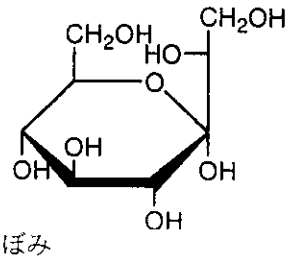
Bick, I.R.C. et al., Bull. Soc. Chim. Fr., 1972, 4596, (分離, UV, H-NMR, Mass, 構造決定, Cryptodorine)
Pech, B. et al., J. Nat. Prod., 1982, 45, 560, (分離)

§ D-*glycero*-D-*ido*-3-Octulose

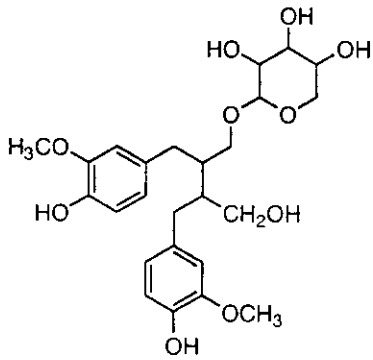


[化学名・別名]D-*gluco*-L-*glycero*-3-Octulose
[CAS No.]78174-72-8
[化合物分類]炭水化物(Higher ketoses)
[構造式]
[分子式]$C_8H_{16}O_8$
[分子量]240.21
[一般的性質]First reported naturally occurring 3-octulose
[基原]Main constit. in aq. extracts of *Laurus nobilis* の葉とつぼみ

----------文 献----------

Schaffer, R. et al., J.O.C., 1963, 28, 1929
Westelund, E., Carbohydr. Res., 1981, 91, 21, (合成法, Mass, C13-NMR)
Sakata, K. et al., Agric. Biol. Chem., 1989, 53, 2539, (分離, C13-NMR, Mass)

§ Secoisolariciresinol; (8*S*,8'*S*)-form, 9-*O*-β-D-Xylopyranoside



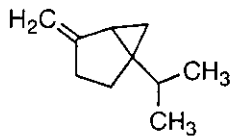
[CAS No.]145213-58-7
[化合物分類]リグナン化合物(Side-chain oxygenated dibenzylbutane lignans)
[構造式]

[分子式]$C_{25}H_{34}O_{10}$
[分子量]494.538
[基原]*Laurus nobilis*

----------文 献----------

Briggs, L.H. et al., Tet. Lett., 1959, No. 4, 14, (分離, 構造決定)
Freudenberg, K. et al., Tet. Lett., 1959, No. 17, 19, (分離)
Majumdar, R.B. et al., Indian J. Chem., 1972, 10, 677, (分離, 構造決定)
Andersson, R. et al., Acta Chem. Scand., Ser. B, 1975, 29, 835, (分離)
Fonseca, S.F. et al., Phytochemistry, 1978, 17, 499, (分離, C13-NMR)
Agrawal, P.K. et al., Phytochemistry, 1982, 21, 1459, (分離)
Lundgren, L.N. et al., Acta Chem. Scand., Ser. B, 1985, 35, 241-248, (9-xyloside)

§ 4(10)-Thujene; (-)-form

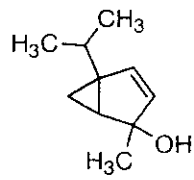


[CAS No.]10408-16-9
[化合物分類]テルペノイド(Thujane monoterpenoids)
[構造式]
[分子式]$C_{10}H_{16}$
[分子量]136.236
[基原]*Laurus nobilis*, *Pinus muricata*, その他いくつかの植物
[性状]液体
[沸点]Bp 162-166 ℃
[比旋光度]:$[\alpha]_D$ -89

----------文 献----------

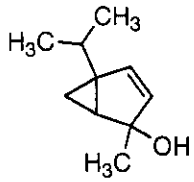
Jaureguiberry, G. et al., Bull. Soc. Chim. Fr., 1962, 1985, (分離, IR, H-NMR)
Whitaker, D. et al., Chem. Rev., 1972, 72, 305, (レビュー)
Karrer, W. et al., Konstitution und Vorkommen der Organischen Pflanzenstoffe, 2nd edn., Birkhaumluser Verlag, Basel, 1972, no. 60, (生育)

