CAS: 138-55-6 C₁₆H₂₆O₇

Synonyms: Saffron-bitter; UNII-ON5B022511 Vegetable origin Specification: 98% min by HPLC

NAVKC

Picropodophyllotoxin CAS: 477-47-4

Vegetable origin

NAVKD

Picroside I CAS: 27409-30-9 C₂₃H₂₈O₁₃

Vegetable origin Specification: 98% min by HPLC

NAVKE

Picroside II CAS: 39012-20-9 C₂₄H₂₈O₁₁

Vegetable origin Specification: 98% min by HPLC

NAVKF

Picroside III CAS: 64461-95-6

Vegetable origin

NAVKG

Picroside IV CAS: 211567-04-3

Vegetable origin

NAVKH

Pilocarpine Hydrochloride CAS: 54-71-7

Vegetable origin

NAVKI

 $\begin{array}{l} \textbf{Pimpinellin}\\ CAS: 131-12-4\\ C_{13}H_{10}O_5 \end{array}$

Chemical Name: 5,6-dimethoxyfuro[2,3-h]chromen-2-one Vegetable origin Specification: 98% min by HPLC

NAVKJ

Alpha-Pinene CAS: 80-56-8

Vegetable origin

NAVKK

D-Pinitol CAS: 10284-63-6

Vegetable origin

NAVKL

Pinocembrin CAS: 480-39-7 C₁₅H₁₂O₄

Synonyms: dihydrochrysin, galanginflavanone, Picembrin,5,7-DIHYDROXYFLAVANONE,5,7-DIHYDROXY-3'4'5'-FLAVANONE Vegetable origin Plant Source: Pinus cerebra Specification: 98% min by HPLC

NAVKN (-)-Pinocembrin CAS: 206660-42-6 C₁₅H₁₂O₄

Vegetable origin



Advion × 😤 interchim

NAVKO

Pinocembrin 7-O-(3"-galloyl-4",6"-(S)hexahydroxydiphenoyl)-β-D-glucose CAS: 205370-59-8





NAVKR



Vegetable origin Solubility: DMSO: ≥ 6.5mg/mL

Pinoresinol Diglucoside is one of the major lignans with various pharmacological activities which could be isolated from Duzhong and other plant species.

NAVKS

Pinoresinol dimethyl ether CAS: 29106-36-3 $C_{22}H_{26}O_6$

Chemical Name: (3S,3aR,6S,6aR)-3,6-bis(3,4-dimethoxyphenyl)-1,3,3a,4,6,6a-hexahydrofuro[3,4-c]furan Synonym: (+)-Eudesmin Vegetable origin Specification: 98% min

NAVKT

Pinoresinol 4-O-beta-D-glucopyranoside

CAS: 69251-96-3 C₂₆H₃₂O₁₁

Synonyms: 3,5-dibromo-benzoic acid,3,5-dibromobenzoic acid, (+)-pinoresinol-4-O-β-D-glucopyranoside, (+)-Pires Vegetable origin Plant Source: Pyrethrum tatsienense Specification: 98% min by HPLC

NAVKU

Pinostrombin CAS: 480-37-5 C₁₆H₁₄O₄

Vegetable origin

NAVKV

Trans-Pinosylvin dimethyl ether

CAS: 21956-56-9 C₁₆H₁₆O₂



AND Enantiomer

Vegetable origin

NAVKX

Pinosylvine CAS: 22139-77-1 C₁₄H₁₂O₂



Vegetable origin

NAVKW



AND Enantiome

AND Enantiome

NAVKY

Piperine CAS: 94-62-2 C₁₇H₁₉NO₃



Synonyms: Bioperine; 1-Piperoylpiperidine Vegetable origin Solubility: DMSO: \geq 31mg/mL Piperine, a natural alkaloid isolated from *Piper nigrum* L, inhibits **P-glycoprotein** and **CYP3A4** activities with an **IC**_{so} value of 61.94±0.054µg/mL in HeLa cell.

NAVKZ

Piperitone CAS: 89-81-6

Vegetable origin

NAVL0

Piperlongumine CAS: 20069-09-4

Vegetable origin

NAVL1

Plantainoside D CAS: 147331-98-4

Vegetable origin

NAVL2

Plantamajoside CAS: 104777-68-6 C₂₉H₃₆O₁₆

Vegetable origin Specification: 98%min by HPLC

NAVL3

Platycodigenin CAS: 22327-82-8 C₃₀H₄₈O₇

Vegetable origin



NAVL4



Vegetable origin

NAVL5

Platycodin D2 CAS: 66663-90-9 C₆₃H₁₀₂O₃₃

Vegetable origin Plant Source: Platycodon grandiflorum Specification: 98% min by HPLC

NAVL6

Platycodin D3 CAS: 67884-03-1

Vegetable origin

NAVL7

AND Enantiomer

Platyconic acid A CAS: 68051-23-0 $C_{57}H_{90}O_{29}$ $HO_{+} + HO_{+} + HO_{+}$

NAVL8 Platycoside E CAS: 237068-41-6

Vegetable origin







Vegetable origin

NAVLC Pleuromutilin CAS: 125-65-5 C₂₂H₃₄O₅



Synonyms: Drosophilin B; Mutilin 14-glycolate Solubility: 10mM in DMSO Pleuromutilin inhibits bacterial protein synthesis by binding to the 50S ribosomal subunit of bacteria.

NAVLD

Plumbapin CAS: 481-42-5

Vegetable origin

NAVLE

Pluviatolide CAS: 28115-68-6 $C_{20}H_{20}O_6$



AND Enantiome

Vegetable origin

NAVLF

Podocarpic acid

CAS: 5947-49-9

C₁₇H₂₂O₃

Vegetable origin Solubility: DMSO

Podocarpic acid is a natural product, which has the best all-round positive effect and acts as a novel **TRPA1** activator.

NAVLG

Podocarpusflavone A CAS: 22136-74-9





Vegetable origin Solubility: 10mM in DMSO

Podocarpusflavone A is a DNA topoisomerase I inhibitor, have moderated anti-proliferative activity induce cell apoptosis in MCF-7, is developing anti-tumor drugs target: DNA topoisomerase I In vitro: podocarpusflavone-A show significant inhibitions against DLD, KB, MCF-7, HEp-2 tumor cell lines (ED50 4.56-16.24µg/mL) and induce cell apoptosis in MCF-7 via mainly sub-G1/S phase arrest. PF (40ug/ mL, 24 hr) significantly induced about 10 folds of cell deaths and growth arrest in S-phase than the control group.

NAVLH

Podofilox CAS: 518-28-5 C₂₂H₂₂O₈

Vegetable origin

NAVLI

Podophyllotoxin-7-O-glucoside CAS: 16481-54-2

Vegetable origin

A.210



Pogostone CAS: 23800-56-8 $C_{12}H_{16}O_{4}$

Chemical Name: 4-Hydroxy-6-methyl-3-(4-methyl-1-oxopentyl)-2Hpyran-2-one Synonym: Dhelwangin Vegetable origin Specification: 98% min



Solubility: 10mM in DMSO

Poliumoside is a natural compound which exhibit significant inhibition of advanced glycation end product formation with IC50 value of 4.6-25.7µM. IC50 value: Target: Poliumoside exhibited greater inhibitory effects on rat lens aldose reductase with IC50 values of 0.85µM, than those of the positive controls, 3,3-tetramethyleneglutaric acid (IC50=4.03µM) and guercetin (IC50=7.2µM).

NAVII

Polvdatin CAS: 27208-80-6

Synonym: Piceid Vegetable origin Solubility: DMSO: ≥ 29mg/mL Polydatin (Piceid), extracted from the roots of Polygonum cuspidatum Sieb, a widely used traditional Chinese remedies, possesses

anti-inflammatory activity in several experimental models.

NAVLN

cis-Polvdatin CAS: 148766-36-3



NAVLO



NAVLP

Polygalacin D CAS: 66663-91-0

Vegetable origin

NAVLQ

Polygalasaponin B CAS: 103444-92-4

Vegetable origin

NAVLR

Polygalasaponin F CAS: 882664-74-6 C₅₃H₈₆O₂₃

Vegetable origin Specification: 98% min by HPLC

NAVLS

Polygalasaponin V CAS: 162857-65-0 C58H04O27

Synonym: 2-beta-D-glucopyranosyl ester Vegetable origin Plant Source: Polygala japonica Specification: 98% min by HPLC

NAVLT

Polygalasaponin XXXI CAS: 79103-90-5

Synonym: Onjisaponin F Vegetable origin

NAVLU

Polygalaxanthone III CAS: 162857-78-5 C25H28O15

Synonym: 2-(6-O-D-Apio-beta-D-furanosyl-beta-D-glucopyranosyl)-1,3,6-trihydroxy-7-methoxy-9H-xanthen-9-one Vegetable origin Plant Source: Polygala tenuifolia Specification: 98% min by HPLC

NAVLV

AND Enantiomer

Polygalic acid CAS: 1260-04-4 $C_{29}H_{44}O_{6}$

Chemical Name: (2beta,3beta,4alpha)-2,3-Dihydroxy-27-norolean-13-ene-23.28-dioic acid Synonym: Senegenic acid Vegetable origin Specification: 98% min

NAVLW

Polyphyllin A CAS: 14144-06-0 C₃₃H₅₂O₈

Synonym: Trillin Vegetable origin Specification: 98% min by HPLC

NAVLX

Polyphyllin B CAS: 50773-42-7 C₅₁H₈₂O₂₀

Synonym: Formosanin C Vegetable origin Specification: 98% min by HPLC

NAVLY



NAVLZ

Polyphyllin E CAS: 76296-73-6

Vegetable origin

NAVM0

Polyphyllin F CAS: 55916-51-3 C₅₁H₈₂O₂₁

Synonym: Formosanin VI Vegetable origin Specification: 98% min by HPLC



NAVM2

Polyphyllin VII CAS: 68124-04-9

Vegetable origin



NAVM4

Pomiferin CAS: 572-03-2

Vegetable origin

NAVM5

Pomolic acid CAS: 13849-91-7 C₃₀H₄₈O₄



AND Enantiomer

Vegetable origin

NAVM6

Pomolic acid beta-D-glucopyranosyl ester AND Enantiomer CAS: 83725-24-0



QÔ

AND Enantiomer

AND Enantiomer

NAVM7

Poncirin CAS: 14941-08-3

Vegetable origin

NAVM8

Poricoic acid A CAS: 137551-38-3

Vegetable origin

NAVM9

Praeruptorin A CAS: 73069-25-7 $C_{21}H_{22}O_7$

Vegetable origin Specification: 98% min by HPLC

NAVMC

Praeruptorin B CAS: 81740-07-0 C₂₄H₂₆O₇

Vegetable origin Specification: 98% min

NAVME

Praeruptorin C CAS: 83382-71-2 C₂₄H₂₈O₇

Vegetable origin Specification: 98% min by HPLC

NAVMF

Praeruptorin d CAS: 73069-26-8

Vegetable origin

NAVMG

Praeruptorin E CAS: 78478-28-1

Vegetable origin

NAVMH

 $\begin{array}{l} \textbf{L-Praziquanamine}\\ CAS: 99746-73-3\\ C_{12}H_{14}N_2O \end{array}$



Synonym: (+)-Praziquanamine Vegetable origin Solubility: 10mM in DMSO NAVMI

Precyasterone CAS: 27335-85-9

Vegetable origin

NAVMJ

Pregnenolone CAS: 145-13-1

Vegetable origin

NAVMK

8-Prenyldaidzein CAS: 135384-00-8

Vegetable origin



6-PrenyInaringenin CAS: 68236-13-5 C₂₀H₂₀O₅

Vegetable origin

NAVML

8-PrenyInaringenin CAS: 53846-50-7

 $C_{20}H_{20}O_{5}$

Vegetable origin

NAUMF Preserval CAS: 99-76-3 C₈H₈O₃

Vegetable origin



HO



NAVMO

Prionoid B CAS: 879324-75-1 C₂₀H₂₂O₃



Vegetable origin

NAVMP

Prionoid C CAS: 879324-76-2 C₂₀H₂₂O₃



AND Enantiome

Vegetable origin

NAVMQ

Pristimerin CAS: 1258-84-0 C₂₀H₄₀O₄



Synonym: Celastrol methyl ester Vegetable origin

Solubility: 10mM in DMSO

Pristimerin is a potent and reversible monoacylglycerol lipase (MGL) inhibitor with an IC₃₀ of 93nM.

NAVMR

 $\begin{array}{l} \textbf{Procurcumenol} \\ \textbf{CAS: 21698-40-8} \\ \textbf{C}_{15}\textbf{H}_{22}\textbf{O}_{2} \end{array}$



Vegetable origin

NAVMT

Procyanidin A1 CAS: 103883-03-0

Vegetable origin

NAVMS

Procyanidin A2 CAS: 41743-41-3

Vegetable origin



Procyanidin B1, inhibits infection by vesicular stomatitis virus and HCV pseudotype virus in Huh-7 cells, with IC50 of 29µM and 15µM, respectively. IC50:29µM and 15µM(VSV/HCV infection)[3] In vitro: Procyanidin B1 can bind to the TLR4–MD-2 heterodimer through a competitive interaction with LPS, which suppresses the activation of NF-kB and p38 MAPK pathways. This provide a new insight into the role of procyanidin B1 as an antagonist of the immune response involved in the development and progression of many inflammatory diseases.[1] Procyanidin B1 (PB1), a dimer of ()-epicatechin and (+)-catechin, suppresses HCV RNA synthesis, possibly as a HCV RNA polymerase inhibitor.No inhibitory effects were observed in each component of PB1. We found that PB1 does not interfere with viral entry or receptor expression, but inhibits HCV RNA synthesis in a dose-dependent manner.[3]



Procyanidin B2 exerts a potent and beneficial role in reducing granulosa cell apoptosis and inducing autophagy process, and exerts a variety of potent protective pharmacological effects on diabetic complications. In vitro: Procyanidin B2 treatment decreased FoxO1 protein level, improved granulosa cell viability, upregulated LC3-II protein level, and reduced granulosa cell apoptosis rate. Under a condition of oxidative stress, Procyanidin B2 reversed FoxO1 nuclear localization and increased its level in cytoplasm. In addition, FoxO1 knockdown inhibited the protective effects of Procyanidin B2 induced.[1] In vivo: Treatment with Procyanidin B2 resulted in an improvement in body weight increase and serum levels of triglyceride, total cholesterol, advanced glycation end products, and urinary albumin excretion in comparison with the vehicle-treated diabetic mice (P < .05), although these levels were still higher than those in the control group. Treatment with Procyanidin B2 significantly reduced the extent of glomerular basement membranes thickening, mesangial expansion, and glomerular area as well. Mimecan protein expressions in diabetes mellitus were decreased approximately by 28% when compared with those in the control group (P < .05), and restored remarkably after Procyanidin B2 treatment (P < .05). The expression of nuclear factorκB (NF-κB) p65 in nuclear extracts, markedly higher in the diabetic mice than in the controls, was significantly suppressed by Procyanidin B2.[2] Procyanidin B2 were dissolved indistilled water.[2]

nterchim[®] × Ad vion



NAVMV

Procyanidin B3 CAS: 23567-23-9

Vegetable origin

NAVMX

Progesterone CAS: 57-83-0 $C_{21}H_{30}O_2$



Synonym: Pregn-4-ene-3,20-dione Solubility: 10mM in DMSO

Progesterone is a C-21 steroid hormone involved in the female menstrual cycle, pregnancy and embryogenesis of humans and other species. Target: Progesterone receptor Progesterone also known as P4 (pregn-4-ene-3,20-dione) is a C-21 steroid hormone involved in the female menstrual cycle, pregnancy (supports gestation) and embryogenesis of humans and other species. Progesterone belongs to a class of hormones called progestogens, and is the major naturally occurring human progestogen. The route of administration impacts the effect of the drug. Given orally, progesterone has a wide person-to-person variability in absorption andbioavailability while synthetic progestins are rapidly absorbed with a longer half-life than progesterone and maintain stable levels in the blood. Progesterone does not dissolve in water and is poorly absorbed when taken orally unless micronized in oil. Products are often sold as capsules containing micronised progesterone in oil. Progesterone can also be administered through vaginal or rectal suppositories or pessaries, transdermally through a gel or cream, or via injection (though the latter has a short half-life requiring daily administration).

NAVMY

L-Proline CAS: 147-85-3 C₅H₉NO₂

Chemical Name: (2S)-pyrrolidine-2-carboxylic acid Vegetable origin Specification: 99%

NAVMZ

Propiin

NAVN0

Propyl gallate CAS: 121-79-9 C₁₀H₁₂O₅

Chemical Name: propyl 3,4,5-trihydroxybenzoate Vegetable origin Specification: 99% min

NAVN1

 $\begin{array}{l} \textbf{Proscillaridin A} \\ \textbf{CAS: 466-06-8} \\ \textbf{C}_{30}\textbf{H}_{42}\textbf{O}_{8} \end{array}$

Vegetable origin Specification: 98% min by HPLC

NAVV2

Protected 3'- α -Sialylgalactose [Protected NeuAc $\alpha(2\rightarrow 3)$ -D-Gal]

NAVV3

Protected 6- α -Sialylgalactose [Protected NeuAc $\alpha(2\rightarrow 6)$ -D-Gal]

NAVV0

Protected 6'- β -Sialylgalactose [Protected NeuAc $\beta(2{\rightarrow}6)\text{-D-Gal}]$

NAVV5

Protected 3'- α -Sialyllactose [Protected NeuAc $\alpha(2\rightarrow 3)$ -D-Gal- $\beta(1\rightarrow 4)$ -D-Glc]

NAVV6

Protected 6'- α -Sialyllactose [Protected NeuAc $\alpha(2\rightarrow 6)$ -D-Gal- $\beta(1\rightarrow 4)$ -D-Glc]

NAVV4

Protected 6'- β -Sialyllactose [Protected NeuAc $\beta(2\rightarrow 6)$ -D-Gal- $\beta(1\rightarrow 4)$ -D-Glc]

NAVN2

Protocatechualdehyde CAS: 139-85-5 $C_7H_6O_3$

Synonyms: Catechaldehyde; NC 033; NSC 22961; Protocatechuic aldehyde; Rancinamycin IV Vegetable origin

NAVN3

Protocatechuic acid CAS: 99-50-3 $C_7H_6O_4$



Synonym: 3,4-Dihydroxybenzoic acid Vegetable origin Solubility: 10mM in DMSO Protocatechuic acid is a phenolic compound which exhibits neuroprotective effect. Advion × ^{**} interchim

NAVN4

Protocatechuic acid methyl ester CAS: 2150-43-8 $C_8H_8O_4$



Vegetable origin

NAVN5

Protodeltonin CAS: 94992-08-2

Vegetable origin

NAVN6



Vegetable origin

Solubility: 10mM in H₂O

Protodioscin, a major steroidal saponin in dioscoreae rhizome, has been shown to exhibit multiple biological actions, such as anti-hyperlipidemia, anti-cancer, sexual effects and cardiovascular properties.

NAVN7

Protogracillin CAS: 54848-30-5

Vegetable origin

NAVN8

Protohypericin CAS: 548-03-8 C₃₀H₁₈O₈

Chemical Name: 1,3,4,6,8,15-Hexahydroxy-10,13-dimethyldibenzo[a,o]perylene-7,16-dione Vegetable origin Specification: 98% min by HPLC

NAVN9

Protopanaxadiol CAS: 7755-01-3

 $C_{30}H_{52}O_{3}$

Vegetable origin Specification: 98% min by HPLC

NAVNA

20(R)-Protopanaxadiol CAS: 7755-01-3

Vegetable origin



Synonyms: 20-Epiprotopanaxadiol; 20(S)-APPD Vegetable origin Solubility: 10mM in DMSO

(20S)-Protopanaxadiol (20-Epiprotopanaxadiol) is an aglycon metabolic derivative of the protopanaxadiol-type ginseng saponin; apoptosis inducer. IC50 value: Target: apoptosis inducer (20S)-Protopanaxadiol was used to induce cytotoxicity for two human glioma cell lines, SF188 and U87MG. For the SF188 cells, (20S)-Protopanaxadiol activated caspases-3, -8, -7, and -9 within 3h and induced rapid apoptosis, which could be partially inhibited by a general caspase blocker and completely abolished when the caspase blocker was used in combination with an antioxidant. (20S)-Protopanaxadiol also induced cell death in U87MG cells but did not activate any caspases in these cells [1]. aPPD was able to inhibit P-gp activity as potently as verapamil on MDR cells. The blockage of P-gp activity was highly reversible as wash-out of aPPD resulted in an immediate recovery of P-gp activity. Unlike verapamil, aPPD did not affect ATPase activity of P-gp suggesting a different mechanism of action [2].



Synonyms: 20(R)-APPT; 20(R)-Protopanaxatriol Vegetable origin

Solubility: DMSO: ≥ 32mg/mL

Protopanaxatriol, a major ginseng constituent, is a novel PPARy antagonist. The inhibition of PPARy activity could be a promising therapy for obesity and steatosis. IC50 Value: Target: Anti-metabolic diseases natural product. In vitro: In human umbilical vein endothelial cells, the multiple components of Panax ginseng extract rich in protopanaxatriol offers combinatorial effects in NO production and vascular endothelium relaxation via multiple signaling pathways resulting in hypotensive effect [2]. In vivo: In high-fat diet-induced obesity mice, protopanaxatriol reduced body weight and serum lipid levels, improved insulin resistance, as well as morphology and lipid accumulation, particular macrovesicular steatosis, in the livers. A reporter gene assay showed that protopanaxatriol specifically inhibited the transactivity of PPARy, but not PPAR α , β/δ and LXR α , β. TR-FRET assay revealed that protopanaxatriol was specifically bound to PPARy LBD, which was further confirmed by the molecular docking study [1]

A.216

NAVNH

AND Enantiomer

Protosappanin B CAS: 102036-29-3 C₁₆H₁₆O₆

Synonym: (7S)-3,7,10,11-Tetrahydroxy-7,8-dihydro-6H-dibenzo[b,d] oxocin-7-methanol Vegetable origin Plant Source: Sappan lignum Specification: 98% min by HPLC

NAVNI

Protostemonine

CAS: 27495-40-5

Vegetable origin

NAVNJ

Protostemotinine CAS: 169534-85-4

Vegetable origin

NAVNK

Prunetin CAS: 552-59-0

Vegetable origin

NAVNL

Przewalskin CAS: 119400-87-2 C₁₈H₂₄O₂

NAVNM

Przewalskinic acid A CAS: 136112-75-9

Vegetable origin

NAVNN Przewaguinone A CAS: 76843-23-7

 $C_{19}H_{18}O_{4}$

Vegetable origin

NAVNO

Przewaguinone C

CAS: 96839-29-1 C1.H16O1

Vegetable origin



A.217

Synonym: Corydinine Vegetable origin Solubility: 10mM in DMSO

NAVNE

C30H52O4

(20S)-Protopanaxatriol

Synonyms: 20(S)-APPT; g-PPT

Solubility: DMSO: ≥ 47mg/mL

oestrogen (ER) receptors.

NAVNF Protopine

CAS: 130-86-9 C₂₀H₁₀NO₅

CAS: 34080-08-5

Vegetable origin

Protopine, an isoquinoline alkaloid contained in plants in northeast Asia. IC50 Value: Target: In vitro: Protopine was found to reduce nitric oxide (NO), cyclooxygenase-2 (COX-2), and prostaglandin E(2) (PGE(2)) production by LPS-stimulated Raw 264.7 cells, without a cytotoxic effect. Pre-treatment of Raw 264.7 cells with protopine reduced the production of pro-inflammatory cytokines [2]. Protopine is a novel microtubule stabilizer with anticancer activity in HRPC cells through apoptotic pathway by modulating Cdk1 activity and Bcl-2 family of proteins [3]. In HepG2 cells, protopine significantly increased CYP1A1 mRNA levels after 24h exposure at concentrations from 25 and 10µM. Protopine also dose-dependently increased CYP1A1 and CYP1A2 mRNA levels in human hepatocytes [4]. In vivo: Assays were performed on MDA-MB-231 human breast cancer cells, and the result showed that protopine exhibited anti-adhesive and anti-invasion effects in MDA-MB-231 cells; after treatment with protopine for 90min, the expression of EGFR, ICAM-1, av-integrin, β1-integrin and β5-integrin were remarkably reduced [1].

(20S)-Protopanaxatriol(g-PPT) is a metabolites of ginsenoside, protopanaxatriol (g-PPT), could modulate endothelial cell functions

through the glucocorticoid receptor (GR) and oestrogen receptor (ER). IC50 value: Target: 20S-Protopanaxatriol (g-PPT), a damma-

rane-type tetracyclic terpene sapogenin, may be used to study its binding to and modulation of cell function via glucocortoid (GR) and

NAVNG

Protopseudohypericin CAS: 54328-09-5





Vegetable origin

NAVNP

Pseudoaspidin CAS: 478-28-4

Vegetable origin



Pseudoginsenoside-F11 (PF11), a component of Panax quinquefolium (American ginseng), has been demonstrated to antagonize the learning and memory deficits induced by scopolamine, morphine and methamphetamine in mice. IC50 value: Inhibition of diprenorphine binding with an IC50 of 6.1µM Target: In vitro: Biochemical experiments revealed that PF11 could inhibit diprenorphine (DIP) binding with an IC50 of 6.1µM and reduced the binding potency of morphine in Chinese hamster ovary (CHO)-µ cells [2]. In vivo: One in vivo model of cisplatin-induced acute renal failure was performed. The results showed that pretreatment with Pseudoginsenoside F11 reduced cisplatin-elevated blood urea nitrogen and creatinine levels, as well as ameliorated the histophathological damage [1]. We tested the effects of Pseudoginsenoside F11 on morphine-induced development of behavioral sensitization and alterations in glutamate levels in the medial prefrontal cortex (mPFC) in freely moving mice by using in vivo microdialysis. As the results shown, Pseudoginsenoside F11 antagonized the development of behavioral sensitization and decrease of glutamate in the mPFC induced by morphine [3].

NAVNS

Pseudoginsenoside Rh2 CAS: 1370264-16-6

Vegetable origin

NAVNT

Pseudoginsenoside RT1 CAS: 98474-74-9

Vegetable origin

NAVNU

Pseudoginsenoside RT5 CAS: 98474-78-3 $C_{3e}H_{e9}O_{10}$

Vegetable origin Specification: 98% min by HPLC

NAVNV

Pseudohypericin CAS: 55954-61-5

Vegetable origin

NAVNW

Pseudolaric acid A CAS: 82508-32-5 C₂₂H₂₈O₆ Ho

Vegetable origin

NAVNX

Pseudolaric acid A beta-D-glucoside CAS: 98891-44-2 C₂₈H₃₈O₁₁

28. 38 11

Vegetable origin Specification: 98% min by HPLC

NAVNY



AND Enantiome

AND Enantiomer

NAVNZ

Pseudolaric acid B-O-beta-D-glucopyranoside CAS: 98891-41-9C₂₉H₃₈O₁₃

Vegetable origin Plant Source: Pseudolarix kaempferi Specification: 98% min by HPLC

NAVO0

Pseudolaric acid C CAS: 82601-41-0 $C_{21}H_{26}O_7$ но

Vegetable origin

The state of the second second



NAVO2



NAVO3

Pseudoprotodioscin CAS: 102115-79-7

Vegetable origin

NAVO4

Pseudoprotogracillin CAS: 637349-03-2

Vegetable origin

NAVO5

D-Psicose CAS: 551-68-8

NAVO6

L-Psicose CAS: 16354-64-6

AND Enantiome NAVO7 **Psoracorylifol A** CAS: 879290-97-8 C18H24O2 Vegetable origin AND Enantiomer NAVO8 **Psoracorylifol C** CAS: 879290-99-0 C18H24O3 Vegetable origin

NAVO9

Psoralen CAS: 66-97-7 $C_{11}H_{\beta}O_{3}$



Synonyms: Ficusin; Furocoumarin Vegetable origin Solubility: DMSO: ≥ 1.9mg/mL

Psoralen(Furocoumarin) is an active ingredient from Fructus Psoraleae; has anticancer activity. IC50 value: Target: in vitro: Psoralen dosages of 1-10µM exhibited low cytotoxicity toward chondrocytes. However, a dosage of 100µM suppressed the proliferation of chondrocytes. Different concentrations of psoralen treatments on chondrocytes revealed that GAG and Type II collagen synthesis increased, especially at 100µM, by 0.39-fold and 0.48-fold, respectively, on day 3, and by 0.51-fold and 0.56-fold, respectively, on day 9 [1]. In vivo: Tumor volume inhibition rates were 43.75% and 40.18%, respectively, in the psoralen and isopsoralen low-dose groups, and tumor weight inhibition rates were 38.83% and 37.77%. Tumor volume inhibition rates were 67.86% and 66.96%, respectively, in the psoralen and isopsoralen high-dose groups, and tumor weight inhibition rates were 49.47% and 47.87% [2]. Psoralen can inhibit metastasis of breast cancer to bone in vivo. Histological, molecular biological, and imaging analyses revealed that psoralen inhibits bone metastases in mice [3].

NAVOA Psoralidin CAS: 18642-23-4 $C_{20}H_{16}O_{5}$ Vegetable origin Solubility: DMSO

Psoralidin, a natural furanocoumarin, is isolated from Psoralea corylifolia L. possessing anti-cancer properties. IC50 value: Target: Anticancer natural compound in vitro: PSO dramatically decreased the cell viabilities in dose- and time-dependent manner. Autophagy inhibitor 3-MA blocked the production of LC3-II and reduced the cytotoxicity in response to PSO. Furthermore, PSO increased intracellular ROS level which was correlated to the elevation of LC3-II [1]. Psoralidin at 10µM was able to induce the maximum reporter gene expression corresponding to that of E2-treated cells and such activation of the ERE-reporter gene by psoralidin was completely abolished by the cotreatment of a pure ER antagonist, implying that the biological activities of psoralidin are mediated by ER [2]. Psoralidin enhanced TRAIL-induced apoptosis in HeLa cells through increased expression of TRAIL-R2 death receptor and depolarization of mitochondrial membrane potential [3]. Psoralidin inhibited the IR-induced COX-2 expression and PGE(2) production through regulation of PI3K/Akt and NF-kB pathway. Also, psoralidin blocked IR-induced LTB(4) production, and it was due to direct interaction of psoralidin and 5-lipoxygenase activating protein (FLAP) in 5-LOX pathway. IRinduced fibroblast migration was notably attenuated in the presence of psoralidin [4]. In vivo: Moreover, in vivo results from mouse lung indicate that psoralidin suppresses IR-induced expression of pro-inflammatory cytokines (TNF-α, TGF-β, IL-6 and IL-1 α/β) and ICAM-1[4]

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NAVOB

Pterosin B CAS: 34175-96-7 C₁₄H₁₈O₂

Chemical Name: (2R)-6-(2-hydroxyethyl)-2,5,7-trimethyl-2,3-dihydroinden-1-one Vegetable origin Specification: 98% min by HPLC

NAVOC

Pterostilbene CAS: 537-42-8 C₁₆H₁₆O₃

Vegetable origin

NAVOD (+)-Pteryxin CAS: 13161-75-6

C₂₁H₂₂O₇

Vegetable origin



AND Enantiomer

AND Enantiomer

NAVOE

Puerarin CAS: 3681-99-0 C₂₁H₂₀O₉ но



Vegetable origin Solubility: DMSO

Puerarin, an isoflavone extracted from Radix puerariae, is a 5-HT2C receptor antagonist.

NAVOF

Puerarin 6"-O-xyloside CAS: 114240-18-5

Vegetable origin

NAVOG

Pulchinenoside A CAS: 129724-84-1

 $C_{41}H_{66}O_{12}$



AND Enantiomer

Synonym: Anemoside A3 Vegetable origin

Solubility: 10mM in DMSO

Pulchinenoside A is a natural triterpenoid saponin that enhances synaptic plasticity in the adult mouse hippocampus and facilitates spatial memory in adult mice. In vitro: Additions of pulsatilloside A and anemoside A3, at dosages ranging from 0.1, 1 and 10µg/ml, protected PC12 cells from apoptosis. [1] In vivo:AA3 also acts as a non-competitive NMDA receptor (NMDAR) modulator with a neuroprotective capacity against ischemic brain injury and overexcitation in rats. [2] Anemoside A3 produces relaxation in rat renal arteries through multiple mechanisms. [3]

NAVOH



Synonym: Anemoside B4 Vegetable origin

Solubility: 10mM in DMSO

Anemoside B4 is Pulsatilla koreana Nakai that have many numerous biological effects in vitro, including enhancing hypoglycemic, anti-tumor, neuroprotective and anti-angiogenic activity. AB4 can inhibit the secretion of IL-10; SSA, SSD and PNS up-regulated IL-2 expression. [1] AB4, with IC50 value more than 390ug/mL. Anemoside B4 inhibits cell proliferation.[2] Anemoside B4 can significantly suppress the secretion of the inflammatory factor E-selectin by endothelial cells. [3]

NAVOI

Pulsatilla saponin D CAS: 68027-15-6

C47H76O17





Solubility: DMSO: \geq 39mg/mL

Pulsatilla saponin D(SB365) isolated from the root of Pulsatilla koreana, has exhibited potential beneficial effects as a chemopreventive agent for critical health conditions including cancer. IC50 value: Target: SB365 effectively inhibited the growth of gastric cancer cells. Its apoptotic effect was accompanied by increased evidence of cleaved caspase-3 and poly(ADP ribose) polymerase. To elucidate the anticancer mechanism of SB365, we used an array of 42 different receptor tyrosine kinases (RTKs). Of the 42 different phospho-RTKs, SB365 strongly inhibited expression of activated c-mesenchymalepithelial transition factor (c-Met) in gastric cancer cells [1]. SB365 strongly suppressed the growth and proliferation of 5 human pancreatic cancer cell lines (MIAPaCa-2, BXPC-3, PANC-1, AsPC-1 and HPAC). The apoptotic effect of SB365 was demonstrated by increased levels of cleaved caspase-3 and decreased Bcl-2 expression via mitochondrial membrane potential, as well as elevated numbers of terminal deoxynucleotidyl-transferase-mediated dUTP nick end labeling (TUNEL)-positive apoptotic cells [2]. SB365 strongly suppressed the growth and proliferation of colon cancer cells and induced their apoptosis. Also, SB365 showed anti-angiogenic activity by decreasing the expression of HIF-1α and VEGF. These results were confirmed by an in vivo study showing that SB365 significantly inhibited tumor growth by the induction of apoptosis and inhibition of angiogenesis with stronger anticancer activity than 5-FU [3]

NAVOJ

Punicalagin CAS: 65995-63-3 C₄₈H₂₈O₃₀

Vegetable origin Plant Source: Terminalia oblongata/Punica granatum (pomegranate) Specification: 98%min by HPLC

NAVOK

Punicalin CAS: 65995-64-4 C₃₄H₂₂O₂₂

Vegetable origin Plant Source: pomegranate (Punica granatum) peel Specification: 98% min by HPLC

NAVOL

AND Enantiomer

HC

Purpureaside C CAS: 108648-07-3 C₃₅H₄₆O₂₀

Vegetable origin Plant Source: Rehmannia glutinosa Specification: 98% min by HPLC

NAVOM

Purpurin CAS: 81-54-9 C₁₄H₈O₅

Vegetable origin

NAVON

Pygenic acid A CAS: 52213-27-1 C₃₀H₄₈O₄



AND Enantiomer





NAVOP

Pyrethrin I CAS: 121-21-1

NAVOQ Pyrethrin II CAS: 121-29-9

Advion × ^{rest}interchim

A.221



NAVOR

3-Pyridinecarboxylic acid (3R,5S,5aS,6S,9S,9aS,10R)-5-(acetyloxy)-6-(benzoyloxy)octahydro-9-hydroxy-2,2,5a,9-tetramethyl-2H-3,9a-methano-1-benzoxepin-10-yl ester AND Enantiomer

CAS: 197590-28-6 C₃₀H₃₅NO₈



Vegetable origin

NAVOS

Pyridoxine (hydrochloride) CAS: 58-56-0 $C_8H_{12}CINO_3$

Vegetable origin

NAVOT

Pyrochamissanthin CAS: 41743-60-6C₁₅H₂₀O₃



Vegetable origin

NAVOU

Pyrogallol CAS: 87-66-1 C₆H₆O₃

Chemical Name: benzene-1,2,3-triol Synonyms: 1,2,3-trihydroxybenzene; Pyrogallic acid; 1,2,3-benzenetriol Vegetable origin Specification: 99% min by HPLC

NAVOV

Pyromeconic acid CAS: 496-63-9

Vegetable origin

NAVOW

Qianhucoumarin G CAS: 68692-61-5 C₁₄H₁₄O₅



Vegetable origin

NAVOX

Qingyangshengenin CAS: 84745-94-8 C₂₈H₃₆O₈

Vegetable origin Specification: 98% min by HPLC

NAVOY

Qingyangshengenin A CAS: 106644-33-1

Vegetable origin

NAVOZ

Qingyangshengenin B CAS: 106758-54-7

Vegetable origin

NAVP0

L-Quebrachitol CAS: 642-38-6

Vegetable origin

NAVP1

Quercetin CAS: 117-39-5 C₁₅H₁₀O₇



Vegetable origin

NAVP2

Quercetin Dihydrate CAS: 6151-25-3

Vegetable origin

NAVP3

Quercetin 3-O-[2-O-(6-O-E-feruloyl)-beta-Dglucopyranosyl]-beta-D-galactopyranoside CAS: 448948-20-7



A.222





NAVP5

Quercetin 3-O-beta-gentiobioside

CAS: 7431-83-6 C₂₇H₃₀O₁₇

Synonym: 3,3',4',5,7-Pentahydroxyflavone 3-gentiobioside Vegetable origin Plant Source: Primula sinensis and other plant spp. Specification: 98% min by HPLC



NAVPA

Quercetin-7-O-β-D-glucopyranoside CAS: 491-50-9

Vegetable origin

NAVP6

Quercetin 3-O-β-D-glucose-7-O-β-D-gentiobioside CAS: 60778-02-1

Vegetable origin

NAVP7

Quercetin 3-O-glucoside-7-O-rhamnoside CAS: 18016-58-5

Vegetable origin

NAVPB

C21H18O13



NAVP8

Quercetin 3-O-β-D-xylopyranoside CAS: 549-32-6

Vegetable origin

NAVPC

Quercitin-3-beta-D-glucofuranoside CAS: 21637-25-2

Vegetable origin

NAVPD Quercitrin

CAS: 522-12-3 C₂₁H₂₀O₁₁



AND Enantiomer

Synonym: Quercetin 3-rhamnoside Vegetable origin

Solubility: DMSO: ≥ 31mg/mL

Quercitrin is a natural compound found in Tartary buckwheat with a potential anti-inflammation effect that is used to treat heart and vascular conditions. IC50 value: Target: In vitro: There were significant increases in caspase-3 activity, loss of MMP, and increases in the apoptotic cell population in response to guercitrin in DLD-1 colon cancer cells in a time- and dose-dependent manner. [1] In vivo: ICR mice received CCl4 intraperitoneally with or without quercitrin coadministration for 4 weeks. Data showed that guercitrin significantly suppressed the elevation of reactive oxygen species (ROS) production and malondialdehyde (MDA) content, reduced tissue plasminogen activator (t-PA) activity, enhanced the antioxidant enzyme activities and abrogated cytochrome P450 2E1 (CYP2E1) induction in mouse brains. [2]



Advion × Minterc



NAVPF

Quillaic acid CAS: 631-01-6 $C_{30}H_{46}O_5$



Synonym: Quillaja sapogenin Vegetable origin

Solubility: DMSO: \geq 41mg/mL

Quillaic acid (Quillaja sapogenin) is the major aglycone of the widely studied saponins of the Chilean indigenous tree Quillaja saponaria Mol; can elicit dose-dependent antinociceptive effects in two murine thermal models.

NAVPG

Quinic acid CAS: 77-95-2

Vegetable origin

NAVPR

RA-V CAS: 64725-24-2 C₄₀H₄₈N₆O₉

AND Enantiomer



NAVPH

RA VII CAS: 86229-97-2 C₄₁H₅₀N₆O₉



Vegetable origin

NAVPS



NAVPI

Rabdosin B CAS: 84304-92-7 C₂₄H₃₂O₈



Vegetable origin

NAVPJ

Raddeanin A CAS: 89412-79-3 C₄₇H₇₆O₁₆

Vegetable origin Specification: 98% min by HPLC

NAVPK

Raddeanoside 20 CAS: 335354-79-5

Vegetable origin

NAVPL

Raddeanoside R8 CAS: 124961-61-1

Vegetable origin

NAVPM

D-(+)-Raffinose (pentahydrate) CAS: 17629-30-0 $C_{18}H_{42}O_{21}$

Synonym: D-Raffinose pentahydrate Vegetable origin

NAVPN

Ranaconitine CAS: 1360-76-5

Vegetable origin

nterchim[®] × Advion

NAVPO

Raspberry Ketone CAS: 5471-51-2

Vegetable origin

NAVPP

Raspberry Ketone glucoside CAS: 38963-94-9







Vegetable origin Solubility: DMSO: ≥ 150mg/mL

Rebaudioside A is a steviol glycoside, α -glucosidase inhibitor with IC50 of 35.01µg/ml.can inhibit ATP-sensitive K+-channels. Target: α-glucosidase [1] IC 50: 35.01µg/mL In vitro: rebaudioside A stimulat the insulin secretion from MIN6 cells in a dose- and glucose-dependent manner. In conclusion, the insulinotropic effect of rebaudioside A is mediated via inhibition of ATP-sensitive K+-channels and requires the presence of high glucose. [2] In vivo: in vivo mouse micronucleus test at doses up to 750mg/kg bw and an unscheduled DNA synthesis test in rats at doses up to 2000mg/kg bw, rebaudioside A do not cause any genotoxic effects at any of the doses tested. [3]

NAVPX

Rebaudioside B CAS: 58543-17-2

Vegetable origin

NAVPU



Synonym: Dulcoside B Vegetable origin Solubility: DMSO: ≥ 40mg/mL Rebaudioside C(Dulcoside B) is used as natural sweeteners to diabetics and others on carbohydrate-controlled diets.

NAVPV

AND Enantiomer

Rebaudioside D CAS: 63279-13-0

Vegetable origin

NAVPW

Rebaudioside G CAS: 127345-21-5

Vegetable origin



NAVQ0



NAVQ1



Solubility: DMSO: 7mg/mL (Need ultrasonic)

Reserpine (Serpalan) is an indole alkaloid antipsychotic and antihypertensive drug that irreversibly blocks the vesicular monoamine transporter (VMAT). Target: vesicular monoamine transporter (VMAT) Reserpine (Lannett's Serpalan) is an indole alkaloid antipsychotic and antihypertensive drug that has been used for the control of high blood pressure and for the relief of psychotic symptoms, although because of the development of better drugs for these purposes and because of its numerous side-effects, it is rarely used today. The antihypertensive actions of reserpine are a result of its ability to deplete catecholamines (among other monoamine neurotransmitters) from peripheral sympathetic nerve endings. These substances are normally involved in controlling heart rate, force of cardiac contraction and peripheral vascular resistance. Reserpine irreversibly blocks the vesicular monoamine transporter (VMAT). This normally transports free intracellular norepinephrine, serotonin, and dopamine in the presynaptic nerve terminal into presynaptic vesicles for subsequent release into the synaptic cleft ("exocytosis"). Unprotected neurotransmitters are metabolized by MAO (as well as by COMT) in the cytoplasm and consequently never excite the postsynaptic cell

NAVQ2

AND Enantiomer



NAVQ3



NAVQ4

Resibufagin CAS: 20987-24-0

Vegetable origin

NAVQ6

cis-Resveratrol CAS: 61434-67-1







Synonyms: Retinol acetate; Vitamin A acetate Vegetable origin Solubility: DMSO Retinyl acetate is a natural form of vitamin A and has potential antineoplastic and chemo preventive activities.

NAVQB

Rhamnocitrin

CAS: 569-92-6

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C<sub>16</sub>H<sub>12</sub>O<sub>6</sub>
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Chemical Name: 3,5-dihydroxy-2-(4-hydroxyphenyl)-7-methoxychromen-4-one Synonyms: 7-Methylkaempferol; 3,4',5-Trihydroxy-7-methoxyflavone Vegetable origin Specification: 98% min by HPLC

NAVQA



Vegetable origin

NAVQC

3-O-alpha-Rhamnopyranosyl-(12)-alpha-arabinopyranosyl mesembryanthemoidigenic acid

CAS: 120726-97-8 $C_{41}H_{66}O_{12}$ H_{0H} H_{0H} H_{0

Vegetable origin

NAVQD

α-L-Rhamnose monohydrate CAS: 6155-35-7 $C_6H_{14}O_6$

OH₂

AND Enantiomer

Vegetable origin Solubility: H₂O: 100mg/mL

 α -L-Rhamnose monohydrate is a component of the plant cell wall pectic polysaccharides rhamnogalacturonan I and rhamnogalacturonan II. α -L-Rhamnose monohydrate is also a component of bacterial polysaccharides where it plays an important role in pathogenicity.

NAVQE

2"-O-Rhamnosylicariside II



Vegetable origin

NAVQF

Rhapontigenin CAS: 500-65-2 C₁₅H₁₄O₄

Vegetable origin

он

NAVQG

Rhapontigenin 3'-O-glucoside CAS: 94356-22-6

Vegetable origin

NAVQH



Advion × ^{red}interchim



Synonyms: Rheic Acid; Rhubarb yellow; Monorhein Vegetable origin

Solubility: DMSO: 12.17mg/mL (Need ultrasonic and warming) Rhein is a lipophilic anthraquinone extensively found in medicinal herbs, and has many pharmacological effects, including epatoprotective, nephroprotective, anti-inflammatory, antioxidant, anticancer, and antimicrobial activities. IC50 value: Target: In vitro: Rhein (0.1 and 1mg/mL) evidently suppressed cell proliferation and mitogenactivated protein (MAP) kinase activation in human colon adenocarcinoma cells (Caco-2) but significantly lessened H,O2-induced DNA damage and the elevated MDA and ROS levels induced by H₂O₂/ Fe2+ at the concentrations of 0.1-10mg/mL [1]. In vivo: Oral administration of rhein (150mg/kg/d) evidently ameliorated renal interstitial fibrotic lesions and attenuated the expression of α-SMA and deposition of fibronectin (FN) in mice with renal interstitial fibrosis induced by unilateral ureteral obstruction. Rhein also suppressed TGF-β1 and its type I receptor expression in obstructed kidneys [1]. The biochemical parameters results of IgAN model rats showed that rhein-prevented and rhein-treated both improved the biochemical parameters and relieved renal pathological injury. The expressions of renal tissue TLR4, TGF-B1, but not TLR9 were significantly elevated in IgAN model rats (P < 0.05). Rhein-prevented and rhein-treated both inhibited TLR4 and TGF-B1 expressions [2].

NAVQJ

Rhein-8-glucoside CAS: 34298-86-7

Synonym: Rhein-8-O-β-D-glucopyranoside Vegetable origin

NAUXV

RhMannioside C CAS: 81720-07-2

Vegetable origin

NAVQK

Rhodamine B CAS: 81-88-9

Vegetable origin

NAVQL

Rhodionin CAS: 85571-15-9

Vegetable origin

NAVQM

Rhodiosin CAS: 86831-54-1

Vegetable origin

NAVQN

Rhodojaponin II CAS: 26116-89-2 $C_{22}H_{34}O_7$

Synonym: (14R)-2β,3β-Epoxygrayanotoxane-5,6β,10,14,16-pentol 6-acetate Vegetable origin Plant Source: Rhododendron molle Specification: 98% min by HPLC

NAVQO

Rhodojaponin III CAS: 26342-66-5

Vegetable origin

NAVQP

Rhodojaponin V CAS: 37720-86-8

Vegetable origin

NAVQQ

Rhoifolin CAS: 17306-46-6 C₂₇H₃₀O₁₄

Synonym: Apigenin 7-O-neohesperidoside Vegetable origin Specification: 98% min by HPLC

NAVQR

Rhynchophylline

CAS: 76-66-4 C₂₂H₂₈N₂O₄



Vegetable origin Solubility: 10mM in DMSO

Rhyncholphylline, an alkaloid isolated from Uncaria, shows potent inhibition of lipopolysaccharide (LPS)-induced NO production in rat primary microglial cells. IC50 value: Target: In vitro: Rhyncholphylline effectively suppresses release of proinflammatory cytokines in LPSactivated microglial cells and the underling molecular mechanism for the inhibition of microglial activation; Attenuated LPS-induced production of proinflammatory cytokines such as TNF- α and IL-1 β as well as NO in mouse N9 microglial cells [1]. Rhynchophylline exerts it protective action against ischemia-induced neuronal damage by preventing NMDA, muscarinic M1, and 5-HT2 receptors-mediated neurotoxicity during ischemia [3]. In vivo: The neuroprotective effect of rhynchophylline was investigated in a stroke model. Following pMCAO, rhynchophylline treatment not only ameliorated neurological deficits, infarct volume and brain edema, but also increased claudin-5 and BDNF expressions (p < 0.05). Moreover, rhynchophylline could activate PI3K/Akt/mTOR signaling while inhibiting TLRs/NF-κB pathway [2]



NAVQS

Riboflavin CAS: 83-88-5

Vegetable origin

NAVQT

Rivularin CAS: 70028-59-0 C₁₈H₁₆O₇

Vegetable origin

NAVQU

Robinin CAS: 301-19-9

Vegetable origin

NAVQV

Roburic acid CAS: 6812-81-3 C₃₀H₄₈O₂

Vegetable origin Specification: 98% min by HPLC

NAVQW

Rosamultic acid CAS: 214285-76-4 $C_{30}H_{46}O_5$



NAVQX

Vegetable origin

Rosarin CAS: 84954-93-8 C₂₁H₃₀O₉

Vegetable origin Plant Source: Rhodiola rosea Specification: 98% min by HPLC

NAVQY

 $\begin{array}{l} \textbf{Rosavin} \\ \text{CAS: 84954-92-7} \\ \text{C}_{20}\text{H}_{28}\text{O}_{10} \end{array}$

Chemical Name: 2-(3-phenylprop-2-enoxy)-6-[(3,4,5-trihydroxyoxan-2-yl)oxymethyl]oxane-3,4,5-triol Vegetable origin Specification: 98% min by HPLC

NAVQZ

Rosin CAS: 85026-55-7 C₁₅H₂₀O₆

Chemical Name: (2R,3S,4S,5R,6R)-2-(hydroxymethyl)-6-[(E)-3-phenylprop-2-enoxy]oxane-3,4,5-triol Vegetable origin Plant Source: Rhodiola rosea Specification: 98% min by HPLC

NAVR0

Rosiridin CAS: 100462-37-1 C₁₆H₂₈O₇

Chemical Name: (2R,3R,4S,5S,6R)-2-[(2E)-4-hydroxy-3,7-dimethylocta-2,6-dienoxy]-6-(hydroxymethyl)oxane-3,4,5-triol Vegetable origin Plant Source: Rhodiola rosea Specification: 98% min by HPLC

NAVR1

Rosmanol CAS: 80225-53-2

Vegetable origin



Synonym: Labiatenic acid Vegetable origin Solubility: DMSO: \geq 30mg/mL Rosmarinic acid (RA) is a widespread phenolic ester compound in the plants. Rosmarinic acid inhibits **MAO-A**, **MAO-B** and **COMT** enzymes with **IC**₅₀s of 50.1, 184.6 and 26.7µM, respectively.

NAVR3

Rosmarinic acid (racemate) CAS: 537-15-5 $C_{18}H_{16}O_8$

Vegetable origin Solubility: DMSO: ≥ 30 mg/mL

NAVR4

Rotenone CAS: 83-79-4

Vegetable origin

NAVR5

Rotundatin CAS: 144506-16-1

Vegetable origin

NAVR6

Rotundic acid CAS: 20137-37-5 C₃₀H₄₈O₅

Synonyms: Ilexolic acid A; (3beta,4alpha)-3,19,23-Trihydroxyurs-12-en-28-oic acid Vegetable origin Plant Source: ZLEX ROTUNDA Specification: 98% min by HPLC

NAVR7

Rotundine CAS: 483-14-7 C21H25NO4



Synonyms: (-)-Tetrahydropalmatine; L-Tetrahydropalmatine Vegetable origin

Solubility: 10mM in DMSO

Rotundine is an antagonist of dopamine D1, D2 and D3 receptors with IC 50 s of 166nM, 1.4µM and 3.3µM, respectively. Rotundine is also an antagonist of 5-HT1A with an IC50 of 370nM.

NAVRC

Rubiadine CAS: 117-02-2 $C_{15}H_{10}O_{4}$



Vegetable origin

NAVRB

Rubiadin 1-methyl ether CAS: 7460-43-7 C₁₆H₁₂O₄



Vegetable origin

NAVRD

Rubinaphthin A CAS: 448962-05-8 C₁₇H₁₈O₉



Vegetable origin

NAVRE

Rubusoside CAS: 64849-39-4 C₃₂H₅₀O₁₃



AND Enantiomer

OH

Vegetable origin

Solubility: DMSO: \geq 32mg/mL Rubusoside is a natural sweetener and a solubilizing agent with anti-

angiogenic and antiallergic properties. Rubusoside is an excellent solubilizing agent. It can enhance the solubility of a number of pharmaceutically important compounds, such as liquiritin, teniposide, curcumin, and etoposide.

NAVRF

Ruscogenin CAS: 472-11-7

Vegetable origin

NAVRG

(25RS)-Ruscogenin CAS: 874485-32-2

Vegetable origin

NAVRH

25(S)-Ruscogenin 1-O- α -L-rhamnopyranosyl-(1 \rightarrow 2)- β -D-xylopyranoside CAS: 125225-63-0

Vegetable origin

NAVRI

Rutaecarpine CAS: 84-26-4 C₁₈H₁₃N₂O



Synonym: Rutecarpine Vegetable origin Solubility: DMSO: ≥ 10mM Rutaecarpine, an alkaloid of Evodia rutaecarpa, is an inhibitor of COX-2 with an IC50 value of 0.28µM.

NAVRJ

Rutaevin CAS: 33237-37-5

Vegetable origin

A.230





NAVRK AND Enantiomer Rutin CAS: 153-18-4 C₂₇H₃₀O₁₆

Synonyms: Rutoside; Quercetin 3-O-rutinoside Vegetable origin Solubility: DMSO: ≥ 35mg/mL Rutin, a naturally occurring flavonoid glycoside, has antioxidant, antiinflammatory, anti-allergic, anti-angiogenic and antiviral properties.

NAVRL

Safflor Yellow A

CAS: 85532-77-0 C₂₇H₃₀O₁₅

Vegetable origin Specification: 98% min by HPLC

NAVRM



Vegetable origin

Solubility: DMSO: ≥ 39mg/mL

Safflower Yellow the main active component in the traditional Chinese medicine safflower, modulates inflammatory responses by acting directly on BV2 microglia. IC50 value: Target: In vitro: For LPS stimulated BV2 cells, safflower yellow treatment inhibited expression of TLR4-Myd88 and p-38/p-JNK-NF-kB, downregulated expression of iNOS, CD16/32, and IL-12, and upregulated CD206 and IL-10 [1]. In vivo: In the male Wistar rats, safflower yellow high-dose (HSYA-H, 40mg/kg), and safflower yellow low-dose (HSYA-L, 20 mg/kg) treatment showed a decrease in the elevated ST segments and an increase in the infarct size. The rats in the drug-treated groups showed a significantly lower percentage of Bax-positive cells and a significantly higher percentage of Bcl-2-positive cells than those in the control group (P < 0.05) [2].

NAVRN



NAVRO



Sagittatoside B is a natural compound isolated from traditional Chinese herb Yinyanghuo (Herba Epimdii)

NAVRP

AND Enantiome

Saikosaponin A CAS: 20736-09-8 C42H68O13

Vegetable origin Specification: 98% min by HPLC

NAVRR

Saikosaponin B1 CAS: 58558-08-0

Vegetable origin

NAVRQ

Saikosaponin B2 CAS: 58316-41-9 C42H68O13

Vegetable origin Plant Source: Bupleurum falcatum Specification: 98% min by HPLC

NAVRS

Saikosaponin C CAS: 20736-08-7 C₄₈H₇₈O₁₇

Vegetable origin Specification: 98% min by HPLC

NAVRT

Saikosaponin D CAS: 20874-52-6 C₄₂H₆₈O₁₃

Vegetable origin Specification: 98% min by HPLC

NAVRU

Saikosaponin F CAS: 62687-63-2

Vegetable origin

NAVRV

Saikosaponin H CAS: 91990-63-5

Vegetable origin

NAVRW

Sakuranetin CAS: 2957-21-3

Vegetable origin



NAVRZ

Salicylic acid CAS: 69-72-7 C₇H₆O₃

Chemical Name: 2-hydroxybenzoic acid Vegetable origin Specification: 98% min by HPLC

NAVS0



Salidroside is a bioactive phenolic glycoside compound isolated from Rhodiola crenulata. IC50 value: Target: In vitro: Salidroside significantly reduces brain infarct size and cerebral edema. Salidroside could effectively decrease the levels of interleukin-6 (IL-6), interleukin- 1 β (IL-1 β), and tumor necrosis factor- α (TNF- α) in serum of the MCAO rats and supernatant of I/R-induced SH-SY5Y cells [2]. In vivo: Plasma, urine, bile, and feces samples were collected from male rats after a single intragastric gavage of salidroside at a dose of 50mg/kg. Results indicated that metabolic pathways of salidroside in male rats included hydroxylation, dehydrogenation, lucuronidation, and sulfate conjugation [1]. SD rats were administrated with 50, 100, or 200mg/kg salidroside for 28 days. BLM-triggered structure distortion, collagen overproduction, excessive inflammatory infiltration, and pro-inflammatory cytokine release, and oxidative stress damages in lung tissues were attenuated by salidroside in a dosedependent manner [3]



A.232

AND Enantiomer



Synonyms: Dan Shen Suan B; Lithospermic acid B Vegetable origin

Solubility: 10mM in DMSO

Salvianolic acid B is an active ingredient of Salvia miltiorrhiza, which has been widely applied in China for the management of various microcirculation-related disorders, such as cardiovascular disease, cerebrovascular disease, and diabetic vascular complication. IC50 value: Target: In vitro: Salvianolic acid B (SA-B) 1 and 10 micromol/L decrease the cell active TGF-beta1 secretion by 63.3% and 15.6% of the control, down-regulat pro-collgen alpha1(I) mRNA expression to 77.0% and 51.8% respectively (P<0.05). SA-B 1 and 10 micromol/L also inhibit MAPK activity by 1 to 2 fold respectively [3]. In vivo: Salvianolic acid B (SalB) (5mg · kg-1 · h-1) significantly attenuates LPS-induced pulmonary microcirculatory disturbance, including the increase in leukocyte adhesion and albumin leakage. In addition, LPS increases pulmonary tissue wet-to-dry weight ratio and tumor necrosis factor [alpha] and interleukin 8 levels in plasma and bronchoalveolar lavage fluid enhances the expression of E-selectin, intercellular adhesion molecule 1, myeloperoxidase, MMP-2, and MMP-9, whereas it decreases the expression of AQP-1 and AQP-5 in pulmonary tissue, all of which are attenuated by SalB pretreatment[1]. SalB administration (10mg/kg) significantly ameliorate the AB25-35 peptide-induced memory impairment in the passive avoidance task (P<0.05). SalB treatment also reduced the number of activated microglia and astrocytes that are observed during the inflammatory reaction after the administration of the A
^β25-35 peptide. Moreover, SalB markedly reduce inducible nitric oxide synthase and cyclooxygenase-2 expression levels and thiobarbituric acid reactive substances, which are increased by the administration of the Ag25-35 peptide. Furthermore, SalB administration significantly rescue the AB25-35 peptide-induced decrease of choline acetyltransferase and brain-derived neurotrophic factor protein levels[2].

NAVS5

Salvianolic acid C CAS: 115841-09-3 C₂₆H₂₀O₁₀

Vegetable origin Plant Source: Salvia miltiorrhiza Specification: 98% min by HPLC

NAVS6

Salvianolic acid D CAS: 142998-47-8 C₂₀H₁₈O₁₀

Vegetable origin Plant Source: Salvia miltiorrhiza Specification: 98% min by HPLC

NAVS7

Salvianolic acid F CAS: 158732-59-3

Vegetable origin

NAVS8

Salvigenin CAS: 19103-54-9

Vegetable origin

NAVS9

Salvinolone CAS: 120278-22-0 C₂₀H₂₀O₂

Vegetable origin

NAVSA Salviolone

CAS: 119400-86-1 C₁₈H₂₀O₂

Vegetable origin

NAVSB

Samin CAS: 525-07-5

NAVSC



Vegetable origin

NAVSD

Sanggenol L CAS: 329319-20-2

Vegetable origin



Advion × Yinterchim

NAVSF

Sanggenon C CAS: 80651-76-9

Vegetable origin

NAVSG

Sanggenone D CAS: 81422-93-7

Vegetable origin

NAVSH

Sanggenone H CAS: 86450-80-8

Vegetable origin

NAVSI

Sanggenone K CAS: 86450-77-3 C₃₀H₃₂O₆



Vegetable origin NAVSJ

Sanguinarine CAS: 2447-54-3 C₂₀H₁₄NO₄+



Synonyms: Pseudochelerythrine; Sanguinarin Vegetable origin

Solubility: 10mM in DMSO

Sanguinarine(Pseudochelerythrine) is a benzophenanthridine alkaloid which has anti-microbial, anti-oxidant and anti-inflammatory properties; specific inhibitor of Rac1b. IC50 value: Target: in vitro: Sanguinarine caused cell death in a dose dependent manner in all neuroblastoma cell lines except SK-N-BE(2) with rates of 18% in SH-SY5Y and 21% in Kelly human neuroblastoma cells [1]. Treatment with sanguinarine, but not berberine, inhibited the proliferation of Rac1b cells, which was accompanied by significantly increased the level of PARP-89, and decreased both the level of cyclin-D1 and the percentage of BrdU positive cells [3]. Sanguinarine treatment resulted in a reduction of cell migration, in a dose-dependent inhibition of cell viability and in the induction of cell death by apoptosis in both human (MDA-MB-231 cells) and mouse (A17 cells) in vitro models of BLBC [4]. In vivo: SG pretreatment significantly increased the survival rate of mice from 25% to 58%, 75% and 91% respectively. The production of PGE2 in BALF, the lung MPO activity and the (W/D) weight ratios were also markedly reduced. In addition, immunohistochemical analysis showed that the expression of COX-2 was significantly suppressed in vivo [2]. Oral administration of sanguinarine reduced the development and growth of A17 transplantable tumors in FVB syngeneic mice [4].

NAVSK

Sanguinarine (chloride) CAS: 5578-73-4 C₂₀H₁₄CINO₄



Synonyms: Pseudochelerythrine chloride; Sanguinarium chloride Vegetable origin Solubility: 10mM in DMSO; H2O: < 7.8mg/mL

NAVSL

Santacruzamate A CAS: 1477949-42-0



Synonym: CAY-10683 Vegetable origin Solubility: 10mM in DMSO Santacruzamate A is a potent and selective histone deacetylase inhibitor.

NAVSM

Santalol CAS: 11031-45-1

Vegetable origin

NAVSN

Sappanchalcone CAS: 94344-54-4 C₁₆H₁₄O₅



Vegetable origin

NAVSO

Sappanone A CAS: 102067-84-5 C16H12O5

Vegetable origin

NAVSP

Saprorthoquinone CAS: 102607-41-0 C₂₀H₂₄O₂

Vegetable origin

NAVSQ

Saropeptate CAS: 56121-42-7

C₂₇H₂₈N₂O₄

Vegetable origin

AND Enantiome



A.234

QØ



NAVSS

Sarsasapogenin CAS: 126-19-2 C₂₇H₄₄O₃



Synonyms: Parigenin; Sarsagenin Vegetable origin

Solubility: DMSO

Sarsasapogenin is a sapogenin from the Chinese medical herb Anemarrhena asphodeloides Bunge with antidiabetic, anti-oxidative, anticancer and anti-inflamatory activities.



NAVSU

Scarlet 808 CAS: 3789-75-1

Vegetable origin





NAVSX

Schisandrin

C₂₄H₃₂O₇

CAS: 7432-28-2



Synonyms: Schizandrol; Schizandrol-A; Wuweizi alcohol-A; Wuweizichun-A

Vegetable origin

Solubility: 10mM in DMSO

Schisandrin has various therapeutic effects on a range of medical conditions such as anti-asthmatic, anti-cancer, and anti-inflammatory effects. IC50 value: Target: in vitro: Sch inhibited the pro-fibrotic activity of TGF-B1 in AML12 cells; thus, it suppressed the accumulation of ECM proteins. Also, Sch inhibited the EMT as assessed by reduced expression of vimentin and fibronectin, and increased E-cadherin and ZO-1 in TGF-β1 induced AML12 cells. Sch reduced TGF-B1-mediated phosphorylation of Smad2/3 and Smad3/4 DNA binding activity. On the other hand, Sch reduced TGF-B1-induced ERK1/2 and PI3K/Akt phosphorylation in the non-Smad pathway [1]. The anti-inflammatory properties of schisandrin result from the inhibition of nitric oxide (NO) production, prostaglandin E(2) (PGE(2)) release, cyclooxygenase-2 (COX-2) and inducible nitric oxide synthase (iNOS) expression, which in turn results from the inhibition of nuclear factor-kappaB (NF-kappaB), c-Jun N-terminal kinase (JNK) and p38 mitogen-activated protein kinase (MAPK) activities in a RAW 264.7 macrophage cell line [2]



CAS: 61281-38-7 $C_{24}H_{32}O_6$



Synonyms: Schizandrin-A; Wuweizisu-A; Deoxyschizandrin Vegetable origin

Solubility: 10mM in DMSO

Schisandrin A is a main effective components extracted from the oriental medicine Schisandra chinensis which is traditionally used to enhance mental and intellectual function.



Synonyms: Schizandrin-B; Wuweizisu-B; gamma-Schisandrin Vegetable origin

Solubility: 10mM in DMSO

Schisandrin B(Wuweizisu-B) is a dibenzocyclooctadiene derivative isolated from Fructus Schisandrae, has been shown to produce antioxidant effect on rodent liver and heart. IC50 value: Target: in vitro: Schisandrin B exhibits anti-inflammatory activity through modulation of the redox-sensitive transcription factors Nrf2 and NF-ĸB. SB inhibited mitogen-induced proliferation and cytokine secretion by lymphocytes [1]. Sch B can protect neuronal cells against oxidative challenge, presumably by functioning as a hormetic agent to sustain cellular redox homeostasis and mitoenergetic capacity in neuronal cells [2]. Sch B exerted significant neuroprotective effects against microglial-mediated inflammatory injury in microglia-neuron cocultures. Sch B significantly downregulated pro-inflammatory cytokines, including nitrite oxide (NO), tumor necrosis factor (TNF)-a, prostaglandin E(2) (PGE(2)), interleukin (IL)-1β and IL-6 [3]. Sch B could inhibit TGF-B induced EMT of 4T1 cells and of primary human breast cancer cells [4]. In vivo: Similar anti-inflammatory effects of SB on lymphocyte proliferation and cytokine secretion were also observed in vivo [1]. Treatment with Sch B in CsA-treated mice significantly suppressed the elevation of blood urea nitrogen (BUN) and serum creatinine levels and attenuated the histopathological changes. Additionally, Sch B also decreased renal MDA levels and increased GSH levels in CsA-treated mice [5]

AND Enantiome

NAVT0

Schisandrin C CAS: 61301-33-5 C22H24O6

Synonyms: Schizandrin-C; Wuweizisu-C Vegetable origin Solubility: 10mM in DMSO Schisandrin C is a phytochemical lignan isolated from Schizan-

NAVT1 AND Enantiomer Schisandrin C epoxide CAS: 81345-36-0 C,,H,,O, Vegetable origin AND Enantiomer NAVT2

Schisandrol B CAS: 58546-54-6 C,,H,,O,



Synonyms: Gomisin-A; Besigomsin; schizandrol-B; TJN-101; Wuweizi alcohol-B; Wuweizichun-B

Vegetable origin Solubility: 10mM in DMSO

Schisandrol B is one of its major active constituents of traditional hepato-protective Chinese medicine, Schisandra sphenanthera. IC50 value: Target: in vitro: SoIB pretreatment significantly attenuated the increases in alanine aminotransferase and aspartate aminotransferase activity, and prevented elevated hepatic malondialdehyde formation and the depletion of mitochondrial glutathione (GSH) in a dose-dependent manner. SoIB also dramatically altered APAP metabolic activation by inhibiting the activities of CYP2E1 and CYP3A11, which was evidenced by significant inhibition of the formation of the oxidized APAP metabolite NAPQI-GSH [1]. SolB abrogated APAPinduced activation of p53 and p21, and increased expression of liver regeneration and antiapoptotic-related proteins such as cyclin D1 (CCND1), PCNA, and BCL-2.



Vegetable origin

dra chinensis Baill; shows anticancer-effects in human leukemia U937 cells. IC50 value: Target: in vitro: Schisandrin C inhibited cell growth in a dose-dependent manner, which was associated with the induction of G1 arrest of the cell cycle and apoptosis. Schisandrin C induced G1 arrest was correlated with down-regulation of cyclin D1, cyclin E, cyclin-dependent kinase (Cdk) 4 and E2Fs expression, inhibition of phosphorylation of retinoblastoma protein (pRB), and up-regulation of the Cdk inhibitor p21(WAF1/CIP1). In addition, schisandrin C-induced apoptosis was associated with down-regulation of expression of the anti-apoptotic proteins Bcl-2 and Bcl-xL, proteolytic activation of caspase-3 and -9, and a concomitant degradation of poly(ADP-ribose) polymerase (PARP). Furthermore, schisandrin C-induced apoptosis was significantly inhibited by a caspase-3 specific inhibitor z-DEVD-fmk [1]. Schisandrin C was found to reduce nitric oxide (NO) production from LPS-stimulated Raw 264.7 cells. Pre-treatment of Raw 264.7 cells with gomisin J, gomisin N, or schisandrin C reduced the expression of mRNA and the secretion of proinflammatory cytokines [2]

NAVT4 AND Enantiomer Schisanhenol CAS: 69363-14-0 C23H30O6

Synonyms: Schizanhenol; Gomisin-K3

Vegetable origin

Solubility: 10mM in DMSO

Schisanhenol is a natural compound solated from Schisandra rubriflora; UGT2B7 UDP-glucuronosyltransferases inhibitor. IC50 value: Target: in vitro: Schisanhenol exhibited strong inhibition toward UGT2B7, with the residual activity to be 7.9% of control activity [1]. The BAECs were cultured with ox-LDL (200microg/ml) in the presence and absence of Sal (10 and 50micromol L(- 1)) for 24h. The cytotoxicity of ox-LDL was evaluated by LDH leakage, cell viability and morphological change. Cell apoptosis was estimated by DNA ladder, chromatin condensation, and flow cytometry assay. The intracellular ROS production was detected by using DCF, a ROS probe, with laser confocal microscopy and flow cytometry. Sal was shown to reduce LDH leakage and increase cell viability. Sal also attenuated ox-LDL-induced BAECs apoptosis as indicated in typical internucleosomal DNA degradation (DNA ladder), condensed chromatin, and the sub-G1 peak appearance in flow cytometry assay [2]. In vivo: Sal significantly impeded production of MDA and loss of ATPase activity induced by reoxygenation following anoxia. Oral administration of Sal induced increase of cytosol glutathione-peroxidase of brain in mice under the condition of reoxygenation following anoxia [4].



NAVT8



Synonyms: Gomisin-C; Schizantherin-A; Wuweizi ester-A Vegetable origin

Solubility: 10mM in DMSO

Schisantherin A is a dibenzocyclooctadiene lignan isolated from the fruit of Schisandra sphenanthera, has been used as an antitussive, tonic, and sedative agent.

NAVT9

C28H34O

Schisantherin B CAS: 58546-55-7



Synonyms: Gomisin-B; Schizantherin-B; Wuweizi ester-B; Schisantherin-B

Vegetable origin

Solubility: 10mM in DMSO

NAVTA Schisantherin C CAS: 64938-51-8 C28H34O Vegetable origin AND Enantiomer NAVTB Schisantherin E CAS: 64917-83-5 C₃₀H₃₄O₀ Synonym: Schizantherin-E Vegetable origin Solubility: 10mM in DMSO Schisantherin E is a natural compound isolated from the active frac-



tion of the fruits of Schisandra sphenanthera Rehd. et Wils.



NAVTE

Trans-Scirpusin A CAS: 69297-51-4

NAVTF

Cis-Scirpusin B CAS: 288846-83-3

NAVTG

Trans-Scirpusin B CAS: 483363-92-4

NAVTH

Sclareol CAS: 515-03-7

Vegetable origin

NAVTI

Sclareolide CAS: 564-20-5

Vegetable origin

NAVTJ

Scoparone CAS: 120-08-1 C₁₁H₁₀O₄

Chemical Name: 6,7-dimethoxychromen-2-one Vegetable origin Specification: 98% min by HPLC

NAVTK

Scopolamine CAS: 51-34-3 C₁₇H₂₁NO₄



AND Enantiomer

Synonyms: Hyoscine; Scopine (-)-tropate; Scopine tropate Vegetable origin

Solubility: DMSO

Scopolamine is a high affinity (nM) muscarinic antagonist. 5-HT, receptor-responses are reversibly inhibited by Scopolamine with an IC 50 of 2.09µM.

NAVTL AND Enantiomer Scopolamine (butylbromide) CAS: 149-64-4 C₂₁H₃₀BrNO₄

Synonyms: Hyoscine butylbromide; (-)-Scopolamine butylbromide; Butylscopolammonium bromide; Butylscopolamine bromide Vegetable origin

Solubility: H₂O

Scopolamine butylbromide is a competitive antagonist of muscarinic acetylcholine receptor (mAChR) with an IC50 of 55.3 ± 4.3. Target: mAChR Scopolamine (USAN), also known as levo-duboisine and hyoscine is a tropane alkaloid drug with muscarinic antagonist effects. It is among the secondary metabolites of plants from Solanaceae (nightshade) family of plants, such as henbane, jimson weed (Datura), angel's trumpets (Brugmansia), and corkwood (Duboisia). Scopolamine exerts its effects by acting as a competitive antagonist at muscarinic acetylcholine receptors, specifically M1 receptors; it is thus classified as an anticholinergic, antimuscarinic drug. Its use in medicine is relatively limited, with its chief uses being in the treatment of motion sickness and postoperative nausea and vomiting. Scopolamine is named after the plant genus Scopolia. The name "hyoscine" is from the scientific name for henbane, Hyoscyamus niger.

NAVTM

Scopolamine (hydrobromide) CAS: 114-49-8 C₁₇H₂₂BrNO₄



Synonyms: (-)-Scopolamine hydrobromide; Hyoscine hydrobromide; Scopine hydrobromide

Vegetable origin

Solubility: DMSO: ≥ 32mg/mL

Scopolamine hydrobromide is a high affinity (nM) muscarinic antagonist. 5-HT, receptor-responses are reversibly inhibited by Scopolamine with an IC₅₀ of 2.09µM.

NAVTN Scopoletin

CAS: 92-61-5 C₁₀H₈O₄



Synonyms: Gelseminic acid; Chrysatropic acid Vegetable origin

Solubility: DMSO: ≥ 32mg/mL

Scopoletin has important anti-inflammatory activity by inhibiting the phosphorylation of NF- κ B and p38 MAPK. Scopoletin cause significant suppression of sprouting of microvessels in rat aortic explants with IC50 of 0.06µM. target: NF- κ B, p38 [1] In vitro: Scopoletin at a dose of 1 mg/kg is able to significantly reduce cell migration and exudation to the pleural fluid (p < 0.01). Scopoletin at the same dose also decreased the myeloperoxidase and adenosine-deaminase activities and nitric oxide, tumor necrosis factor- α , and interleukin-1 β levels.[1] Scopoletin showed remarkable inhibition on tumor growth (34.2 and 94.7% at 100 and 200mg/kg, respectively). Scopoletin may have strong anti-angiogenic effect by inhibiting ERK1, VEGF-A, and FGF-2.[2] In vivo: Scopoletin significantly reduce p65 and p38 phosphorylation in the mouse lungs.[1] Scopoletin (100 and 200mg/kg) strongly inhibited (59.72 and 89.4%, respectively) vascularization in matrigel plugs implanted in nude mice. [2]

NAVTP

Scopolin CAS: 531-44-2 C₁₆H₁₈O₉

Chemical Name: 6-methoxy-7-[3,4,5-trihydroxy-6-(hydroxymethyl) oxan-2-yl]oxychromen-2-one Vegetable origin Specification: 98% min by HPLC

NAVTQ

Scutebarbatine A CAS: 176520-13-1

Vegetable origin

NAVTR

Scutellarein CAS: 529-53-3 C₁₅H₁₀O₆



Synonyms: 6-Hydroxyapigenin; 4',5,6,7-Tetrahydroxyflavone Vegetable origin

Solubility: DMSO: ≥ 30mg/mL

Scutellarin, a main active ingredient extracted from Erigeron breviscapus (Vant.) Hand-Mazz., has been wildly used to treat acute cerebral infarction and paralysis induced by cerebrovascular diseases.

NAVTS



Solubility: DMSO: ≥ 10mM

Scutellarin, an active flavone isolated from Scutellaria baicalensis, can down-regulates the STAT3/Girdin/Akt signaling in HCC cells, and inhibits RANKL-mediated MAPK and NF-κB signaling pathway in osteoclasts.

NAVTT

Scutellarin methyl ester CAS: 119262-68-9

Vegetable origin

NAVRA

(2R,3S)-SDG CAS: 492449-92-0

NAVTU

SDG Mixture

NAUIH

Sec-O-Glucosylhamaudol CAS: 80681-44-3

Vegetable origin



NAVTW

Secoisolariciresinol diglucoside CAS: 158932-33-3 $C_{32}H_{46}O_{16}$

Chemical Name: 2,3-Bis(3-methoxy-4-hydroxybenzyl)butane-1,4diol 1,4-diglucoside Vegetable origin Specification: 98% min by HPLC Advion × Pinterchim

NAVTX

Seconeokadsuranic acid A CAS: 124817-74-9

Vegetable origin

NAVTY

Secoxyloganin CAS: 58822-47-2 $C_{17}H_{24}O_{11}$

Vegetable origin Plant Source: Lonicera japonica Specification: 98% min by HPLC

NAVU0

Sedanolide CAS: 6415-59-4

Vegetable origin

NAVTZ

Trans-Sedanolide CAS: 4567-33-3

Vegetable origin

NAVU1

Segetalin A CAS: 161875-97-4

Vegetable origin

NAVU2 Segetalin B CAS: 164991-89-3

Vegetable origin

NAVU3

Semilicoisoflavone B CAS: 129280-33-7

Vegetable origin

NAVU4

Senegenin CAS: 2469-34-3 $C_{30}H_{45}CIO_{6}$

Synonyms: Senegin; UNII-06S1QH951L; 06S1QH951L Vegetable origin Specification: 98% min by HPLC

NAVU5

Senkyunolide A CAS: 63038-10-8

Vegetable origin

NAVU6

Senkyunolide C CAS: 91652-78-7

Vegetable origin

NAVU7

Senkyunolide G CAS: 94530-85-5

Vegetable origin

NAVU8

Senkyunolide H CAS: 94596-27-7

Vegetable origin

NAVU9

Senkyunolide I CAS: 94596-28-8

Vegetable origin

NAVUA

Sennoside A CAS: 81-27-6 C42H38O20

Chemical Name: (9R)-9-[(9R)-2-CARBOXY-4-HYDROXY-10-OXO-5-[(2S,3R,4S,5S,6R)-3,4,5-TRIHYDROXY-6-(HYDROXYMETHYL) OXAN-2-YL]OXY-9H-ANTHRACEN-9-YL]-4-HYDROXY-10-OXO-5-[(2S,3R,4S,5S,6R)-3,4,5-TRIHYDROXY-6-(HYDROXYMETHYL) OXAN-2-YL]OXY-9H-ANTHRACENE-2-CARBOXYLIC ACID Vegetable origin Specification: 98% min by HPLC

NAVUB

Sennoside B CAS: 128-57-4 C42H38O20

Vegetable origin Specification: 98% min by HPLC

NAVUC

Sennoside C CAS: 37271-16-2

Vegetable origin

QĈ

NAVUD

Sennoside D CAS: 37271-17-3

Vegetable origin

NAVUE

L-Serine CAS: 56-45-1 C₃H₇NO₃

Synonyms: (-)-Serine; (S)-2-Amino-3-hydroxypropanoic acid; (S)-Serine Vegetable origin

NAVUF

Sesamin CAS: 607-80-7 C₂₀H₁₈O₆

Vegetable origin Plant Source: Sesamum indicum DC Part Used: Seeds Specification: 50% min; 90% min; 95% min; 98% min by HPLC

NAVUG

(-)-Sesamin CAS: 13079-95-3

NAVUH

(-)-Sesamin/(+)-Sesamin [enantiomeric mixture]

NAVUI

Sesaminol CAS: 74061-79-3

NAVUJ

Sesaminol (1→2) Diglucoside CAS: 157469-82-4

NAVUL

Sesaminol (1→6) Diglucoside CAS: 474431-66-8

NAVUK

Sesaminol Triglucoside CAS: 157469-83-5

NAVUM

Sesamol CAS: 533-31-3

Vegetable origin

NAVUN

Sesamolin CAS: 526-07-8 C₂₀H₁₈O₇

Chemical Name: 5-[(3S,3AR,6R,6AR)-6-(1,3-BENZODIOXOL-5-YLOXY)-1,3,3A,4,6,6A-HEXAHYDROFURO[3,4-C]FURAN-3-YL]-1,3-BENZODIOXOLE Vegetable origin Plant Source: sesame oil/Justicia orbiculata Specification: 98% min by HPLC

NAVUO

Sesamoside CAS: 117479-87-5 C₁₇H₂₄O₁₂

Vegetable origin Specification: 98% min by HPLC

NAVUP

Shanzhiside CAS: 29836-27-9 C₁₆H₂₄O₁₁

Vegetable origin Specification: 98% min by HPLC

NAVUQ





Vegetable origin


NAVUS

Shikimic acid CAS: 138-59-0



Synonyms: C.I. 75535; Isoarnebin 4 Vegetable origin

Solubility: DMSO: \geq 31mg/mL

Shikonin is an inhibitor of TMEM16A chloride channel with IC50 value of 6.5μ M. target: TMEM16A chloride channel [1] IC50: 6.5μ M [1] In vitro: Shikonin inhibits basolateral K(+) channel activity without affecting Na(+)/K(+)-ATPase activities. [1] Shikonininhibited ASC speck formation and caspase-1 activation in murine macrophages and suppressed the activity of isolated caspase-1, demonstrating that it directly targets caspase-1. [3] In vivo: shikonin significantly delayed intestinal motility in mice and reduced stool water content in a neonatal mice model of rotaviral diarrhea without affecting the viral infection process in vivo. [1] Shikonin inhibits inflammation and chondrocyte apoptosis by regulating the phosphoinositide 3-kinase/Akt signaling pathway in a rat model of osteoarthritis. [2]

NAVUV

Shikonofuran A CAS: 85022-66-8

Vegetable origin

NAVUW

Shionone CAS: 10376-48-4 C₃₀H₅₀O

Vegetable origin Specification: 98% min

NAVUX

6-shogaol CAS: 555-66-8 C₁₇H₂₄O₃

Vegetable origin

NAVUY

8-shogaol CAS: 36700-45-5 C₁₉H₂₈O₃

NAVUZ

10-shogaol CAS: 36752-54-2 C₂₁H₃₂O₃



Vegetable origin



Vegetable origin Solubility: 10mM in DMSO Siamenoside I is one of the mogrosides that has several kinds of bioactivities.

NAVV8

Sibiricaxanthone B CAS: 241125-81-5 $C_{24}H_{26}O_{14}$

Synonym: 2-(2-O-D-apio-beta-D-Furanosyl-beta-D-glucopyranosyl)-1,3,7-trihydroxy-9H-xanthen-9-one Vegetable origin Plant Source: Polygala sibirica Specification: 98% min by HPLC

NAVV9

Sibiricose A5 CAS: 107912-97-0 C₂₂H₃₀O₁₄

Synonyms: 3'-Feruloylsucrose; Arillanin B Vegetable origin Plant Source: Polygala tenuifolia Specification: 98% min by HPLC

<u>Vinterchim</u> × Advion

NAVVA

Sibiricose A6 CAS: 241125-75-7

Vegetable origin

NAVVB

Siegesmethyetheric acid CAS: 196399-16-3

Vegetable origin

NAVVD



NAVVE

Silybin CAS: 22888-70-6 C25H22O10

Silybin is the mixture of Silybin A and Silybin B Silybin A (2R,3R)-3,5,7-trihydroxy-2-[(2R,3R)-3-(4-hydroxy-3-methoxyphenyl)-2-(hydroxymethyl)-2,3-dihydro-1,4-benzodioxin-6-yl]-2,3-dihydrochromen-4-one Silybin B (2R,3R)-3,5,7-trihydroxy-2-[(2S,3S)-3-(4-hydroxy-3-methoxyphenyl)-2-(hydroxymethyl)-2,3-dihydro-1,4-benzodioxin-6-yl]-2,3-dihydrochromen-4-one Vegetable origin Specification: 98% min by HPLC

NAVVF

Silychristin CAS: 33889-69-9 C25H22O10

Chemical Name: (2R,3R)-3,5,7-TRIHYDROXY-2-[(2R,3S)-7-HYDROXY-2-(4-HYDROXY-3-METHOXYPHENYL)-3-(HYDROXYMETHYL)-2,3-DIHYDRO-1-BENZOFURAN-5-YL]-2,3-DIHYDROCHROMEN-4-ONE Vegetable origin Plant Source: Silybum marianum (milk thistle) Specification: 98% min by HPLC

NAVVG

Silydianin CAS: 29782-68-1 C25H22O10

Vegetable origin Plant Source: Silybum marianum (milk thistle) Specification: 98% min by HPLC

NAVVH

Sinapic acid CAS: 530-59-6

Vegetable origin

NAVVI

Sinapine CAS: 18696-26-9

Vegetable origin

NAVVJ

AND Enantiomer

Sinapine (thiocyanate) CAS: 7431-77-8

C17H24N2O5S



Sinapine, an alkaloid derived from seeds of the cruciferous species, possess antioxidant and radio-protective activities, downregulats multi-drug resistance 1 (MDR1) expression. In vitro: sinapine plays an important role in the downregulation of MDR1 expression through suppression of fibroblast growth factor receptor (FGFR)4/FRS2a-ERK1/2 mediated NF-kB activation in MCF-7/dox cancer cells. [1] Sinapine can effectively protect against OH-induced damage to DNA and MSCs. [2] Sinapine promotes doxorubicin accumulation in Caco-2 cell by inducing P-gp decrease. Sinapine significantly reduces phosphorylation of FRS2a, ERK1/2. Sinapine sensitive effects may occur through the suppression FGFR4-FRS2α-ERK1/2 signal pathway. [3]

NAVVK

Sinensetin CAS: 2306-27-6 C₂₀H₂₀O₇



Synonym: Pedalitin permethyl ether Vegetable origin

Solubility: 10mM in DMSO

Sinensetin is a methylated flavone found in certain citrus fruits. pocess potent antiangiogenesis and anti-inflammatory, sinensetin enhances adipogenesis and lipolysis. In vitro: Sinensetin promots adipogenesis in 3T3-L1 preadipocytes growing in incomplete differentiation medium, sinensetin enhances adipogenesis and lipolysis by increasing cAMP levels. [1] Sinensetin shows anti-inflammatory activity by regulating the protein level of inhibitor $\kappa B - \alpha$ ($I\kappa B - \alpha$). [2] In vivo: Sinensetin has the most potent antiangiogenesis activity and the lowest toxicity, inhibits angiogenesis by inducing cell cycle arrest in the G0/G1 phase in HUVEC culture and downregulating the mRNA expressions of angiogenesis genes flt1, kdrl, and hras in zebrafish. [3]

NAVVL Sinigrin

CAS: 3952-98-5

NAVVM

Sinoacutine CAS: 4090-18-0 C₁₉H₂₁NO₄

Vegetable origin Specification: 98% min by HPLC

NAVVN

Sinomenine CAS: 115-53-7

Vegetable origin

NAVVO

Sinominene HCI 2H2O CAS: 6080-33-7 C₁₉H₂₃NO₄.CIH.H₂O₂

Vegetable origin

NAVVP

Sipeimine CAS: 61825-98-7 C₂₇H₄₃NO₃



Synonym: Imperialine Vegetable origin

Solubility: 10mM in DMSO Sincemine is a natural product

Sipeimine is a natural product isolated from Fritillaria ussuriensis. IC50 value: Target: In vitro: Sipeimine can induce rejuvenation of a endophytic fungus; Sipeimine yield of the strain rejuvenated by adding 3% bulbus was effectively improved to 0.0563mg/L and it is 21.9% higher than that of the initial strain [1]. In vivo.



Synonyms: β-Sitosterol; 22,23-Dihydrostigmasterol Vegetable origin Solubility: 10mM in Ethanol

Beta-Sitosterol weakly inhibits porcine pancreatic lipase (PPL) acti-

vity. Sitosterol is an important compound extracted from the leaves of *Aloe vera*.

NAVR9

 $\begin{array}{l} \textbf{16R-sitsirikine} \\ \text{CAS: } 1245\text{-}00\text{-}7 \\ \text{C}_{21}\text{H}_{26}\text{N}_{2}\text{O}_{3} \end{array}$

AND Enantiomer

Vegetable origin

NAVVR

Siver behenate CAS: 2489-05-6

NAVVS

Skimmianin CAS: 83-95-4 C₁₄H₁₃NO₄



нс

Vegetable origin

NAVVT

Skimmin CAS: 93-39-0

Vegetable origin

NAVVU

Skullcapflavone I CAS: 41060-16-6 C₁₇H₁₄O₆

Vegetable origin

NAVVV

Skullcapflavone II CAS: 55084-08-7 C₁₉H₁₈O₈

Vegetable origin

NAVVW Smyrindioloside CAS: 87592-77-6

Vegetable origin

NAVVX

Sodium Aescinate CAS: 20977-05-3



NAVVY

Sodium dichloroacetate CAS: 2156-56-1

Vegetable origin

NAVVZ

Sodium Houttuyfonate CAS: 1847-58-1

Vegetable origin

NAVW0



Synonyms: Solamargin; δ-Solanigrine Vegetable origin

Solubility: DMSO: ≥ 8.8mg/mL

Solamargine is a major steroidal alkaloid glycoside extracted from a traditional Chinese medicinal herb, Solanum nigrum L. (SNL); has been shown to inhibit growth and induce apoptosis of various cancer cells. IC50 value: Target: Anticancer natural compound in vitro: Solamargine reduced HepG2 cell viability in a concentration-dependent manner. At 7.5µM solamargine decreased cell viability by less than 20% in HepG2 cells. At the highest dose, solamargine decreased cell migration and invasion by more than 70% and 72% in HepG2 cells, respectively. Western blotting and gelatin zymography results showed that solamargine reduced expression and function of MMP-2 and MMP-9 proteins [1]. SM increased phosphorylation of p38 mitogen-activated protein kinase (p38 MAPK) in a time-dependent fashion. SM also inhibited phosphorylation and protein expression of signal transducer and activator of transcription 3 (Stat3), a transcription factor, which was abrogated by the SB203580, a specific inhibitor of p38 MAPK. In addition, SM induced protein expression of p21, one of cyclin-dependent kinase inhibitors, and this was not observed in cell overexpression of Stat3 or cells treated with SB203580 [2]. SM significantly inhibited the growth of SMMC-7721 and HepG2 cells and induced cell apoptosis. Cell cycle analysis revealed that SM caused cell cycle arrest at the G2/M phase. Moreover, SM could up-regulate the expression of caspase-3 [3]

NAVW1

Solamarine CAS: 20318-30-3

Vegetable origin

NAVW2

Solanesol CAS: 13190-97-1 C₄₅H₇₄O

Chemical Name: 3,7,11,15,19,23,27,31,35-nonamethylhexatriaconta-2,6,10,14,18,22,26,30,34-nonaen-1-ol Vegetable origin Specification: 98% min by HPLC

NAVW3

Solasodine CAS: 126-17-0 C₂₇H₄₃NO₂



AND Enantiome

Synonyms: Purapuridine; Solancarpidine; Solasodin Vegetable origin

Solubility: DMSO: < 4.4/mL

Solasodine(Purapuridine) is a poisonous alkaloid chemical compound that occurs in plants of the Solanaceae family. Solasodine showed selective cytotoxicity against cervical cancer cell line (HeLa) and human myeloid leukemia cell line (U937). IC50 Value: 12.17 ± 3.3uM (Hela cell line)[1] Target: Anticancer in vitro: Mouse embryonic teratocarcinoma P19 cells exposed to solasodine for 2 days followed by a 5-day washout differentiated into cholinergic neurons that expressed specific neuronal markers and displayed important axonal formation that continued growing even 30 days after treatment [2]. In vivo: A 2-week infusion of solasodine into the left ventricle of the rat brain followed by a 3-week washout resulted in a significant increase in bromodeoxyuridine uptake by cells of the ependymal layer, subventricular zone, and cortex that co-localized with doublecortin immunostaining, demonstrating the proliferative and differentiating properties of solasodine on neuronal progenitors. Solasodine treatment in rats resulted in a dramatic increase in expression of the cholesterol- and drug-binding translocator protein in ependymal cells, suggesting a possible role played by neurosteroid production in solasodine-induced neurogenesis. In GAD65-GFP mice that express the green fluorescent protein under the control of the glutamic acid decarboxylase 65-kDa promoter, solasodine treatment increased the number of GABAergic progenitors and neuroblasts generated in the subventricular zone and present in the olfactory migratory tract [2]. Intraperitoneal (i.p.) injection of solasodine (25mg/kg) significantly delayed (p < 0.01) latency of hind limb tonic extensor (HLTE) phase in the PCT-induced convulsions. In the MES model, solasodine significantly reduced (p < 0.001) duration of HLTE at 25, 50, and 100mg/ kg, i.p. in a dose-dependent manner [3]. Oral administration (80mg/ kg body wt/day for 30 days) of solasodine (extracted and isolated from the berries of the Solanum xanthocarpum) to intact dogs significantly decreased the epithelial cell height of cauda epididymides [4].

NAVW4

Solasonine CAS: 19121-58-5

Vegetable origin

A.245

NAVW5

Solasurine CAS: 27028-76-8

Vegetable origin

NAVW6

Songorine CAS: 509-24-0 C₂₂H₃₁NO₃

Vegetable origin Specification: 98% min by HPLC

NAVW7

 $\begin{array}{l} \textbf{Sophocarpine} \\ \text{CAS: } 6483\text{-}15\text{-}4 \\ \text{C}_{15}\text{H}_{22}\text{N}_2\text{O} \end{array}$

Vegetable origin

NAVW8

Sophoflavescenol CAS: 216450-65-6 $C_{21}H_{20}O_6$



AND Enantiomer

Vegetable origin Solubility: DMSO

Sophoflavescenol is a prenylated flavonol, which shows great inhibitory activity with IC₅₀ of 0.013 μ M against Phosphodiesterase 5 (PDE5), and also inhibits RLAR, HRAR, AGE, BACE1, AChE and BChE with IC₅₀s of 0.30 μ M, 0.17 μ M, 17.89 μ g/mL, 10.98 μ M, 8.37 μ M and 8.21 μ M, respectively.

NAVW9

Sophorabioside CAS: 2945-88-2

Vegetable origin

NAVWA



NAVWC

Sophoricol CAS: 446-72-0 C₁₅H₁₀O₅



Vegetable origin

NAVWD

Sophoricoside CAS: 152-95-4 C₂₁H₂₀O₁₀

Vegetable origin Specification: 98% min by HPLC

NAVWE

Sophoridine CAS: 6882-68-4

Vegetable origin

NAVWF

L-Sorbitol CAS: 6706-59-8

NAVWH

D-Sorbose CAS: 3615-56-3

NAVWG

L-Sorbose CAS: 87-79-6

NAVWI

C₃₁H₂₀O₁₀

Sotetsuflavone CAS: 2608-21-1



Vegetable origin Solubility: 10mM in DMSO

Sotetsuflavone is a potent inhibitor of DENV-NS5 RdRp (Dengue virus NS5 RNA-dependent RNA polymerase) with an IC50 of 0.16uM, is the most active compound of this series.

NAVWK

Soya-cerebroside I CAS: 114297-20-0

Vegetable origin

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QĈ



Soya-cerebroside II CAS: 115074-93-6

Vegetable origin

NAVWM

Soyasapogenol A CAS: 508-01-0

Vegetable origin

NAVWN Soyasapogenol B CAS: 595-15-3

Vegetable origin

NAVWO

Soyasaponin Aa CAS: 117230-33-8 C₆₄H₁₀₀O₃₁

Vegetable origin Plant Source: Glycine max (soybean) Specification: 98% min by HPLC

NAVWP

Soyasaponin Ab CAS: 118194-13-1 C₆₇H₁₀₄O₃₃

Vegetable origin Plant Source: Glycine max (soybean) Specification: 98% min by HPLC

NAVWQ Soyasaponin Ac CAS: 133882-74-3

Vegetable origin

NAVWR

Soyasaponin Ba CAS: 114590-20-4 C₄₈H₇₈O₁₉

Vegetable origin Plant Source: Glycine max (soybean) Specification: 98% min by HPLC

NAVWS

Soyasaponin Bb CAS: 51330-27-9 C₄₈H₇₈O₁₈

Vegetable origin Plant Source: Glycine max (soybean) Specification: 98% min by HPLC

NAVWJ

Soy bean phospholipid CAS: 8002-43-5

Vegetable origin Plant Source: Apocynum L. Specification: 98%

NAVWT

Sparteine CAS: 492-08-0 C₁₅H₂₆N₂

Vegetable origin Specification: 98% min by HPLC

NAVWU

Sparteine sulfate CAS: 299-39-8

Vegetable origin

NAVWV

Specneuzhenide CAS: 449733-84-0

Vegetable origin

NAVWW

Specnuezhenide CAS: 39011-92-2 C₃₁H₄₂O₁₇

Synonym: Nuzhenide Vegetable origin Specification: 98% min by HPLC

NAVWX

Trans-4-cis-8-Sphingadienine CAS: 41679-33-8

NAVX0

CAS: 128427-86-1

NAVWZ C14-Sphingosine CAS: 24558-60-9

NAVWY C16-Sphingosine CAS: 6982-09-8 Advion × ^{relation}

NAVX1

CAS: 123-78-4

NAVX2

C20-Sphingosine CAS: 6918-49-6

NAVX3

Spinosin CAS: 72063-39-9 C₂₈H₃₂O₁₅

Vegetable origin Specification: 98% min by HPLC

NAVX4

Squalene CAS: 111-02-4

Vegetable origin

NAVX5 Stachydrine CAS: 471-87-4 C₇H₁₃NO₂



Vegetable origin Solubility: $H_2O: \geq 32mg/mL$; DMSO: $\geq 26mg/mL$ Stachydrine is a major constituent of Chinese herb leonurus hete-rophyllus sweet used to promote blood circulation and dispel blood stasis.

NAVX6

Stachydrine (chloride) CAS: 4136-37-2 $C_7H_{14}CINO_2$

Vegetable origin

NAVX7

Stearic acid CAS: 57-11-4

Vegetable origin

NAVX8

L-Stepholidine CAS: 16562-13-3

Vegetable origin

NAVX9

Steppogenin CAS: 56486-94-3 C₁₅H₁₂O₆



Vegetable origin

NAVXA

Steviol CAS: 471-80-7

Vegetable origin

NAVXB

Steviolbioside CAS: 41093-60-1

Vegetable origin

NAVXC

Stevioside CAS: 57817-89-7 C₃₈H₆₀O₁₈

Vegetable origin Plant Source: Stevia rebaudiana Specification: 98% min by HPLC

NAVXD

Stigmasterol CAS: 83-48-7 C₂₉H₄₈O



Synonym: Stigmasterin Vegetable origin Solubility: 10mM in Ethanol Stigmasterol is a plant sterol which has b terol-lowering activity and is valued as a

Stigmasterol is a plant sterol which has been focused on the cholesterol-lowering activity and is valued as an anti-stiffness factor in the therapy of rheumatic diseases.

NAVXE

Stigmasterol glucoside CAS: 19716-26-8

Vegetable origin

NAVXF

Strychnine CAS: 57-24-9 C₂₁H₂₂N₂O₂

Vegetable origin Specification: 98% min

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Styraxlignolide F CAS: 823214-06-8 C₂₇H₃₄O₁₁

Vegetable origin Specification: 98% min by HPLC

NAVXH

Succinic acid CAS: 110-15-6 $C_AH_aO_A$

Chemical Name: butanedioic acid Vegetable origin Specification: 98% min by HPLC

NAVXI

Sucralose CAS: 56038-13-2 C₁₂H₁₉Cl₃O₈



AND Enantiomer

Synonyms: E955; Trichlorosucrose ^{ÕH} Vegetable origin Solubility: H₂O: 53.3mg/mL Sucralose is an intense organochlorine artificial sweetener.

NAVXJ

Sugiol CAS: 511-05-7 C₂₀H₂₈O₂



Vegetable origin

NAVXK

Sulforafan CAS: 4478-93-7

Vegetable origin

NAVXL

Sulforaphane CAS: 142825-10-3

Synonym: Sulphoraphane Vegetable origin

NAVXM

Sweroside CAS: 14215-86-2 C₁₆H₂₂O

Vegetable origin Specification: 98% min by HPLC NAVXN

Swertiajaponin CAS: 6980-25-2

Vegetable origin

NAVXO

Swertiamarin CAS: 17388-39-5 $C_{16}H_{22}O_{10}$

Vegetable origin Specification: 98% min by HPLC

NAVXP

Swertianin CAS: 20882-75-1

Vegetable origin

NAVXQ

Swertianolin CAS: 23445-00-3

Vegetable origin

NAVXR

Swertisin CAS: 6991-10-2

Vegetable origin

NAVXS

Sylvestroside I CAS: 71431-22-6

Vegetable origin

NAVXT

Synephrine CAS: 94-07-5 C₉H₁₃NO₂

Chemical Name: 4-[(1R)-1-hydroxy-2-(methylamino)ethyl]phenol Vegetable origin Specification: 98% min by HPLC



NAVXU

Synephrine (hydrochloride) CAS: 5985-28-4 C₀H₁₄CINO₂



CIH

Synonym: Oxedrine hydrochloride Vegetable origin Solubility: DMSO: ≥ 52mg/mL

Synephrine Hcl(Oxedrine) is an alkaloid; synephrine produces most of its biological effects by acting as an agonist at adrenergic receptors. IC50 value: Target: adrenergic receptor agonist There is some evidence that synephrine also has weak activity at 5-HT receptors, and that it interacts with TAAR1 (trace adrenergic amine receptors). D-synephrine inhibited the uptake of [3H]-norepinephrine with an IC50 = 5.8µM; I-synephrine was less potent (IC50 = 13.5µM). D-Synephrine also competitively inhibited the binding of nisoxetine[m] to rat brain cortical slices, with a Ki = 4.5 µM; I-synephrine was less potent (Ki = 8.2µM). In experiments on the release of [3H]-norepinephrine from rat brain cortical slices, however, the I-isomer of synephrine was a more potent enhancer of the release (EC50 = 8.2µM) than the d-isomer (EC50 = 12.3µM). This enhanced release by I-synephrine was blocked by nisoxetine.



NAVXV dl-Syringaresinol CAS: 1177-14-6 C22H26O8



Vegetable origin

NAVXX (-)-Syringaresinol CAS: 6216-81-5 C22H26O8



Vegetable origin



NAVXZ

(-)-Syringaresinol diglucoside CAS: 66791-77-3 C34H46O18

Synonyms: Liriodendrin; Acanthoside D Vegetable origin Specification: 98% min

NAVY0

(-)-Syringaresinol-4"-O-β-D-monoglucopyranoside CAS: 137038-13-2 C28H36O13

Vegetable origin Specification: 98% min

NAVY1

(-)-Syringaresnol-4-O- β -D-apiofuranosyl-(1 \rightarrow 2)- β -Dglucopyranoside CAS: 136997-64-3 C33H44O17

Vegetable origin Plant Source: Albizia julibrissin Durazz Specification: 98% min by HPLC



A.250



NAVY3

Syringol CAS: 91-10-1 C₈H₁₀O₃



Vegetable origin

NAVY4

Syrosingopine CAS: 84-36-6 C₃₅H₄₂N₂O₁₁

Synonyms: Syringopine; Syrosingopin; Singoserp; Ipores Vegetable origin Specification: 98% min by HPLC

NAVY5

Tabersonine CAS: 4429-63-4

Vegetable origin

NAVY6

Taccalonolide A CAS: 108885-68-3

Vegetable origin

NAVY7

Taccalonolide B CAS: 108885-69-4

Vegetable origin

NAVY8

Tacrolimus CAS: 104987-11-3

Vegetable origin

NAVY9

D-Tagatose CAS: 87-81-0

NAVYA

L-Tagatose CAS: 17598-82-2

NAVYB

Talatisamine CAS: 20501-56-8

Vegetable origin

NAVYC

D-Talitol CAS: 643-03-8

NAVYD

L-Talitol CAS: 60660-58-4

NAVYE Tangeretin

C₂₀H₂₀O₇

CAS: 481-53-8



Synonyms: Tangeritin; NSC53909; NSC618905; Ponkanetin Vegetable origin

Solubility: 10mM in DMSO

Tangeretin, a flavonoid from citrus fruit peels, has been proven to play an important role in anti-inflammatory responses and neuroprotective effects in several disease models, and was also selected as a Notch-1 inhibitor. IC50 value: Target: Notch-1 In vitro: Tangeretin enhanced the radiosensitivity of GC cells as demonstrated by MTT and colony formation assays. Tangeretin also attenuated radiationinduced EMT, invasion and migration in GC cells, accompanied by a decrease in Notch-1, Jagged1/2, Hey-1 and Hes-1 expressions. Tangeretin triggered the upregulation of miR-410, a tumor-suppressive microRNA. Furthermore, re-expression of miR-410 prevented radiation-induced EMT and cell invasion [1]. In vivo: In this study, we investigated the in vivo anti-RSV activity of tangeretin in 3-weekold male BALB/c mice. A plaque reduction assay and fluorescence quantitative polymerase chain reaction (FQ-PCR) showed that tangeretin inhibited RSV replication in the lung of mice [2].



NAVYJ

Tanshinlactone CAS: 105351-70-0 C₁₇H₁₂O₃

Vegetable origin

NAVYK

Tanshinone I CAS: 568-73-0 C₁₈H₁₂O₃



Synonym: Tanshinone A Vegetable origin

Solubility: 10mM in DMSO Tanshinone I is an inhibitor of type IIA human recombinant $sPLA_2$ (IIC₅₀=11µM) and rabbit recombinant $cPLA_2$ (IC₅₀=82µM).

NAVYL

Tanshinone IIA CAS: 568-72-9





Synonym: Dan Shen ketone Vegetable origin Solubility: DMSO

Tanshinone IIA (Tan IIA) is one of the main fat-soluble compositions in the root of red-rooted salvia. Tanshinone IIA may suppress angiogenesis by targeting the protein kinase domains of VEGF VEGFR2.

NAVYM

Tanshinone IIA anhydride CAS: 61077-78-9C₁₉H₁₈O₄



Vegetable origin

NAVYO

Tanshinone IIA sulfonate (sodium) CAS: 69659-80-9 C₁₀H₁,NaO₂S



Synonyms: Sodium Tanshinone IIA sulfonate; Tanshinone IIA sodium sulfonate

Vegetable origin

Solubility: DMSO: ≥ 106.66mg/mL

Tanshinone IIA sulfonate (sodium) is a water-soluble derivative of tanshinone IIA, which acts as an inhibitor of store-operated Ca²⁺ entry (SOCE), and is used to treat cardiovascular disorders.

NAVYN

Tanshinone IIB CAS: 17397-93-2 C₁₉H₁₈O₄

AND Enantiomer

Vegetable origin

NAVYP

Taraxasteryl acetate CAS: 6426-43-3

Vegetable origin

NAVYQ

DL-Tartaric acid CAS: 133-37-9

Vegetable origin

NAVYR



Synonym: 12-Deoxycholyltaurine

Solubility: DMSO: ≥ 25mg/mL Taurochenodeoxycholic acid is one of the main bioactive substances of animals' bile acid.



Synonyms: Dihydroquercetin; Taxifoliol; (+)-Dihydroquercetin;

(+)-Taxifolin

Vegetable origin

Solubility: DMSO: ≥ 26mg/mL

Taxifolin exhibits important anti-tyrosinase activity. Taxifolin exhibits significant inhibitory activity against collagenase with an IC_{50} value of 193.3µM.

NAVYT

Taxifolin 7-rhamnoside CAS: 137592-12-2

Vegetable origin

A.252

NAVYU

Tectochrysin CAS: 520-28-5 C16H12O4

Chemical Name: 5-Hydroxy-7-methoxyflavone Vegetable origin Specification: 98% min by HPLC

NAVYV

Tectoquinone CAS: 84-54-8 C15H102



Vegetable origin

NAVYW

Tectoridin CAS: 611-40-5 C22H22O11

Vegetable origin Specification: 98% min by HPLC

NAVYX

Tectorigenin CAS: 548-77-6 C₁₆H₁₂O₆

Chemical Name: 5,7-dihydroxy-3-(4-hydroxyphenyl)-6-methoxychromen-4-one Vegetable origin Specification: 98% min by HPLC

NAVYY

Tectorigenin 7-O-xylosylglucoside CAS: 231288-19-0

Vegetable origin

NAVZ0

Tenacissoside G CAS: 191729-43-8

Vegetable origin

NAVZ1



Synonym: Tenacissimoside C Vegetable origin Solubility: 10mM in DMSO

Tenacissoside H is a Chinese medicine monomer extracted, isolated from Caulis Marsdeniae Tenacissimae. IC50 value: Target: In vitro: TDH significantly inhibited cells proliferation in a time-and-dosedependent manner. TDH arrested the cell cycle in S phase and significantly inhibited PI3K and NF-kB mRNA expression, compared with blank controlled group (P < 0.05). [1] In vivo: TDH strongly inhibits tumor growth and volume. PCNA expression was significantly decreased after treatment of TDH. TDH downregulated proteins expression in PI3K/Akt-NF-κB transduction cascade (P < 0.05). [1]

NAVZ2

Tenacissoside I CAS: 191729-44-9

Vegetable origin

NAV73

Tenuifolin CAS: 20183-47-5 C₃₆H₅₆O₁₂

Vegetable origin Specification: 98% min by HPLC

NAVZ5

Tenuifoliside B CAS: 139726-36-6

Vegetable origin

NAVZ6 Tenuifoliside C CAS: 139726-37-7

Vegetable origin

NAVZ7 Gamma-Terpinene CAS: 99-85-4

NAVZ8

4-Terpineol CAS: 562-74-3

Vegetable origin

NAVZ9

Alpha-Terpinolene CAS: 586-62-9

Vegetable origin

NAVZA

Terrestrosin D CAS: 179464-23-4

Vegetable origin

NAVZB

Terrestrosin K CAS: 193605-07-1

Vegetable origin

NAVZC

 $\begin{array}{l} \textbf{\alpha-Terthiophene} \\ CAS: 1081-34-1 \\ C_{12}H_8S_3 \end{array}$

Synonyms: Trithiophene; α-Terthienyl; α-Trithienyl Vegetable origin

NAVZD

2,3,4,5-Tetracaffeoyl-D-Glucaric acid CAS: 1419478-52-6

Vegetable origin

NAVZE

Tetrachlorohydroquinone dimethyl ether CAS: 944-78-5 $\$ C₈H₆Cl₄O₂



Vegetable origin

NAVZF

12-O-tetradecanoyl phorbol-13-acetate CAS: 16561-29-8

Synonyms: Cocarcinogen A1; Cocarcinogen C3 Vegetable origin

NAVZJ

Tetrahydroalstonine CAS: 6474-90-4 C₂₁H₂₄N₂O₃



Vegetable origin

NAVZK Tetrahydroberberine CAS: 522-97-4 C₂₀H₂₄NO₄



Synonym: Canadine Vegetable origin Solubility: 10mM in DMSO

Tetrahydroberberine is an isoquinoline alkaloid isolated from corydalis tuber; has micromolar affinity for dopamine D(2) (pK(i) = 6.08) and 5-HT(1A) (pK(i) = 5.38) receptors but moderate to no affinity for other relevant serotonin receptors (5-HT(1B), 5-HT(1D), 5-HT(3), and 5-HT(4); pK(i) < 5.00).

NAVZL

dl-Tetrahydroberberrubine CAS: 17388-17-9

NAVZM

Tetrahydrocoptisine CAS: 4312-32-7 C₁₉H₁₇NO₄



Synonyms: (RS)-Stylopine; (±)-Stylopin Vegetable origin Solubility: 10mM in DMSO

Tetrahydrocoptisine is an alkaloid compound originally isolated from Corydalis tubers that exhibits anti-inflammatory and anti-parasitic activities. IC50 value: Target: in vitro: THC significantly inhibited LPSinduced TNF- α , interleukin-6(IL-6) and nitric oxide (NO) production. THC inhibited the production of TNF- α and IL-6 by down-regulating LPS-induced IL-6 and TNF- α mRNA expression [1]. In vivo: Pretreatment with THC (i.p.) inhibited the paw and ear edema in the carrageenan-induced paw edema assay and xylene-induced ear edema assay, respectively. In the lipopolysaccharide (LPS)-induced systemic inflammation model, THC significantly inhibited serum tumor necrosis factor-alpha (TNF- α) release in mice [1]. Pretreatment of THC at doses of 10 and 20mg/kg bodyweight significantly attenuated the gastric lesions as compared to the ethanol group [2].

A.254

NAVZO

Tetrahydrocurcumin

CAS: 36062-04-1 C₂₁H₂₄O₆

Synonym: HZIV 81-2 Vegetable origin Solubility: DMSO: ≥ 3.6mg/mL

Tetrahydrocurcumin is one of the major metabolites of Curcumin; apoptosis inducer and has been demonstrated to be an antioxidant. IC50 value: Target: in vitro: HC exhibited significant cell growth inhibition by inducing MCF-7 cells to undergo mitochondrial apoptosis and G2/M arrest. Moreover, co-treatment of MCF-7 cells with THC and p38 MAPK inhibitor, SB203580, effectively reversed the dissipation in mitochondrial membrane potential ($\Delta \psi m$), and blocked THC-mediated Bax up-regulation, Bcl-2 down-regulation, caspase-3 activation as well as p21 up-regulation, suggesting p38 MAPK might mediate THC-induced apoptosis and G2/M arrest [1]. THC is superior to curcumin for induction of GSH peroxidase, glutathione-Stransferase, NADPH: quinone reductase, and quenching of free radicals [2]. In vivo: THU was administered intragastrically at dose of 50 or 100mg/kg/day concurrently with Cd treatment. Supplementation with THU significantly decreased blood pressure, improved vascular responsiveness, and reversed the structural and mechanical alterations of the aortas, including collagen and elastin deposition [3]. Brain edema and Evans Blue leakage were reduced in I/R + THCtreated groups as compared to sham-operated groups along with reduced brain infarct size. THC also decreased oxidative damage and ameliorated the homocysteinylation of cyto-c in-part by MMP-9 activation which leads to autophagy in I/R groups as compared to sham-operated groups [4].

NAVZG

1,4,7',8'-tetrahydro-7,8-dimethoxy-6'-methyl-Spiro[3H-2-benzopyran-3,5'(3'aH)-[1,3]dioxolo[4,5-g]isoquinoline] CAS: 87264-55-9

C₂₁H₂₃NO₅



Vegetable origin

NAVZP

Tetrahydroepiberberine CAS: 38853-67-7

Vegetable origin

NATFY

5,8,13,13a-tetrahydro-13a-hydroxy-9,10-dimethoxy-7-methyl-6H-Benzo[g]-1,3-benzodioxolo[5,6-a]quinolizinium chloride

CAS: 63251-92-3 C₂₁H₂₄CINO₅

Vegetable origin



NAVZH

 $6,7,8,9-tetrahydro-9-hydroxy-1-(hydroxymethyl)-6,6-dimethyl-Phenanthro \cite{1,2-b}\cite$

CAS: 1015255-57-8 C₁₀H₁₈O₅



Vegetable origin

NATH5

6,7,12b,13-tetrahydro-12b-hydroxy-5-methyl-4H-Bis[1,3] benzodioxolo[5,6-a:4',5'-g]quinolizinium inner salt

CAS: 41475-28-9 C₂₀H₂₀NO₅



Vegetable origin

NAVZI

(3aR,4R,7aR)-3a,4,7,7a-tetrahydro-5-[(1S)-4-hydroxy-1-methylbutyl]-6-methyl-3-methylene-4-(1-oxopropoxy)-2(3H)-Benzofuranone

CAS: 863658-29-1 AND Enantiomer $C_{18}H_{26}O_5$

Vegetable origin

NAVJC

(7S)-6,7,8,9-tetrahydro-7-hydroxy-1-methyl-6-methylene-Phenanthro[1,2-b]furan-10,11-dione

AND Enantiomer

CAS: 83145-47-5



Vegetable origin

NAVZQ

1,2,3,4-Tetrahydronorharman-1-one CAS: 17952-82-8 C₁₁H₁₀N₂O



NAVZR

Tetrahydropalmatine CAS: 2934-97-6 $C_{21}H_{25}NO_4$



Synonym: DL-Tetrahydropalmatine Vegetable origin Solubility: 10mM in DMSO

Tetrahydropalmatine, an active component isolated from corydalis (a Chinese herbal medicine), possesses analgesic effects. IC50 value: Target: In vitro: Methods Enzyme digestion was used to isolate single ventricular myocyte and whole cell patch clamp technique was used to record potassium current. Results In ventricular myocytes of guinea pig, the delayed rectified potassium current(I K) and the inwardly rectifying potassium current (I_ K1) were blocked by Tetrahydropalmatine in a concentration-dependent fashion [4]. In vivo: Administration of dl-tetrahydropalmatine iv, ip, and ig lowered the pressure and concurrently slowed the heart rate in anesthetized rats. The HPLC coupled with electrochemical detection showed that the contents of horepinephrine (NE) in the heart, aorta, and femoral artery and epinephrine (E) in the adrenal gland were markedly reduced by THP (P0. 01) [1]. THP may act through inhibition of amygdaloid dopamine release to inhibit an epileptic attack [2]. Mice were administracted with dl-tetrahydropalmatine ip 20,40mg·kg~(-1) daily for 9 d respectively, and then actue liver injury model was induced by 0.1% carbon tetrachloride ip 20mL·kg~(-1). Tetrahydropalmatine significantly reduced the level of serum ALT and AST, inhibited lipoperxidation in liver, while increased SOD activity in liver tissue. Degeneration of hepatocytes was obviously prevented in mice treated with dl-THP, and the liver histological structure was well maintained [3].