§ 2-Thujen-4-ol; (1*R,4*R**)-form**



[化学名・別名]*cis*-form
[CAS No.]97631-68-0
[化合物分類]テルペノイド(Thujane monoterpenoids)
[構造式]

----------文献----------
Klein, E. et al., Chem. Ber., 1965, 98, 3045, (合成法)
Novak, M., Phytochemistry, 1985, 24, 858, (分離)

§ 2-Thujen-4-ol; (1*R,4*S**)-form**

[化学名・別名]*trans*-form
[CAS No.]69651-92-9
[化合物分類]テルペノイド(Thujane monoterpenoids)
[構造式]
[分子式]$C_{10}H_{16}O$
[分子量]152.236
[基原]*Laurus nobilis*
[性状]オイル
----------文献----------
Klein, E. et al., Chem. Ber., 1965, 98, 3045, (合成法)
Novak, M., Phytochemistry, 1985, 24, 858, (分離)

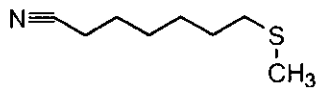
***********ロンゴザ (Longose) ***********

§§ショウガ科(*Hedychium flavum* Roxburgh)の花。
本調査研究では、成分に関する文献はなかった。

§§ショウガ科(*Aframomum angustifolium* Schum. (*Hedychium gardneriana* Sheppard))の花。
本調査研究では、成分に関する文献はなかった。

***********ワサビ (Wasabi) ***********

§§アブラナ科ワサビ(*Wasabia japonica* (Miquel) Matsumura)の茎葉または根茎。

§ Diptocarpilidine; *S*-Deoxo

[化学名・別名]7-(Methylthio)heptanenitrile
[CAS No.]75272-78-5
[構造式]
[分子式]$C_8H_{15}NS$
[分子量]157.279
[基原]*Alyssum minimum*, *Wasabia japonica*, その他の針葉樹
[用途]抗カビ剤
----------文献----------
Aripova, S.F. et al., Khim. Prir. Soedin., 1984, 20, 84-86; Chem. Nat. Compd. (Engl. Transl.), 1984, 20, 79-81, (分離, H-NMR, Mass)
Kumagai, H. et al., Biosci., Biotechnol., Biochem., 1994, 58, 2131-2135, (誘導体, 分離)
Pedras, M.S.C. et al., Phytochemistry, 1998, 49, 1959-1965, (分離, IR, H-NMR, C13-NMR, Mass)

§ 6-Heptenyl glucosinolate
[化合物分類]炭水化物(Glycosinolates), AF9600
[構造式]$H_2C{=}CH(CH_2)_5C(SGlc){=}NOSO_3H$
[分子式]$C_{14}H_{25}NO_9S_2$
[分子量]415.485
[基原]セイヨウワサビ(*Wasabia japonica*)
----------文献----------
Kojima, M. et al., Yakugaku Zasshi, 1973, 93, 453; CA, 80, 130475w, (生育)

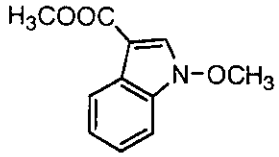
§ 5-Hexenyl glucosinolate
[化学名・別名]1-Thio-β-D-glucopyranose 1-[*N*-(sulfooxy)-6-heptenimidate]
[CAS No.]76265-24-2
[化合物分類]AF9600, 炭水化物(Glycosinolates)

§ 5-Hexenyl glucosinolate
[化学名・別名]1-Thio-β-D-glucopyranose 1-[*N*-(sulfooxy)-6-heptenimidate]
[CAS No.]76265-24-2
[化合物分類]AF9600, 炭水化物(Glycosinolates)
[構造式]$H_2C=CH(CH_2)_4C(SGlc)=OSO_3H$
[分子式]$C_{13}H_{23}NO_9S_2$
[分子量]401.458
[基原]セイヨウワサビ(*Wasabia japonica*)