NAVZS

D-Tetrahydropalmatine CAS: 3520-14-7



NAVZW

5,7,2',4'-Tetrahydroxy-3-geranylflavone CAS: 376361-87-4 C₂₅H₂₆O₆ HO HO OH OH OH OH Vegetable origin

NAVZX

1,3,6,8-tetrahydroxy-4-(3-methyl-2-buten-1-yl)-9H-Xanthen-9-one



NAVZY

(3beta,7beta,9beta,10alpha)-3,7,22,23-tetrahydroxy-19-Norlanosta-5,24-diene-9-carboxaldehyde

CAS: 1446447-96-6 AND Enantiomer $C_{30}H_{48}O_5$ $H_{48}O_5$ $H_{48}O_5$

NAVZZ

C20H22O9

2,3,5,4'-Tetrahydroxystilbene 2-O-β-D-glucoside CAS: 82373-94-2 AND Enantiomer



Synonym: 2,3,4',5-Tetrahydroxystilbene 2-O-D-glucoside Vegetable origin

Solubility: DMSO: ≥ 35mg/mL

2,3,4',5-tetrahydroxystilbene 2-O-D-glucoside isolats from the roots of Polygonum species, inhibits the formation of 5-HETE, HHT and thromboxane B2, although less strongly. [1]

A.256

NAWA0



Vegetable origin

NAWA1

1,3,5,8-Tetrahydroxyxanthone CAS: 2980-32-7

Synonym: Desmethylbellidifolin Vegetable origin

NAWA2

1,2,3,6-tetramethoxy-9,10-Anthracenedione CAS: 133101-29-8 C₁₈H₁₆O₆

Vegetable origin

NAWA3

2,3,5,6-Tetramethoxyaporphine CAS: 5630-11-5 $C_{21}H_{25}NO_4$

Vegetable origin

NAWA4

4',5,7,8-Tetramethoxyflavone CAS: 6601-66-7 C₁₉H₁₈O₆

Chemical Name: 5,7,8-trimethoxy-2-(4-methoxyphenyl)chromen-4-one Synonyms: 6-Demethoxytangeretin; 6-Demethoxytangeritin Vegetable origin Plant Source: Citrus sinensis Specification: 98% min by HPLC

NAWA5

1,2,3,7-Tetramethoxyxanthone CAS: 22804-52-0 C₁₇H₁₆O₆



Vegetable origin

NAWA6

Tetramethylcurcumin CAS: 52328-97-9

Vegetable origin

NAWA7

Tetramethylpyrazine CAS: 1124-11-4 $C_8H_{12}N_2$

Vegetable origin

NAWA9

Tetrandrine CAS: 518-34-3 C₃₈H₄₂N₂O₆

Vegetable origin Specification: 98% min by HPLC

NAWAB

Thalifoline

CAS: 21796-15-6 C₁₁H₁₃NO₃

Vegetable origin

NAWAD





AND Enantiomer

Vegetable origin

Solubility: H₂O: 2mg/mL (Need ultrasonic and warming); DMSO: 1.42mg/mL (Need ultrasonic and warming)

Theaflavin is a suitable natural inhibitor against influenza A (H1N1) neuraminidase.

NAWAF

Theaflavin-3,3'-digallate CAS: 30462-35-2, 33377-72-9



Advion × ^{**} interchim

NAWAE

Theaflavin 3'-gallate CAS: 28543-07-9 C₃₆H₂₈O₁₆

Vegetable origin Plant Source: black tea (Camellia sinensis) Specification: 98% min by HPLC

NAWAH

L-Theanine CAS: 3081-61-6 C₇H₁₄N₂O₃

Vegetable origin Specification: 99%

NAWAI

Theobromine CAS: 83-67-0 C₇H₈N₄O₂



Synonym: 3,7-Dimethylxanthine Vegetable origin Solubility: DMSO: 6mg/mL (Need ultrasonic) Theobromine is a methylxanthine found in cacao beans which can inhibit **adenosine receptor A1 (AR1)** signaling.

NAWAJ

Theophylline CAS: 58-55-9 C₇H₈N₄O₂

Chemical Name: 1,3-dimethyl-7H-purine-2,6-dione Vegetable origin Specification: 99% min by HPLC

NAWAK

Thermopsine CAS: 486-90-8

Vegetable origin

NAWAL Thiamine hydrochloride CAS: 67-03-8 C₁₀H₄₈Cl₃N₄OS



Synonyms: Vitamin B1 hydrochloride; Thiamine chloride hydrochloride Vegetable origin

Solubility: DMSO: 10mg/mL (Need ultrasonic) Thiamine hydrochloride is an essential micronutrient needed as a cofactor for many central metabolic enzymes.

NAWAM

Thonningianin A CAS: 271579-11-4 $C_{a2}H_{34}O_{21}$

Vegetable origin Specification: 98% min

NAWAN

L-Threonine CAS: 72-19-5 C₄H₉NO₃

Vegetable origin

NAWAO

Thunalbene CAS: 220862-05-5 C₁₅H₁₄O₃



Vegetable origin

NAWAP

Thymidine CAS: 50-89-5 C₁₀H₁₄N₂O₅

Synonyms: DThyd; Deoxyribothymidine; Deoxythymidine; NSC 21548; Thymidin Vegetable origin

NAWAQ

Tiglic acid CAS: 80-59-1

Vegetable origin

NAWAR

21-O-Tigloylgymnemagenin CAS: 1581276-63-2

Vegetable origin

NAWAS

Tigogenin CAS: 77-60-1

QÔ

NAWAT



NAWAV



Vegetable origin

NAWAU



NAWAW

Timosaponin A1 CAS: 68422-00-4

Vegetable origin

NAWAX

Timosaponin A-III CAS: 41059-79-4 C39H64O13

Synonym: Timosaponin A3 Vegetable origin Specification: 98% min by HPLC

NAWAY

Timosaponin B II CAS: 136656-07-0 $C_{45}H_{76}O_{19}$

Vegetable origin Specification: 98% min by HPLC

NAWAZ

Tinnevellin glucoside CAS: 80358-06-1 C₂₀H₂₄O₉

Synonym: 1-[6-(beta-D-Glucopyranosyloxy)-1-hydroxy-8-methoxy-3-methyl-2-naphthalenyl]ethanone Vegetable origin Plant Source: Cassia angustifolia Specification: 98% min by HPLC

NAWB1

Tobramycin CAS: 32986-56-4 C₁₈H₃₇N₅O₀

Vegetable origin

NAWB2

(+)-a-Tocopherol CAS: 59-02-9 C29H50O2

AND Enantiomer

AND Enantiomer

Synonyms: D-a-Tocopherol; a-Vitamin E

Vegetable origin Solubility: 10mM in DMSO (+)-α-Tocopherol is a vitamin E derivative. Vitamin E is a fat-soluble antioxidant.

NAWB3

DL-α-Tocopherol CAS: 10191-41-0

Vegetable origin

NAWB4

Gamma-Tocotrienol CAS: 14101-61-2 C28H42O2

Vegetable origin

Advion × Yeinterc



CAS: 77-59-8 C₂₇H₄₅NO₂ Vegetable origin Solubility: 10mM in DMSO

Tomatidine acts as an anti-inflammatory agent by blocking NF-KB and JNK signaling.

AND Enantiomer

NAWBD

Tomatidine hydrochloride CAS: 6192-62-7 C₂₇H₄₆CINO₂

Chemical Name: (3beta,5alpha,22beta,25S)-Spirosolan-3-ol hydrochloride Vegetable origin Plant Source: Tomato leaves Specification: 90%-98%

NAWBE

Tomatine CAS: 17406-45-0 C50H83NO21

Synonyms: Lycopersicin, alpha-Tomatine, A"-Tomatidine, Tomatin, Tomatidine, glycoside, CHEBI:9630 Vegetable origin Specification: 98% min by HPLC

NAWBF

Toosendanin CAS: 58812-37-6 C₃₀H₃₈O₁₁

Synonyms: 28-Deacetylsendanin; Chuanliansu Vegetable origin Specification: 98% min by HPLC

NAWBG

Topotecan Hydrochloride CAS: 119413-54-6

Vegetable origin

NAWBH

Tormentic acid CAS: 13850-16-3

Vegetable origin

NAWBB

p-Toluic acid CAS: 99-94-5 C₈H₈O₂



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Natural compounds

QĈ

NAWBO

Tridecanoic Acid CAS: 638-53-9

NAWBR

Trifolin CAS: 23627-87-4

Vegetable origin





NAWBT

1,3,6-TrigalloyIglucose CAS: 18483-17-5

Synonym: 1,3,6-Tri-O-galloyl-beta-D-glucopyranose Vegetable origin

NAWBU

Trigonelline chloride CAS: 6138-41-6 C₇H₈CINO₂

Synonym: Trigonelline hydrochloride Vegetable origin Solubility: DMSO: 6mg/mL (Need ultrasonic) Trigonelline chloride, an alkaloid with potential antidiabetic activity, is present in considerable amounts in coffee.

NAWBV

3beta,7beta,25-Trihydroxycucurbita-5,23(E)-dien-19-al CAS: 85372-65-2 AND Enantiomer





Vegetable origin

C₈H₇Cl₃O₂

Vegetable origin

NAWBP

Tricosanoic Acid CAS: 2433-96-7

Toxicarol isoflavone CAS: 3044-60-8

C23H22O7

NAWBI

Vegetable origin

Solubility: DMSO Toxicarol isoflavone is an isoflavone extracted from Millettia brandisiana.

NAWBJ

Tracheloside CAS: 33464-71-0 C27H34O12

Synonym: 2-Hydroxyarctiin Vegetable origin Plant Source: Trachelospermum asiaticum Specification: 98% min by HPLC

NAWBK

Trametenolic acid CAS: 24160-36-9 C₃₀H₄₈O₃



Vegetable origin

NAWBL

D-Trehalose CAS: 99-20-7

Vegetable origin

NAWBM

Triacontanol CAS: 593-50-0

Vegetable origin

NAWBN

1,3,5-Tricaffeoylquinic acid CAS: 1073897-80-9

Vegetable origin

NAWBO





CAS: 69653-71-0





AND Enantiomer

NATQ6

(8alpha,9beta,14beta,23S,24R)-23,24,25-trihydroxy-Dammara-11,13(17)-diene-3,16-dione AND Enantiomer



Vegetable origin

NAWAA

(9beta,13alpha,14beta,20alpha)-3,4,6-trihydroxy-9,13dimethyl-2-oxo-23,24,25,26-Tetranoroleana-1(10),3,5,7-

tetraen-29-oic acid CAS: 1253387-35-7





AND Enantiomer

Vegetable origin

NAWBW

1,3,5-Trihydroxy-4-(3-hydroxy-3-methylbutyl)xanthone CAS: 299895-11-7 C₁₈H₁₈O₆

Vegetable origin

NAWBY

6,7,4'-Trihydroxyisoflavone CAS: 17817-31-1

Vegetable origin

NAWBX

7,2',4'-Trihydroxyisoflavone CAS: 7678-85-5

Vegetable origin

NAWBZ

(2R,3R)-3,7,4'-Trihydroxy-5-methoxy-8-prenylflavanone CAS: 204935-85-3

Vegetable origin

NAWC0

1,3,6-Trihydroxy-5-methoxyxanthone CAS: 41357-84-0

 $C_{14}H_{10}O_{6}$

Vegetable origin

NAWC1

1,3,6-Trihydroxy-2-methylanthraquinone

3-O-(6'-O-acetyl)-a-L-rhamnosyl-(1-2)-beta-D-glucoside CAS: 87686-87-1 AND Enantiomer



NAWC2

1,3,6-Trihydroxy-2-methylanthraquinone 3-O-alpha-L-rhamnosyl-(1→2)-beta-D-glucoside CAS: 87686-88-2 AND Enantiomer C₂₇H₃₀O₁₄



Vegetable origin

NAWC3

5,7,4'-Trihydroxy-8-methylflavanone CAS: 916917-28-7

Vegetable origin

NAWC4

5,6,7-trihydroxy-2-Naphthalenecarboxylic acid CAS: 167409-11-2 $C_{11}H_8O_5$

NAWC5

2alpha,3alpha,19alpha-Trihydroxyolean-12-en-28-oic acid AND Enantiomer

CAS: 308101-62-4 C₃₀H₄₈O₅



Vegetable origin

NAWC6

3 β ,7 β ,15 β -trihydroxy-11-oxo-lanosta-8-en-24 \rightarrow 20 lactone CAS: 1694587-15-9

Vegetable origin

NAWC7

1,3,5-Trihydroxy-4-prenylxanthone CAS: 53377-61-0 $_{\rm H}$ C $_{18}{\rm H}_{16}{\rm O}_5$



Vegetable origin

NAWC9

5,2',6'-Trihydroxy-6,7,8-trimethoxyflavone

CAS. 90107-90-0	
$C_{18}H_{16}O_8$	
	о Он
Voqotablo origin	 он о
vegetable oligili	

NAWC8

5,7,3'-Trihydroxy-6,4',5'-trimethoxyflavone CAS: 78417-26-2

 $C_{18}H_{16}O_{8}$

Synonym: 5,7-Dihydroxy-2-(3-hydroxy-4,5-dimethoxyphenyl)-6-methoxy-4H-chromen-4-one Vegetable origin Plant Source: Eupatorium capillifolium Specification: 98% min by HPLC

NAWCA

(2alpha,3alpha,4alpha)-2,3,23-trihydroxy-Ursa-12,20(30)dien-28-oic acid



NAWCB

1,3,5-Trihydroxyxanthone CAS: 6732-85-0 C₁₃H₈O₅



Vegetable origin

NAWCC

Trilobatin CAS: 4192-90-9 C₂₁H₂₄O₁₀

Vegetable origin Plant Source: Lithocarpus litseifolius Specification: 98% min by HPLC

NAWCD

3,4,5-trimethoxy-Benzoic acid 2-(4-methoxyphenyl)ethyl ester

CAS: 1002980-81-5 C₁₉H₂₂O₆



Vegetable origin

NAWCE

C₁₂H₁₄O₅

3,4,5-Trimethoxy-trans-cinnamic acid CAS: 20329-98-0

Vegetable origin

NAWCF 5,7,8-Trimethoxycoumarin CAS: 60796-65-8 C₁₂H₁₂O₅





NAWCG

5,7,8-Trimethoxyflavone CAS: 23050-38-6 $C_{18}H_{16}O_{5}$



Vegetable origin

NAWCH

Trans-Trimethoxyresveratrol CAS: 22255-22-7 C₁₇H₁₈O₃

Synonyms: trans-trismethoxy Resveratrol; E-Resveratrol Trimethyl Ether; Tri-O-methylresveratrol

Vegetable origin

Solubility: 10mM in DMSO

Trans-Trimethoxyresveratrol is a derivative of Resveratrol (RSV), and it may be a more potent anti-inflammatory, antiangiogenic and vascular-disrupting agent when compared with resveratrol. In vitro: The in vitro study of resveratrol and trans-Trimethoxyresveratrol showed rather weak cytotoxic effects on three cancer cell lines (HepG2, MCF-7, and MDA-MB-231), which contradicted a previous study reporting that resveratrol inhibited MCF-7 cells with an IC50 of about 10 µM. This discrepancy might be explained by the fact that the measurements were made 24 h after drug treatment, whereas the measurements of the previous study were taken 6 days after. The fact that the cytotoxic effect of trans-Trimethoxyresveratrol was lower than that of resveratrol is surprising, because in many studies, trans-Trimethoxyresveratrol is the most active analogue of resveratrol, although resveratrol shows much stronger antioxidant effects than that of trans-Trimethoxyresveratrol.[1] In vivo: Zebrafish embryos offer great advantage over their adults as well as other in vivo models because of the external development and optical transparency during their first few days, making them invaluable in the inspection of developmental processes. These unique advantages can even be made more useful when specific cell types are labeled with fluorescent probes. Zebrafish embryo in vivo, suggests that trans-Trimethoxyresveratrol has both more potent antiangiogenic activity and more importantly, stronger specific cytotoxic effects on endothelial cells than does resveratrol.[1]

NAWCI

(E,E)-2,7,11-trimethyl-2,6,10-Dodecatrien-1-ol CAS: 16910-29-5 C15H26O Vegetable origin

NAWCJ Trimethylgallic acid CAS: 118-41-2 $C_{10}H_{12}O_{5}$





Vegetable origin

NAWCK

Trimethylgallic acid methyl ester CAS: 1916-07-0 C₁₁H₁₄O₅

Vegetable origin

NAWCL

3,6,7-Trimethylquercetagetin CAS: 14965-20-9

Vegetable origin

NAWCM

2-(Trimethylsilyl)ethyl β-D-galactopyranoside CAS: 117252-95-6

NAWCN

2-(Trimethylsilyl)ethyl 4-O-β-D-galactopyranosyl-β-Dglucopyranoside CAS: 115969-51-2

NAWCO

Trimyristin CAS: 555-45-3

Vegetable origin

NAWCP

Tripterifordin CAS: 139122-81-9

Vegetable origin

NAWCQ

Triptolide CAS: 38748-32-2 C20H24O6



Vegetable origin

NAWCR

Triptonide CAS: 38647-11-9 C20H22O6

Vegetable origin Specification: 98% min by HPLC

nterchim[®] × Advion

AND Enantiomer

NAWCS

Triptonine B CAS: 168009-85-6

Vegetable origin



Vegetable origin

Solubility: 10mM in DMSO

Triptophenolide is a colorless crystalline plate isolated from ethyl acetate extracts of Tripterygium wilfordii. IC50 value: Target: In vitro: Triptophenolide can remarkably inhibit the delayed type hypersensitivity (DTH) reaction induced by DNCB and BSA; and diminished the peripheral blood ANAE+lymphocytes in rats and micc. Moreover, triptophenolide can dramatically increase the amount of total serum complement and significantly decrcase the serum antibody products (1gG) of rats and mice. The phagocytosis of perioneal exudate macrophages in mice present double effects in vitro [1]. In vivo.



Synonym: Trihydroxyethylrutin Vegetable origin olubility: DMSO: 100mg/mL

Troxerutin, also known as vitamin P4, is a tri-hydroxyethylated derivative of natural bioflavonoid rutins which can inhibit the production of **reactive oxygen species** (**ROS**) and depress ER stress-mediated **NOD** activation.

NAWCV

 $\begin{array}{l} \textbf{L-Tryptophan}\\ CAS: 73-22-3\\ C_{11}H_{12}N_2O_2 \end{array}$

Synonyms: Tryptophan; Tryptophane Vegetable origin

NAWCW

Tsugaric acid A CAS: 174391-64-1 C₃₂H₅₀O₄

Synonym: 3alpha-Acetoxylanosta-8,24-dien-21-oic acid Vegetable origin Plant Source: Boswellia carteri/Boswellia serrata Specification: 98% min by HPLC



Synonyms: Tubeimoside-1; Lobatoside-H Vegetable origin

Solubility: 10 in DMSO

Tubeimoside I(Lobatoside-H) is an extract from Chinese herbal medicine Bolbostemma paniculatum (MAXIM.) FRANQUET (Cucurbitaceae) has been shown as a potent anti-tumor agent for a variety of human cancers. IC50 value: Target: Anticancer natural compound in vitro: TBMS I inhibited the proliferation of both HepG2 and L-02 cells in a dose- and time-dependent manner, but HepG2 cells appeared more sensitive to the agent. When exposed to TBMS I for 24, 48 and 72h, IC50 for HepG2 cells versus L-02 cells were 15.5 vs. 23.1, 11.7 vs. 16.2, 9.2 vs. 13.1 (µM, p<0.01), respectively. TBMS I induced cell shrinkage, nuclear condensation and fragmentation, cell cycle arrest at the G2/M phase, mitochondrial membrane disruption, release of cytochrome c from the mitochondria, activation of caspase 3 and 9, and shifting Bax/Bcl-2 ratio from being anti-apoptotic to pro-apoptotic, all indicative of initiation and progression of apoptosis involving mitochondrial dysfunction [1]. TBMS1-induced molecular events were related to mitochondria-induced intrinsic apoptosis and P21-cyclin B1/cdc2 complex-related G2/M cell cycle arrest [2]. TBMS1 combined with CDDP promoted cell apoptosis, decreased proliferation activity and increased cytosolic Ca2+ levels. Bcl-2 protein expression was down-regulated but Bax was up-regulated. Moreover, GST-π mRNA and protein expression were decreased. TBMS1 reduced the resistance of the cells to CDDP-induced cytotoxicity [4]. Treatment with TBMS1 resulted in dose- and time-dependent inhibition of proliferation, led to arrest in phase G2/M of the cell cycle and increased the levels of intracellular Ca2. Furthermore, TBMS1 upregulated the levels of the glucose-regulated protein 78/immunoglobuin heavy chain binding protein (GRP78/Bip), C/EBP homologous protein (CHOP), Bax, and cleaved caspase-3 and down-regulated the levels of Bcl-2 [5]. In vivo: TBMS1 significantly inhibited the production of the pro-inflammatory cytokines, TNF-a, IL-6 and IL-1ß in vitro and in vivo. Pretreatment with TBMS1 markedly attenuated the development of pulmonary edema, histological severities and inflammatory cells infiltration in mice with ALI [3].



NAWCY



Synonym: Tubeimoside-B Vegetable origin Solubility: 10mM in DMSO

Tubeimoside II(Tubeimoside-B) is a natural analogue of oleanane type of triterpenoid saponin; show anti-inflammatory, antitumor, and antitumor-promoting effects. IC50 value: Target: The anti-inflammatory, anti-tumor, and anti-tumorigenic activities of tubeimoside II are stronger than those of tubeimoside I, and the acute toxicity of tubeimoside II is lower than that of tubeimoside I; the anti-inflammatory, anti-tumor, and anti-tumorigenic activities of tubeimoside III are stronger than those of tubeimoside II, and the acute toxicity of tubeimoside III is also stronger than that of tubeimoside II.

NAWCZ

Tubeimoside III CAS: 115810-13-4 C₆₄H₁₀₀O₃₁

Vegetable origin Specification: 98% min by HPLC

NAWD0

Tuberostemonin CAS: 6879-01-2 C22H33NO4



AND Enantiomer

Vegetable origin

NAWD1

Tubuloside A CAS: 112516-05-9 C37H48O21

Vegetable origin Plant Source: Cistanche tubulosa Specification: 98% min by HPLC

NAWD2

Tupichinol C CAS: 118204-66-3 C15H14O3 Vegetable origin



NAWD3

Turkesterone CAS: 41451-87-0 C₂₇H₄₄O₈

Synonym: 2,3,11,14,20,22,25-Heptahydroxycholestenone Vegetable origin Specification: 98% min by HPLC

NAWD4

Tussilagone CAS: 104012-37-5 C23H34O5

Vegetable origin Specification: 98% min

NAWD5

Typhaneoside CAS: 104472-68-6 C₃₄H₄₂O₂

Synonyms: Aervitrin, Isorhamnetin3-O-(2",6"-di-O-α-Lrhamnopyranosyl)- β-D-glucopyranoside Vegetable origin Plant Source: Caragana sinica Specification: 98% min by HPLC

NAWD6

L-Tyrosine CAS: 60-18-4 C₀H₁₁NO₃

Vegetable origin



Solubility: DMSO L-Tyrosine is a non-essential amino acid which can inhibit citrate synthase activity in the posterior cortex

NAWD7

Tyrosol CAS: 501-94-0 C₈H₁₀O₂

Vegetable origin

NAWD8

UDP-Gal CAS: 137868-52-1

UDP-galactose Vegetable origin



NAUMS

Umbelliferone CAS: 93-35-6 C_aH_aO₃

Synonyms: 7-Hydroxycoumarin; 7-Hydroxylcoumarin; 7-Oxycoumarin; Hydrangin; Hydrangine; NSC 19790; Skimmetin; Skimmetine; Umbelliferon Vegetable origin

NAWDA

5'-UMP disodium salt CAS: 3387-36-8

Vegetable origin

NAWDB

Uncarine C CAS: 5629-60-7

Vegetable origin

NAWDC

Uridine CAS: 58-96-8

Vegetable origin

NAWDD

Ursodeoxycholic Acid CAS: 128-13-2 $C_{24}H_{40}O_4$

Vegetable origin Specification: 99% min by HPLC

NAWDE





Synonyms: Prunol; Urson; Malol; Bungeolic acid Vegetable origin

Solubility: 10mM in DMSO

Ursolic acid(Bungeolic acid) is a natural pentacyclic triterpenoid carboxylic acid, exerts anti-tumor effects and is an effective compound for cancer prevention and therapy. IC50 value: Target: in vitro: UA induced phosphorylation of AMP-activated protein kinase alpha (AMPKa) and suppressed the protein expression of DNA methyltransferase 1 (DNMT1) in the dose-dependent manner [1]. The combination of ursolic acid (0.5µM) and leucine (10µM) proved to be the most effective in promoting myogenic differentiation. The combination of ursolic acid and leucine significantly increased CK activity than treatment with either agent alone. The level of myosin heavy chain, a myogenic differentiation marker protein, was also enhanced by the combination of ursolic acid and leucine [2]. Ursolic acid efficiently induced apoptosis, possibly via the downregulation of B-cell lymphoma 2 (Bcl-2), the upregulation of Bcl-2-associated X protein and the proteolytic activation of caspase-3. Furthermore, the activation of p38 mitogen-activated protein kinase and c-Jun Nterminal kinase was increased by the administration of ursolic acid. In addition, ursolic acid significantly suppressed the invasive phenotype of the SNU-484 cells and significantly decreased the expression of matrix metalloproteinase (MMP)-2 [3]. Ursolic acid (UA) potently induces the apoptosis of gastric cancer SGC-7901 cells. Further mechanistic studies revealed that the ROCK1/PTEN signaling pathway plays a critical role in UA-mediated mitochondrial translocation of cofilin-1 and apoptosis [4]. In vivo: UA treatment markedly improved the survival of septic rats, and attenuated CLP-induced lung injury, including reduction of lung wet/dry weight ratio, infiltration of leukocytes and proteins, myeloperoxidase activity, and malondialdehyde content. In addition, UA significantly decreased the serum levels of tumor necrosis factor-a, interleukin-6, and interleukin-1ß, inhibited the expression of inducible nitric oxide synthase and cyclooxygenase-2 in the lung, which are involved in the productions of nitric oxide and prostaglandin E2 [5].





NAWDG

Usnic Acid CAS: 125-46-2 C₁₈H₁₆O₇

Chemical Name: 2,6-diacetyl-7,9-dihydroxy-8,9b-dimethyldibenzofuran-1,3-dione Vegetable origin Specification: 98% min by HPLC

NAWDH

Vaccarin CAS: 53452-16-7 C₃₂H₃₈O₁₉

Vegetable origin Plant Source: Vaccaria segetalis Specification: 98% min by HPLC

NAWDI

Valechlorine CAS: 51771-49-4

C22H31CIO8

Synonym: Valtrate chlorohydrin Vegetable origin Plant Source: VALERIANA OFFICINALIS Specification: 98% min by HPLC

NAWDJ

L-Valine CAS: 72-18-4 C₅H₁₁NO₂

Vegetable origin

NAWDK

Valtrate CAS: 18296-44-1

Vegetable origin

NAWDL

Vancomycin Hcl CAS: 1404-93-9 C₆₆H₇₅Cl₂N₄O₂₄.ClH

Vegetable origin

NAWDM

Vanillic Acid CAS: 121-34-6 C₈H₈O₄

Chemical Name: 4-hydroxy-3-methoxybenzoic acid Vegetable origin Specification: 98% min by HPLC

NAWDN

Vanillin CAS: 121-33-5 C₈H₈O₃

Synonyms: m-Methoxy-p-hydroxybenzaldehyde; p-Hydroxy-m-methoxybenzaldehyde; p-Vanillin Vegetable origin

NAWDO

Velutin CAS: 25739-41-7

Vegetable origin

NAWDP

Veraguensin CAS: 19950-55-1

Vegetable origin

NAWDQ

Veratraldehyde CAS: 120-14-9 C₉H₁₀O₃

Synonyms: 4-O-Methylvanillin; Methylvanillin; NSC 24521; Veratrum aldehyde; Veratryl aldehyde Vegetable origin

NAWDR

Veratramine CAS: 60-70-8 C₂₇H₃₉NO₂



Synonyms: NSC17821; NSC23880 Vegetable origin Solubility: 10mM in DMSO Veratramine (NSC17821; NSC23880) is useful as a signal transduction inhibitor for treating tumors.

NAWDS

Veratramine 3-glucoside CAS: 475-00-3

Vegetable origin

NAWDT

Veratric acid CAS: 93-07-2

Synonym: 3,4-Dimethoxybenzoic Acid Vegetable origin

Interchim × Advion

NAWDU

Veratridine CAS: 71-62-5

Vegetable origin

NAWDV

Veratryl alcohol CAS: 93-03-8

Vegetable origin

NAWDW

Verbascoside

CAS: 61276-17-3



Synonyms: Acteoside; Kusaginin; TJC160 Vegetable origin

Solubility: DMSO: ≥ 6.3ma/mL

Verbascoside (Acteoside; TJC160), is a bioactive polyphenol from olive oil mill wastewater with known antioxidant activity: protein kinase C inhibitor (IC50 = 25µM). IC50 value: Target: In fresh oocytes, VB exerted prooxidant short-term effects, that is, catalase activity increase and uncoupled increases of mitochondria and reactive oxygen species (ROS) fluorescence signals, and long-term effects, that is, reduced blastocyst formation rate. In vitrified oocvtes, VB increased ROS levels. Prooxidant VB effects in ovine prepubertal oocytes could be related to higher VB accumulation, which was found as almost one thousand times higher than that reported in other cell systems in previous studies [1]. Although some "in vitro" genotoxicity of verbascoside has been reported on human lymphocytes with an involvement of PARP-1 and p53 proteins, subsequent "in vivo" tests reported no genotoxicity for high dosage oral administration. It is a protein kinase C inhibitor.

NAWDX

Verbenalin CAS: 548-37-8

Synonyms: Verbenaloside; Cornin Vegetable origin

NAWDY AND Enantiome Vicenin 1 CAS: 35927-38-9 C₂₆H₂₈O₁₄ но н Vegetable origin

NAWDZ



NAWE0

Vicenin-II CAS: 23666-13-9 C27H30O15

Chemical Name: 5,7-DIHYDROXY-2-(4-HYDROXYPHENYL)-6,8-BIS[(2S,3R,4R,5S,6R)-3,4,5-TRIHYDROXY-6-(HYDROXYMETHYL)OXAN-2-YL]CHROMEN-4-ONE Vegetable origin Plant Source: Citrus spp

NAWE1

Vina-ginsenoside R3 CAS: 156012-92-9

Vegetable origin

NAWE2

Vina-ginsenoside R4 CAS: 156009-80-2

Vegetable origin

NAWE3

Vina-ginsenoside R8 CAS: 156042-22-7

NAWE4

Vinblastine CAS: 865-21-4

Vegetable origin

NAWE5

Vinblastine sulfate CAS: 143-67-9

Vegetable origin

NAWE6

Vincamine CAS: 1617-90-9 C₂₁H₂₆N₂O₃



Vegetable origin

NAWE7

Vincetoxicoside B CAS: 22007-72-3 C₂₁H₂₀O₁₁

Chemical Name: 2-(3,4-DIHYDROXYPHENYL)-3,5-DIHYDROXY-7-([(2S,3R,4R,5R,6S)-3,4,5-TRIHYDROXY-6-METHYLOXAN-2-YL] OXY)CHROMEN-4-ONE Vegetable origin Plant Source: Vincetoxicum officinale Specification: 98% min by HPLC

NAWE8

Vincristine CAS: 57-22-7

Vegetable origin

NAWE9



Synonyms: Leurocristine sulfate; 22-Oxovincaleukoblastine sulfate Vegetable origin

Solubility: 10mM in DMSO

Vincristine (sulfate) is an inhibitor of polymerization of microtubules by binding to tubulin with $IC_{\rm S0}$ of $32\mu M$ in a cell-free assay.

NAWEA

 $\begin{array}{l} \textbf{Vindoline} \\ \textbf{CAS: 2182-14-1} \\ \textbf{C}_{25}\textbf{H}_{32}\textbf{N}_{2}\textbf{O}_{6} \end{array}$

Chemical Name: Methyl 4-(acetyloxy)-3-hydroxy-16-methoxy-1-methyl-6,7-didehydroaspidospermidine-3-carboxylate Vegetable origin Plant Source: Catharanthus roseus (L.)G.Don Specification: 98% min

NAWEB

Vindolinine CAS: 5980-02-9

Vegetable origin

NAWEC

Alpha-Viniferin CAS: 62218-13-7 C₄₂H₃₀O₉



Vegetable origin

NAWED

 $\begin{array}{l} \textbf{\epsilon-Viniferin}\\ \text{CAS: 62218-08-0}\\ \text{C}_{28}\text{H}_{22}\text{O}_{6} \end{array}$

Synonyms: AC1NQYZ4; UNII-0K8Z2K6Y7O; 0K8Z2K6Y7O Vegetable origin Specification: 98% min by HPLC

NAWEE

(+)-ε-Viniferin CAS: 129170-22-5

NAWEF

(±)-ε-Viniferin(+/-=1:1) CAS: 253435-07-3

NAWEG

Vinorelbine CAS: 71486-22-1





NAWEH

Vinorelbine Tartrate CAS: 125317-39-7

Vegetable origin

AND Enantiomer NAWEI Vinpocetine CAS: 42971-09-5 C₂₂H₂₆N₂O₂ Vegetable origin NAWEJ Viroxocin CAS: 1631054-69-7 Vegetable origin NAWEK Viscidulin I CAS: 92519-95-4 C₁₅H₁₀O₇ Vegetable origin HC NAWEL Viscidulin II CAS: 92519-93-2

C₂₀H₂₄O₃





C₁₇H₁₄O₇



Vegetable origin

NAWEM



NAWEO



Synonyms: Phylloquinone; Phytomenadione Vegetable origin Solubility: 10mM in DMSO

Vitamin K1 a fat-soluble, naturally occurring vitamin required for blood coagulation and bone and vascular metabolism.

NAWEP

Viteralone CAS: 87440-75-3 C₁₅H₁₄O₃



Vegetable origin

NAWEQ

Vitexilactone CAS: 61263-49-8 C₂₂H₃₄O₅



Vegetable origin

NAWER Vitexin

CAS: 3681-93-4 $C_{21}H_{20}O_{10}$

AND Enantiomer

Vegetable origin

NAWES

Vitexin 2"-O-p-coumarate CAS: 59282-55-2

нс

Vegetable origin

NAWET

Vitexin 4'-glucoside CAS: 38950-94-6 C27H30O15

Vegetable origin Specification: 98% min by HPLC



NAWEU

Vitexin 4"-O-glucoside CAS: 178468-00-3

Vegetable origin

NAWEV



NAWEW

Voacamine CAS: 3371-85-5

Vegetable origin

NAWEX Voacangine CAS: 510-22-5 C₂₂H₂₈N₂O₃



Vegetable origin

NAWEY

Vomicine CAS: 125-15-5

Vegetable origin

NAWEZ

Warangalone CAS: 4449-55-2 C₂₅H₂₄O₅



Synonym: Scandenolone Vegetable origin Solubility: DMSO

Warangalone is an anti-malarial compound which can inhibit the growth of both strains of parasite **3D7** (chloroquine sensitive) and **K1** (chloroquine resistant) with IC_{50} s of 4.8µg/mL and 3.7µg/mL, respectivly. Warangalone can also inhibit **cyclic AMP-dependent protein kinase catalytic subunit** (cAK) with an IC_{50} of 3.5µM.

NAWF0

Warfarin sodium CAS: 129-06-6

Vegetable origin

NAWF1

Wedelolactone CAS: 524-12-9 C₁₆H₁₀O₇

0₁₆, 1₁₀, 0₇



Vegetable origin

NAWF2

Wightin CAS: 4825-18-7 C₁₈H₁₆O₇

Vegetable origin

NAWF3

Wilfordine CAS: 37239-51-3





Vegetable origin

NAWF4 Wilforgine CAS: 37239-47-7 C₄₁H₄₇NO₁₉



Vegetable origin

NAWF5

Wilforine CAS: 11088-09-8 C₄₃H₄₉NO₁₈



Vegetable origin Solubility: 10mM in DMSO

Wilforine is a sesquiterpene pyridine alkaloid; important bioactive compound in T. wilfordii plants, and is effective in treating idiopathic pulmonary fibrosis.

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Synonyms: Regelide; Abruslactone A Vegetable origin

Solubility: 10mM in DMSO

Wilforlide A is a natural product, separated from the ethanolic extract of tripterygium wilfordii. IC50 value: Target: In vitro: In vivo: Carrageenan-induced rat pedal swelling, tampon-induced rat granulation, and mice ear inhibition rate of swelling trail results show that high-dose wilforlide A has obvious anti-inflammatory effect, but has no significant immune suppressive activity [1].

NAWF7



NAWF8



Vegetable origin

NAWF9

Withaferine A CAS: 5119-48-2 C28H38O6

Synonyms: Withaferine; NSC 101088; NSC 273757 Vegetable origin Specification: 98% min by HPLC

NAWFA

Wogonin CAS: 632-85-9 C16H12O5



QÔ

Vegetable origin Solubility: DMSO: ≥ 48mg/mL

Wogonin is a naturally occurring mono-flavonoid, can inhibit the activity of CDK8 and Wnt, and exhibits anti-inflammatory and anti-tumor

NAWFB

effects.



Vegetable origin

NAWFC

Worenine CAS: 38763-29-0

Vegetable origin

NAWFD

Wulignan A1 CAS: 117047-76-4

Vegetable origin

NAWFE

AND Enantiomer

Wushanicaritin CAS: 521-45-9 C₂₁H₂₂O₇

Chemical Name: 3,5,7-trihydroxy-8-(3-hydroxy-3-methylbutyl)-2-(4methoxyphenyl)-4H-chromen-4-one Vegetable origin Plant Source: Epimedium wushanense Ying Specification: 98% min by HPLC

NAWFF

Xanthatin CAS: 26791-73-1

Vegetable origin

NAWFG **Xanthiazone** CAS: 212701-97-8



NAWFH

Xanthiside CAS: 866366-86-1

Vegetable origin

NAWFI

Xanthohumol

CAS: 6754-58-1

C₂₁H₂₂O₅



Solubility: DMSO: ≥ 150mg/mL

Xanthohumol is one of the principal flavonoids isolated from hops, the inhibitor of diacylglycerol acetyltransferase (DGAT), COX-1 and COX-2, and shows anti-cancer and anti-angiogenic activities.

NAWFJ

Xanthone I CAS: 35349-68-9 C₂₄H₂₄O₆



Vegetable origin

NAWFK

Xanthosine CAS: 146-80-5

Vegetable origin

NAWFL

Xanthotol CAS: 2009-24-7 $C_{11}H_6O_4$

Chemical Name: 9-hydroxyfuro[3,2-g]chromen-7-one; Xanthotoxol; 8-Hydroxypsoralen Synonym: 8-Hydroxypsoralen Vegetable origin Specification: 98% min by HPLC

NAWFM

Xanthotoxin CAS: 298-81-7 C₁₂H₈O₄

Chemical Name: 9-methoxyfuro[3,2-g]chromen-7-one Vegetable origin Specification: 98% min by HPLC

NAWFN

Xanthyletin CAS: 553-19-5 C14H12O3

Chemical Name: 2,2-dimethylpyrano[3,2-g]chromen-8-one Synonyms: Xanthyletine; UNII-3N789LD38N Vegetable origin Specification: 98% min by HPLC

NAWFO

Xylitol CAS: 87-99-0 C₅H₁₂O₅



Synonym: Xylite Vegetable origin

Solubility: H₂O: ≥ 100mg/mL

Xylitol is a chemical categorized as a polyalcohol or sugar alcohol. Target: Others Xylitol is a chemical categorized as a polyalcohol or sugar alcohol (alditol). Xylitol has the formula (CHOH)3(CH2OH)2 and is an achiral isomer of pentane-1,2,3,4,5-pentol. Xylitol is used as a diabetic sweetener which is roughly as sweet as sucrose with 33% fewer calories. Unlike other natural or synthetic sweeteners, xylitol is actively beneficial for dental health by reducing caries to a third in regular use and helpful to remineralization. Xylitol is naturally found in low concentrations in the fibers of many fruits and Vegetables, and can be extracted from various berries, oats, and mushrooms, as well as fibrous material such as corn husks and sugar cane bagasse and birch.

NAWFP

Xylose CAS: 58-86-6 $C_5H_{10}O_5$



Synonyms: D-(+)-Xylose; (+)-Xylose; Wood sugar Vegetable origin Solubility: 10mM in DMSO Xylose, a natural product, can be catalyzed into xylulose by xylose isomerase, and it is the key step for anaerobic ethanolic fermentation of xylose.





NAWFQ

Yangonin CAS: 500-62-9 C₁₅H₁₄O₄



Vegetable origin Solubility: 10mM in DMSO

Yangonin is one of the six major kavalactones found in the kava plant; possess significant binding affinity for the cannabinoid receptor CB1 and inhibits NF-KB activation through suppression of the transcriptional activity of the ReIA/p65 subunit of NF-kB. IC50 value: Target: in vitro: Yangonin potently inhibits NF-kB activation through suppression of the transcriptional activity of the RelA/p65 subunit of NF-kB. This compound significantly inhibited the induced expression of the NF-kB-reporter gene. However, this compound did not interfere with tumor necrosis factor- α (TNF- α)-induced inhibitor of $\kappa B\alpha$ (IkBa) degradation, p65 nuclear translocation, and DNA-binding activity of NF-KB. Further analysis revealed that yangonin inhibited not only the induced NF-kB activation by overexpression of RelA/ p65, but also transactivation activity of RelA/p65. Moreover, yangonin did not inhibit TNF-a-induced activation of p38, but it significantly impaired activation of extracellular signal-regulated kinase 1/2 and stress-activated protein kinase/c-Jun NH(2)-terminal kinase [1]. Yangonin exhibited affinity for the human recombinant CB receptor with a K(i)=0.72µM and selectivity vs. the CB receptor (K(i)>10µM) [2]. Yangonin activate Nrf2 time- and dose-dependently in neural PC-12 and astroglial C6 cells and thereby up-regulate cytoprotective genes [3].



NAWFT

Alpha-yohimbine CAS: 131-03-3 $C_{21}H_{26}N_2O_3$



Vegetable origin

NAWFU



Vegetable origin

NAWFS



AND Enantiomer

Ĥ

AND Enantiome



Vegetable origin

NAWFW Yohimbine (Hydrochloride)

CAS: 65-19-0

 $C_{21}H_{27}CIN_2O_3$

Vegetable origin

Solubility: DMSO: ≥ 10mM; DMSO: < 12.4mg/mL

Yohimbine hydrochloride is an alpha 2-adrenoreceptor antagonist, blocking the pre- and postsynaptic alpha-2 adrenoreceptors and causing an increased release of noradrenaline and dopamine. IC50 value: Target: In vitro: In vivo: Yohimbine hydrochloride (0.2mg/kg, i.p.) was administered to rats 1h before the stress session daily for 14 consecutive days and its effect was assessed. Results of this section revealed that, immersion of rats in cold water significantly decreased sexual arousal and motivation as indicated by increased latencies and intervals. Decreased copulatory activity was confirmed by decreased testosterone, luteinizing hormone (LH) and folliclestimulating-hormone (FSH) levels as well as decreased cholesterol content in rat testes. Treatment with yohimbine significantly increased the sexual arousal and potency and corrected the effects induced by stress on the mating behavior of male rats [1].





Yuexiandajisu D CAS: 866556-15-2 $C_{20}H_{30}O_5$



Vegetable origin

NAWFY

Yuexiandajisu E CAS: 866556-16-3 $C_{20}H_{30}O_5$



NAWFZ

Vegetable origin

Yukovanol CAS: 76265-12-8 C₂₀H₁₈O₆



Vegetable origin

NAWG0

Yunaconitine CAS: 70578-24-4 C₃₅H₄₉NO₁₁ Ine B

Synonym: Guayewuanine B Vegetable origin Solubility: 10mM in DMSO Yunaconitine (Guayewuanine B) is a highly toxic aconitum alkaloid.

NAWG1

Zederone CAS: 7727-79-9 C₁₅H₁₈O₃



Vegetable origin

NAWG2 Zedoarofuran CAS: 213833-34-2 C₁₅H₂₀O₄



AND Enantiomer

Vegetable origin

NAWG3 Zedoarondiol CAS: 98644-24-7 C₁₅H₂₄O₃

Vegetable origin

NAWG4

Zerumbone CAS: 471-05-6 C₁₅H₂₂O

Chemical Name: (2E,6E,10E)-2,6,9,9-Tetramethyl-2,6,10-cycloundecatrien-1-one Vegetable origin

Specification: 98% min by HPLC

NAWG5

Zerumin A CAS: 176050-48-9 C₂₀H₃₀O₃



Vegetable origin

NAWG6

Zeylasteral CAS: 87064-16-2 C₃₀H₃₈O₆



AND Enantiome

Vegetable origin

NAWG7

Zeylenol CAS: 78804-17-8

Vegetable origin

NAWG8

Zeylenone CAS: 193410-84-3

Vegetable origin

NAWG9

Zingerone CAS: 122-48-5

Vegetable origin

NAWGA

Zingiberennewsaponin CAS: 91653-50-8

Vegetable origin

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Vegetable origin

NAWGC



Vegetable origin

NAWGD

 $\begin{array}{l} \textbf{Ziyuglycoside II} \\ \textbf{CAS: 35286-59-0} \\ \textbf{C}_{35}\textbf{H}_{56}\textbf{O}_{8} \end{array}$

Synonyms: Zigu-glucoside II, Gouguside 1, (3beta)-3-(alpha-L-Arabinopyranosyloxy)-19-hydroxyurs-12-en-28-oic acid Vegetable origin Plant Source: Sanguisorba officinalis Specification: 98% min by HPLC



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NATLS

Aescin CAS: 6805-41-0 C₅₅H₈₆O₂₄

Plant Source: Aesculus hippocastanum L. Specification: 20% by HPLC (4 peaks combined) and 98% (by titration) Packings: 25k/drum for the 20% ; 1kg/bag for the 98%

NAWGT

Aloin

CAS: 1415-73-2 C₂₁H₂₂O₉

Plant Source: Aloe ferox Mill Specification: (Aloin A + Aloin B) > 95%min ; (Aloin A + Aloin B) > 98%min

NATD6



Plant Source: Prunus dulcis Specification: 98% min Packings: 1kg/bag ; 5kg/bag ; 25kg/drum

NATDD

Andrographolide CAS: 5508-58-7 $C_{20}H_{30}O_5$



Plant Source: Andrographis paniculata Specification: 99% min Biological Activity: antiinflammatory, immunosuppressant and neuroprotective

NAWGE Anthocyanidins

Plant Source: Vaccinium vitis-idaea L. Specification: Anthocyanidins 25% Biological Activity: Antioxidants; antidiabetic, Anti-platelet aggregation, Improve vision

NATE1

Apigenin CAS: 520-36-5 C₁₅H₁₀O₅



Plant Source: Matricaria recutita Linn Specification: 98% min Packings: 1kg/bag ; 5kg/bag ; 25kg/drum

NATF6

Artemisinic acid CAS: 80286-58-4 C₁₅H₂₂O₂

Chemical Name: 2-[(1R,4R,4aS,8aR)-4,7-dimethyl-1,2,3,4,4a,5,6,8a-octahydronaphthalen-1-yl]prop-2-enoic acid Synonyms: Artemisic acid ; (+)-artemisinic acid ; UNII-53N99527G7 Specification: 98% min by HPLC

NATF7

Artemisinin CAS: 63968-64-9 C₁₅H₂₂O₅

Plant Source: Artemisia apiacea Hance Specification: 99% min

NATFN

Astaxanthin CAS: 472-61-7 C₄₀H₅₂O₄

Synonyms: Natupink, BioAstin, Carophyll Pink, Lucantin Pink, trans-Astaxanthin Source: Fermentation Specifications: Astaxanthin 1% ; 3%, 5% Packings: 1kg/vacuum bag ; 20kg/drum or as requested

NATGK

Plant Source: Suutellaria baicalensis.Georgi. Sp Specifications: 90% ; 98% min by HPLC





Synonyms: Betulinol, Trochol, Betuline, Betulol, Lup-20(29)-ene-3beta, 28-diol Plant Source: Salgssurea lappa Clarke (birch tree) Specification: 98% min Packings: 25kg/drum or as requested Application: Cosmetics

NATHZ

Betulinic acid

CAS: 472-15-1 C₃₀H₄₈O₃

Plant Source: Betula Platyphylla (birch tree) Specification: 98% min by HPLC Biological Activities: Antiretroviral, antimalarial, and anti-inflammatory

NATK2

Camptothecin

CAS: 7689-03-4 C₂₀H₁₆N₂O₄

Plant Source: Camptotheca acuminata Decne.sp Specification: 98% min by HPLC

NATK7

Capsaicin CAS: 404-86-4 C₁₈H₂₇NO₃

Plant Source: Capsicum annuum Linn.sp Specification: 65%min (USP31) or the pure 98%

NATKI

β-Carotene CAS: 7235-40-7 C₄₀H₅₆



Specifications: 30% oil ; 10%CWS ; 1% CWS Packings: 1kg/vacuum bag or as requested

NATL3

Cephalomannine CAS: 71610-00-9 C₄₅H₅₃NO₁₄

Specification: 98% min by HPLC Synonym: Taxol B

NATL5

 $\begin{array}{c} \textbf{Cepharanthine} \\ \textbf{CAS: 481-49-2} \\ \textbf{C}_{37}\textbf{H}_{38}\textbf{N}_2\textbf{O}_6 \end{array}$

Plant Source: Stephania cepharantha Hayata Specification: 98% min by HPLC or as requested Packings: 10g/vial ; 100g/bag ; 1kg/bag ; 5kg/drum

NATLR



Plant Sources: Eucommia ulmoides Oliv and Coffee Seeds Specifications: Chlorogenic acid 50%min from Coffee Seeds and 98%, 99% min from Eucommia ulmoides Oliv

NATLU Cholesterol CAS: 57-88-5

 $C_{27}H_{46}O$



AND Enantiome

Synonyms: Cholesterin ; Cholest-5-en-3beta-ol ; Cholesteryl alcohol Chemical Name: Cholest-5-en-3beta-ol Specification: 90% ; 95% ; 98% min by HPLC and GC

NATLY

Chrysin CAS: 480-40-0 C₁₅H₁₀O₄

Specifications: 98-99% min Packings: 25kg/drum

NATPN Cycloastragenol CAS: 84605-18-5 C₃₀H₅₀O₅



AND Enantiomer

Chemical Name: (3beta,6alpha,16beta,24R), 20,24-epoxy-, 9,19-Cyclolanostane-3,6,16,25-tetrol Synonyms: Cyclogalegigenin, Astramembrangenin Plant Source: Hydrolysis of astragoloside IV from Astragalus membranaceus(Fisch.) Specifications: 90% and 98% Packings: 10g/vacuum bag ; 100g/vacuum bag

NATQQ

10-Deacetylbaccatin III CAS: 32981-86-5 C29H36O10

Plant Source: Taxus sp Specification: 99%min Packings: 100g/bag ; 500g/bag ; 1kg/bag Application: Intermediate for the Docetaxel

NAWGF

Diallyl trisulfide CAS: 2050-87-5 C₆H₁₀S₃

Chemical Name: 3-(prop-2-enyltrisulfanyl)prop-1-ene Synonyms: ALLYL TRISULFIDE ; Allitridin ; Diallyltrisulfide ; Trisulfide, di-2-pro Specification: 80% min by HPLC

NATUU

Dihydromyricetin CAS: 27200-12-0 C15H12O8



Chemical Name: (2R.3R)-3,5,7-trihydroxy-2-(3,4,5trihydroxyphenyl)-2,3-dihydrochromen-4-one Synonyms: Ampelopsin, Ampeloptin, rac-ampelopsin, 27200-12-0, (+)-Ampelopsin, (+)-Dihydromyricetin, Ampelopsin Plant Source: Ampelopsis grossedentata(Hand-Mazz)WT Wan

NATX0

Diosmin CAS: 520-27-4 C28H32O15

AND Enantiome



Plant Source: Scrophularia nodosa Specifications: 90-102%((on anhydrous substance); EP6 Packings: 5kg/drum ; 10kg/drum ; 25kg/drum

NATXA

Docetaxel CAS: 114977-28-5 C43H53NO14

Specification: 99%min by HPLC

NATXQ



Plant Source: Cyanotis arachnoidea Specifications: 95% min ; 98% min



C15H10O5

Plant Source: Polygonum cuspidatum Sieb. et Zucc .sp Specification: 98% min by HPLC

NATYU

Epigallocatechin gallate(EGCG) CAS: 989-51-5 C₂₂H₁₈O₁₁

Plant Source: Tea Leaves Specifications: 90% min ; 98% min

NATZH

Erianin CAS: 95041-90-0 C18H22O5

Chemical Name: 2-methoxy-5-[2-(3,4,5-trimethoxyphenyl)ethyl] phenol Synonym: CHEMBL10557 Specification: 99% min by HPLC

NATZT

Esculin CAS: 531-75-9 C₁₅H₁₆O₀

Plant Source: Aesculus hippocastanum linn.sp Specification: 98% min by HPLC

NAUA0

7-Ethyl-10-hydroxycamptothecin CAS: 86639-52-3 $C_{22}H_{20}N_{2}O_{5}$

Synonyms: SN-38; 7-Ethyl-10-hydroxy-camptothecin ; SN 38 lactone Specification: 98% min by HPLC Application: Intermediate for Irinotecan



NAUKK

Eurycomanone / Glycosaponin (mixture) CAS: 84633-29-4 for eurycomanone

Plant Source: Eurycoma longifolia Specification: Glycosaponin content 35–45% ; eurycomanone >2% ; Ratio Extraction 10:1 ; 20:1 ; 50:1 Packings: 25kg/drum

NAUFI

Geniposide CAS: 24512-63-8 C₁₇H₂₄O₁₀

Plant Source: Gardenia jasminoides Ellis.sp Specification: 98% min

NAWGG

Ginsenosides

Plant Source: Panax ginseng Specifications: Ginsenosides 4% 5% 8% 15% 30% 80% Packings: 25kg/drum or as requested Biological Activities: Antioxidants ; anti-aging, enhance immunity, improve the memory etc. Applications: Food Suppliments, cosmetics, health products

NAUKK

Glycosaponin / Eurycomanone (mixture) CAS: 84633-29-4 for eurycomanone

Plant Source: Eurycoma longifolia Specification: Glycosaponin content 35–45% ; eurycomanone >2% ; Ratio Extraction 10:1 ; 20:1 ; 50:1 Packings: 25kg/drum

NATA4

Gossypol acetate CAS: 12542-36-8

C₃₂H₃₄O₁₀

Synonym: Gossypol-Acetic acid Specification: 98%

NAWGH

Hesperetin CAS: 69097-99-0 C₁₆H₁₄O₆

Chemical Name: 5,7-dihydroxy-2-(3-hydroxy-4-methoxyphenyl)-2,3dihydrochromen-4-one Plant Source: Citrus limon.sp Specification: 98% min Packings: 25KG/Drum



Plant Source: Citrus limon.sp Specifications: 90% min ; 95% min ; 98% min

NAULK

Honokiol CAS: 35354-74-6 C₁₈H₁₈O₂



Plant Source: Magnolia officinalis Rehd. et Wils.sp Specification: 98% min by HPLC

NAULW

Huperzine A CAS: 102518-79-6 C₁₅H₁₈N₂O

Plant Source: Huperzia serrata Specifications: 1% ; 5% ; 99% min Biological Activity: Acetylcholinesterase inhibitor Application: Memory support



NAUMQ

Hydroxycitric acid CAS: 6205-14-7 C₆H₈O₈

Plant Source: Garcinia Cambogia Specification: Hydroxycitric acid 50% ; Hydroxycitric acid 60% ; Hydroxycitric acid 70% Packings: 25kg/drum

NAWGI

5-hydroxytryptophan (5-HTP) CAS: 4350-09-8 C₁₁H₁₂N₂O₃

Chemical Name: (2S)-2-amino-3-(5-hydroxy-1H-indol-3-yl)propanoic acid Plant Source: Griffonia simplicifolia. sp Specification: 99% min Peak X free Packings: 25kg/drum or as requested Applications: Weight management / Memory support

NAUOE





Chemical Name: 1,3,4,6,8,13-Hexahydroxy-10,11dimethylphenanthro[1,10,9,8-opqra]perylene-7,14-dione Synonyms: Hypericum red, Cyclo-Werol, Cyclosan, CHEBI:5835, NSC407313, EINECS 208-941-0, NSC622946

Plant Source: Hypericum (Saint John's wort)

Specification: 98% min or talor requirements, Saint John's wort Extract 0.3%

Biological Activities: an antibiotic, antiviral[2] and non-specific kinase inhibitor

Application: Nutraceutical & Pharmaceutical application

NAUON



Specifications: Icariin 10%, 20%, 98%. Biological Activities: Improving Sexual behavior ; nourishing Kidney yang, anti-aging, anti-tumo Application: health supplements etc.

NAWGJ

Karaniin CAS: 521-88-0 $C_{18}H_{12}O_{4}$

Chemical Name: 3-methoxy-2-phenylfuro[2,3-h]chromen-4-one Plant Source: Radix of Fofdia caulifora Specification: 98% min

NAUUJ



AND Enantiome

Synonyms: Lanosterin ; Lanster ; Botalan base 138 ; Lanosta-8,24dienol

Specifications: 65% ; 70% ; 90% ; 98%

NATXD

Levodopa CAS: 59-92-7 C₀H₁NO₄

Plant Source: Mucuna cochinchinensis (Lour.) Cheval.sp Specification: 98% min Packings: 25kg/drum or as requested

NAUWO

Lutein CAS: 127-40-2 C40H56O2

Plant Source: T. erecta L. Specifications: Lutein 10% powder : 20% powder : 10% oil : 20% oil (for sunflower oil and corn oil) Packings: 15kg/aluminium drum Biological Activities: Antioxidants, antimicrobial activity, To maintain

normal vision and prevention of eye diseases etc. Application: health products

NAUWP

Luteolin CAS: 491-70-3 $C_{15}H_{10}O_{6}$



Plant Source: Peanut Shell Specification: 98% min Biological Activities: Antioxidant ; anti-inflammatory

NAUWV

Lycopene CAS: 502-65-8 C40H56

Plant Source: Fermentation in GMP conditions Specifications: 5% powder ; 10% powder ; 20% powder ; 90% powder ; 5-20% oil Packings: 1kg/vacuum bag ; 25kg/drum **Biological Activity: Antioxidant**



NAUXR α -Mangostin CAS: 6147-11-1 $C_{24}H_{26}O_6$ H_0 H_0 H_0 H_0 H_1 H_1 H_2 H_1 H_2 H_2 H_1 H_1 H_1 H_2 H_1 H_1 H_1 H_1 H_2 H_2 H_2 H_1 H_1 H_1 H_1 H_1 H_1 H_2 H_2

Plant Source: Garcinia mangostana. L. Specification: α-Mangostin 10-90% Packings: 25kg/drum or as requested Biological Activities: antioxidants, convergence, enhance immunity, Inhibition of cyclooxygenase enzymes, anti-bacterial etc. Applications: beverage, health products Grade: For food and beverage supplement application

NAUZR

Methyl Hesperidin

CAS: 11013-97-1 C₂₀H₃₆O₁₅

29¹36⁰15

Plant Source: Citrus limon.sp Specification: 98% min

NAVD9

Naringin

CAS: 10236-47-2 AND Enantiomer C₂₇H₃₂O₁₄ HO HO HO HO HO OH

Chemical Name: 4',5,7-Trihydroxyflavanone-7-rhamnoglucoside Plant Source: Citrus peels Specification: 98% min by HPLC



NAWGK

Nervonic Acid CAS: 506-37-6 C₂₄H₄₆O₂

Chemical Name: (Z)-tetracos-15-enoic acid Synonyms: Cis-15-tetracosenoic acid ; Selacholeic acid ; Cis-selacholeic acid ; Selachol Plant Source: Oil of Acer truncatum Bge Specifications: 90% min by HPLC ; 98% min by HPLC

NAVEA

Nobiletin CAS: 478-01-3

C₂₁H₂₂O₈



Chemical Name: 2-(3,4-dimethoxyphenyl)-5,6,7,8-tetramethoxychromen-4-one Plant Source: Citrus nobilis Lour.sp Specification: 98% Biological Activities: Anti-inflammatory and anti-tumor invasion ; inhibit cartilage degradation

NAVFU

Oleanolic Acid CAS: 508-02-1 C₃₀H₄₈O₃



AND Enantiomer

Plant Source: Olea europaea I.sp Specification: 98% min

NAVHG

Paclitaxel CAS: 33069-62-4 C₄₇H₅₁NO₁₄

Plant Source: Taxus brevifolia Specifications: 98%; 99.5%

NAWGU

Phosphatidylserine C₁₃H₂₄NO₁₀P

Plant Source: Residue of natural soybean oil Specifications: 20% ; 50% ; 80% Packings: 10kg/drum ; 25kg/drum

NAVN6



Plant Source: Tribulus terrestris L Specifications: Protodioscin 20%-40% Packings: 25kg/drum or as requested Biological Activities: Enhance immunity, Non-hormonal nutritional supplements Applications: Health products, supplements

NAVOC

Pterostilbene

CAS: 537-42-8 $C_{16}H_{16}O_{3}$

Chemical Name: 4-[(E)-2-(3,5-dimethoxyphenyl)ethenyl]phenol Specification: 98% min by HPLC

NAVOE



Chemical Name: 7,4'-Dihydroxy-8-C-glucosylisoflavone Plant Source: Pueraria lobata Willd. Ohwi.sp Specifications: 98% min and 99%

NAWGL

Puerarin Extract

Plant Source: Pueraria lobata (Willd.) Ohwi Specifications: Kudzu Root P.E Isoflavones 40% 60% 80% ; Kudzu Root P.E Total Flavones 40% 60% 80% Puerarin 98% Packings: 25kg/drum or as requested Applications: Health products, pharmaceutical application Biological Activities: Antioxidants, expansion of blood vessels and improve blood circulation, inhibition of cancer cells etc

NAVP2

Quercetin dihydrate CAS: 6151-25-3 C₁₅H₁₄O₉

Plant Source: The derivate of Rutin Specifications: Quercetin Dihydrate 95%, Quercetin Dehydrate 95% Packings: 25kg/drum Applications: Cosmetic and Dietary Suppliments Biological Activities: Anti-inflammatory and anti-tumor

NAVPT AND Enantiomer **Rebaudioside A** CAS: 58543-16-1 C44H70O23 OН

Plant Source: Stevia

Specifications: Rebaudioside A 90% 95% 98% ; steviosides 90% Packings: 25kg/drum or as requested

Biological Activities: Antidiabetic, lowering blood pressure, build a strong body etc.