文 献

Kojima, M. et al., Yakugaku Zasshi, 1973, 93, 453; CA, 80, 130475w, (生育)
Grob, K. et al., Phytochemistry, 1980, 19, 1789, (生育)

§ 1*H*-Indole-3-carboxylic acid; *N*-Methoxy, Me ester



[化学名・別名]Methyl 1-methoxy-1*H*-indole-3-carboxylate
[CAS No.]18377-50-9
[化合物分類]アルカロイド化合物(Simple indole alkaloids)
[構造式]
[分子式]$C_{11}H_{11}NO_3$
[分子量]205.213
[基原]*Wasabia japonica*
[用途]ファイトアレキシン, 抗カビ剤
[性状]プリズム結晶 ($CHCl_3$)
[融点]Mp 45-46 ℃, Mp 40-41 ℃

文 献

Whalley, W.B. et al., J.C.S., 1954, 1651, (*N*-Me)
Millich, F. et al., J.O.C., 1958, 23, 1096, (*N*-Me)
Hart, G. et al., J.O.C., 1962, 27, 2940, (*N*-Me)
Aldridge, D.C. et al., J.C.S.(C), 1971, 1623, (分離)
Abe, H. et al., Agric. Biol. Chem., 1972, 36, 2259, (分離, UV, Mass)
Mehta, G., Synthesis, 1978, 374, (合成法, amide, nitrile)
Acheson, R.M. et al., J. Chem. Res., Synop., 1984, 101; J. Chem. Res., Miniprint, 1984, 1301; 1319, (*N*-methoxy Me ester, 合成法)
Mancini, I. et al., Helv. Chim. Acta, 1994, 77, 1886, (分離, amide)
Hu, J.-F. et al., J. Antibiot., 2000, 53, 944-953, (rhamnosyl ester)
Levy, L.M. et al., Phytochemistry, 2000, 54, 941-943, (*N*-1,1-dimethylpropyl derivs)
Somei, M et al., Heterocycles, 2001, 54, 425-432, (1-methoxy Me ester synth)

§ 7-Isothiocyanato-1-heptene(CAS 名)
[化学名・別名]6-Heptenyl isothiocyanate
[CAS No.]49776-82-1
[化合物分類]脂肪族化合物(Simple thiocyanates and isothiocyanates)
[構造式]$H_2C=CH(CH_2)_5NCS$
[分子式]$C_8H_{13}NS$
[分子量]155.263
[基原]次の植物の加水分解で分離: *Wasabia japonica*

文 献

Kojima, M. et al., Yakugaku Zasshi, 1973, 93, 453; CA, 79, 63527d, (分離, Mass)

§ 6-Isothiocyanato-1-hexene(CAS 名)
[化学名・別名]5-Hexenyl isothiocyanate
[CAS No.]49776-81-0
[化合物分類]脂肪族化合物(Simple thiocyanates and isothiocyanates)
[構造式]$H_2C=CH(CH_2)_4NCS$
[分子式]$C_7H_{11}NS$
[分子量]141.237
[基原]次の植物の加水分解で分離: *Wasabia japonica*、ラディッシュ

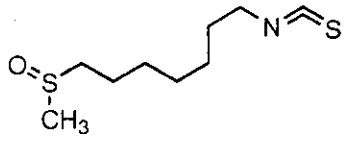
文 献

[化学名・別名]7-(Methylthio)heptyl isothiocyanate
[CAS No.]4430-38-0
[関連 CAS No.]31456-69-6
[化合物分類]脂肪族化合物(Simple thiocyanates and isothiocyanates)
[構造式]MeS$(CH_2)_7$NCS
[分子式]$C_9H_{17}NS_2$
[分子量]203.372
[基原]*Wasabia japonica* の臭い成分
[性状]オイル
[沸点]$Bp_{0.3}$ 117 ℃
[屈折率]n^{25}_D 1.5274