Applications: Food Suppliments, sweetener, health products



NAV_{Q8}

Resveratrol

CAS: 501-36-0 C₁₄H₁₂O₃



Chemical Name: trans-3,5,4'-Trihydroxystilbene Plant Source: Polygonum cuspidatum Sieb. et Zucc.sp Specifications: 50% ; 98% min 99% min Biological Activities: Cardioprotective effects ; Antidiabetic effects and antioxiant effects

NAWGM

α-L-Rhamnose monohydrate CAS: 10030-85-0 C₆H₁₂O₅.H₂O

Plant Source: The hydrolysis by-products of Rutin Specification: 99% min **Biological Activity: Anti-wrinkle** Applications: Cosmetic and Dietary Suppliments

erchim[®] × Advion



NAWGN Rhodiola Rosea

Plant Source: Rhodiola Rosea

Specifications: Salidroside 3% 5% ; Rosavin 2%, 3% 5% Packings: 25kg/drum or as requested

Biological Activities: Enhance immunity, antidepressant, Antioxidants, anticancer, Improve sexual function, Improve memory etc. Application: Health products



Synonym: Quercetin-3-O-rutinoside Plant Source: Sophora japonica Specifications: NF11 and DAB10 Packings: 25kg/drum

NAVRY Salicin



CAS: 138-52-3 C₁₃H₁₈O₇

Chemical Name: (2R,3S,4S,5R,6S)-2-(Hydroxymethyl)-6-[2-(hydroxymethyl)phenoxy]oxane-3, 4,5-triol Plant Source: Willow bark Specification: 98% min by HPLC or as requested Packings: 25kg/drum or as requested Biological Activity: Anti-inflammatory

NAVTW

Secoisolariciresinol diglucoside CAS: 158932-33-3 $C_{_{39}}H_{_{46}}O_{_{16}}$

Plant Source: Flaxseed Specifications: Secoisolariciresinol diglucoside 5%; 20%; 40% Biological Activities: Antioxidants, anti-cancer, women health supporting Application: Health products

NAVUS

Shikimic acid CAS: 138-59-0 C₇H₁₀O₅

Plant Source: Illicium verum Hook.f Specification: 98% min Packings: 25kg/drum

NAWGO

Sodium tauroglycocholate CAS: 41945-48-6 (11006-55-6) C₂₈H₄₇N₂NaO₈S

Chemical Name: 2-[[[(3a,5b,7a,12a)-3,7,12-Trihydroxy-24-oxocholan-24-yl]amino]acetyl]amino]-ethanesulfonic acid mono sodium salt Synonym: Sodium glycotaurocholate Specification: 98% min by HPLC

NAWGP

Soy Isoflavones

Plant Source: Soy Bean Specifications: Soybean Isoflavones 40% ; Soybean Isoflavones 80% Packings: 25kg/drum Applications: Nutraceutical Application ; Food Supplements

NAVY5

Tabersonine CAS: 4429-63-4 $C_{21}H_{24}N_2O_2$

Synonyms: Tabersonin ; CHEBI:16776 ; EINECS 224-615-0 ; BRN 0050163 Specification: 98% min

NAWGQ

Thymol CAS: 89-83-8 C₁₀H₁₄O

Plant Source: Thymus serpyllum L. Specification: 99%

NAWGR

Thymoquinone CAS: 490-91-5 $C_{10}H_{12}O_2$

Chemical Name: 2-methyl-5-propan-2-ylcyclohexa-2,5-diene-1,4dione Synonyms: Thymoquinon ; P-Cymene-2,5-dione Specification: 98% min by HPLC

NAWE6

Vincamine CAS: 1617-90-9 C₂₁H₂₆N₂O₃ AND Enantiomer



Synonyms: Devincan ; Pervincamine ; Minorine ; Vincamidol ; Monorin Specification: 98% min Grade: Intermediate

NAWEI

 $\begin{array}{l} \textbf{Vinpocetine} \\ \textbf{CAS: 42971-09-5} \\ \textbf{C}_{22}\textbf{H}_{26}\textbf{N}_2\textbf{O}_2 \end{array}$



Synonyms: Cavinton ; TCV-3B; Ethyl (+)-apovincaminate ; Ethyl apovincamin-22-oate Specification: 99% min Packings: 1kg/bag ; 10kg/drum

NAWGS

Yohimbine hydrochloride

CAS: 6211-32-1 C₂₁H₂₇CIN₂O₃

Plant Source: Pausinystalia yohimbe Specifications: 8% min and 98% min Packings: 25kg/drum or as requested Biological Activity: Stimulant for the sexual dysfunction

This list is not exhaustive. You can ask us for other natural products in bulk quantities. Please send your inquiries to interfine@interchim.fr

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Boosting the antifungal drug discovery by halogenating plant extracts to obtain bioactive "unnatural" natural products

1. Introduction

It is estimated that 20 percent of all pharmaceutical small molecule drugs are halogenated.¹ Carbon–halogen bonds lead to a wide range of effects, including an increase in thermal and oxidative stability and an improved biological membrane permeability [1]. Furthermore in drug discovery, natural products (NPs) represent biologically valuable scaffolds and their halogenation may further improved their properties. A Previous study has demonstrated the potential of chemical halogenation on plant extracts to obtain bioactive compounds [2]. In this context, a strategy for the generic halogenation of plant extracts has been developed to build up libraries of original halogenated NPs in particular for the search of new antifungal agents. To start with, the halogenation reaction was performed with a series of NP standards from different chemical classes. Once the reaction was successfully achieved different plant extracts were submitted to the same generic halogenation procedure (Br, I) [3].

2. Oxidative halogenation of natural products

Green Chemistry

In this work the idea was to use an eco-friendly halogenation reaction [3] that uses sodium halides in aqueous hydrogen peroxide solution and apply it to a series of pure NPs and crude extracts to estimate if this could increase their antifungal activities.

Halogenation Procedure								
Chlorination	Bromination	lodination						
 6eq NaCl 	 6eq NaBr 	 3eq Nal 						
 1g standard 	 1g standard 	 1g standard 						
• 6eq H ₂ O ₂	• 6eq H ₂ O ₂	• 6eq H ₂ O ₂						
• 10mL CH ₃ COOH	• 10mL CH ₃ COOH	• to 25mL with H ₂ O						
• to 25mL with H ₂ O	• to 25mL with H_2O							
Reaction Time: 24 hours								
	Room temperature							
I	Under magnetic stirring	g						



Semisynthetic Compounds Obtained from Oxidative Halogenation - Yield from 0.7% to 29%

A series of NP standards with different scaffolds were selected for halogenation. The reactions were performed with 50mg of each compound. Purifications of the halogenated derivatives were achieved by reverse phase semi-preparative HPLC-UV.



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D.2

Purification of natural compounds

3. Antifungal assay against C. albicans

The antifungal activity of the purified halogenated derivatives was evaluated against C. albicans using both the bioautography assay (MIQ^a) and dilution assay (MIC).

Antifungal bioautography assay



Ref. compound: miconazole (MIQ 0.0006 mg/MIC 0.0156 mg/ml.

^a Minimum amount required for antifungal activity on TLC plate.

4. Selection of crude extract rich in flavonoids

easily obtainable at large scale.

Citrus sinensis Pericarp consitutents

Once the halogenation reaction was validated with the series of standards the methodology was applied to a model crude plant extract (Citrus sinensis pericarp) rich in flavonoids and

C. albicans MIQ 16 µg MIC 64 µg/ml MIQ 11 µg MIC 32 µg/ml MIQ 20 µg

MIC >64 µg/ml

MIQ 30 µg MIC >64 µg/ml

Citrus species 8.5% world fruits production



40-60% of oranges are used for fruit juices 50% pericarp on total weight

Components wt% on the Flavanone basis of dry weight 2.56 Eriocitrin (ERC) : R=rutinose, R,=OH, R,=H Ash (%) 9.57 Neoeriocitrin (NER) : R=neohesperidose, R1=OH, R2=H Sugar (%) Narirutin (NRT) : R=rutinose, R₁=R₂=H Fat (%) 4.00 Naringin (NRG) : R=neohesperidose, R₄=R₂=H Protein (%) 9.06 Hesperidin (HSP) : R=rutinose, R₄=OH, R₅=Me Flavonoid (%) 4.50 R=neohesperidose, R_=OH, R_=MeH Pectin (%) 23.02 Neohesperidin (NHP) : Neoponcirin (NPO) : R=rutinose, R₁=H, R₂=Me 7.52 Lignin (%) Poncirin (PON) : R=neohesperidose, R1=H, R2=Me Cellulose (%) 37.08 Hemicellulose (%) 11.04

Advion × ^{Printerc}

D.3

5. Bromination of the Citrus pericarp methanolic extract

The halogenation of the methanolic extract was first performed at the analytical scale with 100 mg of the extract during 24 hs. After this, the reaction was stopped and controlled by HPLC-UV (A). The crude reaction mixture presented a strong antifungal activity against C. albicans.

In order to isolate these active compounds the reaction was scaled up to 1 g keeping the same reaction time (24 h) (B). The reaction mixture was dried and purified by normal phase flash chromatography (FC). The preparative conditions were firstly determined at the analytical scale and then transposed to the preparative scale using the same stationary phase [5]. The fractions obtained were dried and submitted to the antifungal assay allowing to the localization of the four active compounds (1-4). The structural elucidation of these compounds was performed by HRMS and NMR.



Instrument: HPLC AGILENT 1100 Column: XBridgeTM C18 5µm, 250x4.6mm-. Mobile Phase: H₂O+ Formic acid 0.1%(A) and MeOH+ Formic acid 0.1%(B) 5%(B) > 100%(B) during 55 minutes then 100%(B) during 5 minutes , flow rate: 1ml/min Injection: 20µL/20µg



6. Conclusion

The halogenation of a series of NP standards was found efficient to generate antifungal compounds against the human fungal pathogen Candida albicans. The reaction was conducted with eco-friendly condition using soft reagents. The methodology was also successfully applied to the halogenation of a complex crude plant extract obtained from a waste material (citrus pericarp) generating unusual antifungal halogenated derivatives.

These preliminary results further demonstrate the potential of chemical halogenation of plant extracts to obtain bioactive "unnatural" natural products of interest. In this context the application of such reaction to crude extracts from waste biomass might have a great interest to produce valuable bioactive NPs.

The next step will be the evaluation of the halogenated derivatives against different biological targets and also the application of this methodology to a large number of plant extracts with chemodiverse compositions.

7. References

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- 2. Mendez et al. ACS Comb Sci. 2011;13:200-204
- 3. Bernini et al. New J Chemi. 2015;39:2980-2987
- 4. Favre-Godal et al. Phytochemistry 2014;105:68-78
- 5. Challal et al. Planta Med. 2015; 81: 1636-1643

8. Acknowledgments

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Flash chromatography MS-targeted isolation of natural products under Normal

Phase conditions

1. Introduction

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The improvements of analytical techniques and methodological tools play an important role for the characterization and isolation of bioactive secondary metabolites in natural product research. Reversed phase liquid chromatography MS (RP-LC-MS) is widely used for the metabolite profiling of complex natural extracts at the analytical level and start to be more and more used for targeted MS isolation of biomarkers. Normal phase chromatography (NP-LC) is well suited for the purification of apolar secondary metabolites offering also some advantages compared to RP like low operating pressures and cheapest stationary phases.

NP-LC however is not well compatible for hyphenation with MS. The potential of NP-LC-APCI-MS for metabolite purification at the preparative scale using generic separation methods has been investigated on medium pressure preparative chromatography system (PuriFlash® - MS) in view of its application for targeted MS isolation of lipophilic secondary metabolite. A mixture of three representative apolar natural products was used to optimise separation, splitting and MS ionisation in conditions mimicking real isolation cases. Finally, a successful isolation of the apolar constituents of the dichloromethane roots extract of Angelica archangelica was performed.

2. Rapid Isolation of a representative apolar natural product mixture by normal-phase Flash Chromatography-APCI/MS



6 minutes on the 12g column and 9 minutes on the 25g column.

Three commercially available standards (caryophyllene oxide, khellin and alphasantonin) were chosen in order to evaluate the applicability of Flash UV/APCI MS system as a tool for rapid purification of lipophilic compounds from crude plant extracts.

The four chromatograms show the mixture profile at the preparative scale with rapid gradients on two column sizes with a good overlap of the UV and MS signals.

All parameters were carefully optimised for both separation and detection. A special care was taken to find ionization and splitting conditions that provide good detection and preclude source contamination.



Advion × 🕆 interc

Purification of natural compounds



For the APCI source the highly flammable solvents coming from the normal phase should be avoided because of the heating process and special caution has to be taken.

In order to have an efficient and safe ionization an optimized post column dilution was thus mandatory. The solvent mixture finally reaching the MS detector was at > 99% either ACN or MeOH.

APCI-MS detection with optimized splitting conditions and post-column elution of appropriate solvent was found robust and well suited for this type of purification.



3. NP MS purification of Angelica archangelica roots extract under Normal-Phase conditions



Analytical HPLC-UV



Analytical scale	Step	Time	%A	%B
Column length (L ₁): 250mm		(min)		
Column diameter (d ₀₁): 4.6mm	1	0.00	2.56	2.56
Particule size (d_{p1}) : 15.0µm	2	15.00	9.57	9.57
	3	45.00	4.00	4.00
Flow-rate (F_{41}): 1mL/min	4	55.00	9.06	9.06
Injection volume: 20µl	5	60.00	4.50	4.50

Preparative scale

Column length (L₂): 140mm Column diameter (d₀₂): 25.0mm Particule size (d_{p1}): 15.0 μ m Column dead volume: 40.45mL Dwell volume (V_{d2}): 21.mL Flow-rate (F₂): 1mL/min Injection volume: 20µl



Angelica archangelica L.

	-opi						
Step	Time (min)	%A	%B meoh				
Initial conditions	0	95	5				
Initial hold	11	75	25				
3	35	60	40				
4	43	0	100				
5	47	0	100				
Suggested Flow rate: 30mL/min Suggested V _{injection} : .33mL Backpressure change: ± 3.3 Efficienty change: ±1.8 Analysis time change: x 1.0 Solvent consumption: x 12.5							

Geometrical transfer



MS-ELSD detection in complement with UV detection enabled the monitoring of secondary metabolites with no or weak chromophores and the selectivity of the MS was of great help for a precise collection of partially coeluting compounds.



The roots of *Angelica* are rich in coumarin derivatives





Purification of natural compounds



4. Conclusion

Normal phase flash purification represents an efficient strategy for a rational isolation of specific lipophilic biomarkers or bio-active compounds based on metabolite profiling results. The MS-triggered fractionation and ELSD monitoring in addition to standard UV detection is a powerful tool for a precise collection and to estimate the amount of separated compounds. MS is particularly useful for the specific collection of a given m/z feature in case of coelution that often occur in crude extracts using high loading and low peak capacity chromatographic methodologies. This fast and rational approach can be widely used for single step purifications and isolation of synthetic and natural mixtures. It is also compatible for the detection of apolar compounds that lack chromophores which is very common in natural product research. Separation performed at the preparative scale allows to purify tens to hundreds mg of compounds for further structural identification and assessment of their bioactivities.

5. Acknowledgments

JLW is thankful to the Swiss National Science Foundation for the financial support to develop the miniaturised microfractionation platform and the metabolomics studies (Grant no. 205320-124667/1).

8. References

[1] Davy Guillarme, Dao T.T. Nguyen, Serge Rudaz, Jean-Luc Veuthey, Eur. J. Pharma. Biopharma. 2008, 68, 430



N° CAS	Ref.	Pages	Names
50-23-7	NAUM1	A.132	Hydrocortisone ; Cortisol
50-55-5	NAVQ1	A.226 C.8	Reserpine
50-81-7	NATFE	A.20	L(+)-Ascorbic acid
50-89-5	NAWAP	A.258	Thymidine ; Dthyd ; Deoxyribo- thymidine ; Deoxythymidine ; NSC 21548 ; Thymidin
50-99-7	NAUHN	A.120	D-Glucose
51-34-3	NAVTK	A.238	Scopolamine ; Hyoscine ; Scopine (-)-tropate ; Scopine tropate
53-43-0	NATRP	A.65	Dehydroepiandrosterone
54-11-5	NAVE4	A.187	L-Nicotine
54-71-7	NAVKH	A.207	Pilocarpine Hydrochloride
56-12-2	NATD2	A.12	γ-aminobutyric acid ; 4-Amino- butyric acid
56-25-7	NATK3	A.38	Cantharidin
56-41-7	NATBQ	A.7	L-Alanine ; L-2-Aminopropionic acid
56-45-1	NAVUE	A.241	L-Serine ; (-)-Serine ; (S)-2-Ami- no-3-hydroxypropanoic acid ; (S)-Serine
56-69-9	NAUO5	A.138	5-Hydroxy-DL-tryptophan
56-85-9	NAUII	A.121	L-Glutamine ; L-Glutamic acid 5-amide
56-87-1	NAUWZ	A.166	L-Lysine
57-10-3	NAVHS	A.199	Palmitic acid ; Hexadecoic acid
57-11-4	NAVX7	A.248	Stearic acid
57-22-7	NAWE8	A.270	Vincristine
57-24-9	NAVXF	A.248	Strychnine
57-48-7	NAUD9	A.101	D-Fructose
57-83-0	NAVMX	A.215	Progesterone ; Pregn-4-ene- 3,20-dione
57-87-4	NATZG	A.91	Ergosterol
57-88-5	NATLU	A.45 C.3	Cholesterol ; Cholesterin ; Cho- lest-5-en-3beta-ol ; Cholesteryl alcohol
58-08-2	NATJM	A.37	Caffeine
58-55-9	NAWAJ	A.258	Theophylline ; 1,3-dimethyl-7H- purine-2,6-dione
58-56-0	NAVOS	A.222	Pyridoxine (hydrochloride)
58-61-7	NATB4	A.5	Adenosine
58-63-9	NAUPJ	A.144	Inosine
58-86-6	NAWFP	A.274	Xylose ; D-(+)-Xylose ; (+)-Xylose ; Wood sugar
58-96-8	NAWDC	A.267	Uridine
59-02-9	NAWB2	A.259	(+)-α-Tocopherol ; D-α- Tocopherol ; α-Vitamin E
59-23-4	NAUDL	A.102	D-Galactose ; D-(+)-Galactose
59-92-7	NATXD	A.84 A.161 C.6	L-DOPA ; Levodopa ; 3,4-Dihy- droxyphenylalanine
60-18-4	NAWD6	A.266	L-Tyrosine
60-33-3	NAUVP	A.163	Linoleic acid
60-70-8	NAWDR	A.268	Veratramine ; NSC17821 ; NSC23880

N° CAS	Ref.	Pages	Names
60-81-1	NAVJP	A.205	Phlorizin ; Floridzin ; NSC 2833
60-82-2	NAVJO	A.205	Phloretin ; NSC 407292 ; RJC 02792
61-19-8	NATB5	A.5	5'-Adenylic acid
61-90-5	NAUUX	A.161	L-Leucine
63-37-6	NATQ1	A.60	5'-Cytidylic acid
63-68-3	NAUYR	A.172	L-Methionin
63-91-2	NAVJJ	A.204	L-Phenylalanine ; (S)-2-Amino- 3-phenylpropionic acid
64-86-8	NATNA	A.49	Colchicine ; N-[(7S)-1,2,3,10- tetramethoxy-9-oxo-6,7-dihy- dro-5H-benzo[a]heptalen-7-yl] acetamide
65-19-0	NAWFW	A.275	Yohimbine (Hydrochloride)
65-46-3	NATQ0	A.59	Cytidine
65-85-0	NATH7	A.28	Benzoic acid
65-86-1	NAVGP	A.195	Orotic acid ; 6-Carboxyuracil ; Vitamin B13
66-76-2	NATTT	A.72	Dicoumarol ; Dicumarol
66-84-2	NAUHM	A.119	Glucosamine (hydrochloride) ; D-(+)-Glucosamine hydrochlo- ride ; Chitosamine hydrochloride
66-97-7	NAVO9	A.219	Psoralen ; Ficusin ; Furocou- marin
67-03-8	NAWAL	A.258	Thiamine hydrochloride ; Vita- min B1 hydrochloride ; Thiamine chloride hydrochloride
67-47-0	NAUNR	A.137	5-Hydroxymethylfurfural
67-99-2	NAUHD	A.119	Gliotoxin
68-94-0	NAUOM	A.140	Hypoxanthine
69-65-8	NAUXW	A.170	D-Mannitol ; Mannitol ; Mannite
69-72-7	NAVRZ	A.232	Salicylic acid ; 2-hydroxybenzoic acid
69-79-4	NAUXO	A.169	Maltose
71-00-1	NAULC	A.131	L-Hisidine
71-62-5	NAWDU	A.269	Veratridine
72-18-4	NAWDJ	A.268	L-Valine
72-19-5	NAWAN	A.258	L-Threonine
72-48-0	NATC9	A.9	Alizarin
73-03-0	NATNT	A.51	Cordycepin ; (2R,3R,5S)- 2-(6-aminopurin-9-yl)- 5-(hydroxymethyl)oxolan-3-ol
73-22-3	NAWCV	A.265	L-Tryptophan ; Tryptophan ; Tryptophane
73-32-5	NAUQY	A.148	L-Isoleucine ;
74-79-3	NATEQ	A.18	L-Arginine ; (S)-(+)-Arginine
76-22-2	NATK1	A.38	Camphor
76-49-3	NATIH	A.33	Bornyl acetate ; (1,7,7-trimethyl- 6-bicyclo[2.2.1]heptanyl) acetate
76-66-4	NAVQR	A.228	Rhynchophylline
77-06-5	NAUFZ	A.109	Gibberellic acid
77-52-1	NAWDE	A.267	Ursolic acid ; Prunol ; Urson ; Malol ; Bungeolic acid
77-53-2	NATKZ	A.42	Cedrol
77-59-8	NAWBC	A.260	Tomatidine
77-60-1	NAWAS	A.258	Tigogenin

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Nº CAS	Ref	Pages	Names
		rayes	Names
77.05.0	NATINS	A.48	
79 70 6	NAVPG	A.224	
70.62.0	NAUVI	A. 102	
79-03-0	NAUUJ	C.6	Lanosterol ; Lanosterin ; Lanster ; Botalan base 138 ; Lanosta-8,24-dienol
79-92-5	NATK0	A.38	Camphene ; 3,3-dimethyl-2-me- thylidenebicyclo[2.2.1]heptane
80-56-8	NAVKJ	A.207	Alpha-Pinene
80-59-1	NAWAQ	A.258	Tiglicacid
81-25-4	NATLX	A.45	Cholic acid
81-27-6	NAVUA	A.240	Sennoside A; (9R)-9-[(9R)-2- CARBOXY-4-HVDROXY-10- OXO-5-[(2S,3R,4S,5S,6R)- 3,4,5-TRIHYDROXY-6- (HYDROXYMETHYL) OXAN-2-YL]OXY-9H-AN- THRACEN-9-YL]-4-HYDROXY- 10-OXO-5-[(2S,3R,4S,5S,6R)- 3,4,5-TRIHYDROXY-6- (HYDROXYMETHYL) OXAN-2-YL]OXY-9H-AN- THRACENE-2-CARBOXYLIC ACID
81-54-9	NAVOM	A.221	Purpurin
81-88-9	NAVQK	A.228	Rhodamine B
83-44-3	NATSY	A.69	Deoxycholic acid ; Cholanoic Acid ; Desoxycholic acid
83-46-5	NAVVQ	A.244	Beta-Sitosterol ; β-Sitosterol ; 22,23-Dihydrostigmasterol
83-48-7	NAVXD	A.248	Stigmasterol ; Stigmasterin
83-49-8	NAUO8	A.139	Hyodeoxycholic acid
83-67-0	NAWAI	A.258	Theobromine ; 3,7-Dimethylxan- thine
83-79-4	NAVR4	A.229	Rotenone
83-86-3	NAVJY	A.206	Phytic acid ; myo-Inositol, hexakis(dihydrogen phosphate) ; Inositol hexaphosphate
83-88-5	NAVQS	A.229	Riboflavin
83-95-4	NAVVS	A.244	Skimmianin
84-26-4	NAVRI	A.230	Rutaecarpine ; Rutecarpine
84-33-3	NAVGA	A.194	Ophiohayatone C
84-36-6	NAVY4	A.251	Syrosingopine ; Syringopine ; Syrosingopin ; Singoserp ; Ipores
84-37-7	NAWFS	A.275	psi-Yohimbine
84-54-8	NAVYV	A.253	Tectoquinone
84-65-1	NATDV	A.15	Anthraquinone ; an- thracene-9,10-dione
84-74-2	NATH4	A.28	1,2-Benzenedicarboxylic acid
84-79-7	NAUUK	A.159	Lapachol
84-80-0	NAWEO	A.271	Vitamin K1 ; Phylloquinone ; Phytomenadione
85-32-5	NAUJS	A.126	5'-Guanylic acid
86-87-3	NAVD0	A.184	1-Naphthaleneacetic acid
87-44-5	NATKL	A.40	β-Caryophyllene
87-51-4	NAUP7	A.142	Indole-3-acetic acid

N° CAS	Ref.	Pages	Names
87-52-5	NAUJH	A.125	Gramine ; 1-(1H-indol-3-yl)-N,N- dimethylmethanamine
87-66-1	NAVOU	A.222	Pyrogallol ; benzene-1,2,3-triol
87-78-5	NAUXX	A.169	Mannitol
87-79-6	NAVWG	A.246	L-Sorbose
87-81-0	NAVY9	A.251	D-Tagatose
87-99-0	NAWFO	A.274	Xylitol ; Xylite
89-78-1	NAUYL	A.172	Menthol ; (1R,2S,5R)-5-methyl- 2-propan-2-ylcyclohexan-1-ol
89-81-6	NAVKZ	A.209	Piperitone
89-83-8	NAWGQ	C.9	Thymol
90-05-1	NAUJM	A.125	Guaiacol ; Methylcatechol ; NSC 3815 ; O-Methyl catechol ; Pyrocatechol monomethyl ether ; Pyroguaiac acid ; o-Guaiacol ; o-Hydroxyanisole ; o-Methoxyphenol
90-19-7	NAVQA	A.227	beta-Rhamnocitrin
90-33-5	NAVB7	A.178	4-Methylumbelliferone ; Hyme- cromone ; 4-MU
91-10-1	NAVY3	A.251	Syringol
91-52-1	NATVX	A.79	2,4-Dimethoxybenzoic acid
91-64-5	NATOD	A.54	Coumarin
92-48-8	NAVAF	A.175	6-Methylcoumarin
92-61-5	NAVIN	A.239	Chrysatropic acid
93-03-8	NAWDV	A.269	Veratryl alcohol
93-07-2	NAWDT	A.268	Veratric acid ; 3,4-Dime- thoxybenzoic Acid
93-14-1	NAUJP	A.125	Guaifenesin
93-15-2	NAVAL	A.175	Methyleugenol ; 1,2-dimethoxy- 4-prop-2-enylbenzene
93-28-7	NAUAN	A.94	Eugenol acetate
93-29-8	NAUQK	A.147	Isoeugenol acetate
93-35-6	NAUMS	A.134 A.267	7-Hydroxycoumarin ; Umbelli- ferone ; 7-Hydroxylcoumarin ; 7-Oxycoumarin ; Hydrangin ; Hydrangine ; NSC 19790 ; Skimmetin ; Skimmetine ; Umbelliferon
93-39-0	NAVVT	A.244	Skimmin
94-07-5	NAVXT	A.249	Synephrine ; 4-[(1R)-1-hydroxy- 2-(methylamino)ethyl]phenol
94-26-8	NATJA	A.36	Butyl-p-hydroxybenzoate ; butyl 4-hydroxybenzoate
94-62-2	NAVKY	A.209	Piperine ; Bioperine ; 1-Piperoyl- piperidine
97-53-0	NAUAM	A.94	Eugenol
97-59-6	NATCB	A.9	Allantoin ; 5-Ureidohydantoin
98-92-0	NAVE3	A.187	Nicotinamide ; pyridine-3-car- boxamide
99-20-7	NAWBL	A.261	D-Trehalose
99-24-1	NAUZO	A.176	Methyl gallate
99-50-3	NAVN3	A.215	Protocatechuic acid ; 3,4-Dihy- droxybenzoic acid
99-76-3	NAUMF	A.133 A.213	p-Hydroxybenzoic acid methyl ester ; Preserval

N° CAS	Ref.	Pages	Names
99-85-4	NAVZ7	A.253	gamma-Terpinene
99-93-4	NAUM9	A.133	P-hydroxyacetophenone ; 1-(4-hydroxyphenyl)ethanone
99-94-5	NAWBB	A.260	p-Toluic acid
99-96-7	NAVI0	A.200	Paraben-acid
100-09-4	NAUYS	A.172	4-Methoxybenzoic acid ; 4-Anisic acid ; Anisic acid ; Dermosoft 688 ; Draconic acid ; NSC 32742 ; NSC 7926 ; p-Methoxybenzoic acid
101-31-5	NAUO9	A.139	L-Hyoscyamine ; Daturine
102-32-9	NATVP	A.78	3,4-Dihydroxyphenylacetic acid
102-37-4	NAUA1	A.93	Ethyl caffeate
104-46-1	NATDH	A.14	cis-Anethol
104-54-1	NATMP	A.48	Cinnamyl Alcohol
105-87-3	NAUFU	A.109	Geranyl acetate
106-24-1	NAUFS	A.109	Geraniol ; (2E)-3,7-dimethyloc- ta-2,6-dien-1-ol
107-43-7	NATHV	A.30	Betaine
107-95-9	NATBR	A.7	β-Alanine ; 2-Carboxyethylamine;3-Amino- propanoic acid
110-15-6	NAVXH	A.249	Succinic acid ; butanedioic acid
110-17-8	NAUDF	A.102	Fumaric acid
111-02-4	NAVX4	A.248	Squalene
112-39-0	NAUZU	A.177	Methyl palmitate ; NSC 4197 ; Pastell M 16 ; Uniphat A60 ; n- Hexadecanoic acid methyl ester
112-80-1	NAVFX	A.194	Oleic acid
112-85-6	NATH2	A.28	Behenic Acid
114-49-8	NAVTM	A.238	Scopolamine (hydrobromide) ; (-)-Scopolamine hydrobromide ; Hyoscine hydrobromide ; Scopine hydrobromide
115-53-7	NAVVN	A.244	Sinomenine
115-95-7	NAUVK	A.162	Linalyl Acetate
117-02-2	NAVRC	A.230	Rubiadine
117-10-2	NATV1	A.77	1,8-Dihydroxyanthraquinone
117-39-5	NAVP1	A.222	Quercetin
117-78-2	NATDW	A.15	2-Anthraquinonecarboxylic acid
118-00-3	NAUJR	A.126	Guanosine
118-34-3	NATY3	A.86	Eleutheroside B
118-41-2	NAWCJ	A.264	Trimethylgallic acid
118-60-5	NAUAD	A.93	2-Ethylhexyl salicylate
118-71-8	NAUXN	A.169	Maltol
119-36-8	NAUZZ	A.178	Methyl salicylate
119-84-6	NATUI	A.74	Dihydrocoumarin ; Melilotine
120-08-1	NAVTJ	A.238	Scoparone ; 6,7-dimethoxychro- men-2-one
120-14-9	NAWDQ	A.268	Veratraldehyde ; 4-O-Methyl- vanillin ; Methylvanillin ; NSC 24521 ; Veratrum aldehyde ; Veratryl aldehyde
120-47-8	NAUME	A.133	p-Hydroxybenzoic acid ethyl ester
120-80-9	NATKS	A.41	Catechol

N° CAS	Ref.	Pages	Names
121-20-0	NATMJ	A.47	Cinerin II
121-21-1	NAVOP	A.221	Pyrethrin I
121-29-9	NAVOQ	A.221	Pyrethrin II
121-33-5	NAWDN	A.268	Vanillin ; m-Methoxy-p-hy- droxybenzaldehyde ; p-Hydroxy- m-methoxybenzaldehyde ; p-Vanillin
121-34-6	NAWDM	A.268	Vanillic Acid ; 4-hydroxy-3-me- thoxybenzoic acid
121-79-9	NAVN0	A.215	Propyl gallate ; propyl 3,4,5-tri- hydroxybenzoate
122-48-5	NAWG9	A.276	Zingerone
123-08-0	NAUMD	A.133	p-Hydroxybenzaldehyde
123-11-5	NATDT	A.14	p-Anisaldehyde
123-31-9	NAUM4	A.132	Hydroquinone
123-78-4	NAVX1	A.248	C18-Spingosine
124-76-5	NAUQ5	A.146	Isoborneol
125-15-5	NAWEY	A.272	Vomicine
125-46-2	NAWDG	A.268	Usnic Acid ; 2,6-diacetyl-7,9- dihydroxy-8,9b-dimethyldibenzo- furan-1,3-dione
125-65-5	NAVLC	A.210	Pleuromutilin ; Drosophilin B ; Mutilin 14-glycolate
126-17-0	NAVW3	A.245	Solasodine ; Purapuridine ; Solancarpidine ; Solasodin
126-19-2	NAVSS	A.235	Sarsasapogenin ; Parigenin ; Sarsagenin
126-91-0	NAUVJ	A.162	L-Linalool
127-40-2	NAUWO	A.165 C.6	Lutein ; Xanthophyll
127-47-9	NAVQ9	A.227	Retinyl acetate ; Retinol ace- tate ; Vitamin A acetate
128-13-2	NAWDD	A.267	Ursodeoxycholic Acid
128-57-4	NAVUB	A.240	Sennoside B
129-06-6	NAWF0	A.272	Warfarin sodium
130-86-9	NAVNF	A.217	Protopine ; Corydinine
131-03-3	NAWFT	A.275	alpha-yohimbine
131-12-4	NAVKI	A.207	Pimpinellin ; 5,6-dimethoxyfuro[2,3-h] chromen-2-one
131-48-6	NATAR	A.4	N-Acetylneuraminic Acid ; NANA ; Sialic Acid
133-04-0	NATFA	A.20	(-)-Asarinin ; 5-[(1S,3AS,4R,6AS)- 4-(1,3-BENZODIOXOL- 5-YL)-1,3,3A,4,6,6A- HEXAHYDROFURO[3,4-C] FURAN-1-YL]-1,3-BENZO- DIOXOLE
133-32-4	NAUP8	A.143	Indole-3-butyric acid ; 3-indole- butyric acid
133-37-9	NAVYQ	A.252	DL-Tartaric acid
134-01-0	NAVIP	A.202	Peonidin chloride
134-04-3	NAVIF	A.201	Pelargonidin chloride
137-08-6	NAVHY	A.200	D-Pantothenic acid (hemical- cium salt) ; Calcium D-pantothe- nate ; Vitamin B5 calcium salt ; Calcium pantothenate

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N° CAS	Ref.	Pages	Names	N° CAS	Ref.	Pages	Names
138-52-3	NAVRY	A 232	Salicin : (2B 3S 4S 5B 6S)-	306-08-1	NAUL.I	A 131	Homovanillic acid
100 02 0		C.9	2-(Hydroxymethyl)phenoxy]	313-67-7	NATET	A.18	Aristolochic acid A ; Aristolochic acid I
			oxane-3, 4,5-triol ; D-(-)-Salicin ;	315-22-0	NAVC2	A.181	Monocrotaline ; Crotaline
138-55-6	NAVKR	A 207	Picrocrocin · Saffron-hitter ·	316-42-7	NATYA	A.87	Emetine dihydrochloride
138-59-0	NAVUS	A.242	UNII-ON5B022511 Shikimic acid	327-97-9	NATLR	A.45 C.3	Chlorogenic acid ; 3-O-Caf- feoylquinic acid ; Heriguard ;
		C.9		331-39-5	NAT.I.I	A 36	Caffeic acid
138-86-3	NAUVH	A.162	Limonene	334-48-5	NATR4	A 63	Decanoic Acid · Capric Acid
139-85-5	NAVN2	A.215	Protocatechualdehyde ; Catechaldehyde : NC 033 :	343-27-1	NAUK7	A 127	Harmine hydrochloride
			NSC 22961 ; Protocatechuic	357-57-3	NATIY	A.34	Brucine
			aldehyde ; Rancinamycin IV	365-26-4	NAVB4	A.178	Methylsynephrine Hydrochloride
140-10-3	NATML	A.47	trans-Cinnamic acid	372-75-8	NATMT	A.48	L-Citrulline
142-62-1	NATK6	A.39	Caproic acid ; hexanoic acid	404-86-4	NATK7	A.39	(6E)-Capsaicin
143-07-7	NATXB	A.83	Dodecanoic Acid ; Lauric Acid			C.3	. , .
143-67-9	NAWE5	A.270	Vinblastine sulfate	436-77-1	NAUBH	A.96	Fangchinoline
145-13-1	NAVMJ	A.213	Pregnenolone	437-64-9	NAUFF	A.107	Gengkwanin ; 5-hydroxy-2-(4-
146-80-5	NAWFK	A.274	Xanthosine				nydroxypnenyi)-7-methoxychro- men-4-one
147-85-3	NAVMY	A.215	L-Proline ; (2S)-pyrrolidine- 2-carboxylic acid	442-51-3	NAUK6	A.127	Harmine : Telepathine
1/7-0/-/	NATER	Δ 16		446-72-0	NAVWC	A.246	Sophoricol
149-64-4	NAVTL	A.238	Scopolamine (butylbromide) ; Hyoscine butylbromide ; (-)-Scopolamine butylbromide :	458-37-7	NATPA	A.57	Curcumin ; Indian Saffron ; Turmeric yellow ; Natural Yellow 3 DiferuloyImethane
			Butylscopolammonium bromide ;	464-43-7	NATIE	A.32	(+)-Borneol ; d-Borneol
			Butylscopolamine bromide	464-45-9	NATIF	A.32	(-)-Borneol ; L-Borneol
149-91-7	NAUDQ	A.102	Gallic acid ; 3,4,5-Trihy-	464-74-4	NATEO	A.18	Arenobufagin
450.96.7		A 206	Divitel	464-92-6	NATFF	A.20	Asiatic Acid
100-00-7		A.200	Phyloi	465-00-9	NATF0	A.19	Arjunolic acid
152-95-4	NAVRK	A.240	Butin : Butoside : Ouercetin	465-11-2	NATJ3	A.103	Gamabufotalin ; Gamabufagin
100-10-4		C.9	3-O-rutinoside	465-16-7	NAVFT	A.193	Oleandrin
154-23-4	NATKP	A.41	Catechin ;	465-18-9	NAVM3	A.212	Polyporenic acid C
			(+)-Catechin;Cianidanol;D-Ca-	465-21-4	NATJ2	A.35	Bufalin
			techin ; Cyanidanol ; Catechuic acid	465-99-6	NAUKH	A.128	Hederagenin
155-58-8	NAVQH	A 227	Rhapontinum	466-06-8	NAVN1	A.215	Proscillaridin A
156-38-7	NAVF3	A.191	NSC 27460 ; 4-(Carboxymethyl) phenol : Hydroxyphenylacetic	466-24-0	NATH9	A.28	Benzoylaconine ; Isaconitine ; Pikraconitin
			acid ; NSC 25066 ; p-Hy-	466-26-2	NATJ6	A.35	Bullatine B ; Neoline
			droxybenzeneacetic acid	466-57-9	NAVPQ	A.225	Rauvomitin
206-44-0	NAUCA	A.99	Fluoranthene	466-72-0	NAUFK	A.108	Genistein
298-81-7	NAWFM	A.274	Xanthotoxin ; 9-methoxyfuro[3,2-	467-55-0	NAUKC	A.128	Hecogenin
200-30-8	ΝΔ\/\//ΙΙ	∆ 2/17	Sparteine sulfate	467-77-6	NAINX	A.51	Coronaridine
300-08-3	NATEN	Δ 18		408-27-9	NAINH	A.50	Colupuione
000-00-0		7.10	1-methyl-3,6-dihydro-2H-pyri- dine-5-carboxylate hydrobro- mide	469-32-9	NAUK3	A.172 A.127	Hamamelitannin ; SCHEM- BL934789; CHEMBL491592
301-19-9	NAVOU	A 229	Robinin	469-59-0	NAUSD	A.152	Jervine ; 11-Ketocyclopamine
302-27-2	NATB3	A 5	Aconitine · Acetvlbenzovla-	469-83-0	NATJI	A.36	Cafestol
302-95-4	NATS7	A.69	conine Deoxycholic acid sodium salt	470-17-7	NAUPV	A.145	Isoalantolactone ; (+)-Isoalanto- lactone ; Isohelenin
			Sodium deoxycholate	470-37-1	NATMQ	A.48	Cinobufagin ; Cinobufagine
303-45-7	NAUJF	A.124	Gossypol	470-42-8	NAUY2	A.170	Marinobufagin
305-01-1	NATV6	A.77	6,7-Dihydroxycoumarin	470-82-6	NAUAH	A.94	Eucalyptol ; 1,8-Cineole

N° CAS	Ref.	Pages	Names
471-05-6	NAWG4	A.276	Zerumbone ; (2E,6E,10E)- 2,6,9,9-Tetramethyl-2,6,10-cy- cloundecatrien-1-one
471-53-4	NAUIT	A.122	18β-Glycyrrhetinic acid
471-66-9	NATII	A.33	alpha-Boswellic acid ; α-Boswellic acid
471-80-7	NAVXA	A.248	Steviol
471-87-4	NAVX5	A.248	Stachydrine
471-95-4	NATJ4	A.35	Bufotalin
472-11-7	NAVRF	A.230	Ruscogenin
472-15-1	NATHZ	A.30 C.3	Betulinic acid
472-28-6	NATJD	A.36	Butyrospermol
472-61-7	NATFN	A.21 C.2	Astaxanthin ; Natupink ; BioAs- tin ; Carophyll Pink ; Lucantin Pink ; trans-Astaxanthin
473-08-5	NATPZ	A.59	alpha-Cyperone ; α-Cyperone ; (+)-α-Cyperone
473-15-4	NAUAL	A.94	β-Eudesmol
473-98-3	NATHX	A.30 C.3	Betulin ; Betulinol ; Trochol ; Betuline ; Betulol ; Lup-20(29)- ene-3beta,28-diol
474-07-7	NATIN	A.33	Brazilin
474-58-8	NATQM	A.61	Daucosterol ; Eleutheroside A ; β-Sitosterol β-D-glucoside
474-62-4	NATJZ	A.38	Campesterol ; (24R)-5- Ergosten-3β-ol
475-00-3	NAWDS	A.268	Veratramine 3-glucoside
475-31-0	NAUIN	A.122	Glycocholic acid
475-67-2	NAUQ9	A.146	Isocorydine
475-80-9	NATEU	A.18	Aristolochic acid B
475-83-2	NAVF6	A.191	Nuciferine
476-32-4	NATLJ	A.44	Chelidonine
476-66-4	NATY7	A.87	Ellagic acid
476-69-7	NATO1	A.52	Corydine
476-70-0	NATID	A.32	Boldine
477-19-0	NAUWW	A.166	Lycorenine
477-43-0	NATRI	A.64	Dehydrocostus Lactone ; (-)-Dehydrocostus lactone ; Epiligulyl oxide
477-47-4	NAVKC	A.207	Picropodophyllotoxin
477-84-9	NATQ8	A.60	Damnacanthal
477-85-0	NAVFD	A.192	Obtusifolin
477-86-1	NATU2	A.73	Digitolutein
477-90-7	NATHT	A.30 C.2	Bergenin ; Cuscutin
478-01-3	NAVEA	A.188 C.7	Nobiletin ; 2-(3,4-dimethoxyphenyl)-5,6,7,8- tetramethoxychromen-4-one
478-08-0	NAUWI	A.165	Lucidin
478-28-4	NAVNP	A.218	Pseudoaspidin
478-43-3	NAVQI	A.228	Rhein ; Rheic Acid ; Rhubarb yellow ; Monorhein
478-61-5	NATHK	A.29	Berbamine
479-13-0	NATOH	A.54	Coumestrol

N° CAS	Ref.	Pages	Names
479-20-9	NATG5	A.24	Atranorin ; (3-hydroxy-4-me- thoxycarbonyl-2,5-dimethylphe- nyl) 3-formyl-2,4-dihydroxy- 6-methylbenzoate
479-41-4	NAUP6	A.142	Indirubin ; C.I.73200 ; Couroupitine B ; Indigo red ; Indigopurpurin
479-43-6	NATK4	A.39	Canthin-6-one
479-90-3	NATF8	A.20	Artemitin
479-91-4	NATKN	A.40	Casticin ; Vitexicarpin
479-98-1	NATG6	A.24	Aucubin
480-10-4	NATFP	A.21	Astragalin ; Astragaline; 3 Glucosylkaempferol ; Kaemp- ferol 3-β-D-glucopyranoside
480-11-5	NAVGQ	A.196	Oroxylin A ; Baicalein 6-methyl ether 6-Methoxybaicalein
480-16-0	NAVC9	A.182	Morin
480-18-2	NAVYS	A.252	Taxifolin ; Dihydroquercetin ; Taxifoliol ; (+)-Dihydroquercetin ; (+)-Taxifolin
480-19-3	NAURJ	A.150	Isorhamnetin ; 3'-Methylquer- cetin
480-20-6	NATF1	A.19	Aromadendrin
480-36-4	NATA2	A.2	Acacetin-7-O-beta-D-rutinoside
480-37-5	NAVKU	A.208	Pinostrombin
480-39-7	NAVKL	A.207	Pinocembrin ; dihydrochrysin,g alanginflavanone ; Picembrin ; 5,7-DIHYDROXYFLAVANONE, 5,7-DIHYDROXY-3'4'5'-FLA- VANONE
480-40-0	NATLY	A.46 C.3	Chrysin
480-41-1	NAVD4	A.184	Naringenin
480-43-3	NAVD8	A.184	Naringenin-4'-methyl ether ; Isosakuranetine
480-44-4	NATA1	A.2	Acacetin ; 5,7-Dihydroxy-4'-me- thoxyflavone
481-42-5	NAVLD	A.210	Plumbapin
481-46-9	NAUG3	A.110	Ginkgetin
481-49-2	NATL5	A.42 C.3	Cepharanthine
481-53-8	NAVYE	A.251	Tangeretin ; Tangeritin ; NSC53909 ; NSC618905 ; Ponkanetin
481-72-1	NATCP	A.11	Aloe emodin ; Rhabarberone ; 3-Hydroxymethylchrysazine
481-74-3	NATM6	A.46	Chrysophanol
482-27-9	NAUQV	A.148	Isoimpinellin
482-35-9	NAVP9	A.223	Quercetin-3-glucopyranoside
482-36-0	NAVP4	A.223	Quercetin 3-beta-D-galactoside
482-38-2	INAU I U	A.154	noside
482-39-3	NATBA	A.5	Afzelin
482-44-0	NAUP1	A.142	Imperatorin ; Ammidin
482-45-1	NAUQU	A.148	Isoimperatorin
482-48-4	NAUQ4	A.146	Isobergapten
482-68-8	NAVSR	A.235	(+)-Sarpagine

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N° CAS	Ref	Pages	Names
/82-85-0		Λ 150	Isorosornino
482-89-3	NAUP5	A.150 A.142	Indigotin ; (2Z)-2-(3-oxo-1H-in-
			dol-2-ylidene)-1H-indol-3-one
483-04-5	NATBF	A.6	Ajmalicine
483-09-0	NAWFU	A.275	epi-3alpha-Yohimbine
483-14-7	NAVR7	A.230	Rotundine ; (-)-Tetrahydropal- matine ; L-Tetrahydropalmatine
483-15-8	NATUE	A.73	Dihydroberberine
483-17-0	NATL1	A.42	Cephaeline ; Cephaelin;7',10,11- Trimethoxyemetan-6'-ol ; UNII-QA971541A1 ; Desme- thylemetine
483-18-1	NATY9	A.87	Emetine ; Emetin ; Cephaeline methyl ether ; Methyl cephae- line ; Ipecine ; Methylcephaeline
483-34-1	NAUQB	A.146	(-)-Isocorypalmine ; Tetrahydro- columbamine ; (S)-Tetrahydro- columbamine
483-90-9	NAWB7	A.260	(+)-Toddalolactone
484-12-8	NAVGT	A.196	Osthole ; NSC 31868 ; Osthol ; Ostol
484-20-8	NATHR	A.30	Bergapten ; 5-Methoxypsoralen
484-29-7	NATTU	A.72	Dictamine ; Dictamnine ; Dectamine
485-35-8	NATQ2	A.60	Cytisin
485-49-4	NATI4	A.31	(+)-Bicuculline ; d-Bicuculline
485-71-2	NATMG	A.47	Cinchonidine ; a-Quinidine
485-72-3	NAUCC	A.99	Formononetin ; Biochanin B ; Flavosil ; Formononetol
486-21-5	NAUQN	A.147	Isofraxidin ; 7-hydroxy-6,8-dime- thoxychromen-2-one
486-28-2	NAUCO	A.100	Fraxinol
486-35-1	NATQG	A.61	Daphnetin ; 7,8-dihydroxychro- men-2-one
486-39-5	NATN7	A.49	Coclaurine ; (1S)-1-[(4-hy- droxyphenyl)methyl]-6-methoxy- 1,2,3,4-tetrahydroisoquinolin- 7-ol
486-55-5	NATQH	A.61	Daphnin ; 8-hydroxy- 7-[(2S,3R,4S,5S,6R)-3,4,5- trihydroxy-6-(hydroxymethyl) oxan-2-yl]oxychromen-2-one
486-60-2	NATHS	A.30	Bergaptol
486-62-4	NAVG3	A.194	Ononin ; Ononoside ; Formononetin 7-O- β -D-glucopyranoside
486-66-8	NATQ4	A.60	Daidzein ; Isoflavone
486-86-2	NAVAG	A.175	N-Methylcytisine
486-89-5	NATDB	A.13	Anagyrine
486-90-8	NAWAK	A.258	Thermopsine
487-11-6	NATY1	A.86	Elemicin
487-35-4	NAVXW	A.250	Syringaresinol
487-36-5	NAVKP	A.208	Pinoresinol
487-39-8	NAVJM	A.204	Phillygenin ; Phillygenol ; Epipinoresinol methyl ether ; Forsythiaenol : (+)-Phillyaenin
487-41-2	NAVJN	A.205	Phillyrin ; Forsythin ; Phillyro- side ; Phyllyrin

N° CAS	Ref.	Pages	Names
487-58-1	NAUOC	A.139	Hypaphorine
488-44-8	NATCE	A.10	Allitol
488-45-9	NAUOS	A.141	L-Iditol
489-32-7	NAUON	A.140 C.6	Icariin ; leariline
489-33-8	NAUVG	A.162	Limocitrin
489-84-9	NAUJO	A.125	Guaiazulene
490-46-0	NATYJ	A.88	(-)-Epicatechin ; (-)-Epicatechol ; Epicatechin ; epi-Catechin
490-67-5	NAUFD	A.107	Gaultherin
490-79-9	NAUFQ	A.108	Gentisic acid
490-91-5	NAWGR	C.9	Thymoquinone ; 2-methyl- 5-propan-2-ylcyclohexa-2,5- diene-1,4-dione
491-36-1	NAUNX	A.137	4-Hydroxyquinazoline
491-50-9	NAVPA	A.223	Quercetin-7-O-β-D- glucopyranoside
491-54-3	NAUT5	A.154	Kaempherol 4'-O-methyl ether
491-67-8	NATGG	A.25	Baicalein ; 5,6,7-Trihydroxy- flavone
491-70-3	NAUWP	A.165 C.6	Luteolin ; Luteolol ; Digitofla- vone ; Flacitran ; Luteoline
491-74-7	NAUPP	A.144	Iridin
491-80-5	NATI9	A.32	Biochanin A ; 5,7-dihydroxy-3-(4- methoxyphenyl)chromen-4-one
492-08-0	NAVWT	A.247	Sparteine
492-14-8	NATJ9	A.36	Butin
495-02-3	NATG8	A.25	Auraptene
495-30-7	NATD4	A.12	Ammijin
495-31-8	NAVEB	A.188	Nodakenin ; 2-(7-Oxo-2,3-dihy- dro-7H-furo[3,2-g]chromen-3-yl)- 2-propanyl β-D-glucopyranoside
495-32-9	NAVEC	A.188	Nodakenitin
495-85-2	NAVBB	A.179	D-Methysticin
496-63-9	NAVOV	A.222	Pyromeconic acid
497-76-7	NATEH	A.17	Arbutin ; p-Arbutin ; β-Arbutin
498-02-2	NATEA	A.16	Apocynin ; Acetovanillone
499-75-2	NAIKK	A.40	Carvacrol
500-05-0	NATOB	A.53	Loumalic acid
500.00.0	NAVEM	A. 109	NDGA
500.64.4	NAVVEQ	A.2/5	rangonin
500 65 2	NAUTH	A.150	NaWalli
501 26 9	NAVQE	A.20	
501-26-0		A.39	Daruanui (C13.1)
504.04.0		C.8	droxystilbene ; Resveratrol
501-94-0	NAWD7	A.266	lyrosol
501-97-3	NAUNU	A.137	3-(4-Hydroxyphenyl)propionic acid
501-98-4	NATOC	A.53	p-Coumaric acid ; trans-4-Hy- droxycinnamic acid
502-65-8	NAUWV	A.166 C.6	Lycopene
506-12-7	NAUKQ	A.129	Heptadecanoic Acid

N° CAS	Ref.	Pages	Names
506-30-9	NATEF	A.17	Arachidic Acid
506-37-6	NAWGK	C.7	Nervonic Acid ; (Z)-tetracos- 15-enoic acid
506-38-7	NAVIL	A.202	Pentacosanoic Acid
506-46-7	NAUL2	A.130	Hexacosanoic Acid
506-48-9	NAVFG	A.192	Octacosanoic Acid
506-50-3	NAUYH	A.171	Melissic acid
507-70-0	NATIG	A.33	DL-Borneol ; (±)-Borneol
508-01-0	NAVWM	A.247	Soyasapogenol A
508-02-1	NAVFU	A.193 C.7	Oleanolic Acid ; Oleanic acid ; Caryophyllin
508-75-8	NATNP	A.51	Convallatoxin ; Convallotoxin ; Corglycone ; UNII-JY264VIR1Y ; Convallaotoxin
509-15-9	NAUFE	A.107	Gelsemine
509-18-2	NATS6	A.66	Delsoline
509-20-6	NATB2	A.5	Aconine ; Jesaconine
509-24-0	NAVW6	A.246	Songorine
510-22-5	NAWEX	A.272	Voacangine
510-30-5	NATXT	A.86	Echinocystic acid
511-05-7	NAVXJ	A.249	Sugiol
511-96-6	NAUH9	A.119	Gitogenin
512-04-9	NATWX	A.82	Diosgenin
514-39-6	NAVIX	A.203	Periplogenin
514-62-5	NAUBN	A.97	Ferruginol
515-03-7	NAVTH	A.238	Sclareol
515-13-9	NATY0	A.86	beta-Elemene
516-12-1	NAUPN	A.144	N-lodosuccinimide
516-35-8	NAVYR	A.252	Taurochenodeoxycholic acid ; 12-Deoxycholyltaurine
517-28-2	NAUKN	A.129	Hematoxylin ; Natural Black 1 ; Haematoxylin
517-56-6	NATO9	A.53	Corytuberine
517-66-8	NATTR	A.72	D-Dicentrine
517-89-5	NAVUU	A.242	Shikonin ; C.I. 75535 ; Isoar- nebin 4
518-17-2	NAUBA	A.96	Evodiamine ; (+)-Evodiamine ; d-Evodiamine
518-28-5	NAVLH	A.210	Podofilox
518-29-6	NAVIH	A.201	(-)-beta-Peltatin
518-34-3	NAWA9	A.257	Tetrandrine
518-69-4	NATNZ	A.52	Corydaline ; (+)-Corydaline ; Corydalin
518-82-1	NATYC	A.87 C.4	Emodin ; Emodine
518-94-5	NATPK	A.58	Cycleanine
519-02-8	NAUY9	A.171	Matrine ; Sophocarpidine ; Matridin-15-one ; Vegard ; α-Matrine
520-11-6	NAUAP	A.94	Eupafolin
520-12-7	NAVIA	A.201	Pectolinaringenin
520-18-3	NAUSY	A.154	Kaempferol
520-26-3	NAUKX	A.129 C.5	Hesperidin

N° CAS	Ref.	Pages	Names
520-27-4	NATX0	A.83 C.4	Diosmin
520-28-5	NAVYU	A.253	Tectochrysin ; 5-Hydroxy-7-me- thoxyflavone
520-33-2	NAUKW	A.129	Hesperetin
520-34-3	NATWY	A.83	Diosmetin
520-36-5	NATE1	A.15 C.2	Apigenin ; 4',5,7-Trihydroxyfla- vone ; Apigenine ; Apigenol ; C.I. Natural Yellow 1
521-32-4	NATI8	A.32	Bilobetin
521-34-6	NAVTD	A.238	Sciadopitysin
521-45-9	NAWFE	A.273	Wushanicaritin ; 3,5,7-trihydroxy-8-(3-hy- droxy-3-methylbutyl)-2- (4-methoxyphenyl)-4H-chromen- 4-one
521-61-9	NAVJX	A.206	Physcion
521-88-0	NAWGJ	C.6	Karanjin ; 3-methoxy- 2-phenylfuro[2,3-h]chromen- 4-one
522-12-3	NAVPD	A.223	Quercitrin ; Quercetin 3-rham- noside
522-94-1	NAWFV	A.275	Allo-Yohimbine
522-97-4	NAVZK	A.254	Tetrahydroberberine ; Canadine
523-50-2	NATDL	A.14	Angelicin ; Isopsoralen
524-12-9	NAWF1	A.272	Wedelolactone
524-15-2	NAUBF	A.96	Fagarine
524-17-4	NATQN	A.61	Dauricine
524-30-1	NAUCM	A.100	Fraxin ; 7-hydroxy-6-methoxy- 8-[(2S,3R,4S,5S,6R)-3,4,5- trihydroxy-6-(hydroxymethyl) oxan-2-yl]oxychromen-2-one
525-07-5	NAVSB	A.233	Samin
525-21-3	NAUCL	A.100	Fraxidin
525-79-1	NAUTM	A.156	Kinetin ; 6-Furfuryladenine ; N6-Furfuryladenine
526-06-7	NAUAK	A.94	Eudesmin
526-07-8	NAVUN	A.241	Sesamolin ; 5-[(3S,3AR,6R,6AR)- 6-(1,3-BENZODIOXOL- 5-YLOXY)-1,3,3A,4,6,6A- HEXAHYDROFURO[3,4-C] FURAN-3-YL]-1,3-BENZO- DIOXOLE
526-31-8	NATA0	A.2	L-Abrine ; (2S)-3-(1H-indol-3-yl)- 2-(methylamino)propanoic acid
527-73-1	NATGE	A.25	Azomycin ; 2-Nitroimidazole ; Amicin ; Azomycin
527-95-7	NAUKS	A.129	Herbacetin
528-43-8	NAUXJ	A.168	Magnolol
528-48-3	NAUC2	A.98	Fisetin
528-53-0	NATS1	A.66	Delphinidin chloride
528-58-5	NATPE	A.58	Cyanidin Chloride ; Cyanidine ; Cyanidol chloride ; 2-(3,4-dihy- droxyphenyl)chromenylium- 3,5,7-triol
528-63-2	NAUDP	A.102	Galgravin
529-40-8	NAVFZ	A.194	Ombuin