文献

Kjaer, A. et al., Acta Chem. Scand., 1957, 11, 1298; 1963, 17, 2143, (合成法, Mass)
Gmelin, R. et al., Acta Chem. Scand., 1970, 24, 3031, (誘導体)
Ina, K. et al., Agric. Biol. Chem., 1989, 53, 537, (分離, H-NMR, C13-NMR)
Etoh, H. et al., Agric. Biol. Chem., 1990, 54, 1587, (誘導体)

§ 1-Isothiocyanato-7-(methylthio)heptane; *S*-Oxide
[化学名・別名]1-Isothiocyanato-7-(methylsulfinyl)heptane
[CAS No.]129244-98-0
[化合物分類]脂肪族化合物(Simple thiocyanates and isothiocyanates)
[構造式]



[分子式]$C_9H_{17}NOS_2$
[分子量]219.371
[基原]*Wasabia japonica* の臭い成分, *Sibara virginica* の種子中に配糖体として存在
[性状]オイル

文献

Gmelin, R. et al., Acta Chem. Scand., 1970, 24, 3031, (誘導体)
Ina, K. et al., Agric. Biol. Chem., 1989, 53, 537, (分離, H-NMR, C13-NMR)
Etoh, H. et al., Agric. Biol. Chem., 1990, 54, 1587, (誘導体)

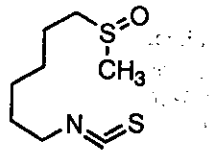
§ 1-Isothiocyanato-6-(methylthio)hexane(CAS 名)
[化学名・別名]6-(Methylthio)hexyl isothiocyanate
[CAS No.]4430-39-1
[化合物分類]脂肪族化合物(Simple thiocyanates and isothiocyanates), WE3000
[構造式]MeS$(CH_2)_6$NCS
[分子式]$C_8H_{15}NS_2$
[分子量]189.345
[基原]次の植物から分離: *Lesquerella lasiocarpa* の種子, 日本のワサビ *Wasabia japonica* の臭い成分, Formed from 6-(Methylthio)hexyl glucosinolate
[性状]液体
[沸点]$Bp_{0.5}$ 119 ℃
[屈折率]n^{25}_D 1.5336

文献

Kjaer, A. et al., Acta Chem. Scand., 1957, 11, 1298; 1963, 17, 846; 2143, (分離, 合成法, Mass)
Daxenbichler, M.E. et al., J.O.C., 1961, 26, 4168, (分離)
Ina, K. et al., Agric. Biol. Chem., 1989, 53, 535, (分離, H-NMR, C13-NMR)
Etoh, H. et al., Agric. Biol. Chem., 1990, 54, 1587, (分離, H-NMR)
Pedras, M.S.C. et al., Phytochemistry, 1998, 49, 1959-1965, (分離, H-NMR, C13-NMR, Mass)

§ 1-Isothiocyanato-6-(methylthio)hexane; *S*-Oxide
[化学名・別名]1-Isothiocyanato-6-(methylsulfinyl)hexane(CAS 名), 6-(Methylsulfinyl)hexyl isothiocyanate
[CAS No.]4430-35-7
[化合物分類]脂肪族化合物(Simple thiocyanates and isothiocyanates)

[化合物分類]脂肪族化合物(Simple thiocyanates and isothiocyanates)
[構造式]
[分子式]$C_8H_{15}NOS_2$
[分子量]205.345
[基原]Mustard oil from dame's violet (*Hesperis matronalis*). 日本のワサビ(*Wasabia japonica*)の臭い成分. Formed from 6-(Methylthio)hexyl glucosinolate
[性状]オイル
[比旋光度]:$[\alpha]_D^{20}$ -71 (c, 0.84 in $CHCl_3$)