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N° CAS	Ref.	Pages_	Names
529-44-2	NAVCS	A.183	Myricetin ; 3,5,7-trihydroxy- 2-(3,4,5-trihydroxyphenyl)
			chromen-4-one
529-49-7	NAUFP	A.108	Gentisein
529-53-3	NAVTR	A.239	Scutellarein ; 6-Hydroxyapige- nin ; 4',5,6,7-Tetrahydroxyfla- vone
529-55-5	NAVD6	A.184	Naringenin 7-glucoside
529-59-9	NAUFM	A.108	Genistin ; Genistine ; Genis- toside ; Genistein 7-Ο-β-D- glucopyranoside
530-57-4	NATKY	A.42	Cedar acid
530-59-6	NAVVH	A.243	Sinapic acid
531-28-2	NATDF	A.13	Androsin ; 1-[3-methoxy- 4-[(2S,3R,4S,5S,6R)-3,4,5- trihydroxy-6-(hydroxymethyl) oxan-2-yl]oxyphenyl]ethanone
531-29-3	NATNO	A.51	Coniferin
531-44-2	NAVTP	A.239	Scopolin ; 6-methoxy-7-[3,4,5- trihydroxy-6-(hydroxymethyl) oxan-2-yl]oxychromen-2-one
531-59-9	NAUKU	A.129	Herniarin ; 7-Methoxycoumarin
531-75-9	NATZT	A.92 C.4	Esculin
532-91-2	NATN9	A.49	Coixol ; 6-Methoxy-2-benzoxa- zolinone ; 6-MBOA
533-31-3	NAVUM	A.241	Sesamol
537-15-5	NAVR3	A.229	Rosmarinic acid (racemate)
537-41-7	NATLT	A.45	Chlorophorin
537-42-8	NAVOC	A.220 C.8	Pterostilbene ; 4-[(E)-2-(3,5-di- methoxyphenyl)ethenyl]phenol
537-73-5	NAUNI	A.136	3-Hydroxy-4-methoxycinnamic acid
537-98-4	NAUBO	A.97	Trans-Ferulic acid
539-15-1	NAULL	A.131	Hordenine
539-52-6	NAVIU	A.202	Perillene
539-86-6	NATCC	A.9	Allicin
544-63-8	NAVCW	A.183	Myristic acid
545-47-1	NAUWL	A.165	Lupeol ; Fagarasterol
546-43-0	NATBS	A.7	Alantolactone ; (+)-Alantolac- tone ; Alant camphor ; Elecam- pane camphor ; Eupatal ; Inula camphor
546-97-4	NATNG	A.50	Columbin
548-03-8	NAVN8	A.216	Protohypericin ; 1,3,4,6,8,15-Hexahy- droxy-10,13-dimethyl- dibenzo[a,o]perylene-7,16-dione
548-04-9	NAUOE	A.139 C.6	Hypericin ; 1,3,4,6,8,13-Hexa- hydroxy-10,11- dimethylphenanthro[1,10,9,8- opqra]perylene-7,14-dione
548-19-6	NAUQQ	A.148	Isoginkgetin
548-37-8	NAWDX	A.269	Verbenalin ; Verbenaloside ; Cornin
548-76-5	NAUPQ	A.144	Irigenin

N° CAS	Ref.	Pages	Names
548-77-6	NAVYX	A.253	Tectorigenin ; 5,7-dihydroxy- 3-(4-hydroxyphenyl)-6-methoxy- chromen-4-one
548-83-4	NAUDM	A.102	Galangin ; Norizalpinin ; 3,5,7-Trihydroxyflavone
548-89-0	NAUK1	A.126	Gyrophoric acid
549-21-3	NAVH2	A.197	8-Oxyberberine
549-32-6	NAVP8	A.223	Quercetin 3-O-β-D- xylopyranoside
550-24-3	NATY8	A.87	Embelin
550-43-6	NATDP	A.14	Angustifoline
550-90-3	NAUWK	A.165	Lupanine
551-15-5	NAUVT	A.163	Liquiritin ; Liquiritoside
551-30-4	NATTK	A.71	Diasesamin
551-68-8	NAVO5	A.219	D-Psicose
552-29-4	NAVGW	A.196	Oxohydrastinine
552-41-0	NAVHL	A.198	Paeonol
552-58-9	NATZL	A.92	Eriodictyol ; 2-(3,4-dihydroxyphenyl)-5,7- dihydroxy-2,3-dihydrochromen- 4-one
552-59-0	NAVNK	A.217	Prunetin
552-66-9	NATQ5	A.60	Daidzin ; Daidzoside ; NPI- 031D ; Daidzein 7-O-glucoside
553-19-5	NAWFN	A.274	Xanthyletin ; 2,2-dimethylpyrano[3,2-g] chromen-8-one
553-21-9	NATOA	A.53	Costunolide ; (+)-Costunolide ; Costunolid ; Costus lactone ; NSC 106404
554-88-1	NAUHF	A.119	Glucoiberin
555-45-3	NAWCO	A.264	Trimyristin
555-66-8	NAVUX	A.242	6-Shogaol
556-27-4	NATCD	A.10	Alliin ; (2R)-2-amino-3-prop- 2-enylsulfinylpropanoic acid
557-59-5	NAUV8	A.162	Lignoceric Acid
557-61-9	NAVFH	A.192	Octacosanol
559-70-6	NATD7	A.13	beta-Amyrin
559-74-0	NAUCP	A.100	Friedelin ; Friedelan-3-one
562-74-3	NAVZ8	A.254	4-Terpineol
564-20-5	NAVTI	A.238	Sclareolide
565-48-0	NAUYK	A.172	4-p-Menthan-1,8-diol
565-63-9	NATDJ	A.14	Angelic acid
568-72-9	NAVYL	A.252	Tanshinone IIA ; Dan Shen ketone
568-73-0	NAVYK	A.252	Tanshinone I ; Tanshinone A
569-80-2	NAVIJ	A.202	Penduletin
569-90-4	NAVE0	A.187	Nepetin-7-glucoside
569-92-6	NAVQB	A.227	Rhamnocitrin ; 3,5-dihydroxy- 2-(4-hydroxyphenyl)-7-methoxy- chromen-4-one
571-74-4	NAUZ3	A.173	8-Methoxykaempferol
572-03-2	NAVM4	A.212	Pomiferin
572-30-5	NATG9	A.25	Avicularin ; Quercetin 3-alpha-L- arabinofuranoside
572-31-6	NATYF	A.87	Engelitin

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N° CAS	Ref.	Pages	Names
574-84-5	NAUCK	A.100	Fraxetin ; 7,8-dihydroxy-6-me- thoxychromen-2-one
578-74-5	NATE3	A.15	Apigenin 7-glucoside ; Apigenin- 7-O-β-D-glucopyranoside ; Apigetrin ; Cosmosiin
578-86-9	NAUVS	A.163	Liquiritigenin ; 4',7-Dihydroxy- flavanone
580-72-3	NAUY6	A.170	Matairesinol
586-62-9	NAVZ9	A.254	alpha-Terpinolene
587-63-3	NATUP	A.75	Dihydrokavain ; 7,8-Dihydro- kawain ; 7,8-Dihydrokavain ; Marindinin
589-68-4	NAVC4	A.181	1-Monomyristin
590-46-5	NATHW	A.30	Betaine (hydrochloride) ; Betaine chloride
593-50-0	NAWBM	A.261	Triacontanol
595-05-1	NATJS	A.37	Calycanthine
595-15-3	NAVWN	A.247	Soyasapogenol B
597-12-6	NAUYG	A.171	D-(+)-Melezitose ; (+)-Melezi- tose ; D-Melezitose
599-07-5	NAUYB	A.171	Medicagenic acid ; 2-beta,3- beta-Dihydroxyolean- 12-ene-23,28-dioic acid
600-57-7	NAUNW	A.137	11beta-Hydroxyprogesterone ; 11β-Hydroxyprogesterone
602-63-1	NAVA7	A.174	3-Methylalizarin
603-56-5	NATM7	A.46	Chrysosplenetin B
604-80-8	NAVD2	A.184	Narcissin ; Narcissoside ; Isorhamnestin-3-O-rutinoside
606-12-2	NATV4	A.77	2,4'-Dihydroxybenzophenone
607-80-7	NAVUF	A.241	Sesamin
607-91-0	NAVCX	A.184	Myristicin ; 4-methoxy-6-prop- 2-enyl-1,3-benzodioxole
608-66-2	NATXM	A.85	Dulcitol ; (2R,3S,4R,5S)- hexane-1,2,3,4,5,6-hexol
611-40-5	NAVYW	A.253	Tectoridin
617-05-0	NAUAB	A.93	Ethyl vanillate
620-61-1	NAUOA	A.139	Hyoscyamine sulfate hydrate
621-59-0	NAUS1	A.152	Isovanillin
621-82-9	NATMM	A.47	Cinnamic acid
623-05-2	NAUMG	A.133	p-Hydroxybenzyl alcohol
630-03-5	NAVEE	A.188	Nonacosane
630-94-4	NATO5	A.53	Corynoxeine
631-01-6	NAVPF	A.224	Quillaic acid ; Quillaja sapogenin
631-69-6		A.33	Beta-Boswellic acid
633-65-8	NATHN	A.273 A.29	Berberine hydrochloride ; Ber- berinium chloride ; NATURAL
			YELLOW 18
633-66-9	NATHO	A.29	Berberine Sulfate
635-65-4	NATI6	A.31	Bilirubin
638-53-9	NAWBQ	A.261	Indecanoic Acid
638-95-9	NATD8	A.13	aipna-Amyrin
640-79-9	NAUIM	A.122	Giycochenodeoxycholic acid ; Chenodeoxycholylglycine
641-39-4	NATCF	A.10	Allmatrine

N° CAS	Ref.	Pages	Names
642-05-7	NATCJ	A.10	Alloimperatorin
642-38-6	NAVP0	A.222	L-Quebrachitol
643-01-6	NAUXY	A.170	L-Mannitol
643-03-8	NAVYC	A.251	D-Talitol
643-56-1	NATXK	A.85	Dracorhodin ; 5-methoxy-6-me- thyl-2-phenylchromen-7-one
645-08-9	NAUS0	A.151	Isovanillic acid
646-30-0	NAVEG	A.188	Nonadecanoic Acid
657-27-2	NAUX0	A.166	L-Lysine hydrochloride
666-99-9	NATBB	A.5	Agaricic acid ; 2-hydroxynona- decane-1,2,3-tricarboxylic acid
673-22-3	NAUNH	A.136	2-Hydroxy-4-methoxyben- zaldehyde
700-06-1	NAUP9	A.143	Indole-3-carbinol ; 3-Indoleme- thanol
705-15-7	NAVF4	A.191	NSC 338218 ; 2-Hydroxy- 5-Methyloxyacetophenone ; 5-Methoxy-2-hydroxyacetophe- none
705-76-0	NATVZ	A.79	3,5-Dimethoxybenzyl alcohol
728-61-0	NAUVL	A.162	Linderalactone
740-33-0	NAUMV	A.134	5-Hydroxy-6,7-dimethoxylfla- vone
751-03-1	NAVFB	A.191	Obacunone
831-61-8	NAVJU	A.206	Phyllemblin
860-79-7	NATPV	A.59	Cyclovirobuxine D
865-21-4	NAWE4	A.270	Vinblastine
884-35-5	NAVA2	A.178	Methyl syringate
905-99-7	NATOQ	A.55	feoylquinic acid ; 4-O-Caffeoyl- quinic acid
906-33-2	NAVDK	A.186	Neochlorogenic acid ; trans-5-O- Caffeoylquinic acid
944-78-5	NAVZE	A.254	Tetrachlorohydroquinone dimethyl ether
961-29-5	NAUR2	A.148	Isoliquiritigenin ; GU17 ; ISL ; Isoliquiritigen
970-73-0	NAUDS	A.103	(+)-Gallocatechin
970-74-1	NATYT	A.89	(-)-Epigallocatechin ; EGC ; Epigallocatechin ; I-Epigalloca- techin ; epi-Gallocatechin
981-15-7	NATBE	A.6	Ailanthone
989-51-5	NATYU	A.89 C.4	Epigallocatechin gallate
1002-84-2	NAVIM	A.202	Pentadecanoic Acid
1034-01-1	NAVFM	A.192	Octyl gallate
1036-72-2	NATW3	A.79	5,7-Dimethoxyflavanone
1063-77-0	NAVED	A.188	Nomilin
1072-93-1	NATYW	A.89	Epigoitrin
1076-38-6	NAUMR	A.134	4-Hydroxycoumarin
1077-28-7	NAUVQ	A.163	$\begin{array}{l} \alpha\text{-Lipoic Acid ; (\pm)-}\alpha\text{-Lipoic acid ;} \\ \text{DL-}\alpha\text{-Lipoic acid ; Thioctic acid} \end{array}$
1081-34-1	NAVZC	A.254	$\begin{array}{l} \alpha \text{-Terthiophene} \ ; \ Trithiophene} \ ; \\ \alpha \text{-Terthienyl} \ ; \ \alpha \text{-Trithienyl} \end{array}$
1108-68-5	NATMR	A.48	Cinobufotalin
1115-70-4	NATWH	A.80	1,1-Dimethylbiguanide hydro- chloride

N° CAS	Ref.	Pages	Names
1119-34-2	NATER	A.18	L-Arginine (hydrochloride) ; (S)-
			(+)-Arginine hydrochloride
1124-11-4	NAWA7	A.257	Tetramethylpyrazine
1126-61-0	NATCN	A.10	4-Allylcatechol ; 4-Allylpyrocate- chol ; Hydroxychavicol
1135-24-6	NAUBP	A.97	Ferulic acid ; (E)-3-(4-hydroxy- 3-methoxyphenyl)prop-2-enoic acid
1157-39-7	NATW6	A.80	4',7-Dimethoxyisoflavone ; Dimethoxydaidzein
1172-63-0	NAUSA	A.152	Jasmolin II
1177-14-6	NAVXV	A.250	DL-Syringaresinol
1178-24-1	NAUKR	A.129	3,5,6,7,8,3',4'-Heptamethoxy- flavone
1180-71-8	NAVFA	A.191	Obaculactone
1214-39-7	NATHH	A.29	6-Benzyladenine
1245-00-7	NAVR9	A.244	16R-Sitsirikine
1251-84-9	NAUL5	A.130	3,5,6,7,3',4'-Hexamethoxyfla- vone
1257-08-5	NATYK	A.88	(-)-Epicatechin gallate ; ECG ; Epicatechin gallate ; (-)-Epica- techin 3-O-gallate
1258-84-0	NAVMQ	A.214	Pristimerin ; Celastrol methyl ester
1260-04-4	NAVLV	A.211	Polygalic acid ; (2beta,3beta,4alpha)-2,3- Dihydroxy-27-norolean- 13-ene-23,28-dioic acid
1354-84-3	NATJ5	A.35	Bullatine A
1358-76-5	NAUTQ	A.157	Koumine
1360-76-5	NAVPN	A.224	Ranaconitine
1404-93-9	NAWDL	A.268	Vancomycin HCI
1405-86-3	NAUIV	A.123	Glycyrrhizic acid ; Glycyrrhizin
1415-73-2	NATCT	A.11	Aloin ; Aloin-A ; Barbaloin-A
1415-73-2	NAWGT	C.2	Aloin ; (Aloin A + Aloin B)
1429-30-7	NAVJ2	A.203	Petunidin chloride
1435-55-8	NAUM3	A.132	Hydroquinidine
1447-88-7	NAULD	A.131	Hispidulin ; Dinatin
1449-05-4	NAUIS	A.122	18α-Glycyrrhetinic acid
1453-93-6	NAVNC	A.216	Protopanaxatriol ; 20(R)-APPT ; 20(R)-Protopanaxatriol
1466-76-8	NATVY	A.79	2,6-Dimethoxybenzoic acid
1490-04-6	NAUYM	A.172	DL-Menthol
1617-53-4	NATD1	A.12	Amentotlavone ; Didemethyl- ginkgetin
1617-90-9	NAWE6	A.270 C.10	Vincamine ; Devincan ; Pervin- camine ; Minorine ; Vincamidol ; Monorin
1740-19-8	NATRC	A.64	Dehydroabietic Acid
1775-97-9	NAUC7	A.99	Flavokawain B
1802-12-6	NAVK1	A.206	Phytolaccagenin
1818-71-9	NATOP	A.55	Crotonoside ; 6-amino- 9-[(2R,3R,4S,5R)-3,4-dihydroxy- 5-(hydroxymethyl)oxolan-2-yl]- 1H-purin-2-one
1847-58-1	NAVVZ	A.245	Sodium Houttuyfonate

N° CAS	Ref.	Pages	Names
1867-73-8	NAVA5	A.174	N6-Methyladenosine ; 6-Methy- ladenosine ; N-Methyladenosine
1899-29-2	NAUBS	A.98	3-O-Feruloylquinic acid
1916-07-0	NAWCK	A.264	Trimethylgallic acid methyl ester
1953-04-4	NAUDO	A.102	Galanthamine hydrobromide
1983-72-8	NAUYC	A.171	Medicagol
1989-52-2	NATLV	A.45	Cholesterol myristate ; Cho- lesteryl myristate ; Cholesteryl tetradecanoate
1990-29-0	NATCZ	A.12	D-Altrose
2009-24-7	NAWFL	A.274	Xanthotol ; 9-hydroxyfuro[3,2-g] chromen-7-one ; Xanthotoxol ; 8-Hydroxypsoralen
2033-89-8	NAVF5	A.191	NSC 140927 ; 3,4-Dime- thoxyphenol ; 3,4-Bis(methyloxy) phenol
2034-69-7	NATQI	A.61	Daphnoretin
2050-87-5	NAWGF	C.4	Diallyl trisulfide ; 3-(prop-2-enyl- trisulfanyl)prop-1-ene
2068-78-2	NAWE9	A.270	Vincristine (sulfate) ; Leurocris- tine sulfate ; 22-Oxovincaleuko- blastine sulfate
2086-83-1	NATHM	A.29	Berberine
2107-76-8	NATVK	A.78	5,7-Dihydroxy-4-methylcoumarin
2115-91-5	NATSO	A.67	Dendrobine
2150-43-8	NAVN4	A.216	Protocatechuic acid methyl ester
2150-45-0	NATV3	A.77	2,6-dihydroxy-Benzoic acid methyl ester
2156-56-1	NAVVY	A.245	Sodium dichloroacetate
2174-59-6	NATSH	A.67	5-O-Demethylnobiletin ; 2-(3,4-dimethoxyphenyl)-5-hy- droxy-6,7,8-trimethoxychromen- 4-one
2182-14-1	NAWEA	A.270	Vindoline ; Methyl 4-(acetyloxy)- 3-hydroxy-16-methoxy-1-me- thyl-6,7-didehydroaspidospermi- dine-3-carboxylate
2188-68-3	NAUWX	A.166	Lycorine (hydrochloride)
2196-14-7	NATV9	A.77	4',7-Dihydroxyflavone
2216-51-5	NAUYN	A.172	L-Menthol
2222-07-3	NATOY	A.56	Cucurbitacin I ; Elatericin B ; JSI-124 ; NSC-521777
2239-88-5	NAVAH	A.175	3,3'-Di-O-methylellagic acid
2141-09-5	NAUXG	A.168	Magnoflorine
2241-90-9	NATPO	A.58	Cyclobuxine D ; 14-methyl-3,20- bis(methylamino)-4-methyli- dene-9,19-cyclopregnan-16-ol
2292-16-2	NAVDD	A.185	Neferine ; (-)-Neferine
2306-27-6	NAVVK	A.243	Sinensetin ; Pedalitin permethyl ether
2316-26-9	NAVAM	A.175	O-Methylferulic acid ; Methyl- ferulic acid ; NSC 4323 ; NSC 43569
2363-71-5	NAUKO	A.129	Heneicosanoic Acid
2415-24-9	NATKO	A.40	Catalpol ; Catalpinoside
2433-96-7	NAWBP	A.261	Tricosanoic Acid
2447-54-3	NAVSJ	A.234	Sanguinarine ; Pseudochele- rythrine ; Sanguinarin

N° CAS	Ref.	Pages	Names
2450-53-5	NATTN	A.71	3,5-Dicaffeoylquinic acid ; 3,5- CQA ; Isochlorogenic acid A
2468-21-5	NATKT	A.41	Catharanthine ; (+)-3,4-Didehy- drocoronaridine
2469-34-3	NAVU4	A.240	Senegenin ; Senegin ; UNII- 06S1QH951L ; 06S1QH951L
2489-05-6	NAVVR	A.244	Siver behenate
2543-94-4	NAVJA	A.204	Phellopterin
2545-00-8	NATB9	A.5	Afzelechin
2586-96-1	NAUV6	A.161	Liensinine
2595-97-3	NATCM	A.10	D-Allose
2608-21-1	NAVWI	A.246	Sotetsuflavone
2643-85-8	NAVH9	A.197	Oxypeucedanin hydrate
2673-40-7	NAVJ0	A.203	Perivine
2680-81-1	NATRK	A.64	Dehydrodiisoeugenol ; 2-methoxy-4-[7-methoxy-3-me- thyl-5-[(E)-prop-1-enyl]-2,3-di- hydro-1-benzofuran-2-yl]phenol
2752-64-9	NAUYO	A.172	Mesaconitine
2752-65-0	NAUDY	A.104	Gambogic Acid ; Beta-Guttiferrin
2798-20-1	NAUF8	A.107	Gardenin B
2798-25-6	NATH3	A.28	Bellidifolin
2831-75-6	NATQO	A.62	Daurinoline
2872-65-3	NAUZG	A.174	4-Methoxyphenyl 2,3,4,6-Tetra- O-acetyl-β-D-galactopyranoside
2883-98-9	NATFB	A.20	alpha-Asarone ; α-Asarone ; trans-Asarone
2901-66-8	NAUZX	A.178	Methyl reserpate
2912-11-0	NATB8	A.5	(+)-Affinisine
2934-97-6	NAVZR	A.256	Tetrahydropalmatine ; DL-Tetra- hydropalmatine
2936-70-1	NAVJI	A.204	Phenyl 1-Thio-β-D- glucopyranoside
2945-88-2	NAVW9	A.246	Sophorabioside
2957-21-3	NAVRW	A.232	Sakuranetin
2980-32-7	NAWA1	A.257	1,3,5,8-Tetrahydroxyxanthone ; Desmethylbellidifolin
3044-60-8	NAWBI	A.261	Toxicarol isoflavone
3064-05-9	NAURE	A.149	Isoolivil
3067-10-5	NAUZ2	A.173	5-Methoxy-7-hydroxycoumarin
3081-61-6	NAWAH	A.258	L-Theanine
3122-88-1	NAUAF	A.93	Eucalyptin
3150-20-7	NAUZA	A.173	4-Methoxyphenyl β-D- Galactopyranoside
3175-95-9	NATSS	A.68	3-Deoxyaconitine ; Deoxya- conitine
3278-14-6	NAVJD	A.204	N-Phenethylbenzamide
3328-60-7	NATVT	A.79	5,6-Dihydroyangonin
3351-86-8	NAUDE	A.101	Fucoxanthin ; all-trans-Fu- coxanthin
3371-27-5	NAUDU	A.103	Gallocatechin (GC)
3371-85-5	NAWEW	A.272	Voacamine
3387-36-8	NAWDA	A.267	5'-UMP disodium salt
3411-37-8	NAVWB	A.246	(+)-Sophoranol
3464-66-2	NAUZJ	A.174	Methyl beta-carboline-1-car- boxylate

N° CAS	Ref.	Pages	Names
3486-66-6	NATNQ	A.51	Coptisine ; Coptisin
3486-67-7	NAVHO	A.199	Palmatine
3513-04-0	NATQU	A.62	Deacylmetaplexigenin
3520-14-7	NAVZS	A.256	D-Tetrahydropalmatine
3570-40-9	NATBU	A.7	Albaspidin AA
3570-62-5	NAVCE	A.182	Moslosooflavone
3590-93-0	NATSE	A.67	4-Demethyldeoxypodophyl- lotoxin
3606-45-9	NATUX	A.76	Dihydrosanguinarine ; 13,14-Dihydrosanguinarine
3615-37-0	NAUDC	A.101	D-(+)-Fucose
3615-41-6	NAUXZ	A.170	L-Mannomethylose ; Isodulcit; Isodulcitol ; L-(+)-Rhamnose ;L- Rhamnose ; Locaose ; NSC 2056 ; Rhamnose
3615-56-3	NAVWH	A.246	D-Sorbose
3621-36-1	NATNC	A.50	Columbamine ; Columbamin ; Dehydroisocorypalmine
3621-38-3	NAUSB	A.152	Jatrorrhizine
3650-09-7	NATKG	A.39	Carnosic acid
3681-93-4	NAWER	A.271	Vitexin
3681-99-0	NAVOE	A.220 C.8	Puerarin ; 7,4'-Dihydroxy-8-C- glucosylisoflavone
3785-24-8	NAVE1	A.187	Nepodin
3789-75-1	NAVSU	A.235	Scarlet 808
3804-70-4	NATNE	A.50	Columbianetin
3877-86-9	NATOV	A.55	Cucurbitacin D
3911-19-1	NAVBJ	A.179	Mitoridine
3934-86-9	NAUZS	A.176	Methyl 3-methoxy-4,5-dihy- droxybenzoate
3952-98-5	NAVVL	A.243	Sinigrin
4026-95-3	NATTA	A.70	Desacetylcinobufagin ; Dea- cetylcinobufagin
4046-02-0	NAUBQ	A.97	Ferulic acid ethyl ester
4090-18-0	NAVVM	A.244	Sinoacutine
4099-30-3	NATTB	A.70	Desacetylcinobufotalin ; Dea- cetylcinobufotalin
4136-37-2	NAVX6	A.248	Stachydrine (chloride)
4176-97-0	NATSV	A.68	14-Deoxyandrographolide
4180-23-8	NATDI	A.14	trans-Anethole
4192-90-9	NAWCC	A.263	
4233-96-9	NAUDI	A.103	(-)-Gallocatechin gallate ; (-)-Gallocatechol gallate
4236-73-1	NATJE	A.36	Buxtamine ; Buxtauine ; Cyclo- buxoxine
4250-38-8	NAVEF	A.188	Nonacosanoic Acid
4261-42-1	NAURF	A.149	Isoorientin ; Homoorientin
4277-43-4	NAUXH	A.168	Magnoflorine Iodide
4291-60-5	NAWAT	A.259	Tilianin
4312-32-7	NAVZM	A.254	Tetrahydrocoptisine ; (RS)-Stylo- pine ; (±)-Stylopin
4335-12-0	NAWB6	A.260	Toddaculine
4339-72-4	NATAU	A.4	3-O-acetyloleanolic acid
4350-09-8	NAWGI	C.6	5-hydroxytryptophan (5-HTP) ; (2S)-2-amino-3-(5-hydroxy-1H- indol-3-yl)propanoic acid

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N° CAS	Ref.	Pages	Names
4373-41-5	NALLY5	Δ 170	Maslinic acid : Crategolic acid :
4373-41-3		A.170	2α-Hydroxyoleanolic acid
4382-56-3	NAVIS	A.202	Perakine
4429-63-4	NAVY5	A.251 C.9	Tabersonine ; Tabersonin ; CHEBI16776 ; EINECS 224- 615-0 ; BRN 0050163
4431-01-0	NAUVC	A.162	Ligustilide
4443-09-8	NAVEQ	A.189	Norwogonin
4449-51-8	NATPR	A.59	Cyclopamine ; 11-Deoxojervine; (3b,23b)-17,23-Epoxy-11-deoxo- veratraman-3-ol
4449-55-2	NAWEZ	A.272	Warangalone ; Scandenolone
4460-86-0	NATFD	A.20	Asarylaldehyde
4466-14-2	NAUS9	A.152	Jasmolin I
4478-93-7	NAVXK	A.249	Sulforafan
4481-62-3	NATI1	A.31	Betulonic acid ; Betunolic acid ; Liquidambaric acid ; (+)-Betu- lonic acid
4491-19-4	NAUP4	A.142	Indaconitine ; 15-Deoxyaconitine
4547-24-4	NATNY	A.52	Corosolic acid ; Colosic acid ; Colosolic acid;Corsolic acid ; Glucosol
4567-33-3	NAVTZ	A.240	trans-Sedanolide
4670-05-7	NAWAD	A.257	Theaflavin
4674-50-4	NAVEH	A.188	(+)-Nootkatone
4691-65-0	NAUP0	A.142	5'-IMP disodium salt
4773-96-0	NAUXQ	A.169	Mangiferin
4825-18-7	NAWF2	A.272	Wightin
4845-99-2	NATIZ	A.34	Brucine sulfate
4846-19-9	NAVE9	A.189	N-Nornuciferine
4849-90-5	NATEV	A.19	Aristolochic acid C
4871-97-0	NATPB	A.57	Curcumol ; (-)-Curcumol
4965-97-3	NATJ0	A.34	Bryodulcosigenin
5041-67-8	NAUSK	A.153	Juglanin
5041-81-6	NAUR3	A.149	Isoliquiritin
5041-82-7	NAURN	A.150	Isorhamnetin-3-O-glucoside
5058-13-9	NAIND	A.50	Columbianadin
5066-78-4	NAILF	A.43	
5084-31-1	NAWAU	A.257	1,3,5,6- letranydroxyxantnone
5000 00 4	NAVDU	A. 160	
5112 07 1		A.101	
5113-07-1	NAURI	A.140	MONENE
5119-48-2	NAWF9	A.273	Withaferine A ; Withaferine ; NSC 101088 ; NSC 273757
5128-44-9	NATWG	A.80	7,4'-Di-O-methylapigenin ; 4',7-Dimethoxy-5-Hydroxyfla- vone
5262-69-1	NAURA	A.149	Isomorellic acid
5273-86-9	NATFC	A.20	Beta-Asarone ; 1,2,4-trimethoxy- 5-[(Z)-prop-1-enyl]benzene
5289-74-7	NATXQ	A.85 C.4	beta-Ecdysone ; Ecdysterone
5304-71-2	NAVC8	A.182	Morellic acid ; (-)-Morellic acid

N° CAS	Ref.	Pages	Names
5373-11-5	NATPY	A.59 A.166	Cynaroside ; Luteolin 7-glu- coside ; Luteolin 7-O-β-D- glucoside ; Luteoloside
5451-09-2	NATD3	A.12	5-Aminolevulinic acid (hydro- chloride) ; ALA ; 5-ALA
5466-77-3	NAVFN	A.192	Octyl 4-methoxycinnamate
5471-51-2	NAVPO	A.225	Raspberry Ketone
5508-58-7	NATDD	A.13 C.2	Andrographolide ; Andrographis
5545-89-1	NATLO	A.44	Chimonanthine
5578-73-4	NAVSK	A.234	Sanguinarine (chloride) ; Pseudochelerythrine chloride ; Sanguinarium chloride
5629-60-7	NAWDB	A.267	Uncarine C
5630-11-5	NAWA3	A.257	2,3,5,6-Tetramethoxyaporphine
5689-38-3	NATSG	A.67	8-Demethyleucalyptin
5843-65-2	NAUL6	A.130	Higenamine ; 1-[(4-hydroxyphe- nyl)methyl]-1,2,3,4-tetrahydroi- soquinoline-6,7-diol
5853-29-2	NATL2	A.42	(-)-Cephaeline (dihydrochlo- ride) ; NSC 32944
5928-25-6	NATR6	A.63	Decursin ; [(3S)-2,2-dimethyl- 8-oxo-3,4-dihydropyrano[3,2-g] chromen-3-yl] 3-methylbut- 2-enoate
5940-00-1	NATQK	A.61	Darutigenol
5945-50-6	NAVC5	A.181	Monotropein
5947-49-9	NAVLF	A.210	Podocarpic acid
5949-11-1	NATMH	A.47	Cinchonine hydrochloride
5957-80-2	NATKH	A.39	Carnosol
5980-02-9	NAWEB	A.270	Vindolinine
5985-28-4	NAVXU	A.250	Synephrine (hydrochloride) ; Oxedrine hydrochloride
5986-55-0	NAVI8	A.200	Patchouli alcohol
5989-02-6	NAUW5	A.164	Loliolid
5993-18-0	NATUA	A.75	3',4'-dihydro-3'-hydroxy-Xan- thyletin
6020-18-4	NATNR	A.51	Coptisine (chloride)
6032-32-2	NAUZC	A.173	4-Methoxyphenyl β-D- Glucopyranoside
6035-49-0	NATWN	A.81	Dimethylfraxetin ; 6,7,8-Tri- methoxycoumarin ; Fraxetin dimethyl ether
6040-19-3	NATOS	A.55	Cucurbitacin A
6054-10-0	NATIM	A.33	Braylin
6066-49-5	NATJB	A.36	Butylphthalide
6078-17-7	NATHL	A.29	Berbamine (dihydrochloride)
6080-33-7	NAVVO	A.244	Sinominene HCI 2H2O
6138-41-6	NAWBU	A.261	Trigonelline chloride ; Trigonel- line hydrochloride
6147-11-1	NAUXR	A.169 C.7	alpha-Mangostin ; α -Mangostin
6151-25-3	NAVP2	A.222 C.8	Quercetin Dihydrate
6155-35-7	NAVQD	A.227	α-L-Rhamnose monohydrate
6170-62-7	NAUNG	A.136	2-Hydroxy-1-methoxyanthra- quinone

N° CAS	Ref.	Pages	Names
6192-62-7	NAWBD	A.260	Tomatidine hydrochloride ; (3beta,5alpha,22beta,25S)-Spi- rosolan-3-ol hydrochloride
6197-30-4	NAVFL	A.192	Octocrilene
6199-67-3	NATOT	A.55	Cucurbitacin B
6205-14-7	NAUMQ	A.134 C.5	Hydroxycitric acid
6211-32-1	NAWGS	C.10	Yohimbine hydrochloride
6216-81-5	NAVXX	A.250	(-)-Syringaresinol
6246-46-4	NAWDF	A.267	Ursonic acid ; 3-Ketoursolic acid
6268-09-3	NAUNP	A.137	1-Hydroxy-2-methylanthraqui- none
6271-21-2	NATUR	A.75	Dihydrolycorine
6415-59-4	NAVU0	A.240	Sedanolide
6426-43-3	NAVYP	A.252	Taraxasteryl acetate
6468-55-9	NATSL	A.67	Demethylwedelolactone
6474-90-4	NAVZJ	A.254	Tetrahydroalstonine
6483-15-4	NAVW7	A.246	Sophocarpine
6514-05-2	NAVAE	A.175	N-Methylcorydaldine
6519-26-2	NATVU	A.76	18,19-Dihydro-16(R)-sitsirikine
6537-80-0	NATM8	A.46	Cichoric Acid ; Cichoric acid ; Dicaffeoyltartaric acid
6559-91-7	NATSF	A.67	4'-Demethylepipodophyl- lotoxin ; (5S,5aR,8aR,9R)- 5-hydroxy-9-(4-hydroxy-3,5- dimethoxyphenyl)-5a,6,8a,9-te- trahydro-5H-[2]benzofuro[5,6F] [1,3]benzodioxol-8-one
6601-66-7	NAWA4	A.257	4',5,7,8-Tetramethoxyflavone ; 5,7,8-trimethoxy-2-(4-me- thoxyphenyl)chromen-4-one
6624-79-9	NATXE	A.84	1-Dotriacontanol ; Laccerol
6638-05-7	NAVB5	A.178	Methylsyringol
6665-74-3	NAUDN	A.102	Galangin 3-methyl ether
6665-86-7	NAUN2	A.135	7-Hydroxyflavone
6681-13-6	NAUKT	A.129	Hernandezine
6681-15-8	NAUSC	A.152	Jatrorrhizine hydrochloride ; 2,9,10-trimethoxy-5,6- dihydroisoquinolino[2,1-b]isoqui- nolin-7-ium-3-ol hydrochloride
6706-59-8	NAVWF	A.246	L-Sorbitol
6732-85-0	NAWCB	A.263	1,3,5-Trihydroxyxanthone
6743-92-6	NAURM	A.150	Isorhamnetin-3-O-galactoside
6754-16-1	NATRZ	A.65	Dehydrotumulosic acid
6754-58-1	NAWFI	A.274	Xanthohumol
6805-41-0	NATLS	C.2	Aescin
6807-83-6	NAWBS	A.261	Trifolirhizin
6812-81-3	NAVQV	A.229	Roburic acid
6817-41-0	NAUR0	A.148	Isoliensinine
6836-11-9	NATS8	A.66	Deltaline
6859-01-4	NAURS	A.151	Isorhynchophylline
6871-67-6	NAUW7	A.164	Lotusine
6873-09-2	NATYG	A.88	Epiberberine
6873-13-8	NAVJ8	A.203	Phellodendrine ; Phellodendrine chloride
6877-32-3	NATO6	A.53	Corynoxine

N° CAS	Ref.	Pages	Names
6970 01 2		A 266	Tuborostomonin
6870-05-6	NATOM	A.200	Debudroeburicoic acid
6880-01-7		A.04	Dihydrochelerythrine :
0000-31-1	NAIOH	A.1 4	12,13-Dihydrochelerythrine
6882-68-4	NAVWE	A.246	Sophoridine
6894-43-5	NAUT7	A.155	Kahweol
6900-87-4	NAUOB	A.139	Hypaconitine
6900-99-8	NAVB9	A.179	O-Methylzanthoxyline
6902-77-8	NAUFG	A.107	Genipin
6902-91-6	NAUFY	A.109	Germacrone
6906-38-3	NATS2	A.66	Delphinidin 3-Glucoside Chlo- ride ; Mirtillin Chloride
6906-39-4	NAVIR	A.202	Peonidin-3-O-glucoside chloride
6918-49-6	NAVX2	A.248	C20-Spingosine
6926-08-5	NAUK8	A.127	Harpagide
6926-14-3	NATAP	A.3	8-O-acetylharpagide ; 3-Acetylharpagide ; Harpagide 7-acetate ; Acetylharpagide(8-O- Acetylharpagide)
6980-25-2	NAVXN	A.249	Swertiajaponin
6982-09-8	NAVWY	A.247	C16-Sphingosine
6988-81-4	NAVJ3	A.203	Petunidin-3-O-glucoside chloride
6989-24-8	NATH0	A.28	Bayogenin
6989-38-4	NAUBB	A.96	Evodine
6991-10-2	NAVXR	A.249	Swertisin
7014-39-3	NAVDT	A.186	Neoisoliquiritin
7084-24-4	NAUU0	A.158	Kuromanin (chloride) ; Chryson- temin ; Cyanidin 3-O-glucoside chloride
7085-55-4	NAWCU	A.265	Troxerutin ; Trihydroxyethylrutin
7138-40-1	NAUKP	A.129	Heptacosanoic Acid
7212-44-4	NAVE2	A.187	Nerolidol
7228-78-6	NAUXP	A.169	Malvidin-3-O-glucoside chloride
7235-40-7	NATKI	A.40 C.3	β-Carotene ; Provitamin A ; Carotaben ; beta-Carotene ; Lucarotin
7282-19-1	NATFX	A.23	Atanine
7380-40-7	NATHQ	A.29	Bergamottin
7400-08-0	NAUMP	A.134	p-Hydroxycinnamic acid ; NSC 59260 ; NSC 674321 ; p-Cou- maric acid ; p-Cumaric acid
7431-77-8	NAVVJ	A.243	Sinapine (thiocyanate)
7431-83-6	NAVP5	A.223	Quercetin 3-O-beta-gentiobio- side ; 3,3',4',5,7-Pentahydroxy- flavone 3-gentiobioside
7432-28-2	NAVSX	A.235	Schisandrin ; Schizandrol ; Schi- zandrol-A ; Wuweizi alcohol-A ; Wuweizichun-A
7437-55-0	NAUFT	A.109	8-Geranopsoralen
7460-43-7	NAVRB	A.230	Rubiadin 1-methyl ether
7473-36-1	NAUA9	A.93	Ethyl 1-Thio-β-D- glucopyranoside
7488-99-5	NATKJ	A.40	α-Carotene
7518-22-1	NATEG	A.17	Araloside A ; Chikusetsusaponin IV ; Oleanane
7554-90-7	NATSN	A.67	Dencichin

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N° CAS	Ref.	Pages	Names
7630-74-2	NATRW	A 65	Dehydronuciferin
7660-25-5	NALID8	A 101	Fructose
7678-85-5	NAWBX	A.262	7,2',4'-Trihydroxvisoflavone
7689-03-4	NATK2	A.38 C.3	Camptothecin
7727-79-9	NAWG1	A.276	Zederone
7729-23-9	NAULB	A.131	Hirsutine
7755-01-3	NAVN9	A.216	Protopanaxadiol
7755-01-3	NAVNA	A.216	20(R)-Protopanaxadiol
7770-78-7	NATEJ	A.17	Arctigenin ; (-)-Arctigenin
7776-48-9	NAUDA	A.101	L-Fructose
8002-43-5	NAVWJ	A.247	Soy bean phospholipid
8015-61-0	NATCU	A.11	Aloin(mixture of A&B)
10030-73-6	NAVHR	A.199	Palmitelaidic Acid ; 9-trans- Hexadecenoic acid ; trans-Pal- mitoleic acid
10030-85-0	NAWGM	C.8	a-L-Rhamnose monohydrate
10061-38-8	NATZ7	A.90	(-)-Epipinoresinol
10083-24-6	NAVK2	A.206	Trans-Piceatannol
10191-41-0	NAWB3	A.259	DL-a-Tocopherol
10212-25-6	NATDC	A.13	Ancitabine (hydrochloride) ; Cyclocytidine hydrochloride ; Cyclo-CMP hydrochloride ; Cyclo-C
10236-47-2	NAVD9	A.184 C.7	Naringin ; 4',5,7-Trihydroxy- flavanone-7-rhamnoglucoside Naringoside
10284-63-6	NAVKK	A.207	D-Pinitol
10309-37-2	NATGP	A.26	Bakuchiol ; (S)-(+)-Bakuchiol
10323-20-3	NATEE	A.17	D-Arabinose
10338-51-9	NAVS0	A.232	Salidroside ; Rhodioloside
10351-88-9	NAVJT	A.206	Phyllanthin
10376-48-4	NAVUW	A.242	Shionone
10391-08-9	NAUQG	A.147	(-)-Isodocarpin
10592-13-9	NAUO6	A.04 A.139	Hydroxytyrosol ; 4-(2-hydroxye- thyl)benzene-1,2-diol ; 3,4-Dihy- droxyphenylethanol
10605-02-4	NAVHP	A.199	Palmatine (chloride)
10605-03-5	NATRH	A.64	Dehydrocorydaline (chloride) ; 13-Methylpalmatine chloride
11006-55-6	NAWGO	C.9	Sodium tauroglycocholate ; 2-[[[[(3a,5b,7a,12a)-3,7,12- Trihydroxy-24-oxocholan-24-yl] amino]acetyl]amino]-ethanesul- fonic acid mono sodium salt ; Sodium glycotaurocholate
11013-97-1	NAUZR	A.176 C.7	Methyl Hesperidin
11021-13-9	NAUGK	A.113	Ginsenoside Rb2 ; Ginseno- side C
11021-14-0	NAUGN	A.114	Ginsenoside Rc ; Panaxoside Rc
11023-94-2	NAVER	A.189	Nothofagin
11024-24-1	NATU3	A.73	Digitonin
11024-59-2	NAVII	A.201	(-)-beta-Peltatin-5-O-beta-D-glu- copyranoside

N° CAS	Ref.	Pages	Names
44007.02.7		A F	Assusida
11027-03-7	NAIDO	A.024	Agriuside
11031-45-1	NAVSIVI	A.234	Santaloi
11041-94-4	NAUL7	A.130	Higenamine nydrochioride
11088-09-8	NAWF5	A.272	Wilforine
11545-33-6	NAUDZ	A.104	Ganglioside GM3 (18,2)
12542-36-8	NATA4	A.124 C.5	Gossipol Acetate ; Gossypol- Acetic acid
12777-70-7	NATXL	A.85	Dryocrassin ; Dryocrassin ABBA
13063-04-2	NAVE7	A.187	Nitidine chloride ; 2,3-dime- thoxy-12-methyl-[1,3] benzodioxolo[5,6-c]phenanthri- din-12-ium chloride
13063-54-2	NATO8	A.53	(+)-Corypalmine
13074-06-1	NAUDB	A.101	L-Fucitol ; (2R,3S,4R,5S)- hexane-1,2,3,4,5-pentol
13079-95-3	NAVUG	A.241	(-)-Sesamin
13137-64-9	NAVIV	A.203	Periplocin ; Periplocoside
13159-28-9	NATHY	A.30	Betulinaldehyde ; Betulinic aldehyde ; Betunal
13161-75-6	NAVOD	A.220	(+)-Pteryxin
13190-34-6	NAUJ4	A.123	Goitrin
13190-97-1	NAVW2	A.245	Solanesol ; 3,7,11,15,19,23,27,31,35-no- namethylhexatriaconta- 2,6,10,14,18,22,26,30,34-no- naen-1-ol
13201-14-4	NATUJ	A.74	Dihydrocucurbitacin B
13241-28-6	NATM5	A.46	Chrysophanol-8-O-beta-D-glu- copyranoside
13241-32-2	NAVDP	A.186	Neoeriocitrin
13241-33-3	NAVDR	A.186 C.7	Neohesperidin ; Hesperetin 7-O-neohesperidoside
13382-86-0	NAUXU	A.169	Manninotriose
13395-02-3	NATEX	A.19	Aristololactam
13459-07-9	NATWQ	A.82	5,7-Di-O-methylquercetin
13463-28-0	NATZK	A.91	Eriocitrin
13476-25-0	NAUVM	A.162	Linderane
13657-68-6	NATPC	A.57	Curdione ; (+)-Curdione
13677-79-7	NAUDR	A.102	Gallic aldehyde
13739-02-1	NATTH	A.70	Diacerein ; Diacerhein ; Dia- cetylrhein ; Fisiodar ; Artrodar
13849-08-6	NAUY4	A.170	S-(+)-Marmesin ; (+)-Marmesin ; (S)-Marmesin
13849-90-6	NAVH0	A.197	3-Oxopomolic acid
13849-91-7	NAVM5	A.212	Pomolic acid
13850-16-3	NAWBH	A.260	Tormentic acid
14004-35-4	NAUAG	A.94	Eucalyptin acetate
14050-92-1	NAUZK	A.174	Methyl chanofruticosinate
14101-61-2	NAWB4	A.259	gama-Tocotrienol
14144-06-0	NAVLW	A.212	Polyphyllin A ; Trillin
14153-17-4	NAUNQ	A.137	5-Hydroxy-2-methylchromanone
14164-59-1	NAUS5	A.152	Ivangustin
14197-60-5	NAUGS	A.116	Ginsenoside Rg3 ; 20(S)-Ginse- noside-Rg3 ; Rg3 ; S-Ginseno- side Rg3
14198-59-5	NATYB	A.87	Emetine Hydrochloride

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N° CAS	Ref.	Pages	Names
14215-86-2	NAVXM	A.249	Sweroside
14216-03-6	NAUKF	A.128	Hederacoside C ; Kalopanax- saponin B
14259-45-1	NATFL	A.21	Asperuloside ; Rubichloric acid
14259-46-2	NAVDC	A.185	Narirutin
14259-47-3	NATTZ	A.73	Didymin
14259-55-3	NATQR	A.62	Deacetylasperulosidic acid
14260-99-2	NATQJ	A.61	Daphylloside
14348-22-2	NATN5	A.49	Cnidilin
14351-29-2	NATQ7	A.60	Dammarenediol II
14371-10-9	NATMK	A.47	trans-Cinnamaldehyde
14534-61-3	NATTO	A.71	3,4-Dicaffeoylquinic acid ; Isochlorogenic acid B
14581-81-8	NAUZH	A.174	4-Methoxyphenyl 2,3,4,6-Tetra- O-acetyl-β-D-glucopyranoside
14937-32-7	NAVIN	A.202	1,2,3,4,6-Penta-O-galloyl-beta- D-glucopyranose ; Penta-O- galloyl-β-D-glucose
14941-08-3	NAVM7	A.213	Poncirin
14965-20-9	NAWCL	A.264	3,6,7-Trimethylquercetagetin
15085-71-9	NAVBE	A.179	Micromelin
15130-85-5	NAUPG	A.143	Inokosterone
15266-35-0	NATUM	A.74	Dihydroevocarpine
15291-75-5	NAUG8	A.110	Ginkgolide A
15291-76-6	NAUGA	A.111	Ginkgolide C ; BN-52022 ; Ginkgolide-C
15291-77-7	NAUG9	A.111	Ginkgolide B ; BN-52021
15345-89-8	NATTD	A.70	Desmethoxyyangonin ; Deme- thoxyyangonin ; 5,6-Dehydro- kavain
15401-69-1	NATHP	A.29	Berberrubine
15404-76-9	NATWP	A.81	Dimethylmangostin ; 1-hydroxy- 3,6,7-trimethoxy-2,8-bis(3-me- thylbut-2-enyl)xanthen-9-one ; Fuscaxanthone C
15486-33-6	NATV7	A.77	3,5-Dihydroxy-7,4'-dimethoxy- flavone
15575-50-5	NATLQ	A.45	(+)-6-(3-Chloro-2-hydroxy- 3-methylbutyl)-5,7-dimethoxy- coumarin
15645-11-1	NAUTL	A.156	cis-Khellactone
15648-86-9	NAVCT	A.183	Myricetin 3-O-galactoside
15674-58-5	NATS4	A.66	Delphinidin-3-O-rutinoside chloride
15964-32-6	NAVJE	A.204	2-O-Phenyl α-D-N- Acetylneuraminic Acid
16176-68-4	NAVHQ	A.199	Palmatrubine
16290-07-6	NAUSV	A.154	Kaempferol-7-O-beta-D-gluco- pyranoside
16354-64-6	NAVO6	A.219	L-Psicose
16481-54-2	NAVLI	A.210	Podophyllotoxin-7-O-glucoside
16503-32-5	NATIP	A.33	Brevilin A
16561-29-8	NAVZF	A.254	12-O-tetradecanoyl phorbol- 13-acetate ; Cocarcinogen A1 ; Cocarcinogen C3
16562-13-3	NAVX8	A.248	L-Stepholidine

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N° CAS	Ref.	Pages	Names
16611-84-0	NATD9	A.13	Anacardic Acid ; 2-hydroxy- 6-pentadecylbenzoic acid ; Cyclonallinharic acid ; 220-Ana-
			cardic acid
16758-34-2	NAVJH	A.204	Phenyl 1-Thio-β-D- galactopyranoside
16830-15-2	NATFG	A.20	Asiaticoside
16837-52-8	NAVH5	A.197	Oxymatrine
16844-71-6	NATYS	A.89	Epifriedelanol
16910-29-5	NAWCI	A.264	(E,E)-2,7,11-trimethyl-2,6,10- Dodecatrien-1-ol
16964-56-0	NAUQH	A.147	Isodonal
16994-56-2	NAVQ2	A.226	Reserpine (hydrochloride)
17015-43-9	NATP3	A.56	Curcolone
17019-92-0	NAUTI	A.156	11-Keto-beta-boswellic acid
17086-76-9	NATPJ	A.58	Cyasterone ; CHEBI29012 ; AI3-44890
17290-70-9	NAURY	A.151	Isosinensetin
17306-46-6	NAVQQ	A.228	Rhoifolin ; Apigenin 7-O-neohes- peridoside
17331-71-4	NAURK	A.150	Isorhamnetin 3-glucoside- 7-rhamnoside
17388-17-9	NAVZL	A.254	DL-Tetrahydroberberrubine
17388-39-5	NAVXO	A.249	Swertiamarin
17391-18-3	NATO7	A.53	Corynoxine B
17397-93-2	NAVYN	A.252	Tanshinone IIB
17406-45-0	NAWBE	A.260	Tomatine ; Lycopersicin ;
			alpha-Tomatine ; A"-Tomati- dine ; Tomatin ; Tomatidine ; glycoside ; CHEBI9630
17413-38-6	NATEW	A.19	Aristolochic acid D
17575-22-3	NAUUF	A.159	Lanatoside C
17598-65-1	NATTC	A.70	Deslanoside
17598-82-2	NAVYA	A.251	L-Tagatose
17605-67-3	NAUDD	A.101	Fucosterol
17629-30-0	NAVPM	A.224	D-(+)-Raffinose (pentahydrate) ; D-Raffinose pentahydrate
17650-84-9	NAUT4	A.154	Kaempferol-3-O-rutinoside
17673-25-5	NAVJQ	A.205	Phorbol ; 4β-Phorbol
17676-33-4	NAVDX	A.187	Neoruscogenin
17680-84-1	NAULI	A.131	Homoplantaginin
17817-31-1	NAWBY	A.262	6,7,4'-Trihydroxyisoflavone
17910-09-7	NATPD	A.57	Curzerene
17912-87-7	NAVCU	A.183	Myricitrin ; Myricitroside ; Myricitrine ; Myricetol 3-rham- noside ; Myricetrin ; Myricetin 3-O-rhamnoside
17952-82-8	NAVZQ	A.255	1,2,3,4-Tetrahydronorharman- 1-one
17990-42-0	NAVFV	A.193	Oleanonic acid ; 3-Oxooleanolic acid
18016-58-5	NAVP7	A.223	Quercetin 3-O-glucoside-7-O- rhamnoside
18058-50-9	NAUFN	A.108	Gentioflavin
18059-10-4	NAVID	A.201	Peiminine ; Verticinone ; Raddeanine

N° CAS	Ref.	Pages	Names
18085-97-7	NAUS6	A.152	Jaceosidin
18110-87-7	NATW0	A.79	4,5-Dimethoxycanthin-6-one
18286-71-0	NATHI	A.29	(9Z,12Z)-N-Benzyloctade- ca-9,12-dienamide
18296-44-1	NAWDK	A.268	Valtrate
18309-73-4	NAUBE	A.96	Fabiatrin
18404-72-3	NATHG	A.29	Benzyl 4-Ο-β-D- Galactopyranosyl-β-D- glucopyranoside
18422-83-8	NATUT	A.75	Dihydromorin
18444-66-1	NATOW	A.56	Cucurbitacin Ε ; α-Elaterin ; α-Elaterine
18449-41-7	NAUXE	A.168	Madecassic acid
18466-51-8	NAVIG	A.201	Pelargonidin-3-O-glucoside chloride
18472-36-1	NATS7	A.66	Delta 5-avenasterol
18483-17-5	NAWBT	A.261	1,3,6-Trigalloylglucose ; 1,3,6-Tri-O-galloyl-beta-D-glu- copyranose
18490-95-4	NATIO	A.33	Brevifolincarboxylic acid
18524-94-2	NAUW4	A.164	Loganin ; Loganoside
18607-90-4	NAUT9	A.155	Kakuol
			3-[(2S,3R,4S,5S,6R)-4,5- DIHYDROXY- 6-(HYDROXYMETHYL)- 3-[(2S,3R,4S,5S,6R)- 3,4,5-TRIHYDROXY- 6-(HYDROXYMETHYL) OXAN-2-YL]OXYOXAN- 2-YL]OXY-2-(3,4- DIHYDROXYPHENYL)-5,7-DI- HYDROXYCHROMEN-4-ONE ; Quercetin 3-beta-D-sophoro- side; Quercetin 3-beta-sopho- roside
18642-23-4	NAVOA	A.219	Psoralidin
18649-93-9	NATC2	A.8	Alisol B
18674-16-3	NATC1	A.8	Alisol A (24-acetate) ; Alisol-A 24-acetate ; Alisol A 24-monoa- cetate ; Alisol A monoacetate
18696-26-9	NAVVI	A.243	Sinapine
18719-76-1	NATPH	A.58	Cyanidin-3-O-rutinoside chloride
18797-79-0	NATO4	A.52	Corynoline ; 13-Methylchelidonan-11β-ol
18797-80-3	NATAM	A.3	Acetylcorynoline
18842-98-3	NAVHI	A.198	Paederosidic acid
18887-18-8	NAUO3	A.138	Hydroxytanshinone IIA
18942-26-2	NATLH	A.43	Chebulinic acid
18956-18-8	NATUV	A.76	Dinydrooroxylin A
19057-60-4	NATWW	A.82	Dioscin ; Collettiside III ; CCRIS 4123
19057-67-1	NAVM1	A.212	Polyphyllin V
19083-00-2	NAUJG	A.125	Gracillin
19103-54-9	NAVS8	A.233	Salvigenin
19121-58-5	NAVW4	A.245	Solasonine

N° CAS	Ref.	Pages	Names
19130-96-2	NATT6	A.69	1-Deoxynojirimycin ; (2R,3R,4R,5S)-2- (hydroxymethyl)piperidine- 3,4,5-triol
19186-35-7	NATDX	A.15	Anthricin ; Deoxypodophyllotoxin
19202-36-9	NAUL8	A.130	Hinokiflavone
19210-12-9	NAUK9	A.127	Harpagoside
19275-46-8	NAUR8	A.149	3-Isomangostin
19309-14-9	NATKC	A.39	Cardamonin ; Alpinetin chal- cone ; Cardamomin
19408-84-5	NATUG	A.73	Dihydrocapsaicin
19416-87-6	NAURU	A.151	Isosaponarin
19431-84-6	NATP8	A.57	Curcumenol
19467-03-9	NAUYI	A.171	Melittoside
19573-01-4	NATJG	A.36	Byakangelicin ; 9-(2,3-dihy- droxy-3-methylbutoxy)- 4-methoxyfuro[3,2-g]chromen- 7-one
19595-18-7	NAUPI	A.143	25S-Inokosterone
19666-76-3	NAVHU	A.199	Panaxadiol ; 20(R)-Panaxadiol
19682-38-3	NAUPH	A.143	25R-Inokosterone
19685-09-7	NAUMI	A.133 C.5	(S)-10-Hydroxycamptothecin ; 10-HCPT ; 10-Hydroxycamp- tothecin
19685-10-0	NAUYU	A.172	10-Methoxycamptothecin
19716-26-8	NAVXE	A.248	Stigmasterol glucoside
19716-59-7	NAVH7	A.197	Oxypalmatine
19716-60-0	NAVGU	A.196	8-Oxo-epiberberine
19716-61-1	NAVH3	A.197	8-Oxycoptisine
19773-24-1	NAVIE	A.201	Peimisine ; Ebeiensine
19843-03-9	NATRJ	A.64	Dehydrodicentrine
19870-46-3	NATTP	A.71	1,3-Dicaffeoylquinic acid ; 1,3-O- Dicaffeoylquinic acid;1,5-Dicaf- feoylquinic acid
19879-30-2	NATGY	A.27	Bavachinin ; 7-O-Methylbava- chin ; Bavachinin A
19879-32-4	NATGX	A.27	Bavachin ; Corylifolin
19885-10-0	NATC0	A.8	Alisol A ; Alisol-A
19895-95-5	NAUT1	A.155	Kaempferol 3-O-beta-sopho- roside
19902-91-1	NATUS	A.75	Dihydromethysticin ; (+)-Dihy- dromethysticin
19906-72-0	NATGN	A.26	Bakkenolide A
19908-48-6	NAUX3	A.167	DL-Maackiain
19912-84-6	NATLD	A.43	Chamigrenal
19937-86-1	NATOL	A.54	Crocatone
19942-02-0	NAUJW	A.126	Gymnestrogenin
19950-55-1	NAWDP	A.268	Veraguensin
19993-32-9	NATM4	A.46	Unrysoeriol-7-O-beta-D-gluco- pyranoside
20013-23-4	NAURW	A.151	Isoscoparin
20069-09-4	NAVL0	A.209	Piperlongumine
20085-85-2	NATYO	A.88	Epicurzerenone
20086-06-0	NATWV	A.82	Diosbulbin B
20086-60-6	NATZ4	A.90	Epinodosin

N° CAS	Ref.	Pages	Names
20126-59-4	NATWZ	A.83	Diosmetin-7-O-beta-D-glucopy- ranoside
20137-37-5	NAVR6	A.230	Rotundic acid ; llexolic acid A ; (3beta,4alpha)-3,19,23-Trihy- droxyurs-12-en-28-oic acid
20175-84-2	NAUQF	A.147	Isodiospyrin
20183-47-5	NAVZ3	A.253	Tenuifolin
20188-85-6	NAVG0	A.194	Ombuoside
20243-59-8	NAUN4	A.135	Hydroxygenkwanin ; 3,5-dihy- droxy-2-(4-hydroxyphenyl)- 7-methoxychromen-4-one ; Rhamnocitrin ; Hydroxygen- kwanin ; 7-Methylkaempferol ; 3,4',5-Trihydroxy-7-methoxy- flavone
20245-39-0	NATWF	A.80	2-(3,3-Dimethylallyl)-1,3,7-trihy- droxyxanthone
20261-38-5	NAUG5	A.110	Ginkgolic Acid (C13:0) ; Gin- kgolic acid (130) ; Ginkgoneolic Acid ; 6-Tridecylsalicylic acid
20279-06-5	NAULG	A.131	Homodihydrocapsaicin I
20283-92-5	NAVR2	A.229	Rosmarinic acid ; Labiatenic acid
20311-51-7	NAVW0	A.245	Solamargine ; Solamargin ; δ-Solanigrine
20315-25-7	NAVMU	A.214	Procyanidin B1
20316-62-5	NAWAU	A.259	trans-Tiliroside
20318-30-3	NAVW1	A.245	Solamarine
20329-96-8	NAVA3	A.178	Methyl trans-3-(3,4,5-trime- thoxyphenyl)acrylate
20329-98-0	NAWCE	A.263	3,4,5-Trimethoxy-trans-cinnamic acid
20344-46-1	NAUWS	A.165	Luteolin-5-O-glucoside
20347-65-3	NATIS	A.34	Bronyl acetate
20362-31-6	NATEL	A.17	Arctiin ; Arctii ; NSC 315527 ; Arctigenin-4-glucoside
20380-11-4	NAUMO	A.134	27-Hydroxycholesterol
20501-56-8	NAVYB	A.251	Talatisamine
20516-23-8	NAVJ6	A.203	(+)-Peucedanol
20547-45-9	NAVHH	A.198	Paederoside
20554-84-1	NAVI5	A.200	Parthenolide ; (-)-Parthenolide
200/0-0/-9		A.37	
20633-07-4	NAVC3	A.38 A.181	Monomelittoside ; Danmelit-
20697-20-5	NAVBC	A.179	Methysticin ; DL-Methysticin ; (±)-Methystici
20736-08-7	NAVRS	A.232	Saikosaponin C
20736-09-8	NAVRP	A.231	Saikosaponin A
20784-50-3	NAUQ1	A.146	Isobavachalcone
20784-60-5	NAVA9	A.174	4'-O-Methylbavachalcone
20830-75-5	NATU4	A.73	Digoxin ; 12beta-Hydroxydigi- toxin ; CHEBI4551 ; Lanoxi- caps ; Lanoxin
20831-76-9	NAUFO	A.108	Gentiopicroside
20874-52-6	NAVRT	A.232	Saikosaponin D
20882-75-1	NAVXP	A.249	Swertianin

N° CAS	Ref.	Pages	Names
20931-37-7	NAUXS	A.169	beta-Mangostin ; β-Mangostin
20958-18-3	NATUO	A.75	Dihydroisotanshinone I
20977-05-3	NAVVX	A.244	Sodium Aescinate
20987-24-0	NAVQ4	A.226	Resibufagin
21018-84-8	NATD0	A.12	Amarogentin
21059-46-1	NATFI	A.20	Aspartic acid (calcium) ; Calcium L-aspartate
21082-33-7	NAVGK	A.195	Orcinol glucoside
21104-28-9	NAUXK	A.168	Mahanimbine
21392-57-4	NATW5	A.80	5,7-Dimethoxyflavone ; 5,7-Dimethoxy-2-phenyl-4H- chromen-4-one
21414-41-5	NAUHL	A.119	Glucoraphanin
21453-69-0	NAVXY	A.250	(+)-Syringaresinol
21499-66-1	NATIX	A.34	Bruceine D
21637-25-2	NAVPC	A.223	Quercitin-3-beta-D-glucofura- noside
21698-40-8	NAVMR	A.214	Procurcumenol
21796-15-6	NAWAB	A.257	Thalifoline
21913-98-4	NAUYZ	A.173	3"-Methoxydaidzein
21956-56-9	NAVKV	A.208	Trans-Pinosylvin dimethyl ether
21967-41-9	NATGK	A.26 C.2	Baicalin ; Baicalein 7-O-β-D- glucuronide
22007-72-3	NAWE7	A.270	Vincetoxicoside B ; 2-(3,4-DIHYDROXYPHENYL)- 3,5-DIHYDROXY-7- ([[2S,3R,4R,5R,6S)-3,4,5- TRIHYDROXY-6-ME- THYLOXAN-2-YL]OXY) CHROMEN-4-ONE
22136-74-9	NAVLG	A.210	Podocarpusflavone A
22139-77-1	NAVKX	A.208	Pinosylvine
22149-35-5	NAUSU	A.154	Kaempferol-3-O-gentiobioside ; Kaempferol 3-gentiobiosid-,3- (6-O-β-D-Glucopyranosyl-β- D-glucopyranosyloxy)-4',5,7- trihydroxyflavone
22255-13-6	NAUJQ	A.126	Guajavarin ; 2-(3,4-dihydroxyphenyl)-5,7- dihydroxy-3-[(2S,3R,4S,5S)- 3,4,5-trihydroxyoxan-2-yl] oxychromen-4-one
22255-22-7	NAWCH	A.264	trans-Trimethoxyresveratrol ; trans-trismethoxy Resveratrol ; E-Resveratrol Trimethyl Ether ; Tri-O-methylresveratrol
22255-40-9	NAUW3	A.164	Loganic acid
22327-82-8	NAVL3	A.209	Platycodigenin
22338-71-2	NAVLO	A.211	Polygalacic acid
22368-21-4	NAUAW	A.95	Eupatilin
22419-74-5	NAUP2	A.142	Incensole ; (1S,2R,5E,9E,12R)-1,5,9- Trimethyl-12-(1-methylethyl)- 15-oxabicyclo[10.2.1]pentade- ca-5,9-dien-2-ol
22427-39-0	NAUGT	A.115	Ginsenoside Rg1 ; Panaxoside A ; Panaxoside Rg1
22467-07-8	NAUJU	A.126	Gymnemagenin
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N° CAS	Ref.	Pages	Names
22608-11-3	NATSA	A.66	Demethoxycurcumin ; Curcumin II ; Desmethoxycurcumin ; Monodemethoxycurcumin
22688-79-5	NAVPB	A.223	Quercetin-3-O-glucuronide
22804-52-0	NAWA5	A.257	1,2,3,7-Tetramethoxyxanthone
22888-70-6	NAVVE	A.243	Silybin ; Silybin is the mixture of Silybin A and Silybin B
22900-11-4	NATAT	A.4	N-Acetylneuraminic Acid Methyl Ester
22910-60-7	NAUG4	A.110	Ginkgolic Acid ; Ginkgolic acid (151) ; Ginkgolic acid I ; Roma- nicardic acid
23013-84-5	NAUIR	A.122	Glycyrol
23044-80-6	NATBN	A.6	Ajugasterone C
23050-38-6	NAWCG	A.264	5,7,8-Trimethoxyflavone
23062-24-0	NAUB5	A.95	Eurycomalactone
23094-69-1	NATNU	A.51	Corilagin
23094-71-5	NATLG	A.43	Chebulagic acid
23180-57-6	NAVHK	A.198	Paeoniflorin ; Peoniflorin
23180-65-6	NATNF	A.50	Columbianetin acetate
23313-21-5	NATYE	A.87	Emodin-8-glucoside ; Emodin-8- Ο-β-D-glucopyranoside
23445-00-3	NAVXQ	A.249	Swertianolin
23458-02-8	NATR7	A.63	Decursinol ; (3S)-3-hydroxy-2,2- dimethyl-3,4-dihydropyrano[3,2- g]chromen-8-one ; (+)-Decursinol; (S)-(+)-decur- sinol ; UNII-UBI4YB704B ; UBI4YB704B
23496-41-5	NAVIC	A.201	Peimine ; Verticine ; Dihydroi- soimperialine
23513-08-8	NAUG0	A.109	8-Gingerol
23513-14-6	NAUG1	A.109	6-Gingerol
23513-15-7	NAUG2	A.109	10-Gingerol
23567-23-9	NAVMV	A.215	Procyanidin B3
23599-69-1	NAVEN	A.189	Norisoboldine ; (+)-Laurelliptine
23627-87-4	NAWBR	A.261	Trifolin
23643-61-0	NATEM	A.17	Ardisiacrispin A
23661-28-1	NAVJF	A.204	Phenyl 2,3,4,6-Tetra-O-acetyl-1- thio-β-D-glucopyranoside
23666-13-9	NAWE0	A.269	Vicenin-II ; 5,7-DIHYDROXY- 2-(4-HYDROXYPHENYL)- 6,8-BIS[(2S,3R,4R,5S,6R)- 3,4,5-TRIHYDROXY-6- (HYDROXYMETHYL) OXAN-2-YL]CHROMEN-4-ONE
23696-28-8	NAVFS	A.193	Olaquindox ; N-(2-hydroxyethyl) 3-methyl-4-oxido-1-oxoquinoxa- lin-1-ium-2-carboxamide
23720-80-1	NAVD3	A.184	Nardosinone ; (3aR,9R,9aR,9bS)- 1,3a,4,7,8,9,9a,9b-Oc- tahydro-1,1,9,9a-te- tramethyl-5H-naphtho[2,1-c][1,2 dioxol-5-one
23800-56-8	NAVLJ	A.211	Pogostone ; 4-Hydroxy-6-me- thyl-3-(4-methyl-1-oxopentyl)- 2H-pyran-2-one ; Dhelwangin
24063-71-6	NAUQC	A.147	Isocurcumenol

N° CAS	Ref.	Pages	Names
24094-45-9	NATU1	A.73	Digiferruginol
24159-07-7	NAUBK	A.97	Febrifugine
24160-36-9	NAWBK	A.261	Trametenolic acid
24211-30-1	NAUBJ	A.97	Farrerol
24240-04-8	NATCI	A.10	Allocryptopine ; 5,7,8,15-Tetra- hydro-3,4-dimethoxy-6-me- thyl-[1,3]benzodioxolo[5,6-e] [2]benzazecin-14(6H)-one ; Allocryptopine ; Thalictrimine ; Allocryptopine ; Allo-cryptopine ; Alpha-Allocryptopine
24267-69-4	NAVUT	A.242	Shikokianin
24268-41-5	NAUDH	A.102	Furanodienone
24276-84-4	NAUBR	A.97	Ferulic acid (sodium) ; Sodium ferulate
24316-19-6	NATL4	A.42	Cephalotaxlen ; (-)-Cepha- lotaxine ; ZINC19795976
24390-14-5	NATXF	A.84	Doxycycline (hyclate) ; Doxycy- cline hydrochloride hemiethano- late hemihydrate ; WC2031
24393-56-4	NAUA5	A.93	Ethyl 4-methoxycinnamate
24404-50-0	NATZ8	A.91	(+)-Epipinoresinol
24404-53-3	NAVJG	A.204	Phenyl 2,3,4,6-Tetra-O-acetyl-1- thio-β-D-galactopyranoside
24502-79-2	NATWE	A.80	beta,beta-Dimethylacrylshikonin
24512-62-7	NAUF9	A.107	Gardenoside; ME I HYL (1R,4AR,7S,7AR)-7-HYDROXY- 7-(HYDROXYMETHYL)-1- [(2S,3R,4S,5S,6R)-3,4,5-TRIHY- DROXY-6-(HYDROXYMETHYL) OXAN-2-YL]OXY-4A,7A-DI- HYDRO-1H-CYCLOPENTA[C] PYRAN-4-CARBOXYLATE
24512-63-8	NAUFI	A.108 C.5	Geniposide
24513-63-1	NAUNV	A.137	6alpha-Hydroxypolyporenic acid C
24558-60-9	NAVWZ	A.247	C14-Sphingosine
24697-74-3	NAUUV	A.161	Leonurine ; SCM-198
24699-16-9	NAUR7	A.149	Isomangiferin
24735-18-0	NAUUW	A.161	Leonurine (hydrochloride) ; SCM-198 hydrochloride
24815-24-5	NAVQ3	A.226	Reserpinine
24916-90-3	NATTG	A.70	Dexamethasone 9,11-epoxide
25274-27-5	NATEZ	A.19	Aristolone ; (1aR,7R,7aR,7bS)-1,1,7,7a- tetramethyl-1a,4,5,6,7,7b- hexahydrocyclopropa[a] naphthalen-2-one
25368-11-0	NATFM	A.21	Asperulosidic acid
25402-06-6	NATMI	A.47	Cinerin I
25406-64-8	NAVCA	A.182	Morroniside
25499-90-5	NATZ6	A.90	3-Epioleanolic acid
25514-31-2	NATIW	A.34	Bruceine A ; Dihydrobrusatol ; NSC310616
25712-94-1	NAULF	A.131	Homoarbutin
25739-41-7	NAWDO	A.268	Velutin
258/8-23-3	NAUOR	A.141	D-IGITOI

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N° CAS	Ref.	Pages	Names	N° CAS	Ref.	Pages	Names
26091-73-6	NAVH8	A.197	Oxypeucedanin ; 4-[[(2S)-3,3- dimethyloxiran-2-yl]methoxy] furo[3,2-g]chromen-7-one	27994-11-2	NATME	A.47	Cimigenoside ; Cimige- side ; CiMigenol 3-O-β-D- xylopyranoside ; Cimigenol-3-O-
26091-79-2	NATI3	A.31	Biacangelicol ; Byakangelicol	0700440.0	NIATAS		β-D-xylpyranoside ; Cimigoside
26116-89-2	NAVQN	A.228	Rhodojaponin II ; (14R)- 2β,3β-Epoxygrayanotoxane- 5,6β,10,14,16-pentol 6-acetate	27994-12-3 27994-13-4	NATA5 NAVAD	A.2 A.175	25-Acetate-Cimigenoside 25-O-Methylcimigenol-3-O-beta- D-xylopyranoside
26146-27-0	NAUVN	A.162	Linderene	28097-03-2	NATL9	A.43	Chaetocin
26166-37-0	NATSQ	A.68	Denudatine ; (20R)-16,17-	28115-68-6	NAVLE	A.210	Pluviatolide
			Didehydro-21-ethyl-4-methyl- 7α,20-cycloatidane-11β,15β-diol	28148-89-2	NAVIQ	A.202	Peonidin-3-O-galactoside chloride
26339-90-2	NATZP	A.92	Escin Ib	28279-72-3	NATGH	A.25	Baicalein 6-O-glucoside
26342-66-5	NAVQO	A.228	Rhodojaponin III	28282-25-9	NATY2	A.86	beta-Elemonic acid
26472-41-3	NAULU	A.132	Humulon	28342-31-6	NATZZ	A.93	6-Ethoxysanguinarine
26543-89-5	NAUL9	A.130	(-)-Hinokinin	28360-49-8	NAUXL	A.168	Mahanine
26544-34-3	NATE6	A.16	Apiin	28368-57-2	NATM2	A.46	Chrysin 6-C-glucoside
26575-93-9	NATC5	A.9	Alisol C (23-acetate) ;	28371-16-6	NATCV	A.11	Aloin B ; Aloin-B ; Isobarbaloin
	NATOO		monoacetate	28448-85-3	NATGW	A.27	Bavachalcone ; Broussochal- cone B
20070-90-1	NATC3	A.9	Alisol B (23-acetate) ; 23-Acety- lalismol B ; 23-O-Acetylalisol B ; Alisol B monoacetate	28500-00-7	NATS3	A.66	Delphinidin-3-O-galactoside chloride
26791-73-1	NAWFF	A 273	Xanthatin	28543-07-9	NAWAE	A.258	Theaflavin 3'-gallate
26833-85-2	NAUKA	A 127	Harringtonine	28587-43-1	NAUFW	A.109	7-O-Geranylscopoletin
26833-87-4	NAULH	A 131	Homoharringtonine	28608-75-5	NAVGM	A.195	Orientin
26871-46-5	NAUR5	A.149	Isomahanimbine	28610-30-2	NAUPX	A.145	Isoanhydroicaritin
26904-64-3	NAVHE	A.198	Oxysophocarpine	28610-31-3	NAVEI	A.188	Noranhydroicaritin
27013-91-8	NAUKJ	A.128	alpha-Hederin ; α-Hederin	28649-59-4	NAUAY	A.95	Euphobiasteroid
27028-76-8	NAVW5	A.246	Solasurine	28649-60-7	NATZE	A.91	6,17-Epoxylathyrol
27200-12-0	NATUU	A.76	Dihydromyricetin ; (2R,3R)-	28789-35-7	NAVEL	A.188	Nordihydrocapsaicin
		C.4	3,5,7-trihydroxy-2-(3,4,5- trihydroxyphenyl)-2,3- dihydrochromen-4-one ;	28808-62-0	NAUCN	A.100	Fraxinellone ; (3R,3aR)-3-(furan- 3-yl)-3a,7-dimethyl-3,4,5,6-tetra- hydro-2-benzofuran-1-one
			Ampelopsin ; Ampeloptin ;	28831-65-4	NAUVZ	A.163	Lithospermic acid
			lopsin ; (+)-Dihydromyricetin ;	28832-07-7	NATTS	A.72	L-Dicentrine
			Ampelopsin	28957-04-2	NAVGL	A.195	Oridonin
27208-80-6	NAVLL	A.211	Polydatin ; Piceid	28957-08-6	NAUUO	A.160	Lasiodin
27210-57-7	NAVBH	A.179	Miltirone	28978-02-1	NAVI9	A.200	Pectolinarin
27215-14-1	NAVDF	A.185	Neoandrographolide ; Neoan- drographiside	29070-92-6	NAVHF	A.198	Pachymic acid ; 3-O-Acetyltu- mulosic acid
27335-85-9	NAVMI	A.213	Precyasterone	29106-36-3	NAVKS	A.208	Pinoresinol dimethyl ether ;
27348-54-5	NAUNJ	A.136	(2S)-4'-Hydroxy-7-methoxy- flavan				dimethoxyphenyl)-1,3,3a,4,6,6a- hexahydrofuro[3 4-c]furan
27409-30-9	NAVKD	A.207	Picroside I				(+)-Eudesmin
27468-20-8	NAVDL	A.186	Neocryptotanshinone ¢ò	29106-49-8	NAVMW	A.214	Procyanidin B2 ; Proanthocya-
27495-40-5	NAVNI	A.217	Protostemonine				nidin B2
27530-67-2	NAUBM	A.97	Feretoside	29220-16-4	NATRY	A.65	Dehydrotrametenolic Acid ;
27548-93-2	NATGF	A.25	Baccatin III				30eta-Hydroxylanosta- 7 9(11) 24-trien-21-oic acid
27661-51-4	NAUUY	A.161	Leucoside	29307-60-6	NAUFH	A 108	Genipin 1-gentiobioside
27740-01-8	NAVTS	A.239	Scutellarin	29388-59-8	NAVTV	A.239	Secoisolariciresinol
27741-01-1	NAUFJ	A.108	Geniposidic acid	29424-96-2	NAVRX	A.232	Sakuranetin 4'-methvl ether
27876-94-4	NATOM	A.54	Crocetin ; roceic acid ; 8,8'-dia- po-psi ; psi-carotenedioic acid ; Alpha-Crocetin	29477-83-6	NAVD1	A.184	Narciclasine ; (2S,3R,4S,4aR)- 2,3,4,7-tetrahydroxy-3,4,4a,5- tetrahydro-2H-[1,3]dioxolo[4,5-j]
21910-19-0	NAUKZ	A.151	iso-Steviol; (-)-isosteviol;	29536-44-5	NAUAX	A.95	phenanthridin-6-one Eupatoletin

N° CAS	Ref	Pages	Names
20554 26 5		A 27	(E) N Coffeevileutrossine
29004-20-0		A.37	
29023-29-0	INAVEI	A.197	acid
29700-22-9	NAVHB	A.197	Oxyresveratrol ; trans-Oxyres- veratrol
29741-09-1	NATE5	A.16	Apigenin-7-O-glucuronide
29741-10-4	NAUWT	A.166	Luteolin-7-beta-D-glucuronide ; (2S,3S,4S,5R,6S)-6-((2- (3,4-DIHYDROXYPHENYL)- 5-HYDROXY-4-OXO- 4H-CHROMEN-7-YL) OXY)-3,4,5-TRIHYDROXY- TETRAHYDRO-2H-PYRAN- 2-CARBOXYLIC ACID ; Luteolin 7-O-beta-D-glucuronopyrano- side; Luteolin 7-O-beta-glucu- ronide
29745-04-8	NAVEK	A.188	Norcantharidin
29782-68-1	NAVVG	A.243	Silydianin
29836-27-9	NAVUP	A.241	Shanzhiside
29838-67-3	NATFO	A.21	Astilbin
29883-15-6	NATD6	A.12 C.2	Amygdalin
29884-49-9	NATFW	A.23	Astringin ; (2S,3R,4S,5S,6R)- 2-(3-[(E)-2-(3,4-DIHY- DROXYPHENVL)ETHENYL]- 5-HYDROXYPHENOXY)- 6-(HYDROXYMETHYL) OXANE-3,4,5-TRIOL ; Piceatannol-3'-O-β-D- glucopyranoside
30045-16-0	NATRF	A.64	Dehydrocorydaline
30186-93-7	NATX8	A.83	Disaminyl Ether
30197-14-9	NATTF	A.70	Desoxyrhaponticin ; 2-[3-hydroxy-5-[(E)-2-(4-me- thoxyphenyl)ethenyl]phenoxy]- 6-(hydroxymethyl)oxane-3,4,5- triol ; Deoxyrhapontigenin O-glucoside ; Desoxyrhaponticin
30219-16-0	NATEP	A.18	Arenobufagin 3-hemisuberate
30220-46-3	NAUPE	A.143	Ingenol ; (-)-Ingenol
30271-38-6	NAUMN	A.134	24-Hydroxycholesterol
30462-35-2	NAWAF	A.257	Theaflavin-3,3'-digallate(TF3)
30489-27-1	NATC4	A.9	Alisol C
30557-81-4	NATIA	A.32	Bisabolangelone
30636-90-9	NAVNB	A.216	(20S)-Protopanaxadiol ; 20-Epi- protopanaxadiol ; 20(S)-APPD
30950-27-7	NAVIT	A.202	Perillartine ; DL-Perillartine
30964-13-7	NATPW	A.59	Cynarin ; Cynarine
31002-12-7	NAVAQ	A.176	7-O-Methylmangiferin ; 2-beta-D-Glucopyranosyl-1,3,6- trihydroxy-7-methoxy-9H-xan- then-9-one
31008-18-1	NAUXI	A.168	Magnolin
31008-19-2	NAUBI	A.96	Fargesin
31078-36-1	NATR9	A.63	Decylic acid vanillylamide
31271-07-5	NAUXT	A.169	Gama-Mangostin ; Norman- gostin

N° CAS	Ref.	Pages	Names
31512-06-8	NAVHT	A.199	Panasenoside ; Kaempferol- 3-O-glucosyl (1-2) galactoside
31524-62-6	NAUQ2	A.146	Isobavachin
31525-75-4	NAU00	A.138	5-Hydroxyseselin
31721-94-5	NATV5	A.77	5,7-Dihydroxychromone
31768-94-2	NAUWY	A.166	(-)-Lyoniresinol
31892-98-5	NAUAA	A.93	(E)-Ethyl 3-(3,4,5-trime- thoxyphenyl)acrylate
32383-76-9	NAUYD	A.171	Medicarpin
32434-44-9	NAUQL	A.147	Isofebrifugine
32449-98-2	NAUTK	A.156	Khasianine
32451-88-0	NAUQ8	A.146	Isochlorogenic acid C
32476-67-8	NAVIW	A.203	Periplocymarin
32507-66-7	NAURQ	A.150	Isorhapotogenin
32619-42-4	NAVFY	A.194	Oleuropein
32685-93-1	NATXW	A.86	Edpetiline
32/91-84-/	NAVHV	A.199	Panaxatriol
32854-75-4	NAUUL	A.160	Lappaconitine ; (+)-Lappaco- nitine
32981-86-5	NATQQ	A.62 C.4	10-Deacetyl Baccatin III
32986-56-4	NAWB1	A.259	Tobramycin
33012-73-6	NATPI	A.58	Cyanidin-3-O-sambubioside chloride
33037-46-6	NATCQ	A.11	Aloe-emodin-8-O-beta-D-gluco- pyranoside
33069-62-4	NAVHG	A.198 C.7	Paclitaxel
33171-05-0	NATIC	A.32	Bisdemethoxycurcumin ; Curcu- min III ; Didemethoxycurcumin
33237-37-5	NAVRJ	A.230	Rutaevin
33286-30-5	NATKA	A.39	Carboxyatractyloside
33289-85-9	NATX4	A.83	Dipsacoside B
33390-41-9	NATTE	A.70	8-Desoxygartanin
33390-42-0	NAUFA	A.107	Gartanin
33457-62-4	NATCO	A.10	Alnustone ; (4E,6E)-1,7-Diphe- nyl-4,6-heptadien-3-one
33458-82-1	NAUBD	A.96	Evonine
33464-71-0	NAWBJ	A.261	Tracheloside ; 2-Hydroxyarctiin
33464-78-7	NAVEP	A.189	Nortracheloside ;
33570-04-6	NATI7	A.31	Bilobalide ; (-)-Bilobalide
33620-72-3	NATIQ	A.33	Britannilactone ; Desacetyli- nulicin
33627-41-7	NATAJ	A.144	Inulicin
33676-00-5	NAUOL	A.140	Hypophyllanthin
33783-82-3	NAUKE	A.128	Hederacolchiside E
33889-69-9	NAVVF	A.243	Silychristin ; (2R,3R)-3,5,7- TRIHYDROXY-2-[(2R,3S)- 7-HYDROXY-2-(4-HYDROXY- 3-METHOXYPHENYL)- 3-(HYDROXYPHENYL)- 3-(HYDROX1-BENZOFURAN- 5-YL]-2,3-DIHYDROCHRO- MEN-4-ONE
34080-08-5	NAVNE	A.217	(20S)-Protopanaxatriol ; 20(S)- APPT ; g-PPT

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N° CAS	Ref.	Pages	Names	N° CAS	Ref.	Pages	Names
34157-83-0	NATL0	A.42	Celastrol ; Tripterine	35963-37-2	NAUPK	A.144	Inotodiol
34175-96-7	NAVOB	A.220	Pterosin B ; (2R)-6-(2- hydroxyethyl)-2,5,7-trime-	36052-37-6	NATCX	A.12	Alpinetin ; 7-Hydroxy-5-me- thoxyflavanone
			thyl-2,3-dihydroinden-1-one	36062-04-1	NAVZO	A.255	Tetrahydrocurcumin ; HZIV 81-2
34208-98-5	NAUNE	A.136	7beta-Hydroxylathyrol	36062-05-2	NAUL3	A.130	Hexahydrocurcumin
34221-41-5 34291-22-0	NATXS NATLM	A.86 A.44	Echinatin Chikusetsusaponin 5 methyl	36062-07-4	NAVFJ	A.192	Octahydrocurcumin ; Hexahy- drobisdemethoxycurcumin
34298-86-7	NAVQJ	A.228	ester Rhein-8-glucoside : Rhein-8-O-	36190-98-4	NAUFL	A.108	Genistein 7,4'-di-O-β-D- alucopyranoside
			β-D-glucopyranoside	36284-77-2	NAUKI	A.128	Hederasaponin B
34316-15-9	NATLI	A.44	Chelerythrine ; 1,2-dime-	36338-96-2	NAVRM	A.231	Safflower Yellow : Carthamine
			thoxy-12-methyl-[1,3]	36417-86-4	NAVHZ	A.200	Paprazine
			din-12-ium	36531-08-5	NAUJL	A.125	Guaiacin
34328-54-6	NATHE	A 29	Benzyl 2 6-dimethoxybenzoate	36700-45-5	NAVUY	A.242	8-Shogaol
34367-04-9	NAUH8	A.118	Ginsenoside Ro : Polysciasa-	36752-54-2	NAVUZ	A.242	10-Shogaol
			ponin P3 ; Chikusetsusaponin 5 ; Chikusetsusaponin V ; Ginsenoside-Ro	36861-47-9	NAVAA	A.174	3-(4'-Methylbenzylidene) camphor
34420-19-4	NAUUP	A.160	Lathyrol ; Vegetable origin	36948-76-2	NAVGS	A.196	Oroxyloside ; Oroxylin A 7-glucuronide
34539-65-6	NATWD	A.80	beta,beta-Dimethylacrylal-	37239-47-7	NAWF4	A.272	Wilforgine
			kannin ; [(1S)-1-(5,8-dihy-	37239-48-8	NAWF8	A.273	Wilfortrine
			droxy-1,4-dioxonaphthalen- 2-vl)-4-methylpent-3-envl]	37239-51-3	NAWF3	A.272	Wilfordine
			3-methylbut-2-enoate	37271-16-2	NAVUC	A.240	Sennoside C
34539-84-9	NATRS	A.65	6,7-Dehydroferruginol	37271-17-3	NAVUD	A.241	Sennoside D
34540-22-2	NAUXF	A.168	Madecassoside ; Asiaticoside A	37720-86-8	NAVQP	A.228	Rhodojaponin V
34701-53-6	NAUP3	A.142	Incensole acetate	37905-08-1	NAUSH	A.153	Jolkinolide B
34981-25-4	NAUTX	A.157	Kuraridine	37921-38-3	NATMB	A.47	Cimifugin ; Cimitin
34981-26-5	NAUTZ	A.157	Kurarinone	38226-84-5	NAUC0	A.98	Filixic acid ABA
35012-08-9	NATP2	A.56	Cucurbitadienol	38226-86-7	NATDS	A.14	Anhydroicaritin
35031-00-6	NAUA6	A.93	Ethyl 4-methoxysalicylate	38243-03-7	NAUGU	A.116	Ginsenoside (R)Rg3
35231-44-8	NATIR	A.33	4-(Bromomethyl)-7-methoxy coumarin ; 4-(bromomethyl)-	38337-25-6	NAUHK	A.119	3-O-β-D- Glucopyranosylplatycodigenin
25206 50 0	NAWCC	A 077	Zivuglyoosido I	38395-02-7	NATKW	A.42	Caudatin
35286-50-0	NAWGO	A.277		38412-46-3	NATCR	A.11	Aloenin
33200-33-0	NANOD	A.211	II ; Gouguside 1,(3beta)-3-	38642-49-8	NATHE	A.29	Benzoylpaeoniflorin
			(alpha-L-Arabinopyranosyloxy)-	38647-11-9	NAWCR	A.264	Triptonide
35290-19-8	NAUZ6	A.173	19-hydroxyurs-12-en-28-oic acid (2S)-5-Methoxy-6-methylfla-	38665-01-9	NAVDO	A.186	Neodiosmin ; diosmetin 7-0- neohesperidoside.
			van-7-ol	38736-77-5	NATI0	A.31	alpha-Betulinic acid
35290-20-1	NAUZ1	A.173	(2S)-5-Methoxy-7-flavanol	38748-32-2	NAWCQ	A.264	Triptolide
35302-70-6	NAVKW	A.208	Pinosylvin monomethyl ether	38763-29-0	NAWFC	A.273	Worenine
35349-68-9	NAWFJ	A.274	Xanthone I	38840-23-2	NATYD	A.87	Emodin 1-glucoside
35354-74-6	NAULK	A.131	Honokiol ; NSC 293100	38853-67-7	NAVZP	A.255	Tetrahydroepiberberine
35/67-/3-7	ΝΛΗΛ	0.0 A 130	Hireutoino	38950-94-6	NAWEI	A.2/1	Vitexin 4'-glucoside
35720-78-0	NATEY	A.150	Cyparopicrip	38953-85-4	NAUS3	A.152	
357/0-18-2		A 107		38963-94-9	NAVPP	A.225	Raspberry ketone glucoside
35775-40-6	NATM1	A.157	Chrysin Z O beta D glucopyra	38971-41-4	NAVGE	A.195	
55115-45-0		A.40	nuronoside	39011-90-0	NATEW	A.ŏ	
35790-95-5	NATY6	A.87	Eleutheroside K	39011-91-1	INAVH6	A.197	
35825-57-1	NATOR	A.55	Cryptotanshinone ; Crypto-	39011-92-2		A.247	Spechuezhenide ; Nuznenide
			tanshinon ; Tanshinone c	39012-04-9		A.90	
35906-36-6	NAVG1	A.194	Onjisaponin B ; Senegin III	20026 02 4		A.207	
35927-38-9	NAWDY	A.269	Vicenin 1	30020-32-1	NALITE	Δ 155	Karacoline
				33003-30-0	11/10/11	A. 100	Nurdoonno

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N° CAS	Ref.	Pages	Names	
39262-14-1	NAUGC	A.111	Ginsenoside C-K ; Ginsenoside K ; Ginsenoside compound K	
39432-56-9	NATY5	A.87	Eleutheroside E	
39524-08-8	NATFJ	A.21	Asperosaponin VI ; Akebia saponin D ; Asperosaponin VI	
39763-38-7	NATV0	A.77	(-)-Dihydrovomifoliol	
40039-49-4	NAVY2	A.250	Syringetin-3-O-glucoside	
40246-10-4	NAUIL	A.122	Glycitin ; Glycitein 7-Ο-β- glucoside	
40456-50-6	NAWFR	A.275	Yatein	
40456-51-7	NATJ8	A.36	Bursehernin	
40957-83-3	NAUIK	A.121	Glycitein ; Glycetein	
40957-99-1	NAUYE	A.171	Medioresinol	
41059-79-4	NAWAX	A.259	Timosaponin A-III ; Timosapo- nin A3	
41060-15-5	NAVDG	A.185	Neobavaisoflavone	
41060-16-6	NAVVU	A.244	Skullcapflavone I	
41093-60-1	NAVXB	A.248	Steviolbioside	
41328-75-0	NAURL	A.150	Isorhamnetin 3-sophoroside- 7-rhamnoside	
41357-84-0	NAWC0	A.262	1,3,6-Trihydroxy-5-methoxyxan- thone	
41451-75-6	NATIV	A.34	Bruceantin ; (-)-Bruceantin ; NCI165563 ; NSC165563	
41451-87-0	NAWD3	A.266	Turkesterone ; 2,3,11,14,20,22,25-Heptahy- droxycholestenone	
41475-28-9	NATH5	A.255	6,7,12b,13-tetrahydro-12b- hydroxy-5-methyl-4H-Bis[1,3] benzodioxolo[5,6-a:4',5'-g] quinolizinium inner salt	
41535-95-9	NATW7	A.80	1-(3,4-dimethoxyphenyl)-2-(4- allly-2,6-dimethoxyphenoxy) propan-1-ol	
41679-33-8	NAVWX	A.247	trans-4-cis-8-Sphingadienine	
41679-97-4	NAUZT	A.176	7-O-Methyl morroniside	
41682-24-0	NATEK	A.17	Arctigenin 4'-O-β-gentiobioside	
1743-38-8	NATGZ	A.28	Bavachromene	
41743-41-3	NAVMS	A.214	Procyanidin A2	
41743-60-6	NAVOT	A.222	Pyrochamissanthin	
41743-73-1	NAUPS	A.144	Irisflorentin ; 9-methoxy- 7-(3,4,5-trimethoxyphenyl)-[1,3] dioxolo[4,5-g]chromen-8-one	
41753-43-9	NAUGL	A.112	Ginsenoside Rb1 ; Gypeno- side III	
41753-55-3	NAVGH	A.195	Ophiopogonin D	
41758-69-4	NAUBC	A.96	Evonimine	
41945-48-6	NAWGO	C.9	Sodium tauroglycocholate ; 2-[[[(3a,5b,7a,12a)-3,7,12- Trihydroxy-24-oxocholan-24-yl] amino]acetyl]amino]-ethanesul- fonic acid mono sodium salt ; Sodium glycotaurocholate	
42206-94-0	NATA6	A.4	Acetyl Resveratrol ; [4-[2-(3,5-diacetyloxyphenyl) ethenyl]phenyl] acetate	
42438-78-8	NAVI7	A.200	Pashanone	
42483-24-9	NAUNF	A.136	23-Hydroxylongispinogenin	

N° CAS	Ref.	Pages	Names
42553-65-1	NATON	A.54	Crocin I
42719-32-4	NAVIB	A.201	Pedunculoside
42895-58-9	NATT1	A.69	14-Deoxy-11,12-didehydroan- drographolide ; 14-dehydro Andrographolide ; AP10
42971-09-5	NAWEI	A.271 C.10	Vinpocetine ; Cavinton ; TCV- 3B ; Ethyl (+)-apovincaminate ; Ethyl apovincamin-22-oate
43043-74-9	NATT9	A.70	Deoxyshikonin
46992-81-8	NAVJ7	A.203	Peucedanol
49870-84-0	NATO0	A.52	Corydamine
50298-90-3	NATP0	A.56	Cucurbitacin lib
50333-13-6	NAVAN	A.175	N-Methylflindersine
50656-77-4	NAVE5	A.187	Niranthin
50773-41-6	NAVLY	A.212	Polyphyllin D
50773-42-7	NAVLX	A.212	Polyphyllin B ; Formosanin C
50816-24-5	NAUKB	A.127	Hastatoside
50892-83-6	NATAA	A.3	1-Acetyl-beta-carboline
50906-56-4	NATF3	A.19	Arteannuin B
50930-22-8	NAVA4	A.174	2-O-Methyl-α-D-N- acetylneuraminic Acid
51011-05-3	NAUXM	A.168	6"-O-Malonylgenistin ; Malonyl- genistin ; Genistin malonate
51014-29-0	NAUQA	A.146	Isocorynoxeine ; 7-Isoco- rynoxeine
51020-86-1	NAUV1	A.161	Licarin A
51059-44-0	NAWFB	A.273	Wogonoside
51330-27-9	NAVWS	A.247	Soyasaponin Bb
51415-02-2	NATLN	A.44	Chikusetsusaponin Iva ; Calen- duloside F
51670-40-7	NAUSS	A.153	Kadsurin
51771-49-4	NAWDI	A.268	Valechlorine ; Valtrate chloro- hydrin
51803-68-0	NATWM	A.81	3,3'-Di-O-methylellagic acid 4'-glucoside
51938-32-0	NAVSV	A.235	Schaftoside
52012-29-0	NAURV	A.151	Isoschaftoside
52117-67-6	NATVG	A.78	2,4-Dihydroxy-6-methoxy-3-for- mylacetophenone
52190-21-3	NAVCV	A.183	Myrislignan
52213-27-1	NAVON	A.221	Pygenic acid A
52222-74-9	NAUSX	A.154	Kaempferol-4'-glucoside
52250-35-8	NAURC	A.149	Isomucronulatol
52286-58-5	NAUGQ	A.115	Ginsenoside Rf ; Panaxoside Rf
52286-59-6	NAUGP	A.114	Ginsenoside Re ; Ginsenoside B2 ; Panaxoside Re ; Chikuset- susaponin Ivc ; Sanchinoside Re
52286-74-5	NAUGV	A.115	Ginsenoside Rg2 ; Chikusetsu- saponin I ; Panaxoside Rg2 ; Prosapogenin C2
52328-97-9	NAWA6	A.257	Tetramethylcurcumin
52328-98-0	NATWJ	A.81	Dimethylcurcumin ; (1E,4Z,6E)-1,7-Bis(3,4- dimethoxyphenyl)-5-hydroxy- 1,4,6-heptatrien-3-one
52438-12-7	NAUQ6	A.146	Isobutylshikonin

N° CAS	Ref.	Pages	Names
52613-28-2	NAUN3	A.135	6-alpha-Hydroxygeniposide ; Deacetylasperulosidic acid methyl ester
52645-73-5	NAUA8	A.93	Ethyl 2,3,4,6-Tetra-O-acetyl-1- thio-β-D-glucopyranoside
52659-56-0	NAUTO	A.156	Kirenol
52705-93-8	NAUGO	A.114	Ginsenoside Rd ; Gypenoside VIII
52949-83-4	NATBO	A.7	Ajugol
53155-25-2	NAUB9	A.96	Euscaphic acid
53158-73-9	NATS5	A.66	Delphinidin-3-sambubioside chloride
53209-27-1	NAUDV	A.103	2'-O-Galloyl hyperin
53377-61-0	NAWC7	A.263	1,3,5-Trihydroxy-4-prenylxan- thone
53452-16-7	NAWDH	A.268	Vaccarin
53527-42-7	NAUWR	A.166	Luteolin 3'-O-beta-D-glucuro- nide ; Luteolin 3'-O-glucuronide
53584-69-3	NAURP	A.150	Isorhamnetin-3-O-robinobioside
53846-50-7	NAVML	A.213	8-Prenylnaringenin
53931-25-2	NAUHI	A.119	28-O-glucopyranosylepiede- ragenin
53936-56-4	NATSX	A.68	Deoxyarbutin
53947-92-5	NATO3	A.52	Corylin
53956-04-0	NAUIW	A.123	Glycyrrhizic acid ammonium salt
53963-43-2	NAUGD	A.111	Ginsenoside F1 ; 20(S)-Ginse- noside F1
54328-09-5	NAVNG	A.217	Protopseudohypericin
54354-62-0	NATR5	A.63	Decarine
54494-34-7	NAUSI	A.153	Jolkinolide E
54522-52-0	NAUZV	A.177	Methyl protodioscin ; NSC- 698790 ; Smilax saponin B
54522-53-1	NAVB0	A.177	Methylprotogracillin
54706-70-6	NATXC	A.84	Dodecanoic acid ingenol ester
54706-99-9	NATT2	A.69	20-Deoxyingenol
54848-30-5	NAVN7	A.216	Protogracillin
54928-05-1	NAVKU	A.206	Phytolaccagenic Acid
55033-90-4	NAURO	A.5 A.150	Isorhamnetin-3-O-neohespeido- side ; Isorhamnetin 3-O- neohesperidin ; Isorhamnetin 3-O-neohesperidoside
55056-80-9	NAVN6	A.216 C.8	Protodioscin
55084-08-7	NAVVV	A.244	Skullcapflavone II
55136-76-0	NAUT2	A.155	Kaempferol 3-sophoroside- 7-glucoside
55290-63-6	NATG2	A.24	Atractylodin ; Atractydin
55395-07-8	NAUOT	A.141	IKarisoside A ; Icarisoside-A ; Baohuoside II
55399-93-4	NAUNA	A.136	(4S)-4-Hydroxy-L-isoleucine ; (2S,3R,4S)-2-amino-4-hydroxy- 3-methylpentanoic acid
55466-04-1	NAUSL	A.153	Jujuboside A
55466-05-2	NAUSM	A.153	Jujuboside B
55481-88-4	NAVBU	A.181	Mollugin

N° CAS	Ref.	Pages	Names
55610-00-9	NATEY	A.19	Aristololactam II ; Cephara- none A
55659-75-1	NATS9	A.66	Deltonin
55696-58-7	NAUSW	A.154	Kaempferol-3-O-(2"-O-β-D- glucopyl)-β-D-rutinoside
55750-84-0	NATOO	A.55	Crocin II ; Crocin 3 ; Crocin B ; Tricrocin
55837-20-2	NAUK2	A.127	Halofuginone ; Tempostatin ; RU-19110
55869-99-3	NATDU	A.14	Anisodamine ; 6-Hydroxyhyos- cyamine
55898-07-2	NAUO2	A.138	6alpha-Hydroxysugiol
55916-51-3	NAVM0	A.212	Polyphyllin F ; Formosanin VI
55954-61-5	NAVNV	A.218	Pseudohypericin
56038-13-2	NAVXI	A.249	Sucralose ; E955 ; Trichloro- sucrose
56083-03-5	NAUQ3	A.146	Isobavachromene
56121-42-7	NAVSQ	A.234	Saropeptate
56293-29-9	NATCW	A.11	Aloperine
56317-05-6	NAUSZ	A.154	Kaempferol 3-O-(6"-galloyl)-be- ta-D-glucopyranoside
56317-21-6	NAVC6	A.182	Moracin M
56486-94-3	NAVX9	A.248	Steppogenin
56684-87-8	NATGV	A.27	Batatasin III
56725-99-6	NAUOO	A.140	Icariside I
56798-34-6	NAUC8	A.99	Flavokawain C
57378-72-0	NATTQ	A.72	4,5-Dicaffeoylquinic acid ; Isochlorogenic acid C
57396-78-8	NATGJ	A.25	Baicalein-7-O-glucoside ; Oroxin A
57420-46-9	NATAG	A.4	8-O-Acetyl shanzhiside methyl ester
57499-59-9	NATWL	A.81	3,4'-Di-O-methylellagic acid
57685-46-8	NAUTC	A.155	Kansuinine B
57701-86-7	NAUTB	A.155	Kansuinin A
57817-89-7	NAVXC	A.248	Stevioside
57944-18-0	NAVFP	A.192	Officinalisinin I
58001-41-5	NAVDA	A.184	(2R)-Naringin
58095-76-4	NAVAI	A.175	trans-3,4-Methylenedioxycinna- myl alcohol
58316-41-9	NAVRQ	A.231	Saikosaponin B2
58479-68-8	NAVL4	A.209	Platycodin D
58480-54-9	NAUUU	A.161	Lemannine
58543-16-1	NAVPT	A.225 C.8	Rebaudioside A
58543-17-2	NAVPX	A.225	Rebaudioside B
58546-34-2	NATOZ	A.56	Cucurbitacin lia
58546-54-6	NAVT2	A.236	Schisandrol B ; Gomisin-A ; Besigomsin ; schizandrol-B ; TJN-101 ; Wuweizi alcohol-B ; Wuweizichun-B
58546-55-7	NAVT9	A.237	Schisantherin B ; Gomisin-B ; Schizantherin-B ; Wuweizi ester- B ; Schisantherin-B
58546-56-8	NAVT8	A.237	Schisantherin A ; Gomisin-C ; Schizantherin-A ; Wuweizi ester-A

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	D.(Dense	Newse
N° CAS	Ref.	Pages	Names
58558-08-0	NAVRR	A.231	Saikosaponin B1
58749-22-7	NAUV2	A.161	Licochalcone A ; Licochalcone-A
58749-23-8	NAUV3	A.161	Licochalcone B
58812-37-6	NAWBF	A.260	Toosendanin ; 28-Deacetylsen- danin ; Chuanliansu
58822-47-2	NAVTY	A.240	Secoxyloganin
59092-91-0	NATBV	A.8	Albaspidin AP
59219-65-7	NATQL	A.61	Darutoside
59219-76-0	NATZI	A.91	Erigeroside
59282-55-2	NAWES	A.271	Vitexin 2"-O-p-coumarate
59282-56-3	NAUVO	A.163	Lindleyin
59787-61-0	NATPT	A.59	Cyclosporin C
59846-31-0	NATBG	A.6	Ajmalimine
59865-13-3	NATPS	A.59	Cyclosporin A
59870-68-7	NAUHA	A.119	Glabridin
59914-91-9	NAWDZ	A.269	Vicenin 3
60008-01-7	NAVFC	A.191	(+)-Oblongine
60137-06-6	NATP1	A.56	Cucurbitacin S
60451-47-0	NATKX	A.42	Cauloside F
60546-10-3	NAUJ5	A.123	Gomisin D
60660-58-4	NAVYD	A.251	L-Talitol
60755-87-5	NATK5	A.39	Canthin-6-one N-oxide
60778-02-1	NAVP6	A.223	Quercetin 3-O- β -D-glucose-7-O- β -D-gentiobioside
60796-64-7	NAVEJ	A.188	Norbraylin
60796-65-8	NAWCF	A.263	5,7,8-Trimethoxycoumarin
60820-94-2	NATZR	A.92	Esculentoside B
60976-49-0	NAUFR	A.108	Geraniin
61077-78-9	NAVYM	A.252	Tanshinone IIA anhydride
61263-49-8	NAWEQ	A.271	Vitexilactone
61276-17-3	NAWDW	A.269	Verbascoside ; Acteoside ; Kusaginin ; TJC160
61281-37-6	NAVSZ	A.236	Schisandrin B ; Schizandrin-B ; Wuweizisu-B ; gamma-Schi- sandrin
61281-38-7	NAVSY	A.235	Schisandrin A ; Schizandrin-A ; Wuweizisu-A ; Deoxyschizandrin
61301-33-5	NAVT0	A.236	Schisandrin C ; Schizandrin-C ; Wuweizisu-C
61303-13-7	NAUPU	A.145	Isoacteoside ; Isoverbascoside
61328-41-4	NAVDY	A.187	Neoschaftoside
61371-55-9	NAUJI	A.125	Griffonilide ; 6,7-dihydroxy-7,7a- dihydro-6H-1-benzofuran-2-one
61434-67-1	NAVQ6	A.226	cis-Resveratrol
61510-09-6	NATLW	A.45	Cholesteryl behenate ; Choles- teryl docosanoate ; Cholesterol behenate
61658-41-1	NAUDI	A.102	Furomollugin
61825-98-7	NAVVP	A.244	Sipeimine ; Imperialine
62014-87-3	NAUKL	A.129	Helichrysetin
62023-90-9	NAUSP	A.153	Juncusol
62025-49-4	NAUGE	A.112	Ginsenoside F2
62025-50-7	NAUGF	A.112	Ginsenoside F3
62218-08-0	NAWED	A.270	ε-Viniferin ; AC1NQYZ4 ; UNII- 0K8Z2K6Y7O : 0K8Z2K6Y7O

Nº CAS	Pof	Dagaa	Namoo				
N CAS	Kel.	rayes	Names				
62218-13-7	NAWEC	A.270	Alpha-Viniterin				
62499-27-8	NAUFB	A.107	Gastrodin ; Gastrodine				
62499-28-9	NAVI1	A.200	Parishin				
62596-29-6	NAVCB	A.182	Morusin ; Mulberrochromene				
62596-34-3	NATPQ	A.59	Cyclomorusin				
62596-35-4	NAVDN	A.186	Neocyclomorusin				
62687-22-3	NAUK4	A.127	Handelin ; Yejunualactone				
62687-63-2	NAVRU	A.232	Saikosaponin F				
62820-11-5	NAUSG	A.153	Jolkinol A				
62949-77-3	NAUUA	A.159	Kuwanon A				
62949-79-5	NAUUB	A.159	Kuwanon C				
62949-93-3	NAVCC	A.182	Morusinol				
62956-47-2	NAUJ6	A.124	Gomisin F				
62956-48-3	NAUJ7	A.124	Gomisin G				
63038-10-8	NAVU5	A.240	Senkyunolide A				
63223-86-9	NAUGZ	A.117	Ginsenoside Rh1 ; Prosapoge- nin A2 ; Sanchinoside B2 ; Sanchinoside Rh1 ; Ginseno- side-Rh1				
63238-66-4	NATHB	A.28	Benzoylhypaconine ; Benzoyl- hypacoitine				
63238-67-5	NATHC	A.28	Benzoylmesaconine ; Mesaco- nine 14-benzoate				
63251-92-3	NATFY	A.255	5,8,13,13a-Tetrahydro-13a- hydroxy-9,10-dimethoxy- 7-methyl-6H-Benzo[g]-1,3- benzodioxolo[5,6-a]quinolizinium chloride				
63279-13-0	NAVPV	A.225	Rebaudioside D				
63492-69-3	NAUW0	A.163	Lithospermoside ; Griffonin				
63550-99-2	NAVPU	A.225	Rebaudioside C ; Dulcoside B				
63775-96-2	NATPU	A.59	Cyclosporin D				
63902-38-5	NAVKR	A.208	Pinoresinol Diglucoside				
63968-64-9	NATF7	A.19 C.2	Artemisinin				
64340-41-6	NATCG	A.10	Alloalantolactone				
64421-28-9	NAVUQ	A.241	Shanzhiside methyl ester				
64432-06-0	NATXN	A.85	Dulcoside A				
64439-81-2	NAUA0	A.93 C.4	7-Ethyl-10-Hydroxy-Camptothe- cin ; SN-38 ; 7-Ethyl-10-hydroxy- camptothecin ; SN 38 lactone				
64461-95-6	NAVKF	A.207	Picroside III				
64480-66-6	NAUIP	A.122	Glycoursodeoxycholic acid ; Ursodeoxycholylglycine				
64680-84-8	NAUC6	A.98	Flavokawain A				
64725-24-2	NAVPR	A.224	RA-V				
64809-67-2	NAVDV	A.187	Neomangiferin				
64820-99-1	NAWEV	A.272	Vitexin -2"-O-rhamnoside				
64849-39-4	NAVRE	A.230	Rubusoside				
64917-83-5	NAVTB	A.237	Schisantherin E ; Schizanthe- rin-E				
64938-51-8	NAVTA	A.237	Schisantherin C				
65008-17-5	NATVR	A.79	3,8-Dihydroxy-2,4,6-trime- thoxyxanthone				

N° CAS	Ref.	Pages	Names	
65144-26-5	NATVV	A.76	6,7-dihydro-1,2,3,13-tetrame- thoxy-6,7-dimethyl-Benzo[3,4] cycloocta[1,2-f][1,3]benzodioxol- 8(5H)-one stereoisomer	
65247-27-0	NATOU	A.55	Cucurbitacin B 2-O-beta-D- glucoside	
65497-07-6	NATZQ	A.92	Esculentoside A	
65586-25-6	NAVGG	A.195	Ophiopogonin C	
65604-80-0	NAVGI	A.195	Ophiopogonin D'	
65995-63-3	NAVOJ	A.221	Punicalagin	
65995-64-4	NAVOK	A.221	Punicalin	
66056-19-7	NAUV5	A.161	Licoisoflavone A	
66056-20-0	NAUJ8	A.124	Gomisin H	
66056-22-2	NATDM	A.14	Angeloylgomisin H	
66176-93-0	NATMA	A.46	Cimicifugoside	
66280-25-9	NAUJ9	A.124	Gomisin J	
66322-34-7	NATUN	A.75	Dihydroguaiaretic acid	
66575-29-9	NAUCE	A.99	Forskolin ; Colforsin	
66648-43-9	NAUBX	A.98	N-trans-feruloyltyramine	
66648-44-0	NAUBY	A.97	N-feruloyl-Octopamine	
66648-45-1	NATOG	A.54	N-p-coumaroyl-Octopamine	
66656-92-6	NATZS	A.92	Esculentoside H	
66663-90-9	NAVL5	A.209	Platycodin D2	
66663-91-0	NAVLP	A.211	Polygalacin D	
66791-77-3	NAVXZ	A.250	(-)-Syringaresinol diglucoside ; Liriodendrin ; Acanthoside D	
67008-16-6	NATDZ	A.15	Anthriscusin	
67416-61-9	NATBP	A.7	AKBA ; Acetyl-11-keto-β- boswellic acid	
67656-29-5	NAVAJ	A.175	Methylenetanshinquinone	
67765-58-6	NAUYJ	A.172	Menisdaurin	
67879-58-7	NATJQ	A.37	Caftaric acid ; trans-Caftaric ac	
67884-03-1	NAVL6	A.209	Platycodin D3	
67884-05-3	NATQV	A.62	Deapi-platycodin D3	
67909-49-3	NATRQ	A.65	Dehydroevodiamine	
67920-52-9	NATQC	A.60	Danshensu (sodium salt) ; Sodium Danshensu ; (±)-DanS- henSu sodium salt	
67979-25-3	NATG7	A.25	Aurantio-obtusin ; 1,3,7-trihy- droxy-2,8-dimethoxy-6-methy- lanthracene-9,10-dione	
68027-15-6	NAVOI	A.221	Pulsatilla saponin D ; SB365;Hederacolchiside A	
68051-23-0	NAVL7	A.209	Platyconic acid A	
68124-04-9	NAVM2	A.212	Polyphyllin VII	
68144-21-8	NAUSN	A.153	Jujuboside B1	
68236-11-3	NATX3	A.83	6,8-Diprenylnaringenin	
68236-13-5	NAVMM	A.213	6-Prenylnaringenin	
68243-30-1	NAUN6	A.135	2-Hydroxy-3-(hydroxymethyl) anthraquinone	
68370-47-8	NAVBD	A.179	Micheliolide	
68401-05-8	NAUUC	A.159	Kuwanon E	
68406-26-8	NAUGM	A.113	Ginsenoside Rb3 ; Gypeno- side IV	
68422-00-4	NAWAW	A.259	Timosaponin A1	

N° CAS	Ref.	Pages	Names		
68692-61-5	NAVOW	A.222	Qianhucoumarin G		
68776-47-6	NAUMA	A.133	1beta-Hydroxyalantolactone		
68978-04-1	NAVCG	A.182	Mulberrofuran A		
69039-02-7	NAU07	A.139	Hydroxytyrosol Acetate		
69091-17-4	NATA8	A.2	β-Acetoxyisovalerylshikonin ; [(1S)-1-(5,8-dihydroxy-1,4- dioxonaphthalen-2-yl)-4-me- thylpent-3-enyl] 3-acetyloxy- 3-methylbutanoate		
69097-99-0	NAWGH	C.5	Hesperetin ; 5,7-dihydroxy-2-(3- hydroxy-4-methoxyphenyl)-2,3- dihydrochromen-4-one		
69176-52-9	NAUJC	A.124	Gomisin N		
69188-40-5	NAVAB	A.174	(Z,Z)2-methyl-2-Butenoic acid 2-carboxy-2-butenyl ester		
69251-96-3	NAVKT	A.208	Pinoresinol 4-O-beta-D-glucopy- ranoside ; 3,5-dibromo-benzoic acid,3,5-dibromobenzoic acid ; (+)-pinoresinol-4-O-β-D- glucopyranoside ; (+)-Pires		
69297-51-4	NAVTE	A.238	trans-Scirpusin A		
69363-14-0	NAVT4	A.237	Schisanhenol ; Schizanhenol ; Gomisin-K3		
69618-94-6	NATDY	A.15	Anthriscinol		
69618-96-8	NATLC	A.43	Chamaejasmine		
69653-71-0	NAWBO	A.261	Trichloro-1,4-dimethoxybenzene		
69659-80-9	NAVYO	A.252	Tanshinone IIA sulfonate (sodium) ; Sodium Tanshinone IIA sulfonate ; Tanshinone IIA sodium sulfonate		
69884-00-0	NAVNR	A.218	Pseudoginsenoside F11 ; Ginsenoside A1		
69926-31-4	NAVFF	A.192	20(S),24(R)-Ocotillol		
70028-59-0	NAVQT	A.229	Rivularin		
70356-09-1	NATGA	A.25	Avobenzone		
70431-34-4	NATNB	A.49	Colominic Acid Sodium Salt from E.coli		
70553-76-3	NATQP	A.62	Daurisoline ; (R,R)-Daurisoline		
70578-24-4	NAWG0	A.276	Yunaconitine ; Guayewuanine B		
70588-05-5	NAVFE	A.192	Obtusin		
70674-90-7	NATKU	A.41	Catharanthine Sulfate		
70831-56-0	NATLL	A.44	L-Chicoric Acid ; (-)-Chicoric acid ; trans-Caffeoyltartaric acid		
70849-88-6	NATZY	A.92	8-(3-Ethoxy-2-hydroxy-3- methylbutyl)-5,7-dimethoxy-2H- chromen-2-one		
70872-29-6	NAUS4	A.152	Isoxanthohumol		
71305-89-0	NATU6	A.74	2,3-Dihydro-1,4-dimethyl-6(1H)- Azulenone		
71431-22-6	NAVXS	A.249	Sylvestroside I		
71486-22-1	NAWEG	A.270	Vinorelbine		
71610-00-9	NATL3	A.42 C.3	Cephalomannine		
71634-86-1	NATV2	A.77	3,4-Dihydroxy-Benzoic acid (2R,3S)-2-(3,4- dihydroxyphenyl)-3,4-dihydro- 5,7-dihydroxy-2H-1-benzopyran- 3-yl ester		