----------文 献----------

Kjaer, A. et al., Acta Chem. Scand., 1957, 11, 1298; 1963, 17, 846; 2143, (分離, 合成法, Mass)
Daxenbichler, M.E. et al., J.O.C., 1961, 26, 4168, (分離)
Ina, K. et al., Agric. Biol. Chem., 1989, 53, 535, (分離, H-NMR, C13-NMR)
Etoh, H. et al., Agric. Biol. Chem., 1990, 54, 1587, (分離, H-NMR)
Pedras, M.S.C. et al., Phytochemistry, 1998, 49, 1959-1965, (分離, H-NMR, C13-NMR, Mass)

§ 1-Isothiocyanato-8-(methylthio)octane
[化学名・別名]8-(Methylthio)octyl isothiocyanate
[CAS No.]4430-41-5
[化合物分類]WE3000, 脂肪族化合物(Simple thiocyanates and isothiocyanates)
[構造式]$MeS(CH_2)_8NCS$
[分子式]$C_{10}H_{19}NS_2$
[分子量]217.399
[基原]日本のワサビ *Wasabia japonica* の臭い成分
[性状]オイル
[沸点]$Bp_{0.3}$ 122 ℃
[屈折率]n^{25}_D 1.5242

----------文 献----------

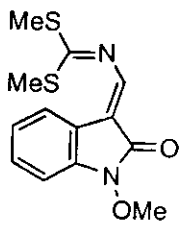
Kjaer, A. et al., Acta Chem. Scand., 1957, 11, 1298; 1958, 12, 833; 1963, 17, 2143; 1970, 24, 3031, (合成法, Mass)
Ina, K. et al., Agric. Biol. Chem., 1989, 53, 537, (分離, H-NMR)
Kawabata, J. et al., Agric. Biol. Chem., 1989, 53, 3361, (S-oxide, 分離, 合成法, Mass, UV, IR, H-NMR)

§ 1-Isothiocyanato-5-(methylthio)pentane(CAS 名)
[化学名・別名]5-(Methylthio)pentyl isothiocyanate. Berteroin
[CAS No.]4430-42-6
[化合物分類]脂肪族化合物(Simple thiocyanates and isothiocyanates)
[構造式]$MeS(CH_2)_5NCS$
[分子式]$C_7H_{13}NS_2$
[分子量]175.318
[基原]*Wasabia japonica*
[性状]オイル
[沸点]Bp_{10} 155 ℃

----------文 献----------

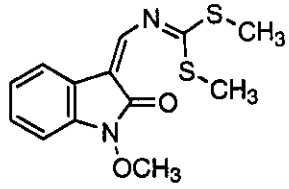
Kjaer, A. et al., Acta Chem. Scand., 1955, 9, 1311-1316; 1956, 10, 1100-1110, (分離, 合成法)
Kjaer, A. et al., Phytochemistry, 1973, 12, 929-933, (分離)
Cole, R.A. et al., Phytochemistry, 1976, 15, 759-762, (分離)
Spencer, G.F. et al., J. Sci. Food Agric., 1980, 31, 359-367, (Mass)
Pedras, M.S.C. et al., Phytochemistry, 1998, 49, 1959-1965, (分離, H-NMR, C13-NMR, Mass)

§ Wasalexin A
[化合物分類]アルカロイド化合物(Simple indole alkaloids)
[構造式]
[分子式]$C_{13}H_{14}N_2O_2S_2$
[分子量]294.398
[基原]*Wasabia japonica*
[用途]ファイトアレキシン
[性状]黄色の塊



Pedras, M.S.C. et al., Bioorg. Med. Chem. Lett., 1999, 9, 3015-3020, (分離, 合成法, H-NMR, C13-NMR, Mass)

§ Wasalexin A; (Z)-Isomer
[化学名・別名]Wasalexin B
[化合物分類]アルカロイド化合物(Simple indole alkaloids)
[構造式]