N° CAS	Ref.	Pages	Names		
71939-50-9	NATUD	A.73	Dihydroartemisinin ; β-Dihydroartemisinin ; DHA ; Dihydroqinghaosu		
71963-77-4	NATF4	A.19	Artemether ; Dihydroqinghaosu methyl ether ; Dihydroartemisi- nin methyl ether ; SM224		
72063-39-9	NAVX3	A.248	Spinosin		
72357-31-4	NAUV4	A.161	Licoflavone C		
72444-79-2	NAVFK	A.192	(4bS-trans)-4b,5,6,7,8,8a,9,10- Octahydro-2,4b,8,8-tetrame- thyl3-Phenanthrenol		
72520-92-4	NAVHM	A.198	Paeonolide ; 2-Acetyl-5-me- thoxyphenyl O-alpha-L-arabi- nosyl-beta-D-glucopyranoside ; C10715		
72581-71-6	NAURX	A.151	Isosilybin ; Isosilybinin		
72755-19-2	NATZU	A.92	1-Ethoxycarbonyl-beta-carbo- line ; Kumujian A		
72800-72-7	NAVHW	A.199	Panaxydol		
72896-40-3	NATHD	A.29	Benzoyloxypaeoniflorin		
72916-61-1	NAVAC	A.174	O-Methylcedrelopsin		
72960-22-6	NAUJD	A.124	Gomisin O		
72962-43-7	NATIL	A.33	Brassinolide ; Brassin lactone		
73030-71-4	NATG1	A.24	Atractylenolide III ; ICodonolactone;8β- Hydroxyasterolide		
73036-31-4	NATYX	A.90	Epigomisin O		
73069-13-3	NATFZ	A.23	Atractylenolide I		
73069-14-4	NATG0	A.24	Atractylenolide II ; Asterolide		
73069-25-7	NAVM9	A.213	Praeruptorin A		
73069-26-8	NAVMF	A.213	Praeruptorin d		
		A.86	Effusol		
73166-28-6	NATXY		2,4,7,8,9-Pentaacetate-N- Acetylneuraminic Acid Methyl Ester		
73166-28-6 73208-82-9	NATXY NAVIK	A.202	2,4,7,8,9-Pentaacetate-N- Acetylneuraminic Acid Methyl Ester		
73166-28-6 73208-82-9 73340-41-7	NATXY NAVIK NAUMW	A.202 A.134	2,4,7,8,9-Pentaacetate-N- Acetylneuraminic Acid Methyl Ester 3-Hydroxy-9,10-Dimethoxypte- rocarpan		
73166-28-6 73208-82-9 73340-41-7 73343-42-7	NATXY NAVIK NAUMW NATBT	A.202 A.134 A.7	2,4,7,8,9-Pentaacetate-N- Acetylneuraminic Acid Methyl Ester 3-Hydroxy-9,10-Dimethoxypte- rocarpan Albanin A		
73166-28-6 73208-82-9 73340-41-7 73343-42-7 73343-43-8	NATXY NAVIK NAUMW NATBT NATVM	A.202 A.134 A.7 A.78	2,4,7,8,9-Pentaacetate-N- Acetylneuraminic Acid Methyl Ester 3-Hydroxy-9,10-Dimethoxypte- rocarpan Albanin A 2-(2,4-dihydroxyphenyl)-8,9- dihydro-5-hydroxy-8-(1-hydroxy- 1-methylethyl)-3-(3-methyl-2- butenyl)-4H-Furo[2,3-h]-1-ben- zopyran-4-one		
73166-28-6 73208-82-9 73340-41-7 73343-42-7 73343-43-8 73692-50-9	NATXY NAVIK NAUMW NATBT NATVM NATVM	A.202 A.134 A.7 A.78 A.78 A.184	2,4,7,8,9-Pentaacetate-N- Acetylneuraminic Acid Methyl Ester 3-Hydroxy-9,10-Dimethoxypte- rocarpan Albanin A 2-(2,4-dihydroxyphenyl)-8,9- dihydro-5-hydroxy-8-(1-hydroxy- 1-methylethyl)-3-(3-methyl-2- butenyl)-4H-Furo[2,3-h]-1-ben- zopyran-4-one Naringenin chalcone		
73166-28-6 73208-82-9 73340-41-7 73343-42-7 73343-43-8 73692-50-9 73692-50-9 73695-94-0	NATXY NAVIK NAUMW NATBT NATVM NATVM NAVD5 NAVD5	A.202 A.134 A.7 A.78 A.78 A.184 A.184	2,4,7,8,9-Pentaacetate-N- Acetylneuraminic Acid Methyl Ester 3-Hydroxy-9,10-Dimethoxypte- rocarpan Albanin A 2-(2,4-dihydroxyphenyl)-8,9- dihydro-5-hydroxy-8-(1-hydroxy- 1-methylethyl)-3-(3-methyl-2- butenyl)-4H-Furo[2,3-h]-1-ben- zopyran-4-one Naringenin chalcone Onysilin		
73166-28-6 73208-82-9 73340-41-7 73343-42-7 73343-43-8 73692-50-9 73695-94-0 73731-87-0	NATXY NAVIK NAUMW NATBT NATVM NATVM NAVD5 NAVD5 NAVG4 NATIT	A.202 A.134 A.7 A.78 A.78 A.78 A.184 A.194 A.34	2,4,7,8,9-Pentaacetate-N- Acetylneuraminic Acid Methyl Ester 3-Hydroxy-9,10-Dimethoxypte- rocarpan Albanin A 2-(2,4-dihydroxyphenyl)-8,9- dihydro-5-hydroxy-8-(1-hydroxy- 1-methylethyl)-3-(3-methyl-2- butenyl)-4H-Furo[2,3-h]-1-ben- zopyran-4-one Naringenin chalcone Onysilin Broussonin A		
73166-28-6 73208-82-9 73340-41-7 73343-42-7 73343-43-8 73692-50-9 73695-94-0 73731-87-0 73815-15-3	NATXY NAVIK NAUMW NATBT NATVM NATVM NAVD5 NAVD5 NAVG4 NATIT NAVGO	A.202 A.134 A.7 A.7 A.78 A.78 A.184 A.194 A.34 A.195	2,4,7,8,9-Pentaacetate-N- Acetylneuraminic Acid Methyl Ester 3-Hydroxy-9,10-Dimethoxypte- rocarpan Albanin A 2-(2,4-dihydroxyphenyl)-8,9- dihydro-5-hydroxy-8-(1-hydroxy- 1-methylethyl)-3-(3-methyl-2- butenyl)-4H-Furo[2,3-h]-1-ben- zopyran-4-one Naringenin chalcone Onysilin Broussonin A Orientin-2"-O-p-trans-coumarate		
73166-28-6 73208-82-9 73340-41-7 73343-42-7 73343-43-8 73692-50-9 73695-94-0 73731-87-0 73815-15-3 73870-35-6	NATXY NAVIK NAUMW NATBT NATVM NATVM NAVD5 NAVD5 NAVD5 NAVG4 NATIT NAVGO NAUCB	A.202 A.134 A.7 A.7 A.78 A.78 A.184 A.194 A.34 A.195 A.99	2,4,7,8,9-Pentaacetate-N- Acetylneuraminic Acid Methyl Ester 3-Hydroxy-9,10-Dimethoxypte- rocarpan Albanin A 2-(2,4-dihydroxyphenyl)-8,9- dihydro-5-hydroxy-8-(1-hydroxy- 1-methylethyl)-3(3-methyl-2- butenyl)-4H-Furo[2,3-h]-1-ben- zopyran-4-one Naringenin chalcone Onysilin Broussonin A Orientin-2"-O-p-trans-coumarate Foresaconitine ; Vilmorrianine C		
73166-28-6 73208-82-9 73340-41-7 73343-42-7 73343-43-8 73692-50-9 73695-94-0 73731-87-0 73815-15-3 73870-35-6 73960-72-2	NATXY NAVIK NAUMW NATBT NATVM NATVM NAVD5 NAVD5 NAVD5 NAVG4 NAVG0 NAUCB NAUZM	A.202 A.134 A.7 A.78 A.78 A.78 A.184 A.194 A.34 A.195 A.99 A.175	2,4,7,8,9-Pentaacetate-N- Acetylneuraminic Acid Methyl Ester 3-Hydroxy-9,10-Dimethoxypte- rocarpan Albanin A 2-(2,4-dihydroxyphenyl)-8,9- dihydro-5-hydroxy-8-(1-hydroxy- 1-methylethyl)-3-(3-methyl-2- butenyl)-4H-Furo[2,3-h]-1-ben- zopyran-4-one Naringenin chalcone Onysilin Broussonin A Orientin-2"-O-p-trans-coumarate Foresaconitine ; Vilmorrianine C Methyl 2,3-Didehydro-4,7,8,9- tetra-O-acetyl-N-acetylneura- minate		
73166-28-6 73208-82-9 73340-41-7 73343-42-7 73343-43-8 73692-50-9 73692-50-9 73695-94-0 73731-87-0 73815-15-3 73870-35-6 73960-72-2 74058-71-2	NATXY NAVIK NAUMW NATBT NATVM NATVM NAVD5 NAVG4 NAVG4 NAVG4 NAUCB NAUZM	A.202 A.134 A.7 A.78 A.78 A.78 A.184 A.194 A.194 A.34 A.195 A.99 A.175 A.167	2,4,7,8,9-Pentaacetate-N- Acetylneuraminic Acid Methyl Ester 3-Hydroxy-9,10-Dimethoxypte- rocarpan Albanin A 2-(2,4-dihydroxyphenyl)-8,9- dihydro-5-hydroxy-8-(1-hydroxy- 1-methylethyl)-3-(3-methyl-2- butenyl)-4H-Furo[2,3-h]-1-ben- zopyran-4-one Naringenin chalcone Onysilin Broussonin A Orientin-2"-O-p-trans-coumarate Foresaconitine ; Vilmorrianine C Methyl 2,3-Didehydro-4,7,8,9- tetra-O-acetyl-N-acetylneura- minate Macamide B		
73166-28-6 73208-82-9 73340-41-7 73343-42-7 73343-42-7 73343-43-8 73692-50-9 73692-50-9 73695-94-0 73731-87-0 73815-15-3 73870-35-6 73960-72-2 74058-71-2 74058-71-2 74061-79-3	NATXY NAVIK NAUMW NATBT NATVM NAVD5 NAVG0 NAVG4 NAUCB NAUCB NAUCB NAUZM NAUX4 NAVUI	A.202 A.134 A.7 A.7 A.78 A.78 A.184 A.194 A.34 A.195 A.34 A.195 A.175 A.167 A.241	2,4,7,8,9-Pentaacetate-N- Acetylneuraminic Acid Methyl Ester 3-Hydroxy-9,10-Dimethoxypte- rocarpan Albanin A 2-(2,4-dihydroxyphenyl)-8,9- dihydro-5-hydroxy-8-(1-hydroxy- 1-methylethyl)-3-(3-methyl-2- butenyl)-4H-Furo[2,3-h]-1-ben- zopyran-4-one Naringenin chalcone Onysilin Broussonin A Orientin-2"-O-p-trans-coumarate Foresaconitine ; Vilmorrianine C Methyl 2,3-Didehydro-4,7,8,9- tetra-O-acetyl-N-acetylneura- minate Macamide B Sesaminol		
73166-28-6 73208-82-9 73340-41-7 73343-42-7 73343-42-7 73343-43-8 73692-50-9 73692-50-9 73695-94-0 73731-87-0 73815-15-3 73870-35-6 73960-72-2 74058-71-2 74058-71-2 74061-79-3 74161-25-4	NATXY NAVIK NAUMW NATBT NATVM NATVM NAVD5 NAVG0 NAVG4 NAVG0 NAUCB NAUCB NAUCB NAUZM NAUZ4 NAVUI NATRU	A.202 A.134 A.7 A.7 A.78 A.78 A.184 A.194 A.34 A.195 A.195 A.195 A.175 A.167 A.241 A.65	2,4,7,8,9-Pentaacetate-N- Acetylneuraminic Acid Methyl Ester 3-Hydroxy-9,10-Dimethoxypte- rocarpan Albanin A 2-(2,4-dihydroxyphenyl)-8,9- dihydro-5-hydroxy-8-(1-hydroxy- 1-methylethyl)-3-(3-methyl-2- butenyl)-4H-Furo[2,3-h]-1-ben- zopyran-4-one Naringenin chalcone Onysilin Broussonin A Orientin-2"-O-p-trans-coumarate Foresaconitine ; Vilmorrianine C Methyl 2,3-Didehydro-4,7,8,9- tetra-O-acetyl-N-acetylneura- minate Macamide B Sesaminol 2,3-Dehydrokievitone		

N° CAS	Ref.	Pages	Names			
74365-74-5	NATV8	A.77	16alpha,17-Dihydroxy-ent-kau- ran-19-oic acid			
74639-14-8	NAUVU	A.163	Liquiritin apioside			
74805-90-6	NAVAV	A.177	Methylophiopogonone A ; 3-(1,3-benzodioxol- 5-ylmethyl)-5,7-dihydroxy-6,8- dimethylchromen-4-one			
74805-91-7	NAVAU	A.177	Methylophiopogonanone B ; (3R)-5,7-dihydroxy-3-[(4- methoxyphenyl)methyl]-6,8- dimethyl-2,3-dihydrochromen- 4-one ; CHEMBL1098293 ; ZINC13327529 ; 4CN-2934			
74805-92-8	NAVAT	A.176	Methylophiopogonanone A ; 3-(1,3-benzodioxol- 5-ylmethyl)-5,7-dihydroxy-6,8- dimethyl-2,3-dihydrochro- men-4-one ; AC1NSYJ4 ; SCHEMBL6341028 ; R-METHY- LOPHIOPOGONANONE A			
74991-91-6	NAUYW	A.172	9-Methoxycanthin-6-one			
75239-63-3	NAVGB	A.195	Ophiopogonanone A			
75288-96-9	NAUTV	A.157	Kukoamine A ; N1,N12- Bis(dihydrocaffeoyl) spermine			
75330-75-5	NAUWB	A.164	Lovastatin ; Mevinolin			
75590-33-9	NAUT6	A.155	Kaerophyllin			
75629-19-5	NAUUD	A.159	Kuwanon G			
75853-60-0	NATRR	A.65	Dehydroevodiamine hydro- chloride			
75969-83-4	NAUMJ	A.134	11-Hydroxycanthin-6-one			
76060-35-0	NATRA	A.65	1-Dehydro-6-gingerdione			
76265-12-8	NAWFZ	A.276	Yukovanol			
76296-73-6	NAVLZ	A.212	Polyphyllin E			
76376-43-7	NAUAZ	A.95	Euphorbia factor L1			
76470-15-0	NATXX	A.86	Effusanin E			
76472-87-2	NAUUE	A.159	Kuwanon H			
76474-56-1	NATUL	A.74	Dihydrocurcumin			
76494-51-4	NAUVE	A.162	Ligustrazine (hydrochloride) ; Chuanxiongzine hydrochlo- ride ; Tetramethylpyrazine hydrochloride			
76497-69-3	NATR3	A.63	(3E)-4-[(1S,4aS,8aS)-Decahy- dro-5,5,8a-trimethyl-2-methy- lene-1-naphthalenyl]-3-Buten- 2-one			
76570-19-9	NATW9	A.80	3,4-Dimethoxy-Quinoline			
76656-80-9	NAUPT	A.145	3,'6-Disinapoyl sucrose			
76822-21-4	NATQB	A.60	Danshensu ; Dan shen suan A ; Salvianic acid A			
76843-23-7	NAVNN	A.217	Przewaquinone A			
76996-27-5	NAUF5	A.107	Garcinone C ; 1,3,6,7-tetra- hydroxy-8-(3-hydroxy- 3-methylbutyl)-2-(3-me- thylbut-2-enyl)xanthen-9-one ; 1,3,6,7-Tetrahydroxy-8-(3-hy- droxy-3-methylbutyl)-2-(3-me- thyl-2-buten-1-yl)-9H-xanthen- 9-one			
77012-31-8	NATRX	A.65	Dehydropachymic acid			

N° CAS	Ref.	Pages	Names				
77029-83-5	NAUOF	A.139	Hypocrellin A				
77035-42-8	NATRN	A.64	Dehydroeburicoic acid monoa- cetate				
77181-26-1	NAUC3	A.98	Flaconitine ; Acetylaconitine ; 3-Acetylaconitine				
77573-43-4	NAUPB	A.143	Ingenol-5,20-acetonide				
77573-44-5	NAUPD	A.143	Ingenol-3,4,5,20-diacetonide ; Ingenol 3,45,20-bisacetonide				
77636-08-9	NAWB9	A.260	Toddanone				
77636-11-4	NATH8	A.136	7-hydroxy-5-methoxy-6-(3-me- thyl-2-butenyl)-2H-1-Benzopy- ran-2-one				
77690-92-7	NAUBW	A.98	6"-Feruloylspinosin				
77715-99-2	NAWB8	A.260	(-)-Toddanol				
77769-21-2	NATUY	A.76	1,2-Dihydrotanshinone I				
78214-33-2	NAUH0	A.117	Ginsenoside Rh2 ; 20(S)-Gin- senoside Rh2 ; 20(S)-Rh2 ; Ginsenoside-Rh2				
78281-02-4	NAUNY	A.138	Hydroxysafflor yellow A ; Safflo- min A ; HSYA				
78285-90-2	NATXU	A.86	Ecliptasaponin A ; Echinocystic acid-3-O-glucoside				
78417-26-2	NAWC8	A.263	5,7,3'-Trihydroxy-6,4',5'- trimethoxyflavone ; 5,7-Dihydroxy-2-(3-hydroxy- 4,5-dimethoxyphenyl)-6-me- thoxy-4H-chromen-4-one				
78432-77-6	NATQT	A.62	10-Deacetyltaxol				
78478-28-1	NAVMG	A.213	Praeruptorin E				
78763-58-3	NATQW	A.62	Deapi-platycodin D				
78804-17-8	NAWG7	A.276	Zeylenol				
78821-43-9	NATYI	A.88	Epibrassinolide ; 24-Epibrassi- nolide ; B1105;BP55				
78919-28-5	NATLK	A.44	Chicanin				
79103-90-5	NAVLT	A.211	Polygalasaponin XXXI ; Onji- saponin F				
79185-75-4	NAUMB	A.133	7-Hydroxy-aristolochic acid A				
79233-15-1	NATSW	A.68	Deoxyandrographolide				
79484-75-6	NATY4	A.86	Eleutheroside D				
79498-31-0	NAUHB	A.119	Glaucocalyxin A				
79559-55-0	NATZV	A.92	5-Ethoxychelerthrine				
79559-59-4	NATX1	A.83	1,7-Diphenyl-4-hepten-3-one				
79592-91-9	NATOJ	A.54	Crassicauline A				
79831-76-8	NATKM	A.40	Castanospermine				
79916-77-1	NAUCF	A.99	Forsythoside				
80154-34-3	NAUKM	A.129	Helicid ; 4-[3,4,5-trihydroxy- 6-(hydroxymethyl)oxan-2-yl] oxybenzaldehyde				
80225-53-2	NAVR1	A.229	Rosmanol				
80286-36-8	NATGQ	A.26	Balanophonin				
80286-58-4	NATF6	A.19 C.2	Artemisic acid ; 2-[(1R,4R,4aS,8aR)-4,7-dime- thyl-1,2,3,4,4a,5,6,8a-octahy- dronaphthalen-1-yl]prop-2-enoic acid ; Artemisic acid ; (+)-artemi- sinic acid ; UNII-53N99527G7 ; Artemisinic acid				

N° CAS	Ref.	Pages	Names		
80321-63-7	NAUJX	A.126	Gynostemma Extract ; Ginse- noside C-Mx1 ; Gynosaponin I ; Gypenoside IX ; Notoginse- noside Fd		
80321-69-3	NAUK0	A.126	Gypenoside XVII ; Gynosa- ponin S		
80358-06-1	NAWAZ	A.259	Tinnevellin glucoside ; 1-[6-(be- ta-D-Glucopyranosyloxy)-1-hy- droxy-8-methoxy-3-methyl- 2-naphthalenyl]ethanone		
80366-15-0	NAUE6	A.104	Ganhuangemin ;		
80418-24-2	NAVEW	A.190	Notoginsenoside R1 ; Sanchino- side R1 ; Sanqi glucoside R1		
80418-25-3	NAVEX	A.190	Notoginsenoside R2 ; 20(S)-No- toginsenoside R2 ; Ginsenoside Ng-R2		
80508-81-2	NAUHC	A.119	Glaucocalyxin B		
80510-05-0	NAUAJ	A.94	Euchrestaflavanone A		
80510-06-1	NAUJJ	A.125	Grossamide		
80604-16-6	NAVZU	A.256	5,7,2',6'-Tetrahydroxyflavanone		
80621-54-1	NATSK	A.67	8-Demethylsideroxylin		
80651-76-9	NAVSF	A.234	Sanggenon C		
80665-72-1	NAUDJ	A.102	Fuziline		
80681-44-3	NAUIH	A.239	sec-O-Glucosylhamaudol		
80681-45-4	NAUIF	A.213	Prim-O-Glucosylcimifugin		
80787-59-3	NAUMK	A.133	1-Hydroxycanthin-6-one		
80930-74-1	NAWGB	A.277	Zingibroside R1		
80952-71-2	NAUH1	A.117	20(R)-Ginsenoside Rh1		
80952-72-3	NAUGW	A.115	20(R)-Ginsenoside Rg2		
81066-45-7	NAUTG	A.155	Kauniolide		
81203-57-8	NAVHX	A.199	Panaxynol		
81345-36-0	NAVT1	A.236	Schisandrin C epoxide		
81348-81-4	NAVBW	A.181	Momordicoside F1		
81348-83-6	NAVBX	A.181	Momordicoside L		
81422-93-7	NAVSG	A.234	Sanggenone D		
81446-29-9	NAVKQ	A.208	(-)-Pinoresinol		
81525-13-5	NAUCG	A.100	Forsythoside B		
81703-06-2	NAUN1	A.135	18-beta-Hydroxy-3-epi-alpha- yohimbine		
81720-03-8	NATH6	A.28	2H,6H-Benzo[1,2-b:5,4-b'] dipyran, 2-butenoic acid deriv.		
81720-05-0	NAVPZ	A.225	Rehmannioside A		
81720-07-2	NAUXV	A.228	RhMannioside C		
81720-08-3	NAVQ0	A.226	Rehmannioside D		
81740-07-0	NAVMC	A.213	Praeruptorin B		
81827-74-9	NAVDZ	A.187	Neotriptophenolide ; (3bR,9bS)- 9-hydroxy-6-methoxy-9b-methyl- 7-propan-2-yl-3,3b,4,5,10,11- hexahydronaphtho[2,1-e][2] benzofuran-1-one ; AC1Q6AXP ; AC1L33E3 ; KST-1A8624 ; AR-1A4094		
81907-61-1	NAUED	A.105	Ganoderic acid B		
81907-62-2	NAUEB	A.105	Ganoderic acid A		
81944-09-4	NAUVD	A.162	Z-Ligustilide		
81970-00-5	NATN4	A.49	Clovin		

N° CAS	Ref.	Pages	Names			
81991-99-3	NALILIG	A 159	Lancerin : 4-beta-D-Glucopyra-			
01001-00-0	10.000	71.100	nosyl-1,3,7-trihydroxy-9H-xan- then-9-one			
82344-82-9	NATN8	A.49	Coelonin			
82373-94-2	NAVZZ	A.256	2,3,5,4'-Tetrahydroxystil-			
			bene 2-O-β-D-glucoside ; 2,3,4',5-Tetrahydroxystilbene 2-O-D-glucoside			
82425-35-2	NATAQ	A.3	20-O-Acetylingenol-3-angelate ; Euphorbia factor Pe1			
82425-45-4	NAUJB	A.124	Gomisin M2			
82467-50-3	NAUJA	A.124	Gomisin M1			
82467-52-5	NAUQW	A.148	Isokadsuranin			
82475-00-1	NAVZV	A.256	2',5,6',7-Tetrahydroxyflavone			
82475-02-3	NAVGR	A.196	Oroxylin A 7-O-beta-D-glucuro- nide methyl ester			
82475-03-4	NATGL	A.26	Baicalin methyl ester			
82508-31-4	NAVNY	A.218	Pseudolaric acid B			
82508-32-5	NAVNW	A.218	Pseudolaric acid A			
82508-34-7	NAUZW	A.177	Methyl pseudolarate B			
82508-35-8	NATSJ	A.67	Demethylpseudolaric acid B			
82508-36-9	NATSB	A.67	Demethoxydeacetoxypseudola- ric acid B			
82601-41-0	NAV00	A.218	Pseudolaric acid C			
82854-37-3	NATXR	A.85	Echinacoside			
83104-86-3	NATYL	A.88	(-)-Epicatechin-3-(3"-O-methyl) gallate			
83104-87-4	NATYV	A.89	(-)-Epigallocatechin-3-(3"-O-me- thyl) gallate			
83145-47-5	NAVJC	A.255	(7S)-6,7,8,9-Tetrahydro-7-hy- droxy-1-methyl-6-methylene- Phenanthro[1,2-b]furan-10,11- dione			
83207-58-3	NATFQ	A.22	Astragaloside A ; Astramem- brannin I ; Astragalin A			
83327-19-9	NAUUN	A.160	(-)-Lariciresinol			
83382-71-2	NAVME	A.213	Praeruptorin C			
83459-37-4	NATXP	A.85	Ebracteolata cpd B			
83459-41-0	NAUGH	A.112	Ginsenoside Ra1			
83459-42-1	NAUGI	A.112	Ginsenoside Ra2			
83725-24-0	NAVM6	A.212	Pomolic acid beta-D-glucopyra- nosyl ester			
83864-69-1	NATDN	A.14	Angeloylgomisin O			
83925-00-2	NAUC5	A.98	Flavidinin			
84104-71-2	NAWF6	A.273	Wilforlide A ; Regelide ; Abrus- lactone A			
84272-85-5	NAVB8	A.179	5-O-Methylvisammioside ; 4'-O-β-D-Glucosyl-5-O- methylvisamminol			
84304-92-7	NAVPI	A.224	Rabdosin B			
84380-01-8	NATEI	A.17	alpha-Arbutin ; (2R,3S,4S,5R,6R)- 2-(hydroxymethyl)-6-(4-hy- droxyphenoxy)oxane-3,4,5-triol ; 4-Hydroxyphenyl a-D-gluco- pyranoside; CHEBI29710; 4-Hydroxyphenyl-alpha-D-gluco- pyranoside			

N° CAS	Ref.	Pages	Names			
84575-13-3	NATGO	A.26	Bakuchalcone			
84605-18-5	NATPN	A.58 C.3	Cycloastragenol; (3beta,6alpha, 16beta,24R)-20,24 epoxy-9,19- Cyclolanostane-3,6,16,25-tetrol; Cyclogalagenin; Cyclogalege- nin; Cyclogalegigenin			
84633-29-4	NAUB7	A.96	Eurycomanone			
84633-29-4	NAUKK	C.5	Eurycomanone / Glycosaponin (mixture)			
84640-31-3	NATWB	A.81	Dimethyl-Carbamic acid (4-nitrophenyl)methyl ester			
84676-88-0	NAUPZ	A.145	lsoastragaloside I ; lsoastraga- loside-l			
84676-89-1	NATFS	A.22	Astragaloside II ; Astrasiever- sianin VIII			
84680-59-1	NATR1	A.63	3-O-(2'E,4'Z-Decadienoyl) ingenol			
84680-75-1	NATFR	A.22	Astragaloside I ; Astrasieversia- nin IV ; Cyclosieversioside B			
84687-42-3	NATFT	A.22	Astragaloside III			
84687-43-4	NATFU	A.22	Astragaloside IV			
84745-94-8	NAVOX	A.222	Qingyangshengenin			
84870-53-1	NAUIY	A.123	Gnetin D			
84914-58-9	NAUHG	A.138	(3beta,25R)-17-Hy- droxyspirost-5-en-3-yl O-alpha-L-arabinopyrano- syl-(1-4)-O-[6-deoxy-alpha-L- mannopyranosyl-(1-2)]-beta-D- Glucopyranoside			
84954-92-7	NAVQY	A.229	Rosavin ; 2-(3-phenylprop- 2-enoxy)-6-[(3,4,5-trihy- droxyoxan-2-yl)oxymethyl] oxane-3,4,5-triol			
84954-93-8	NAVQX	A.229	Rosarin			
85022-66-8	NAVUV	A.242	Shikonofuran A			
85026-55-7	NAVQZ	A.229	Rosin ; (2R,3S,4S,5R,6R)-2- (hydroxymethyl)-6-[(E)-3-phenyl- prop-2-enoxy]oxane-3,4,5-triol			
85031-59-0	NATUC	A.73	Dihydroartemisinic acid ; (2R)-2-[(1R,4R,4aS,8aS)-4,7- dimethyl-1,2,3,4,4a,5,6,8a-octa- hydronaphthalen-1-yl]propanoic acid			
85372-65-2	NAWBV	A.261	3beta,7beta,25-Trihydroxycucur- bita-5,23(E)-dien-19-al			
85404-48-4	NAUK5	A.127	(-)-Haplomyrfolin			
85532-77-0	NAVRL	A.231	Safflor Yellow A			
85571-15-9	NAVQL	A.228	Rhodionin			
85643-19-2	NATP5	A.56	Curculigoside			
85643-76-1	NAUUR	A.160	Laurycolactone A			
85643-77-2	NAUUS	A.160	Laurycolactone B			
85999-40-2	NAUMH	A.133	23-Hydroxybetulinic acid ; Anemosapogenin			
86229-97-2	NAVPH	A.224	RAVII			
86361-55-9	NAUJ0	A.123	Gnetol			
86377-52-8	NAUEV	A.106	Ganoderic acid Y			
86450-77-3	NAVSI	A.234	Sanggenone K			
86450-80-8	NAVSH	A.234	Sanggenone H			

N° CAS	Ref.	Pages	Names			
86517-85-3	NATQE	A.61	Daphnelantoxin B			
86639-52-3	NAUA0	A.93 C.4	7-Ethyl-10-hydroxycamptothe- cin ; SN-38 ; 7-Ethyl-10-hydroxy- camptothecin ; SN 38 lactone			
86764-11-6	NAUQ0	A.146	Isoastragaloside II ; Astrasiever- sianin-VII			
86831-54-1	NAVQM	A.228	Rhodiosin			
87064-16-2	NAWG6	A.276	Zeylasteral			
87085-00-5	NAVCH	A.182	Mulberrofuran G			
87095-74-7	NAUMY	A.135	[R-(E)]-5-Hydroxy-1,7-diphenyl- 6-hepten-3-one			
87205-99-0	NATUZ	A.76	Dihydrotanshinone I			
87264-55-9	NAVZG	A.255	1,4,7',8'-Tetrahydro-7,8-di- methoxy-6'-methyl-Spiro[3H- 2-benzopyran-3,5'(3'aH)-[1,3] dioxolo[4,5-g]isoquinoline]			
87425-34-1	NAUVX	A.163	Liriopeside B			
87440-75-3	NAWEP	A.271	Viteralone			
87530-30-1	NAUWN	A.165	Lusianthridin			
87592-77-6	NAVVW	A.244	Smyrindioloside			
87686-87-1	NAWC1	A.262	1,3,6-Trihydroxy-2-methylanth- raquinone 3-O-(6'-O-acetyl)- a-L-rhamnosyl-(1-2)-beta-D- glucoside			
87686-88-2	NAWC2	A.262	1,3,6-Trihydroxy-2-methylanthra- quinone 3-O-alpha-L-rhamnosyl- (1→2)-beta-D-glucoside			
87701-68-6	NATBZ	A.8	Alismoxide ; (+)-Alismoxide			
87932-34-1	NAUNT	A.137	4-Hydroxyphenethylanisate			
87980-68-5	NAUPC	A.143	Ingenol-5,20-acetonide-3-O-an- gelate ; Ingenol 5,20-acetonide 3-angelate ; Ingenol 3-angelate 5,20-acetonide			
88100-04-3	NAVES	A.189	Notoginsenoside Fa			
88105-29-7	NAVEU	A.189	Notoginsenoside Fe ; Notogin- seng triterpenes ; Ginsenoside Mb			
88122-52-5	NAVET	A.189	Notoginsenoside Fc			
88140-31-2	NAUCD	A.99	6-Formyllimetin			
88182-33-6	NAUUZ	A.161	Levistilide A ; Levistolid A ; Levistolide A ; Diligustilide,Z,Z'- 6,6',7,3'a-Diligustilide			
88206-46-6	NAVF1	A.191	Notopterol ; 4-[(2E)-5-hy- droxy-3,7-dimethylocta-2,6-die- noxy]furo[3,2-g]chromen-7-one			
88206-49-9	NAVF2	A.191	Notoptol			
88495-63-0	NATF9	A.20	Artesunate			
88640-89-5	NATM0	A.46	Chrysin 7-O-β-gentiobioside			
88700-33-8	NAVGC	A.195	Ophiopogonanone B			
88901-36-4	NAVBT	A.180	Mogroside V			
88901-37-5	NAVBO	A.180	Mogroside III E			
88901-38-6	NAVBM	A.180	Mogroside lie			
88901-41-1	NAVBR	A.180	Mogroside IVa			
88901-42-2	NAVBP	A.180	Mogroside III-A1			
88901-45-5	NAVBL	A.180	Mogroside II-A2			
88915-64-4	NAVBS	A.180	Mogroside lve			
88930-15-8	NAVBK	A.179	Mogrol			

Nº CAS	Def	Degee	Nemee
Nº CAS	Rer.	Pages	Names
89199-99-5	NAVCI	A.182	Mulberrofuran H
89412-79-3	NAVPJ	A.224	Raddeanin A
89590-95-4	NAVBQ	A.180	Mogroside IV
89595-70-0	NATLB	A.43	Chamaejasmenin C
89686-84-6	NAVFW	A.194	Oleaside A
89701-85-9	NATI5	A.31	Biflorin
89786-83-4	NAVOO	A.221	Pygenic acid B
89915-39-9	NATK9	A.39	beta-Carboline-1-propionic acid
90411-12-4	NAVDJ	A.186	Neochamaejasmine B
90411-13-5	NAVDI	A.185	Neochamaejasmine A
90536-47-3	NATVF	A.78	2',5'-Dihydroxy-3'-methoxy-Ace- tophenone
90902-21-9	NATIU	A.34	Broussonin E
90985-77-6	NAUGJ	A.112	Ginsenoside Ra3
91174-19-5	NAUWJ	A.165	Lucyoside B
91652-78-7	NAVU6	A.240	Senkyunolide C
91653-50-8	NAWGA	A.276	Zingiberennewsaponin
91990-63-5	NAVRV	A.232	Saikosaponin H
92117-94-7	NAVB1	A.178	4'-O-Methylpuerarin
92519-91-0	NAWEN	A.271	Viscidulin III
92519-93-2	NAWEL	A.271	Viscidulin II
92519-95-4	NAWEK	A.271	Viscidulin I
93098-79-4	NAUT3	A.155	Kaempferol 3-sophoroside- 7-rhamnoside
93236-42-1	NAVYF	A.48	Cistanoside A
93413-00-4	NATLA	A.43	Chamaechromone
93550-94-8	NAUB3	A.95	Euphorbia factor L7a
93551-00-9	NAUN9	A.135	17-Hydroxyisolathyrol
93675-88-8	NAUCH	A.100	Forsythoside E
93772-31-7	NAVDQ	A.186	Neogambogic acid
93859-63-3	NAUQ7	A.146	Isochamaejasmin
94079-81-9	NAVLK	A.211	Poliumoside
94344-54-4	NAVSN	A.234	Sappanchalcone
94356-22-6	NAVQG	A.227	Rhapontigenin 3'-O-glucoside
94356-26-0	NAVK4	A.206	Piceatannol 3'-O-glucoside
94367-42-7	NAVAR	A.176	Methylnissolin-3-O-glucoside ; 9-O-Methylnissolin 3-O-glu- coside
94367-43-8	NAURD	A.149	Isomucronulatol 7-O-glu- coside ; (3R,4S,5S,6R)- 2-[[3-(2-HYDROXY-3,4- DIMETHOXYPHENYL)-3,4- DIHYDRO-2H-CHROMEN-7-YL] OXY]-6-(HYDROXYMETHYL) OXANE-3,4,5-TRIOL ; 7,2'-Dihy- droxy-3',4'-dimethoxyisoflavane- 7-O-glucoside
94487-74-8	NATDK	A.14	Angelic Anhydride
94492-24-7	NATAI	A.2	2-Acetylacteoside
94527-34-1	NATUB	A.75	3,4-Dihydro-6,7- (methylenedioxy)-2(1H)-qui- nolinone
94529-97-2	NATSR	A.68	20-Deoxocarnosol
94530-85-5	NAVU7	A.240	Senkyunolide G
94596-27-7	NAVU8	A.240	Senkyunolide H

N° CAS	Ref.	Pages	Names	N° CAS	Ref.	Pages	Names
94596-28-8	NAVU9	A.240	Senkyunolide I	98665-11-3	NAUZQ	A.176	Methyl ganoderate H
94656-46-9	NAUOD	A.139	Hyperectine	98665-14-6	NAUEL	A.105	Ganoderic acid F
94705-70-1	NAUJZ	A.126	Gypenoside XLVI	98665-17-9	NAUWH	A.165	Lucidenic acid E
94805-82-0	NAUIQ	A.122	Glycycoumarin ;	98665-19-1	NAUEN	A.105	Ganoderic acid H
			3-(2,4-dihydroxyphenyl)-7-hy-	98665-20-4	NAUEO	A.105	Ganoderic acid I
			droxy-5-methoxy-6-(3-me-	98665-21-5	NAUF3	A.106	Ganolucidic acid A
			Glycycoumarin ; CHEM-	98665-22-6	NAUEM	A.105	Ganoderic Acid G
			BL1223642 ; CHEBI69087	98891-41-9	NAVNZ	A.218	Pseudolaric acid B-O-beta-D-
94805-83-1	NAUQZ	A.148	Isolicoflavonol				glucopyranoside
94987-08-3	NAUJY	A.126	Gypenoside XLIX	98891-44-2	NAVNX	A.218	Pseudolaric acid A beta-D-
94992-08-2	NAVN5	A.216	Protodeltonin	09042.06.4		A 08	3 Early 1 Sinanovi suarasa
95041-90-0	NATZH	A.91	Erianin ; 2-methoxy-5-[2-	90942-00-4	NAULI	A.90	S-Feruioyi- I-Siriapoyi Sucrose
		6.4	(3,4,5-trimetnoxypnenyi)etnyij phenol · 2-methoxy-5-[2-(3 4 5-	00110-72-0	NALILIA	A.150	Kushenol F
			trimethoxyphenyl)ethyl]phenol;	99119-72-9		A.150	Kushenol C
			CHEMBL10557	99119-73-0	NALILI1	A.150	Kushenol A
95184-77-3	NATU5	A.74	2,3-Dihydro-8,10-dihydroxy-3,3-	99217-64-8	NALILI2	Δ 158	Kushenol B
			dimethyl-1H, /H-Pyrano[2,3-c]	99353-00-1	NAU7V	Δ 178	Methyl rosmarinate
95298-47-8	ΝΔΗΤ8	Δ 155	Kaiiichigoside F1	99746-73-3	NAVMH	Δ 213	I -Praziguanamine : (+)-Prazi-
95311-95-8	NALIWE	A 165	Lucidenic acid R	33140-10-0		7.210	quanamine
95311-96-9	NAUWG	A 165		99882-10-7	NAUSJ	A.153	Juglalin
95311-97-0	NAUFF	A 105	Ganoderic acid C1	100286-90-6	NAUPR	A.144	Irinotecan Hydrochloride
95851-41-5	NAVCO	A 181	Momordin II	100291-86-9	NATE8	A.16	Apiopaeonoside
95975-55-6	NAUJT	A.126	Guagulsterone E&Z	100347-96-4	NATP9	A.57	Curcumenone
96553-02-5	NAVAO	A.176	Methyl(gypsogenin-3-O-B-D-	100414-80-0	NATQD	A.61	Danshinspiroketallactone
		glucopyranoside)uronate	100462-37-1	NAVR0	A.229	Rosiridin ; (2R,3R,4S,5S,6R)-	
96574-01-5	NAVS3	A.232	Salvianolic acid A				2-[(2E)-4-hydroxy-3,7-dimethy-
96574-03-7	NAUND	A.136	3beta-Hydroxylanosta-8,24- diene-21-al				methyl)oxane-3,4,5-triol
96839-29-1	NAVNO	A.217	Przewaquinone C	100665-40-5	NAUE8	A.104	Ganoderenic acid A
96850-30-5	NAUY0	A.170	Maoecrystal A	100665-42-7	NAUE9	A.104	Ganoderenic acid C
96917-26-9	NATF2	A.19	Artanin	100665-43-8	NAUEA	A.104	Ganoderenic acid D
96990-18-0	NAVBZ	A.181	Momordin Ic	100665-44-9	NATQS	A.62	Deacetyl-Ganoderic acid F
97126-57-3	NAUFV	A.109	6-GeranyInaringenin	100761-20-4	NAUMX	A.134	(R)-5-Hydroxy-1,7-diphenyl- 3-bentanone
97230-46-1	NAVK7	A.207	Picfeltarraenin IB	101219-61-8	ΝΔ\/ΚΔ	A 207	Picrasidine O
97230-47-2	NAVK6	A.206	Picfeltarraenin IA	101236-49-1	NAUU6	A 158	Kushenol K
97411-46-6	NAVYG	A.251	Tanshindiol A	101236-51-5	NALILI7	A 158	Kushenol M
97465-70-8	NAVYH	A.251	Tanshindiol B	102019-25-0	NAVIO	A 202	1 2 3 6 7-Pentamethoxy-Anthra-
97465-71-9	NAVYI	A.251	Tanshindiol C	102010 20 0	10,010	7	quinone
97653-94-6	NAUEJ	A.105	Ganoderic acid D2	102036-29-3	NAVNH	A.217	Protosappanin B ; (7S)-
97792-45-5	NAUUM	A.160	Lappaconitine (hydrobromide) ; Allapinine				3,7,10,11-Tetrahydroxy-7,8- dihydro-6H-dibenzo[b,d]
97938-30-2	NAVWA	A.246	Sophoraflavanone G				oxocin-7-methanol
97938-31-3	NAUQX	A.148	Isokurarinone	102040-03-9	NAWCX	A.265	Lubeimoside I; Lubeimoside-1;
98094-90-7	NAUNM	A.136	3-(2-Hydroxy-4-methoxyphenyl)-	102067-84-5	NAVSO	A 234	Sannanone A
			1-(4-hydroxyphenyl)-1-Propa-	102067-88-9	NATT8	A 70	3-Deoxysannanone B
08187-08-5	ΝΔ₩/CQ	A 263	5 2' 6'-Tribydroxy-6 7 8-trime-	102115-79-7	NAVO3	A 219	Pseudoprotodioscin
30101-30-3	11/11/03	n.200	thoxyflavone	102130-43-8	NATG4	A.24	Atractyloside potassium salt
98243-57-3	NAULV	A.132	Hupehenine	102130-90-5	NAURG	A.150	Isoprocurcumenol
98474-74-9	NAVNT	A.218	Pseudoginsenoside RT1	102490-65-3	NAUU8	A.158	Kushenol N
98474-78-3	NAVNU	A.218	Pseudoginsenoside RT5	102518-79-6	NAULW	A.132	Huperzine A
98619-25-1	NAVT3	A.236	Schisandrone			C.5	
98644-24-7	NAWG3	A.276	Zedoarondiol	102519-34-6	NAUPY	A.145	Isoarjunolic acid

N° CAS	Ref.	Pages	Names
102607-41-0	NAVSP	A.234	Saprorthoquinone
102841-42-9	NAVCJ	A.183	Mulberroside A
102841-43-0	NAVCK	A.183	Mulberroside C
102841-46-3	NAVC7	A.182	Moracin P
103348-49-8	NATGC	A.25	Azido-erythro-sphingosine
103348-50-1	NATGB	A.25	(2S, 3R, 4E)-2-Azido-3-benzoyl-
			erythro-sphingosine
103444-92-4	NAVLQ	A.211	Polygalasaponin B
103548-82-9	NAULX	A.132	Huperzine B
103654-50-8	NAVBI	A.179	Mirificin
103680-87-1	NATUF	A.73	Dihydrobonducellin
103773-62-2	NAUEG	A.105	Ganoderic acid C2
103883-03-0	NAVMT	A.214	Procyanidin A1
103994-29-2	NAUN5	A.135	13-Hydroxygermacrone
104012-37-5	NAWD4	A.266	Tussilagone
104055-80-3	NATX2	A.83	3',5'-Diprenylgenistein
104195-61-1	NAVE8	A.187	10-Nitro Camptothecin
104319-96-2	NATZA	A.91	2-Episesaminol
104472-68-6	NAWD5	A.266	Typhaneoside ; Aervitrin ; Isorhamnetin3-O-(2",6"-di-O- α-L-rhamnopyranosyl)- β-D- glucopyranoside
104513-86-2	NATH1	A.28	Bayogenin 3-O-β-D- glucopyranoside
104594-70-9	NATJK	A.36	Caffeic acid phenethyl ester
104700-95-0	NAUEP	A.106	Ganoderic acid K
104700-96-1	NAUF1	A.106	Ganoderol B
104700-97-2	NAUF0	A.106	Ganoderol A
104700-98-3	NAUE7	A.104	Ganoderal A
104759-35-5	NAUER	A.106	Ganoderic acid S
104777-68-6	NAVL2	A.209	Plantamajoside
104778-16-7	NAVB2	A.178	4-O-Methylsappanol
104987-11-3	NAVY8	A.251	Tacrolimus
105037-88-5	NAVHN	A.199	Pallidol
105062-36-0	NAUTJ	A.156	1-Ketoaethiopinone
105317-67-7	NATCS	A.11	Aloeresin D
105351-70-0	NAVYJ	A.252	Tanshinlactone
105454-04-4	NATZC	A.91	7-Epitaxol
105471-98-5	NATJR	A.37	Calceolarioside B
105558-26-7	NAUH2	A.118	Ginsenoside Rh3
105616-55-5	NATZB	A.91	6-Episesaminol
105742-76-5	NAUEH	A.105	Ganoderic acid C6
105742-81-2	NAUZP	A.176	Methyl ganoderate C6
106293-99-6	NAVVD	A.243	Sikokianin A
106325-86-4	NAVK3	A.206	cis-Piceatannol
106518-63-2	NAUEZ	A.106	Ganodermanontriol
106577-39-3	NAUKD	A.128	Hederacolchiside A1
106644-33-1	NAVOY	A.222	Qingvangshengenin A
106647-14-7	NAUY8	A.171	Matairesinol 4'-O-β- gentiobioside
106758-54-7	NAVOZ	A.222	Qingvangshengenin B
107316-88-1	NATSM	A.67	Demethylzevlasteral
		1	

N° CAS	Ref.	Pages	Names
107390-08-9	NAUF6	A.107	Garcinone D ; 1,3,6-trihydroxy- 8-(3-hydroxy-3-methylbutyl)- 7-methoxy-2-(3-methylbut- 2-enyl)xanthen-9-one
107438-79-9	NAUGB	A.111	Ginkgolide J
107534-93-0	NAUX5	A.167	Macelignan ; (+)-Anwulignan ; Anwuligan
107668-79-1	NATJ7	A.36	Bulleyaconitine A
107900-76-5	NAUEY	A.106	Ganodermanondiol
107912-97-0	NAVV9	A.242	Sibiricose A5 ; 3'-Feruloylsu- crose ; Arillanin B
108340-60-9	NAUEI	A.105	Ganoderic acid D
108524-93-2	NAUOZ	A.142	Ilexsaponin A
108524-94-3	NAUOV	A.141	Ilexgenin A
108648-07-3	NAVOL	A.221	Purpureaside C
108657-10-9	NAUAV	A.95	Eupalinolide K
108853-14-1	NATSP	A.68	Dendrophenol
108885-68-3	NAVY6	A.251	Taccalonolide A
108885-69-4	NAVY7	A.251	Taccalonolide B
108908-96-9	NATVS	A.79	(2alpha,3alpha)-2,3-Dihydroxy- Ursa-12,20(30)-dien-28-oic acid
108944-67-8	NAVDM	A.186	Neocurdione
109008-26-6	NAUOY	A.142	Ilexoside K
109008-27-7	NAUOX	A.142	llexoside D
109008-28-8	NAUYA	A.171	Mauritianin
109232-77-1	NATJW	A.38	Camellianin A
110064-71-6	NATZ3	A.90	12-Epinapelline
110204-45-0	NATN6	A.49	Cochliophilin A
110300-35-1	NATIL	A./1	Diasesaminol
110623-72-8	NATZA	A.90	Epimedin A
110623-73-9	NAIZI	A.90	
110642-44-9	NATZD	A.91	Baohuoside-VI
111003-33-9	NATUW	A.76	(-)-Dihydroquercetin
111047-30-4	NAUG6	A.110	Ginkgolic acid (C17:1)
111187-15-6	NATVW	A.79	1,2-O-Dilinoleoyl-3-O-β-D- galactopyranosylracglycerol
111613-04-8	NATPG	A.58	Cyanidin-3-O-arabinoside chloride
112246-15-8	NAUH3	A.117	(20R)-Ginsenoside Rh2
112408-67-0	NATT7	A.69	3-Deoxysappanchalcone
112430-64-5	NAUES	A.106	Ganoderic acid T-N
112430-66-7	NAUET	A.106	Ganoderic acid T-Q
112448-39-2	NAISI	A.67	3'-Demethylnobiletin
112516-05-9	NAWD1	A.266	
112529-37-0	NAVAK	A.175	4-O-Methylepisappanol
112049-21-5		A.107	Garcinone E
112/4/-98-0		A.40	Methyllyessessiting sitrate :
112820-00-0	INAVAP	A.170	B6556
112966-16-2	NAWBA	A.260	Tokinolide B
113146-74-0	NAVJW	A.206	Physalin L
1134/2-19-8	NALYP	A.89	Epidanshenspiroketallactone
113008-14-8	NAUUU	A.141	ikarisoside F; ikarisoside-F; Icarisoside-F

N° CAS	Ref.	Pages	Names
113558-15-9	NATGS	A.27	Baohuoside I ; Icariin-II ; Icariside-II
114240-18-5	NAVOF	A.220	Puerarin 6"-O-xyloside
114297-20-0	NAVWK	A.246	Soya-cerebroside I
114299-64-8	NATGD	A.25	(2S, 3R, 4E)-2-Azido-3-(tert- butyldimethylsilyl)-erythro-sphin- gosine
114482-86-9	NATGI	A.25	Baicalein-7-O-diglucoside ; Oroxin B ; Baicalein 7-O-beta- gentiobioside
114542-54-0	NAVPY	A.225	Regelidine
114567-47-4	NAUEW	A.106	Ganoderiol F
114590-20-4	NAVWR	A.247	Soyasaponin Ba
114902-16-8	NATMU	A.48	Ciwujianoside B
114977-28-5	NATXA	A.83 C.4	Docetaxel
115074-93-6	NAVWL	A.247	Soya-cerebroside II
115713-06-9	NAUIG	A.121	6'-O-β-D-
			Glucosylgentiopicroside
115810-12-3	NAWCY	A.266	Tubeimoside II ; Tubeimoside-B
115810-13-4	NAWCZ	A.266	Tubeimoside III
115841-09-3	NAVS5	A.233	Salvianolic acid C
115909-22-3	NATDO	A.14	Angoroside C
115969-51-2	NAWCN	A.264	2-(Trimethylsilyl)ethyl 4-Ο-β- D-galactopyranosyl-β-D- glucopyranoside
116064-77-8	NATTX	A.72	1,2-Didehydromiltirone
116183-66-5	NATNK	A.50	Complanatuside
116291-82-8	NATBY	A.8	6-Aldehydoisoophiopogona- none A
116315-03-8	NAUNK	A.136	4-hydroxy-5-methoxy-1,3- Isobenzofurandione
116368-90-2	NATAN	A.3	Acetylexidonin
116384-24-8	NAUWA	A.164	Loureirin C
116425-35-5	NATB6	A.5	Aerugidiol
116521-73-4	NAVBV	A.181	Moluccanin
116709-70-7	NAUIU	A.122	Glycyrrhisoflavone
117020-59-4	NATE0	A.15	Anwuweizonic acid
117047-07-1	NAUZI	A.174	3'-Methoxypuerarin
117047-76-4	NAWFD	A.273	Wulignan A1
117048-59-6	NATNI	A.50	Combretastatin A4 ; CRC 87-09
117060-54-5	NAUM5	A.137	3'-Hydroxy Puerarin ; Pueraria glycoside ; 8-C-Glucosyl- 7,3',4'-trihydroxyisoflavone ; Puerariaglycoside 1
117230-33-8	NAVWO	A.247	Soyasaponin Aa
117252-95-6	NAWCM	A.264	2-(Trimethylsilyl)ethyl β-D- galactopyranoside
117404-43-0	NATWR	A.82	Dimethylwulignan A1
117405-48-8	NAUHH	A.119	4-O-beta-Glucopyranosyl-cis- coumaric acid
117479-87-5	NAVUO	A.241	Sesamoside
117597-79-2	NAUNS	A.137	6-Hydroxymethylherniarin
118172-80-8	NAVK5	A.206	2-Picenecarboxylic acid
118194-13-1	NAVWP	A.247	Soyasaponin Ab
118204-66-3	NAWD2	A.266	Tupichinol C

N° CAS	Ref.	Pages	Names
118525-35-2	NAVRN	A.231	Sagittatoside A ; Icariin-A
118525-36-3	NAVRO	A.231	Sagittatoside B
118525-40-9	NAUOP	A.141	Icaritin ; Anhydroicaritin
118544-18-6	NATGT	A.27	Baohuoside V
118974-02-0	NAUDG	A.102	Fumitremorgin C ; 12α-Fumitremorgin C
118977-26-7	NATAZ	A.4	N-Acetyl-2-phenylthio-α- neuraminic Acid Methyl Ester 4,7,8,9-Tetraacetate
119061-09-5	NAUAI	A.94	Euchrenone b1
119139-56-9	NAVH1	A.197	3-Oxosapriparaquinone
119152-50-0	NAUIJ	A.121	Glychionide A
119239-49-5	NAUJE	A.124	Gomisin S
119262-68-9	NAVTT	A.239	Scutellarin methyl ester
119400-86-1	NAVSA	A.233	Salviolone
119400-87-2	NAVNL	A.217	Przewalskin
119413-54-6	NAWBG	A.260	Topotecan Hydrochloride
119425-89-7	NAUW8	A.164	Loureirin A
119425-90-0	NAUW9	A.164	Loureirin B
119730-89-1	NATGU	A.27	Baohuoside VII
120090-80-4	NAUC4	A.98	Flavanthrin
120278-22-0	NAVS9	A.233	Salvinolone
120406-37-3	NAUSF	A.152	Jionoside B1
120444-60-2	NAUSE	A.152	Jionoside A1
120681-81-4	NATIB	A.32	Bisacurone
120693-44-9	NAVCP	A.183	Murrayacarpin B
120726-97-8	NAVQC	A.227	3-O-alpha-Rhamnopyranosyl- (12)-alpha-arabinopyranosyl mesembryanthemoidigenic acid
120834-89-1	NATUE	A.73	Dihydroberberine
120926-46-7	NAUR4	A.149	Isoliquiritin apioside
121064-78-6	NATOE	A.54	3-O-trans-p-Coumaroyltormentic acid
121072-40-0	NATOF	A.54	3-O-cis-p-Coumaroyltormentic acid
121368-52-3	NATHU	A.30	Bernardioside A
121521-90-2	NAVS4	A.233	Salvianolic acid B ; Dan Shen Suan B ; Lithospermic acid B
121651-61-4	NAUST	A.154	Kaempferol-3-O-(2,6-di-O-trans- p-coumaroyl)-beta-D-gluco- pyranoside
121747-89-5	NAUQE	A.147	Isoderrone
122168-40-5	NAUJV	A.126	Gymnemic acid I
122413-01-8	NAVHJ	A.198	Paederosidic acid methyl ester
122587-84-2	NATBJ	A.6	Ajugamarin F4
122616-88-0	NATBK	A.6	Ajugamarin H1
122965-41-7	NAUDW	A.103	Galloylpaeoniflorin
123048-17-9	NAVJV	A.206	Phyltetralin
123748-68-5	NATZO	A.92	Escin IA ; Aescin IA
123940-54-5	NAUOG	A.140	Hypocrellin B
124027-58-3	NAUTP	A.157	Kobophenol A
124151-38-8	NATBX	A.8	Alcesefoliside
124817-74-9	NAVTX	A.240	Seconeokadsuranic acid A
124961-61-1	NAVPL	A.224	Raddeanoside R8
124961-66-6	NATBH	A.6	Ajugacumbin A

N° CAS	Ref.	Pages	Names
124961-67-7	NATBL	A.6	Ajugamarin L2
125072-69-7	NATZ5	A.90	Epinortrachelogenin
125150-67-6	NAVFR	A.192	OJV-VI
125225-63-0	NAVRH	A.230	25(S)-Ruscogenin 1-O-α-L- rhamnopyranosyl-(1 \rightarrow 2)-β-D- xylopyranoside
125265-68-1	NATFH	A.20	Asiaticoside B
125317-39-7	NAWEH	A.271	Vinorelbine Tartrate
126054-77-1	NATG3	A.24	Atractyloside A
126105-11-1	NAVGV	A.196	11-Oxo-mogroside V
126105-12-2	NAVV7	A.242	Siamenoside I
126716-06-1	NAVG7	A.194	Oolonghomobisflavan C
126737-60-8	NAVG5	A.194	Oolonghomobisflavan A
126778-93-6	NATFK	A.21	Asperosaponin IV
126979-78-0	NAUL4	A.130	1,2,6,7,8,9-Hexahydro-1,6,6-tri- methyl-3,11-dioxanaphth[2,1-e] azulene-10,12-dione
126979-79-1	NATU7	A.74	1,2-Dihydro-1,6-dimethyl- Furo[3,2-c]naphth[2,1-e] oxepin-10,12-dione
127345-21-5	NAVPW	A.225	Rebaudioside G
127663-77-8	NAUE0	A.104	Ganglioside GM2 (18,18)
128397-41-1	NAUM2	A.132	Hydroprotopine
128397-42-2	NAUAO	A.94	Euojaponine D
128427-86-1	NAVX0	A.247	C12-Sphingosine
128502-94-3	NAVG8	A.194	Ophiogenin 3-O-α-L- rhamnopyranosyl-(1→2)-β-D- glucopyranoside
128656-75-7	NAVGX	A.196	(24E)-3-Oxo-Lanosta-8,24-dien- 26-oic acid
128730-82-5	NAUTA	A.155	Kalopanaxsaponin H
128879-52-7	NATVN	A.78	(R)-2-(2,4-Dihydroxyphenyl)- 3,7-dihydroxy-5-methoxy-8-[5- methyl-2-(1-methylethenyl)-4- hexenyl]-4H-1-Benzopyran- 4-one
129170-22-5	NAWEE	A.270	(+)-ɛ-Viniferin
129280-33-7	NAVU3	A.240	Semilicoisoflavone B
129393-28-8	NAUB2	A.95	Euphorbia factor L9
129684-08-8	NATW8	A.80	1-(3,4-Dimethoxyphenyl)-4(3,4- methylenedioxyphenyl)-2,3-di- methylbutane
129724-84-1	NAVOG	A.220	Pulchinenoside A ; Anemoside A3
129741-57-7	NAVOH	A.220	Pulchinenoside C ; Anemoside B4
130061-75-5	NAUPA	A.143	Indolo[2,3-a]quinolizine, corynan-16-carboxylic acid deriv.
130405-40-2	NATKQ	A.41	(-)-Catechin gallate ; (-)-Ca- techin 3-gallate ; (-)-Catechin 3-O-gallate
130464-56-1	NAVJ4	A.203	Peucedanocoumarin II
130464-57-2	NAVJ5	A.203	Peucedanocoumarin III
130466-20-5	NAUM8	A.132	Ent-11-alphaHydroxyabieta- 8(14),13(15)-dien-16,12-alpha- olide