[分子式]$C_{13}H_{14}N_2O_2S_2$
[分子量]294.398
[基原]*Wasabia japonica*
[用途]ファイトアレキシン
[性状]黄色の塊

----------文献----------

Pedras, M.S.C. et al., Bioorg. Med. Chem. Lett., 1999, 9, 3015-3020, (分離, 合成法, H-NMR, C13-NMR, Mass)

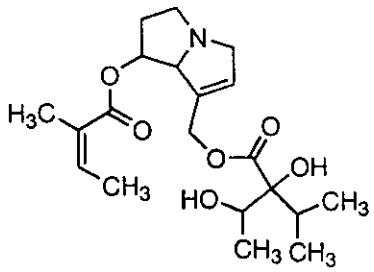
§§アブラナ科ユリワサビ(*Wasabia tenuis* (Miquel) Matsumura (*Eutrema tenuis* (Miq.) Makino))の茎葉または根茎。

本調査研究では、成分に関する文献はなかった。

***********ワスレナグサ (Forget me not, Mouse ears) ***********

§§ムラサキ科ワスレナグサ(*Myosotis scorpioides* L.)の地上部。

§ Echiumine; 2''*E*-Isomer
[化学名・別名]Myoscorpine
[CAS No.]82535-76-0
[化合物分類]アルカロイド化合物(Simple pyrrolizidine alkaloids)
[構造式]

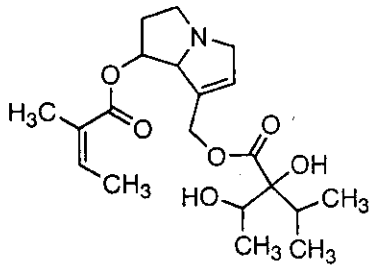


[分子式]$C_{20}H_{31}NO_6$
[分子量]381.468
[基原]次の植物から得られるアルカロイド: *Myosotis scorpioides* の地上部
[その他のデータ]Isol. only as a mixt. with symphytine. Ester of retronecine with tiglic and trachelanthic acids

----------文献----------

Resch, J. et al., J. Nat. Prod., 1982, 45, 358, (Myoscorpine, Symphytine)
Roeder, E. et al., Phytochemistry, 1990, 29, 690; 1991, 30, 3107, (Hydroxymyoscorpine, Myoscorpine *N*-oxide)
Kim, N.-C. et al., J. Nat. Prod., 2001, 64, 251-253, (Symlandine, Symphytine, 分離, H-NMR, C13-NMR)

§ Echiumine; 3'-Epimer, 2'' E-isomer
[化学名・別名]Symphytine
[CAS No.]22571-95-5
[化合物分類]アルカロイド化合物(Simple pyrrolizidine alkaloids)
[構造式]



[分子式]$C_{20}H_{31}NO_6$
[分子量]381.468
[基原]次の植物から得られるアルカロイド: *Symphytum officinale* の乾燥根, *Myosotis scorpioides* の地上部(ムラサキ科)
[性状]Glass or oil
[比旋光度]:$[\alpha]_D^{24}$ +3.65 (c, 4.28 in EtOH)
[化学物質毒性データ総覧(RTECS)登録番号]EM9252500

----------文献----------

Culvenor, C.C.J. et al., Aust. J. Chem., 1956, 9, 512; 1959, 12, 694; 1966, 19, 1955; 1980, 33, 1105, (Echiumine, Symlandine)
Furuya, T. et al., Chem. Pharm. Bull., 1968, 16, 2512, (Symphytine)

[化学物質毒性データ総覧(RTECS)登録番号]EM9252500

----------文 献----------

Culvenor, C.C.J. et al., Aust. J. Chem., 1956, 9, 512; 1959, 12, 694; 1966, 19, 1955; 1980, 33, 1105, (Echiumine, Symlandine)
Furuya, T. et al., Chem. Pharm. Bull., 1968, 16, 2512, (Symphytine)
Furuya, T. et al., Phytochemistry, 1971, 10, 2217, (Symphytine, 分離)
Resch, J. et al., J. Nat. Prod., 1982, 45, 358, (Myoscorpine, Symphytine)
Roeder, E. et al., Phytochemistry, 1990, 29, 690; 1991, 30, 3107, (Hydroxymyoscorpine, Myoscorpine *N*-oxide)

***RTECS (化学物質毒性データ) ***

生体影響物質　　：催腫瘍物質. 天然物.