N° CAS	Ref.	Pages	Names
130551-41-6	NAUVV	A.163	Liriope muscari baily saponins ; Saponin C from Liriope muscari
130567-83-8	NAVBN	A.180	Mogroside III
130783-32-3	NATHA	A.28	6-O-Benzoylgomisin O
130848-06-5	NATR8	A.63	Decursinol angelate
131086-61-8	NAVBG	A.179	Miltipolone
131189-57-6	NATNV	A.51	Cornuside I
131573-90-5	NATJY	A.38	Camelliaside B
132152-57-9	NATYM	A.88	Epicryptoacetalide
132185-42-3	NATXH	A.84	Dracoflavan A
132201-32-2	NAVJK	A.204	(2R,3S)-3-Phenylisoserine hy- drochloride ; (αR,βS)-β-amino- α-hydroxy-Benzenepropanoic acid hydrochloride
132278-72-9	NAVS1	A.232	Salpriolactone
132951-90-7	NAUX8	A.167	Macrocarpal A
133101-29-8	NAWA2	A.257	1,2,3,6-Tetramethoxy-9,10-An- thracenedione
133361-27-0	NAUHJ	A.119	4-(beta-D-Glucopyranosyloxy)- 1-hydroxy-3-(3-methyl- 2-butenyl)-2-Naphthalenecar- boxylic acid methyl ester
133393-81-4	NATIK	A.33	Brandioside
133740-16-6	NATXO	A.85	Ebenifoline E-II
133882-74-3	NAVWQ	A.247	Soyasaponin Ac
133898-77-8	NAUTE	A.155	Kansuiphorin C
134418-28-3	NATRD	A.64	Dehydroandrographolide
134859-96-4	NATAO	A.3	6"-O-Acetylglycitin
135095-52-2	NATJX	A.38	Camelliaside A
135293-13-9	NAVQE	A.227	2"-O-Rhamnosylicariside II
135384-00-8	NAVMK	A.213	8-Prenyldaidzein
135557-67-4	NAVT5	A.237	Schisanlignone A
136085-37-5	NAUW2	A.164	Lobetyolin ; Lebetyolin,(4E,12E)- 6-(β-D-Glucopyranosyloxy)- 4,12-tetradecadiene-8,10-diyne- 1,7-diol
136112-75-9	NAVNM	A.217	Przewalskinic acid A
136171-87-4	NAUW1	A.163	Lobetyol
136565-73-6	NATDG	A.13	Anemarsaponin E
136656-07-0	NAWAY	A.259	Timosaponin B II
136826-50-1	NATRB	A.65	1-Dehydro-10-gingerdione
136849-88-2	NAUX7	A.167	Macranthoidin B ; Macranthoi- side I
136997-64-3	NAVY1	A.250	(-)-Syringaresnol-4-O-β-D- apiofuranosyl-(1→2)-β-D- glucopyranoside
137038-13-2	NAVY0	A.250	(-)-Syringaresinol-4''-Ο-β-D- monoglucopyranoside
137182-35-5	NAUNL	A.136	(+)-6-(2-Hydroxy-3-methoxy- 3-methylbutyl)-5,7-dimethoxy- coumarin
137319-34-7	NATRO	A.65	Dehydroeffusol
137359-82-1	NATVD	A.77	14,15β-Dihydroxyklaineanone
137551-38-3	NAVM8	A.213	Poricoic acid A
137592-12-2	NAVYT	A.252	Taxifolin 7-rhamnoside
137739-74-3	NAUYX	A.173	9-Methoxycanthin-6-one N-oxide

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N° CAS	Ref.	Pages	Names
137756-13-9	NAUYY	A.173	7-Methoxy-beta-carboline-1-pro- pionic acid
137868-52-1	NAWD8	A.266	UDP-Gal; UDP-galactose
138544-91-9	NAUML	A.134	9-Hydroxycanthin-6-one
138809-10-6	NAVI6	A.200	Pasakbumin B
139122-81-9	NAWCP	A.264	Tripterifordin
139446-82-5	NATE9	A.16	6"-O-Apiosyl-5-O-Methylvisam- mioside
139726-36-6	NAVZ5	A.253	Tenuifoliside B
139726-37-7	NAVZ6	A.253	Tenuifoliside C
139891-98-8	NATX9	A.83	3',6-Disinapoylsucrose ; beta-D- (3-O-Sinapoyl)-fructofuranosyl- (2->1)-alpha-D-[6-O-sinapoyl]- glucopyranoside
140147-77-9	NATZ0	A.90	Epimedin A1
140360-29-8	NAUX6	A.167	Macranthoidin A ; Giganteaside J ; Giganteoside J
140366-64-9	NAUC9	A.99	Flemiphilippinin A
140460-42-0	NAUL0	A.130	Heteroclitin C
140461-47-8	NAUKZ	A.129	Heteroclitin B
142203-65-4	NATAC	A.3	13-Acetyl-9-dihydrobaccatin III
142382-28-3	NATTY	A.72	Didemethylpseudoaspidin AA
142546-16-5	NATU8	A.74	7,8-Dihydro-8,8-dimethyl-2-(1- methylethyl)-3,4,5(6H)-Phe- nanthrenetrione
142628-54-4	NAUXC	A.167	Macrocarpal E
142647-71-0	NAUXB	A.167	Macrocarpal D
142698-60-0	NAUX9	A.167	Macrocarpal B
142717-57-5	NATUK	A.74	Dihydrocurcumenone
142763-37-9	NAUNZ	A.138	12-Hydroxysapriparaquinone
142825-10-3	NAVXL	A.249	Sulforaphane ; Sulphoraphane
142878-03-3	NAWB5	A.260	Toddacoumaquinone
142998-47-8	NAVS6	A.233	Salvianolic acid D
143246-41-7	NAVBF	A.179	Microstegiol
143277-27-4	NAVPS	A.224	RA-XI
143615-75-2	NATTI	A.70	Diacetoxy-6-gingerdiol
143839-01-4	NAWCA	A.263	(2alpha,3alpha,4alpha)-2,3,23- Trihydroxy-Ursa-12,20(30)-dien- 28-oic acid
144506-16-1	NAVR5	A.230	Rotundatin
144525-40-6	NAVHC	A.198	Oxyresveratrol 3'-O-β-D- glucopyranoside
144525-81-5	NAVCQ	A.183	Murrayanol
144606-83-7	NAVT6	A.237	Schisanlignone C
144606-84-8	NAVT7	A.237	Schisanlignone D
144606-95-1	NAUR6	A.149	Isomahanine
145134-62-9	NAUNC	A.136	6-Hydroxykaempferol-3,6,7- triglucoside
145459-19-4	NAUL1	A.130	Heterophyllin B
145643-96-5	NATPP	A.58	Cyclocommunol
146324-03-0	NAUXD	A.168	Macrocarpal F
146501-37-3	NATNJ	A.50	Complanatoside A
147022-95-5	NATSD	A.67	3'-O-Demethylarctigenin
147331-98-4	NAVL1	A.209	Plantainoside D
147396-01-8	NAUV9	A.162	Ligupurpuroside A

N° CAS	Ref.	Pages	Names
147396-02-9	NAUVA	A.162	Ligupurpuroside B
147419-93-0	NAUGX	A.117	Ginsenoside Rg6
148409-36-3	NAUY7	A.170	(+)-Matairesinol
148707-39-5	NATXZ	A.86	EGCG Octaacetate
148766-36-3	NAVLN	A.211	cis-Polydatin ; cis-Piceid
149155-01-1	NATOK	A.54	Cratoxylone ; 1,3,6-Trihydroxy- 2-(3-hydroxy-3-methylbutyl)-7- methoxy-8-(3-methyl-2-butenyl)- 9H-xanthen-9-one
149180-47-2	NAUB8	A.96	Eurylactone B
149331-75-9	NATAS	A.4	N-Acetylneuraminic Acid, dimer(α ,2 \rightarrow 8)
149457-83-0	NAUOH	A.140	Hypocrellin C ; 3-Acetyl-5,12-di- hydroxy-4,8,9,13-tetramethoxy- 2-methyl-1H-cyclohepta[ghi] perylene-6,11-dione
149507-55-1	NAUEC	A.105	Ganoderic acid AM1
149655-53-8	NAURB	A.149	Isomorellinol
149998-51-6	NATAW	A.4	O-Acetylschisantherin L
150135-35-6	NAVPE	A.223	Quianhucoumarin A
150412-80-9	NAUZB	A.173	4-Methoxyphenyl 4-Ο-β- D-Galactopyranosyl-β-D- glucopyranoside
150972-72-8	NATTV	A.72	7,8-Didehydrocimigenol
151368-43-3	NAVO1	A.219	Pseudolarolide B
151487-08-0	NATD5	A.12	Ampelopsin F
151870-74-5	NAUTN	A.156	Kinsenoside ; (4R)-4-(beta-D- Glucopyranosyloxy)dihydro- 2(3H)-furanone
151890-26-5	NAUZ0	A.173	6-Methoxydihydrosanguinarine
152041-16-2	NATN3	A.49	Clove3
152340-24-4	NAUJ2	A.123	Gnetulin
152464-78-3	NAUUT	A.160	Leachianone G
152511-23-4	NAUIZ	A.123	Gnetin J
152580-79-5	NATJ1	A.34	Buddlejasaponin IVb
152743-19-6	NAUX1	A.167	Lysionotin
154287-55-5	NATMN	A.47	2'-Cinnamoyl-3'-benzoyl-(2-O-α- glucosyl)-Sucrose
154418-15-2	NAUZN	A.175	Methyl 3-O-feruloylquinate
155073-73-7	NATSU	A.68	11-Deoxyalisol B
155155-64-9	NATB0	A.4	N-Acetyl-2-phenylthioneuraminic Acid Methyl Ester 4,7,8,9-Te- traacetate
155301-58-9	NATC6	A.9	Alisol E 23-acetate
155401-23-3	NAUA4	A.93	Ethyl (E)-3'-hydroxy-4'-methoxy- cinnamate
155521-45-2	NATC7	A.9	Alisol F
155521-46-3	NATC8	A.9	Alisol G ; Alisol-G;25-Anhydroa- lisol A
155683-00-4	NAVEV	A.190	Notoginsenoside Ft1
155801-00-6	NAVA6	A.174	25-O-Methylalisol A
155861-51-1	NATW1	A.79	9,10-Dimethoxycanthin-6-one
156009-80-2	NAWE2	A.269	Vina-ginsenoside R4
156012-92-9	NAWE1	A.269	Vina-ginsenoside R3
156042-22-7	NAWE3	A.269	Vina-ginsenoside R8

N° CAS	Ref.	Pages	Names
156338-93-1	NATQ6	A.262	(8alpha,9beta,14beta,23S,24R)- 23,24,25-Trihydroxy-Dammara- 11,13(17)-diene-3,16-dione
156764-82-8	NAULN	A.131	Hosenkoside B
156764-83-9	NAULO	A.131	Hosenkoside C
156791-82-1	NAULM	A.131	Hosenkoside A
156980-60-8	NAUJK	A.125	Grosvenorine
157376-71-1	NATLP	A.45	Chisocheton compound F
157469-82-4	NAVUJ	A.241	Sesaminol (1→2) Diglucoside
157469-83-5	NAVUK	A.241	Sesaminol Triglucoside
158111-03-6	NATAH	A.2	N-Acetyl-8-O-(N-acetyl-4- ',7',8',9',-tetra-O-acetyl-α- neuraminosyl)-2-S-pheny-2- thio-neuraminic Acid, 1',9-Ester, 1-Methyl-ester, 4,7-Diacetate
158196-34-0	NAVD7	A.184	Naringenin-7-O-glucuronide
158732-59-3	NAVS7	A.233	Salvianolic acid F
158850-76-1	NATQY	A.63	3-O-(2'E,4'Z-Decadienoyl)-20-O- acetylingenol
158932-33-3	NAVTW	A.239 C.9	Secoisolariciresinol diglucoside ; 2,3-Bis(3-methoxy-4-hy- droxybenzyl)butane-1,4-diol 1,4-diglucoside
159922-50-6	NAUZ8	A.173	4-Methoxyphenyl 2,6-Di-O- benzyl-β-D-galactopyranoside
160896-45-7	NAULP	A.132	Hosenkoside F
160896-46-8	NAULQ	A.132	Hosenkoside G
160896-49-1	NAULR	A.132	Hosenkoside K
161016-51-9	NAULS	A.132	Hosenkoside M
161207-05-2	NATM9	A.46	Cimicidanol 3- O-α-L -arabi- noside
161875-97-4	NAVU1	A.240	Segetalin A
162857-65-0	NAVLS	A.211	Polygalasaponin V ; 2-beta-D- glucopyranosyl ester
162857-78-5	NAVLU	A.211	Polygalaxanthone III ; 2-(6-O-D-Apio-beta-D-furano- syl-beta-D-glucopyranosyl)- 1,3,6-trihydroxy-7-methoxy-9H- xanthen-9-one
163089-71-2	NAULY	A.132	Huperzine C
163564-58-7	NAUSQ	A.153	Kadsulignan N
163956-16-9	NAWAV	A.259	cis-Tiliroside
164204-38-0	NAVJR	A.205	Phosphoramidon (Disodium)
164991-67-7	NAUTW	A.157	Kukoamine B
164991-86-0	NATDA	A.13	Anacardoside ; Orcinol gentio- bioside
164991-89-3	NAVU2	A.240	Segetalin B
166040-90-0	NAUQR	A.148	Isoginsenoside Rh3
166178-75-2	NATWO	A.81	1,6-Dimethyl-Furo[3,2-c] naphth[2,1-e]oxepin-10,12-dione
167409-11-2	NAWC4	A.262	5,6,7-Trihydroxy-2-Naphthalene- carboxylic acid
167775-54-4	NATYR	A.89	3-Epidehydrotumulosic acid
168009-85-6	NAWCS	A.265	Triptonine B
168293-13-8	NATAE	A.3	3-O-Acetyl-16alpha-hydroxytra- metenolic acid

N° CAS	Ref.	Pages	Names
168293-14-9	NATAD	A.3	3-O-Acetyl-16α- hydroxydehydrotrametenolic acid
168293-15-0	NATYQ	A.89	3-Epidehydropachymic acid
169534-85-4	NAVNJ	A.217	Protostemotinine
170384-75-5	NAUQT	A.148	Isohyperectine
171439-43-3	NAVS2	A.232	Salprionin
172428-46-5	NAWEM	A.271	Viscidulin II 2'-O-glucoside
172670-47-2	NATMW	A.48	Clemastanin A
172760-03-1	NAVCF	A.182	Mudanpioside C
173075-45-1	NAUEK	A.105	Ganoderic acid DM
173932-75-7	NAUDX	A.103	Gambogenic acid
173938-23-3	NAUQP	A.147	Isogambogenin
174022-42-5	NATI2	A.31	Bevirimat ; PA-457 ; MPC-4326 ; FH11327 ; YK FH312
174284-20-9	NATE4	A.16	Apigenin-7-O -(2G-rhamnosyl) gentiobioside
174391-64-1	NAWCW	A.265	Tsugaric acid A ; 3alpha-Ace- toxylanosta-8,24-dien-21-oic acid
174423-30-4	NAVSC	A.233	Sanggenol A
174721-08-5	NAUH4	A.118	Ginsenoside Rh4
174972-79-3	NAVI2	A.200	Parishin B
174972-80-6	NAVI3	A.200	Parishin C
176050-48-9	NAWG5	A.276	Zerumin A
176107-91-8	NAVG6	A.194	Oolonghomobisflavan B
176390-66-2	NAUMT	A.134	16α- Hydroxydehydrotramete- nolic acid
176390-68-4	NAUO4	A.138	16α-Hydroxytrametenolic acid
176520-13-1	NAVTQ	A.239	Scutebarbatine A
176983-21-4	NATVL	A.78	2alpha,19alpha-Dihydroxy-3- oxo-urs-12-en-28-oic acid
177912-24-2	NATMZ	A.49	Clematichinenoside C
177931-17-8	NAVST	A.235	Sauchinone
178439-50-4	NATBD	A.5	Agrostophyllidin
178468-00-3	NAWEU	A.272	Vitexin 4"-O-glucoside
178740-32-4	NATWI	A.80	rel-(8R,8'R)-Dimethyl-(7S,7'R)- bis(3,4-methylenedioxyphenyl) tetrahydro-furan
178765-54-3	NAUMC	A.133	3-Hydroxybakuchiol
178765-55-4	NAUN7	A.135	12-Hydroxyisobakuchiol
179464-23-4	NAVZA	A.254	Terrestrosin D
181225-33-2	NAUGG	A.112	Ginsenoside F4 ; 20(E)-Ginse- noside F4
181765-11-7	NATDR	A.14	25-Anhydrocimigenol 3-O-beta- D-xyloside
182284-68-0	NAUVY	A.163	Lirioprolioside B
183133-96-2	NATJH	A.36	Cabazitaxel
183238-67-7	NAVF9	A.191	Nuezhenidic acid
184288-35-5	NAVK8	A.207	Picfeltarraenin IV
185051-75-6	NAUVR	A.163	Liquidambaric lactone
185145-33-9	NATLZ	A.46	Chrysin 6-C-arabinoside 8-C- glucoside
185145-34-0	NATM3	A.46	Chrysin 6-C-glucoside 8-C- arabinoside

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N° CAS	Ref.	Pages	Names
185244-78-4	NATL6	A.42	Ceplignan
185463-71-2	NATWT	A.82	5-[[(2E)-3,7-Dimethyl-2,6-octa- dienyl]oxy]-7-hydroxy-2H-1-Ben- zopyran-2-one
186763-78-0	NAUGY	A.116	Ginsenoside Rg5
189308-08-5	NATQA	A.60	Danshenol A
191097-54-8	NAUTT	A.157	Kuguacin R
191729-43-8	NAVZ0	A.253	Tenacissoside G
191729-44-9	NAVZ2	A.253	Tenacissoside I
191729-45-0	NAVZ1	A.253	Tenacissoside H ; Tenacissi- moside C
193410-84-3	NAWG8	A.276	Zeylenone
193483-95-3	NAVCL	A.183	Mulberroside F
193605-07-1	NAVZB	A.254	Terrestrosin K
194422-20-3	NAVBA	A.176	[1(E),2Z,4(Z)]2-Methyl- 4-[(2-methyl-1-oxo-2-bute- nyl)oxy]-2-Butenoic acid 3-(7-methoxy-1,3-benzodioxol- 5-yl)-2-propenyl ester
194794-44-0	NATXI	A.84	Dracoflavan B1
194794-50-8	NATXJ	A.84	Dracoflavan C2
194851-84-8	NAUSO	A.153	Jujuboside D ; Jujuboside A1
196399-16-3	NAVVB	A.243	Siegesmethyetheric acid
197590-28-6	NAVOR	A.222	3-Pyndinecarboxylic acid (3R,5S,5aS,6S,9S,9aS,10R)- 5-(acetyloxy)-6-(benzoyloxy) octahydro-9-hydroxy-2,2,5a,9- tetramethyl-2H-3,9a-methano- 1-benzoxepin-10-yl ester
202471-84-9	NAUHE	A.119	Glomeratose A
204935-85-3	NAWBZ	A.262	(2R,3R)-3,7,4'-Trihydroxy-5-me- thoxy-8-prenylflavanone
205370-59-8	NAVKO	A.208	Pinocembrin 7-O-(3"- galloyl-4",6"-(S)- hexahydroxydiphenoyl)-β-D- glucose
205533-81-9	NAUBL	A.97	Fenfangjine G
206660-42-6	NAVKN	A.207	(-)-Pinocembrin
206756-04-9	NATXV	A.86	Ecliptasaponin D ; (3beta,16beta)-3-(beta-D- Glucopyranosyloxy)-16-hy- droxyolean-12-en-28-oic acid
211557-36-7	NAVF8	A.191	Nudicaucin B
211567-04-3	NAVKG	A.207	Picroside IV
211815-97-3	NAVF7	A.191	Nudicaucin A
212701-97-8	NAWFG	A.273	Xanthiazone
212842-64-3	NATOI	A.54	Cowaxanthone B ; 1,3-Dihy- droxy-6,7-dimethoxy-2,8-bis(3- methyl-2-butenyl)-9H-xanthen- 9-one
213833-34-2	NAWG2	A.276	Zedoarofuran
214125-04-9	NAUS8	A.152	Jasminoside B
214146-75-5	NATT0	A.69	26-Deoxycimicifugoside
214285-76-4	NAVQW	A.229	Rosamultic acid
215319-47-4	NATGR	A.26	(+)-Balanophonin
215934-15-9	NAUMM	A.134	3-(7-Hydroxy-beta-carbolin-1-yl) propionic acid

N° CAS	Ref.	Pages	Names
216450-65-6	NAVW8	A.246	Sophoflavescenol
216987-13-2	NATQ9	A.60	15-epi-Danshenol-A
217310-32-2	NATES	A.18	Aristoliukine B
217817-09-9	NATP4	A.56	Curcolonol
218786-92-6	NAUO1	A.138	4-Hydroxy-cis-8-sphingenine
218916-51-9	NAUB0	A.95	Euphorbia factor L2
218916-52-0	NATTJ	A.71	5,15-Diacetyl-3-benzoyllathyrol ; Euphorbia factor L3
218916-53-1	NAUB1	A.95	Euphorbia factor L8
219944-39-5	NAUQI	A.147	Isoescin IA ; Aescin C
219944-46-4	NAUQJ	A.147	Isoescin IB ; Aescin D
220862-05-5	NAWAO	A.258	Thunalbene
221150-19-2	NATZN	A.92	Erysubin B
221456-63-9	NAUC1	A.98	Fischeria A
222973-44-6	NAVCN	A.183	Mumefural
225110-25-8	NAUBG	A.96	Falcarindiol
225937-10-0	NATKR	A.41	(+)-Catechin Hydrate ; (2R,3S)- 2-(3,4-dihydroxyphenyl)-3,4- dihydro-2H-chromene-3,5,7-triol hydrate
226975-99-1	NAUOK	A.140	Hyponine E
228251-30-7	NATAB	A.3	25-O-Acetyl-7,8-didehydroci- migenol-3-xyloside
228259-16-3	NAUOI	A.140	Hypoglaunine A
231288-19-0	NAVYY	A.253	Tectorigenin 7-O-xylosylglu- coside
237068-41-6	NAVL8	A.209	Platycoside E
241125-75-7	NAVVA	A.243	Sibiricose A6
241125-81-5	NAVV8	A.242	Sibiricaxanthone B ; 2-(2-O- D-apio-beta-D-Furanosyl-be- ta-D-glucopyranosyl)-1,3,7- trihydroxy-9H-xanthen-9-one
252351-96-5	NAUWE	A.165	Lucidal
253435-07-3	NAWEF	A.270	(±)-ε-Viniferin(+/-=1:1)
254886-77-6	NAUU9	A.158	Kushenol X
256925-92-5	NATMD	A.47	Cimigenol-3-O-alpha-L-arabi- noside
259823-31-9	NAUOJ	A.140	Hyponine D
260413-62-5	NAUVF	A.162	Ligustroflavone
262601-67-2	NAVIZ	A.203	Peritassine A
264624-38-6	NATST	A.68	Deoxyactein
266678-59-5	NATE7	A.16	6'-O-β-D-Apiofuranosyl- Sweroside
268541-27-1	NAVJL	A.204	(2E)-3-phenyl-2-Propenoic acid (3R,5S,5aS,6S,9S,9aS,10R)- 6-(benzoyloxy) octahydro-9,10-dihydroxy- 2,2,5a,9-tetramethyl-2H-3,9a- methano-1-benzoxepin-5-yl ester
270249-38-2	NAUZ5	A.173	2'-Methoxykurarinone
271579-11-4	NAWAM	A.258	Thonningianin A
286461-76-5	NAVCM	A.183	Multicaulisin
288143-27-1	NAVG9	A.194	Ophiogenin 3-O- α -L- rhamnopyranosyl(1 \rightarrow 2) [β -D-xylopyranosyl(1 \rightarrow 3)]- β -D- alucopyranoside

N° CAS	Ref.	Pages	Names
288846-83-3	NAVTF	A.238	cis-Scirpusin B
290809-29-9	NAUB4	A.95	Eupteleasaponin I
290821-39-5	NATMF	A.47	Cimiracemoside D
291535-65-4	NAVUR	A.241	Shegansu B
299895-11-7	NAWBW	A.262	1,3,5-Trihydroxy-4-(3-hydroxy- 3-methylbutyl)xanthone
308101-62-4	NAWC5	A.263	2alpha,3alpha,19alpha-Trihy- droxyolean-12-en-28-oic acid
321661-62-5	NATQ3	A.60	Cytosporone B ; Csn-B ; Dothiorelone G
329319-20-2	NAVSD	A.233	Sanggenol L
329361-25-3	NAVA8	A.174	7-O-Methylaloeresin A
335354-79-5	NAVPK	A.224	Raddeanoside 20
340963-86-2	NATNL	A.50	Congmunoside V
340982-22-1	NATNM	A.50	Congmunoside VII
344911-90-6	NATNN	A.50	Congmunoside X
345954-00-9	NAWF7	A.273	Wilfornine A
350602-21-0	NATYN	A.88	4-Epi-curcumenol
350681-33-3	NAUQD	A.147	Isodemethylwedelolactone
354553-35-8	NATK8	A.39	Caraphenol A
356785-72-3	NATEC	A.16	(3beta)-3-(alpha-L- Arabinopyranosyloxy)-Ursa- 12,19(29)-dien-28-oic acid, beta-D-glucopyranosyl ester
358681-61-5	NAUZD	A.174	4-Methoxyphenyl 2,2',3,6,6'-Penta-O-benzyl-4- O-β-D-galactopyranosyl-β-D- glucopyranoside
362606-60-8	NATMV	A.48	Clemaphenol A
364779-14-6	NAUH5	A.118	Ginsenoside RK2
364779-15-7	NAUH6	A.118	Ginsenoside Rk3
369593-42-0	NAUKY	A.129	(2R)-Hesperidin
376361-87-4	NAVZW	A.256	5,7,2',4'-Tetrahydroxy-3-gera- nylflavone
376361-96-5	NATVQ	A.79	(2S)-7,4'-Dihydroxy-3'-prenyl- flavan
392274-22-5	NAVHD	A.198	Oxyresveratrol 2-O-β-D- glucopyranoside
402513-88-6	NATAL	A.3	Acetylcimigenol 3-O-α-L- arabinopyranside
402828-38-0	NAUZ7	A.173	7-Methoxyneochamaeiasmine A
403861-33-6	NAUZ4	A.173	6-Methoxykaempferol 3-O- rutinoside
412321-91-6	NAVO2	A.219	Pseudolarolide F
420781-84-6	NAUWC	A.164	Lucialdehyde A
439900-84-2	NAUIX	A.123	Gnetifolin M
440094-34-8	NATAV	A.4	(9R,10R)-9-(Acetyloxy)-9,10- dihydro-8,8-dimethyl-10-(1- oxopropoxy)-2H,8H-Benzo[1,2- b:3,4-b']dipyran-2-one
443908-19-8	NAUIO	A.122	Glycosmisic acid
448948-20-7	NAVP3	A.222	Quercetin 3-O-[2-O-(6-O-E- feruloyl)-beta-D-glucopyranosyl]- beta-D-galactopyranoside
448962-05-8	NAVRD	A.230	Rubinaphthin A
449733-84-0	NAVWV	A.247	Specneuzhenide

N° CAS	Ref.	Pages	Names
460090-65-7	NAUPL	A.144	Interiotherin C
461644-90-6	NATVA	A.77	4β,12-Dihydroxyguaian-6,10- diene
466639-11-2	NATF5	A.19	Arteminin
466663-11-6	NATR2	A.63	3-O-(2E,4E-Decadienoyl)ingenol
466663-12-7	NATQZ	A.62	3-O-(2'E,4'E-Decadienoyl)- 20-O-acetylingeno
474431-66-8	NAVUL	A.241	Sesaminol (1→6) Diglucoside
476640-22-9	NAUWM	A.165	Lushanrubescensin H
477336-75-7	NAVGD	A.195	Ophiopogonanone C
478314-07-7	NAUNO	A.137	7-(4"-Hydroxy-3"- methoxyphenyl)-1-phenylhept- 4-en-3-one
480439-84-7	NAUWD	A.164	Lucialdehyde B
483363-92-4	NAVTG	A.238	trans-Scirpusin B
492449-92-0	NAVRA	A.239	(2R,3S)-SDG
494753-69-4	NAUH7	A.118	Ginsenoside Rk1
506410-53-3	NAUWQ	A.165	Luteolin 7-apiosyl-(1→2)- glucoside
508182-41-0	NAUEQ	A.106	Ganoderic acid LM2
575446-95-6	NAVEZ	A.191	Notoginsenoside S
588706-66-5	NAVGE	A.195	Ophiopogonanone E
596799-30-3	NATJT	A.37	Calyciphylline A
630057-39-5	NAVDW	A.187	Neoprzewaquinone A
636574-80-6	NATWU	A.82	7-[[(2E)-3,7-Dimethyl-2,6-octa- dienyl]oxy]-6-hydroxy-2H-1-Ben- zopyran-2-one
637349-03-2	NAVO4	A.219	Pseudoprotogracillin
651750-10-6	NATVC	A.77	5,7-Dihydroxy-3-[8-hydroxy-2,2- dimethyl-7-(3-methyl-2-buten- 1-yl)-2H-1-benzopyran-6-yl]-4H- 1-Benzopyran-4-one
663176-26-9	NAUUH	A.159	Lancifodilactone C
672941-64-9	NATR0	A.63	3-O-(2'E,4'Z-Decadienoyl)- 20-deoxyingenol
672945-84-5	NAUTD	A.155	Kansuinine E
675603-39-1	NAUY1	A.170	Maoyecrystal E
677021-30-6	NATE2	A.15	Apigenin 6-C-α-L- arabinopyranosyl-8-C-β-D- xylopyranoside
681457-46-5	NATAK	A.2	1-O-Acetylbritannilactone
686776-47-6	NATED	A.16	3beta-[(alpha-L-Arabinopyra- nosyl)oxy]ursa-12,19(20)-dien- 28-oic acid beta-D-glucopyra- nosyl ester
754919-24-9	NAVAS	A.176	N-Methylnuciferine
757202-08-7	NAUAQ	A.94	Eupalinilide B
757202-11-2	NAUAR	A.94	Eupalinilide C
757202-14-5	NAUAS	A.94	Eupalinilide D
760961-03-3	NAUKG	A.128	Hederacoside D
761425-93-8	NATMY	A.48	Clematichinenoside AR
769932-34-5	NAVF0	A.191	Notoginsenoside T5
770729-34-5	NATVI	A.78	5,4'-Dihydroxy-7-methoxy-6-me- thylflavane
775351-88-7	NATO2	A.52	Corylifol A ; Corylifol-A ; Corylinin

Nº CAS	Pof	Dagos	Namos	Nº CAS
704050 00 0	NALIND	rayes	A lludron inclose in lludron i	N CAS
/81658-23-9	NAUNB	A.135	4-Hydroxyisoleucine ; Hydroxyi- soleucine	878806-08-7
786593-06-4	NATRE	A.64	Dehydroandrographolide succinate	
790234-20-7	NAUB6	A.96	Eurycomalin A	879290-97-8
809237-87-4	NAUJ3	A.123	Gnetumontanin B	879290-99-0
823214-06-8	NAVXG	A.249	Styraxlignolide F	879324-75-1
845536-67-6	NATT4	A.69	2-[4-[[6-O-(6-Deoxy-be-	879324-76-2
			ta-L-mannopyranosyl)-	882664-74-6
			oxvl-3-hvdroxvphenvll-3.5.7-	883715-21-7
			trihydroxy-4H-1-Benzopyran- 4-one	883715-22-8
849758-42-5	NATQX	A.62	Deapi-platycoside E	886990-00-7
849777-61-3	NATZJ	A.91	Erigoster B	887501-28-2
850878-47-6	NAUUI	A.159	Lancifodilactone F	887923-46-8
851713-74-1	NATP6	A.57	Curculigoside C	887923-47-9
852936-69-7	NATRV	A.65	20(21)-Dehydrolucidenic acid A	888941-86-4
853247-65-1	NATBI	A.6	Ajugalide D	889665-86-5
854237-32-4	NATJL	A.37	Caffeic anhydride	889678-62-0
855746-98-4	NAUTY	A.157	Kurarinol	889678-64-2
859035-26-0	NATVH	A.78	5,8-Dihydroxy-7-methoxy-2-(2-	891182-93-7
			methoxyphenyl)-4H-1-Benzopy-	891854-92-5
964604 27 4		A 100		899447-64-4
001091-37-4	NAUDK	A.102	topvranosvlorientin :	905954-18-9
			2-(3,4-DIHYDROXYPHENYL)-	911660-54-3
			8-(2-O-BETA-L-GALAC-	914086-57-0
			GLUCOPYRANOSYL-BETA-D-	915792-03-9
			DIHYDROXY-4H-1-BEN-	916347-31-4
			ZOPYRAN-4-ONE ;	916649-91-7
			Orientin-2"-O-β-L-galactoside ; 2"-O-β-L-Galorientin	916649-92-8
862893-75-2	NAUEU	A.106	Ganoderic acid TR	916917-28-7
863658-29-1	NAVZI	A.255	(3aR,4R,7aR)-3a,4,7,7a-Tetra-	
			hydro-5-[(1S)-4-hydroxy-1-me-	917482-67-8
			4-(1-oxopropoxy)-2(3H)-Benzo-	917482-69-0
			furanone	918306-64-6
863780-90-9	NAUZL	A.175	Methyl diacetoxy-6-gingerdiol	936006-13-2
864763-60-0	NAUJ1	A.123	Gnetucleistol B	936323-13-6
866366-86-1	NAWFH	A.274	Xanthiside	943409-69-6
866556-15-2	NAWFX	A.276	Yuexiandajisu D	945721-10-8
866556-16-3	NAWFY	A.276	Yuexiandajisu E	948046-15-9
869807-57-8	NATDE	A.13	Andropanolide	950910-16-4
873001-54-8	NATTM	A.71	3,29-Dibenzoyl rarounitriol	951677-22-8
874485-32-2	NAVRG	A.230	(25RS)-Ruscogenin	952068-57-4
875313-64-7	NATWC	A.81	Dimethyl lithospermate B	
877372-36-6	NATT3	A.69	1-[4-[[6-O-(6-Deoxy-al-	
			pria-L-mannopyranosyl)- beta-D-glucopyranosyll	952481-53-7
			oxy]-2,6-dihydroxyphenyl]-3-(4-	956103-75-6
			methoxyphenyl)-1-Propanone	956344-38-0
877822-40-7	NAUAT	A.94	Eupalinolide A	1000408-77-4
877822-41-8	NAUAU	A.95	5 Eupalinolide B	
878475-29-7	NAURT	A.151	Isosalviamine A	1002000-01-0

N° CAS	Ref.	Pages	Names
878806-08-7	NATVO	A.79	2-(3,4-Dihydroxyphenyl)-3-[(6-O- beta-D-galactopyranosyl-beta- D-glucopyranosyl)oxy]-5,7-dihy- droxy-4H-1-Benzopyran-4-one
879290-97-8	NAVO7	A.219	Psoracorylifol A
879290-99-0	NAVO8	A.219	Psoracorylifol C
879324-75-1	NAVMO	A.214	Prionoid B
879324-76-2	NAVMP	A.214	Prionoid C
882664-74-6	NAVLR	A.211	Polygalasaponin F
883715-21-7	NATHJ	A.29	N-Benzyloleamide
883715-22-8	NAUYT	A.172	(9Z,12Z)-N-(3-Methoxybenzyl) octadeca-9,12-dienamide
886990-00-7	NAVDH	A.185	Neobritannilactone B
887501-28-2	NAULE	A.131	(-)-Holostyligone
887923-46-8	NAUFC	A.107	Gaudichaudic acid
887923-47-9	NAUQO	A.147	Isogambogenic acid
888941-86-4	NAUPM	A.144	Inulanolide A
889665-86-5	NATYH	A.88	Epiberberine (chloride)
889678-62-0	NATX6	A.83	Dipsanoside A
889678-64-2	NATX7	A.83	Dipsanoside B
891182-93-7	NAVFO	A.192	Odoratisol A
891854-92-5	NATTW	A.72	1,2-Didehydrocryptotanshinone
899447-64-4	NAVL9	A.210	Platycoside K
905954-18-9	NAURH	A.150	Isopsoralenoside
911660-54-3	NATUQ	A.75	24,25-Dihydrolanosterol
914086-57-0	NAUAC	A.93	25-O-Ethylcimigenol-3-O-beta- D-xylopyranoside
915792-03-9	NATA3	A.2	Acanthopanaxoside B
916347-31-4	NATN2	A.49	Clinodiside A
916649-91-7	NATN1	A.49	Clematomandshurica saponin B
916649-92-8	NATN0	A.49	Clematiunicinoside E
916917-28-7	NAWC3	A.262	5,7,4'-Trihydroxy-8-methylfla- vanone
917482-67-8	NAVLA	A.210	Platycoside M1
917482-69-0	NAVLB	A.210	Platycoside M3
918306-64-6	NATVE	A.78	(15alpha,24E)-15,26-Dihydroxy- Lanosta-7,9(11),24-trien-3-one
936006-13-2	NATQF	A.61	Daphnenone
936323-13-6	NATBM	A.6	Ajuganipponin A
943409-69-6	NAUA7	A.93	Ethyl p-nitrobenzyl carbonate
945721-10-8	NAUAE	A.93	7-O-Ethylmorroniside
948046-15-9	NAVEY	A.190	20(R)-Notoginsenoside R2
950910-16-4	NAVAX	A.177	4"-Methyloxy-Genistin
951677-22-8	NAUKV	A.129	Herpetone
952068-57-4	NAVI4	A.200	Parishin E ; 4-[(3,4-Dicarboxy- 3-hydroxy-1-oxobutoxy)methyl] phenyl beta-D-glucopyranoside
952481-53-7	NAVGZ	A.196	11-Oxomogroside III
956103-75-6	NAVB3	A.178	(2R)-8-Methylsocotrin-4'-ol
956344-38-0	NAVJS	A.206	Phoyunnanin C
1000408-77-4	NAVJB	A.74	9,10-Dihydro-4,7-dimethoxy- 2-Phenanthrenol
1002980-81-5	NAWCD	A.263	3,4,5-Trimethoxy-Benzoic acid 2-(4-methoxyphenyl)ethyl ester

N° CAS	Ref.	Pages	Names	N° CAS	Re
1005208-88-7	NATB7	A.5	Aeruginolactone	1206615-69-1	NA
1011726-62-7	NAVBY	A.181	Momordicoside P		
1015255-57-8	NAVZH	A.255	6.7.8.9-Tetrahydro-9-hydroxy-		
			1-(hydroxymethyl)-6,6-dimethyl-		
			Phenanthro[1,2-b]furan-10,11-	1220890-23-2	NA
			dione	1221762-70-4	NA
1023744-69-5	NAVDE	A.185	Negsehisandrin G	1220/37-75-5	NΙΛ
1025890-42-9	NAVCO	A.183	Mumetural isomer	1225457-75-5	
1026020-27-8	NAULT	A.132	HuangjiangSuA	1233304-43-0	
1028449-53-7	NAUF2	A.106	Ganolactone B	1240202-07-0	
1029017-75-1	NAUM6	A.138	17-Hydroxy sprengerinin C	1233307-33-7	INA
1041070-16-9	NAUSR	A.153	Kadsuric acid 3-methyl ester		
1041631-93-9	NAUTU	A.157	Kuguaglycoside C		
1041740-13-9	NATCY	A.12	Alpinoid D		
1071072-76-8	NATKB	A.39	2-(1-Carboxy-5,6,7,8-te- trahydro-5,5-dimethyl- 2-naphthalenyl)-4-methyl-3-Fu- rancarboxylic acid	1253421-94-1	NA
1073897-80-9	NAWBN	A.261	1.3.5-Tricaffeovlquinic acid	1250933-02-2	NA
1078708-72-1	NAVG2	A.194	Oniisaponin Z	1255555-02-2	11/7
1078711-42-8	NAUS7	A.152	Japonicones D		
1087072-50-1	NATAF	A.3	1-O-Acetvl-6beta-O-Isobutvrvl-		
			britannilactone		
1097882-30-8	NAUN0	A.135	9R-10alpha-Hydroxyepigam- bogic acid	1260151-66-3	NA
1097882-33-1	NAUN0	A.135	9R-10alpha-Hydroxyepigam- bogic acid		
1111088-89-1	NAUM7	A.138	14-Hydroxy Sprengerinin C		
1114895-01-0	NATDQ	A.14	25-Anhydroalisol F		
1126032-65-2	NAUR9	A.149	Isomogroside V	1260252-18-3	NA
1134188-26-3	NATYY	A.90	Epimagnolin B		
1137648-52-2	NAUOW	A.141	llexhainanoside D		
1141453-65-7	NAUTR	A.157	Kuquacin J	1265226-86-5	NA
1141453-73-7	NAUTS	A.157	Kuquacin N		
1141754-81-5	NATJC	A 36	Butyraxanthone B	1268459-68-2	NA
1145689-64-0	NATNW	A 51	Coronadiene	1270001-72-3	NA
1164201-85-7	NALIM7	A 135	9S-10alpha-Hydroxyepigambo-	1277188-85-8	NA
	IN IONE	71.100	gic acid(C2-S)	1301267-01-5	NA
1167424-31-8	NAVA0	A.178	9"-Methyl salvianolate B		
1167424-32-9	NAVA1	A.178	9"'-Methyl salvianolate B		
1177581-50-8	NAUCJ	A.100	Forsythoside I		
1178893-64-5	NATVB	A.77	7,4'-Dihydroxyhomoisoflavanone		
1178974-85-0	NAUCI	A.100	Forsvthoside H		
1180504-64-6	NATU9	A.75	(3R)-3,4-Dihydro-3-[(4-hy- droxyphenyl)methyl]-2H-1-Ben- zopyran-7-ol	1301267-02-6	NA
1181216-83-0	NAVTC	A.237	Schisanwilsonin C		
1189555-95-0	NAUA3	A.93	Ethyl ganoderate J		
1194056-33-1	NAUVB	A.162	Ligupurpuroside C		
1195968-02-5	NAVAW	A.177	4"-Methyloxy-Daidzin		N 1 A
1196133-44-4	NATVJ	A.78	3-(4,6-Dihydroxy-2-methoxy-	1303438-51-8	NA
			3-methylphenyl)-1-phenyl-1-Pro- panone		NA
		A E 4	0	1304020-21-0	NA

N° CAS	Ref.	Pages	Names
1206615-69-1	NAUNN	A.137	(2E)-3-(4-Hydroxy- 3-methoxyphenyl)-2-Propenoic acid (2E)-3,7-dimethyl-2,6-octa- dien-1-yl ester
1220890-23-2	NATLE	A.43	Charantadiol A
1221762-70-4	NAUFX	A.10	5'-Geranyl-5,7,2',4'-tetrahy- droxyflavone
1229437-75-5	NAVGO	A.195	Orientin-2"-O-p-trans-coumarate
1235984-45-8	NATP7	A.57	Curcumadionol
1246282-67-6	NAVFQ	A.192	Officinaruminane B
1253387-35-7	NAWAA	A.262	(9beta,13alpha,14beta, 20alpha) -3,4,6-Trihydroxy-9,13-dimethyl- 2-oxo-23,24,25,26-Tetranoro- leana-1(10),3,5,7- tetraen-29-oic acid
1253421-94-1	NAVIY	A.203	Periplogenin 3-[Ο-β- glucopyranosyl-(1→4)-β- sarmentopyranoside]
1256935-30-4	NATB1	A.4	2"-O-Acetyl-Platyconic acid A
1259933-02-2	NAVAZ	A.177	2-Methyl-Propanoic acid (3aR,4S,7aR)-2,3,3a,4,7,7a- hexahydro-5-[(1S)-4-hydroxy- 1-methylbutyl]-6-methyl-3-me- thylene-2-oxo-4-benzofuranyl ester
1260151-66-3	NAVAY	A.177	3-Methyl-Pentanoic acid (3aR,4S,7aR)-2,3,3a,4,7,7a- hexahydro-5-[(1S)-4-hydroxy- 1-methylbutyl]-6-methyl-3-me- thylene-2-oxo-4-benzofuranyl ester
1260252-18-3	NATCK	A.10	3-O-β-Allopyranosyl-(1→4)- β-oleandropyranosyl-11- O-isobutyryl-12-O-acetyl- Tenacigenin B
1265226-86-5	NAVB6	A.178	1-Methyl-2-(10Z)-10-tridecen- 1-yl-4(1H)-Quinolinone
1268459-68-2	NATRT	A.65	5,6-Dehydrogensenoside Rd
1270001-72-3	NATW2	A.79	4,9-Dimethoxycanthin-6-one
1277188-85-8	NATW4	A.80	(2R)-5,7-Dimethoxyflavanone
1301267-01-5	NATWA	A.81	(3S,5R,8S,9S,10S,13R, 14S,17R)-17-[(1R,3E)-1,5- Dimethyl-3,5-hexadien-1-yl]- 1,3,4,8,10,11,12,13,14,15,16,17 -dodecahydro-4,4,13,14-tetra- methyl-5,9-(Epoxymethano)-2H- cyclopenta[a]phenanthren-3-ol
1301267-02-6	NATZW	A.92	(3S,5R,8S,9S,10S,13R,1 4S,17R,20R) 20-Ethoxy- 17-[(1R,3E)-5-hydroxy-1,5 dimethyl-3-hexen-1-yl] -1,3, 4,8,10,11,12,13,14,15,16,17 -dodecahydro-4,4,13,14-tetra- methyl-5,9-(Epoxymethano)-2H- cyclopenta[a]phenanthren-3-ol
1303438-51-8	NATKV	A.42	Cathayanon H
1304007-40-6	NAUN8	A.135	10beta-Hydroxyisodauc-6-en- 14-al
1304020-21-0	NATZX	A.92	5-Ethoxy-7-(4-hydroxy- 3-methoxyphenyl)-1-phenyl- 3-Heptanone

N° CAS	Ref.	Pages	Names
1319198-98-5	NAVZX	A.256	1,3,6,8-Tetrahydroxy-4-(3-me- thyl-2-buten-1-yl)-9H-Xanthen- 9-one
1334309-44-2	NATWS	A.81	2-[3-[(2E)-3,7-Dimethyl-2,6-octa- dien-1-yl]-2,4-dihydroxyphenyl]- 5,7-dihydroxy-3-(3-methyl-2-bu- ten-1-yl)-chromen-4-one
1338366-22-5	NAVJ1	A.203	Pesudolarolide Q2
1343403-10-0	NATZF	A.91	Epoxymicheliolide ; 1β,10β- Epoxymicheliolide
1351931-30-0	NAVSE	A.233	Sanggenol P
1352001-09-2	NATA7	A.2	3beta-Acetoxy-eupha- 7,25-dien-24(R)-ol
1352185-26-2	NAVSW	A.235	Schineolignin B
1352562-93-6	NATMO	A.47	9-O-trans-Cinnamoyl-9-deben- zoylregelidine
1354747-30-0	NAUF4	A.107	Ganxintriol A
1357910-26-9	NAUQM	A.147	Isoforsythiaside
1370264-16-6	NAVNS	A.218	Pseudoginsenoside Rh2
1391826-61-1	NAVK9	A.207	Picfeltarraenin X
1401799-34-5	NAVC1	A.181	Monnieriside G
1419478-52-6	NAVZD	A.254	2,3,4,5-Tetracaffeoyl-D-Glucaric acid
1428533-01-0	NAUMU	A.134	4-Hydroxy-3,5-dimethoxy-Ben- zoic acid 2-(4-hydroxyphenyl) ethyl ester
1445475-53-5	NAUQS	A.148	Isograndifoliol
1446446-11-2	NATCL	A.10	(3beta,7beta,9beta,10alpha, 23E)-19-3-(beta-D-Allopyrano- syloxy) -7-hydroxy-25-methoxy- Norlanosta -5,23-diene-9-car- boxaldehyde
1446447-96-6	NAVZY	A.256	(3beta,7beta,9beta,10alpha)- 3,7,22,23-Tetrahydroxy-19-Nor- lanosta-5,24-diene-9-car- boxaldehyde
1477949-42-0	NAVSL	A.234	Santacruzamate A ; CAY-10683
1505566-13-1	NAVCD	A.182	Morusinon
1581276-63-2	NAWAR	A.258	21-O-Tigloylgymnemagenin
1628171-35-6	NATS0	A.65	11-Dehydroxymogroside V
1631054-68-6	NAVGY	A.196	1-Oxomicrostegiol
1631054-69-7	NAWEJ	A.271	Viroxocin
1632110-81-6	NATMC	A.47	Cimifugin 4'-O-β-D- glucopyranoside
1694587-15-9	NAWC6	A.263	3β,7β,15β-Trihydroxy-11-oxo- lanosta-8-en-24→20 lactone
1801934-15-5	NAUEX	A.106	Ganoderlactone D
1973415-50-7	NAUW6	A.164	(2RS)-Lotaustralin
2013537-81-8	NAUJN	A.125	1αH,5αH-Guaia-6-ene-4β,10β- diol

Fine Chemicals Sourcing

Interchim's Fine Chemistry division consists of dedicated staff established upon 50 years of sourcing chemicals for global pharmaceutical supply. Our worldwide supply network are scale rated against fundamental supply criteria. Each enquiry is managed by one staff member from enquiry initiation to quote supply.



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Potential Supplier location

Interchim Fine Chemistry use it's tailored database framework to pinpoint compatible suppliers

Summary \supset



Interchim compare and contrast supplier offers

- Price
- Quality
- Availability
- Supplier Reliability



Chemical Supply Offer

Delivered within a 24 - 72 hour timeframe based upon a blend of the best available price, delivery time and reliability combination.

Over 450 global suppliers are scoured to generate the final offer. The final quote is subjected to Fine Chemistries 250 point rating process.

Global delivery management

- Custom transit
- Door -to- door product integrity
- Dangerous product documentation

Many rely on Interchim as a third party sourcing partner rather than having internal staff to service requirement.

Interchim[®] delivers thousands of fine chemicals each year to hundreds of customers globally. Many rely on Interchim as a third party sourcing partner rather than having internal staff to service requirement.

Summary 🔎

Synthesis Intermediates Catalog

Building Blocks - Custom Synthesis - Sourcing - Bulk





Get access to more than 9000 of essential Building Blocks now. Discover or download our catalog at: www.interchim.com/si.php

TERMS & CONDITIONS APPLICABLE FROM 2019/03/01

1 - GENERAL RULES

Interchim sells exclusively to the trade and does not accept orders from private individuals. These Terms and Conditions are issued to all new customers with their first orders. These General Conditions of Sale are deemed as being accepted by the customer for the first and all subsequent orders unless objections are raised within 7 calendar days. Unless agreed otherwise in writing, the placing of an order by the customer implies the automatic and formal acceptance of these General Conditions of Sale.

No variation of these terms and conditions found on purchase orders, letters, acknowledgement of orders or other documents issued by the customer will unless agreed to in writing by Interchim. Any clause departing from or adding to these terms and condition's of sale will be binding upon the customer unless the latter formally questions the changes (in writing).

2 - PURCHASE ORDERS

Customers can place their orders in writing, by fax, e-mail or telephone (Hot-Line: Interchrom (+33) 4 70 03 73 09 Interbiotech (+33) 4 70 03 73 06 Interbulk (+33) 4 70 03 73 01. Telephone orders will only be accepted if the customer's order number is given, and these must then be confirmed in writing. Interchim is entitled to refuse a sale should the customer, the final recipient, the intermediaries, and/or the haulage contractors fail to abide by the legislation and/or regulations, applicable in France or in the country of purchase and/or sale.

3 - PRICING

Due to fluctuations in manufacturers' pricing and exchange rates, all prices are indicative and subject to changes without prior notice.

Export shipments cost are upon weight and size of the parcels. Prices are excluding of tax. They are EX WORKS Montluçon.

The minimum order is €100 before tax.

Interchim will charge an extra fee of €15 for any orders < €150 before tax.

Interchim will charge €37 before tax for Dry Ice.

Specific packaging for dangerous items will be charged at €8 before tax. An additional €22 may be charged for bank fees for export orders.

A line of invoicing overloads with fuel will be applied in repercussion of the overloads fuels charged by the carrier.

Some shipments will be invoiced specifically according to the quotation remitted to the client (bulk, heavy or dangerous material, export, etc.). These items will be shipped using via the best possible method chosen by Interchim according to the nature of the shipment and safety regulations.

Orders concern other specific services or any other products not listed in Interchim's price list will be invoiced according to the quote given. The offer is valid 60 days from the acknowledgement of receipt of the order.

4 - PAYMENT

Unless written approval of Interchim financial services:

 Terms of sale for supplies, consumable parts, accessories, are cash.
The settlement of instruments and devices: a deposit of 30% excluding tax will be payable in advance and the balance before shipment.

The customer's first order must be paid in advance, without discount. No discount is granted for early payment.

In case of partial shipments, corresponding invoices must be paid in full without waiting for the balance of the order. Payment time limits start as soon as part of the order has been received. The customer can however refuse any kind of partial shipment.

No complaints about the invoice will be accepted beyond the first 15 days of the date of invoice. Any amount not paid by the customer within the due date mentioned on the invoice will entail the immediate settlement of the other amounts due, whether they be drafts or bills of exchange. If a customer has, for a previous order, failed to respect the terms of sales (i.e. no payment, or payment overdue), Interchim can refuse to sell, unless the buyer provides a satisfactory guarantees and/or pays cash, for which no discount will apply.

a fixed compensation of 40 euros for recovery costs will be perceived for non-compliance with payment deadlines Late payment penalties: As per article L441-6 of the French Code of Commerce, penalties are due as of the day following the due date of the invoice. These penalties are due without any notice being required. The interest rate for these penalties is three times the legal rate of interest per month

5 - PACKING SHIPMENT AND DAMAGE IN TRANSIT

Unless stated otherwise, the goods are packed by Interchim, and Interchim will alone choose the means of packing according to the goods, the type of transportation and storage. Products in stock are shipped immediately upon receipt of the order. Interchim cannot be held liable for late delivery

The buyer shall bear all risk of loss or damage in transit.

The buyer must inspect the goods immediately upon receiving them and if needs be contact the carrier within 48 hours by registered letter with acknowledgement of receipt, for any shortage, defects or damage.

6 - DELIVERIES

Delivery times are given for information only and are not guaranteed. Any delays in delivery shall not give the Customer the right to cancel the sale or to refuse the goods. Delays do not give any right to withholdings, offset, penalties or damages.

7 - RETURN POLICY

Goods may not be returned for credit without Interchim's approval. Any returned items must be wrapped in their original packaging without changes to the original marking (including labels). The customer is civilly and criminally liable in the event of the returned product being altered by chemical or biochemical or biological or any other materials or for any other alteration which could endanger any third party or any member of Interchim's staff.

Unless Interchim is responsible for the error in shipment, all freight and carriage costs must be paid by the customer. Interchim will charge 20% of the amount of the product for restocking with a minimum amount of €45. [These charges include: non-recoverable paid Customs duty, bank charges, return costs to the original supplier and their own restocking costs).

8 - OWNERSHIP CLAUSE

Interchim expressly reserves the ownership of the products it delivers until the sale price and any interest, costs, accessories are paid. In this respect, any drafts, cheques or any other instruments bearing an obligation to pay, shall not be considered as payment within the meaning of the above condition. Payment will only be considered as settled once Interchim has received the actual invoiced amount. In case of non-payment of any due amount, Interchim may claim return of the products. In the event of the unpaid products being resold, the customer agrees to transfer to Interchim, upon request by the latter, the accounts receivable from its customers, up to the amount still due to Interchim.

9 - RESOLUTIVE CLAUSE

Should a customer fail to comply entirely or partially with any of its obligations, should it fail to respect the due date for payments, Interchim may, as it wishes, decide to accelerate the payment process and consequently require immediate payment of all outstanding amounts owed for whatever reason and/or decide to suspend any deliveries and/or terminate any agreements in progress.

The cancellation of agreements will require no legal proceedings and will take effect at the end of the first 8 days after the customer has received notice to pay by registered mail with acknowledgement of receipt. This notice will mention the intention to apply the present clause without prejudice to any other rights of Interchim.

In the event of the invoking of this resolutive clause, Interchim or its representative is expressly entitled to enter the customer's premises to reclaim the products relating to the clause.

10 - GOVERNING LAW

These terms and conditions of sale as well as any agreements made in application are governed by the laws of France and excluding the Vienna Agreement of 11 April 1980 related to contracts for the international sale of merchandise. All disputes as to the interpretation, the application of the terms and conditions of sale and any agreements signed with a customer shall be subject to the exclusive jurisdiction of the Commercial Court of Montlucon.

11 - CASE OF ABSOLUTE NECESSITY

Interchim's responsibility will not be involved, should a case of absolute necessity arise. The enforcement of the obligation will be delayed until the case of absolute necessity is cancelled. If the absolute necessity instance continues for longer than 2 months, the agreement can be interrupted on request by one or the other of the two parties without any compensation to any party.

12 - RISKS IN USE OF PRODUCTS

With the exception of pharmaceutical products sold to the Pharmaceutical Industry, all of our products are solely intended for research purposes and must not, in any case, be used as medicine, cosmetics, pesticides, nor for farming uses, food additives nor as cleaning agents.

They must be handled by competent persons with the usual care, in accordance with the information given.

13 - DANGEROUS ANS TOXIC PRODUCTS

Information on stabilities or toxicities is given by our producers subject to their own liability, including in case of false toxicity characteristics or classes. The absence of a warning must not be considered as a proof of safety; we would remind you that for many chemical, biological or biochemical substances there is no appropriate information available about possible risks. Consequently, it is the customer's duty to check the level of hazard and to carry out all necessary investigations to determine the hazards arising through the use of the products bought from Interchim. Dangerous products are not listed as such in the catalogue. The customer is wholly responsible for checking the nature of the risk inherent in the dangerous goods. It is also the customer's duty to inform its own customers and intermediaries (carriers, forwarders, packers) of the risks inherent in the use and/or handling of the products.

14 - WARRANTIES

The warranty only applies to the repair or replacement of those products that have a latent defect or a compliance defect, excluding any other compensation for whatever reason. The warranty does not apply to the defects, to the failures or to the damage due to a misuse, carelessness or a defective maintenance as in case of normal wear and tear of the good or in case of strength major.

The product must be returned to Interchim or the carrier in its original condition in its original packaging. The customer must comply with Interchim?s instructions for product returns; as per Article 7. the risks inherent in the use and/or handling of the products.

15 - ENVIRONNEMENT

An Ecotax will be applied in accordance with the Directives of the DEEE, in accordance with the applicable laws relating to electrical and electronic equipment marketed after 13 August 2005. The organisation, collection and destruction of the products remain the responsibility of the final user. Interchim will pay the tax collected to the relevant approved recycling organisations.

16 - CHANGES TO THE GENERAL TERMS OF SALES

Interchim reserves the right to change these General Conditions of Sale at any time and any such changes shall be applicable to all orders placed after the date of the modification, including for orders supplementary to or associated with previous orders.



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