健康障害に関するデータ

急性毒性に関するデータ

参照文献

Journal of the National Cancer Institute.63,469,1979

〈〈試験方法〉〉 LD50 試験(50%致死量試験).

曝露経路　　：腹腔内投与.
被験動物　　：げっ歯類-マウス.
投与量・期間：300 mg/kg
毒性影響　　：〔脳と外被〕中枢神経系の特定領域の記録.
〔肝臓〕その他の変化.

参照文献

Experientia.36,377,1980

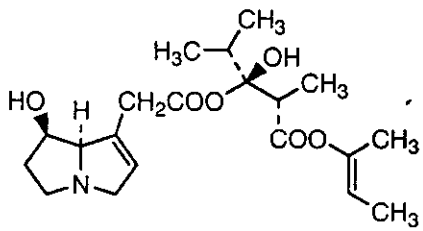
催腫瘍性に関するデータ

〈〈試験方法〉〉 最小毒性量(TDLo).

曝露経路　　：腹腔内投与.
被験動物　　：げっ歯類-ラット.
投与量・期間：780 mg/kg/56W-I
毒性影響　　：〔催腫瘍性〕RTECS 基準による，不確実な催腫瘍性物質.
〔血管〕腫瘍.
〔肝臓〕腫瘍.

参照文献

Journal of the National Cancer Institute.63,469,1979



§ Scorpioidine

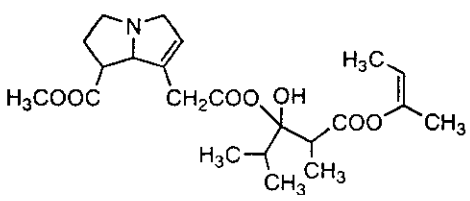
[CAS No.]80405-18-1
[化合物分類]アルカロイド化合物(Simple pyrrolizidine alkaloids)
[構造式]
[分子式]$C_{20}H_{31}NO_6$
[分子量]381.468
[基原]次の植物から得られるアルカロイド: *Myosotis scorpioides* (ムラサキ科)
[性状]オイル
[比旋光度]:$[\alpha]_D^{24}$ -5.06 (c, 1.72 in MeOH)
UV: [neutral] λ_{max} 218 (ε 15200) (MeOH) (Berdy)

----------文 献----------

Ulubelen, A. et al., Tet. Lett., 1970, 2583, (分離, Anadoline)
Culvenor, C.C.J. et al., Aust. J. Chem., 1975, 28, 173, (構造決定, Anadoline)
Resch, J.F. et al., J. Nat. Prod., 1982, 45, 358, (分離, UV, IR, H-NMR, C13-NMR, Mass)

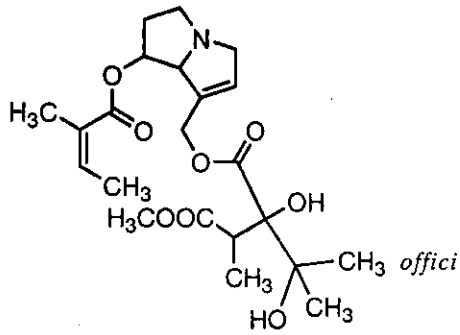
§ Scorpioidine; *O*^{7}-Ac

[化学名・別名]7-Acetylscorpioidine
[CAS No.]80405-17-0
[化合物分類]アルカロイド化合物(Simple pyrrolizidine alkaloids)
[構造式]
[分子式]$C_{22}H_{33}NO_7$
[分子量]423.505



Resch, J.F. et al., J. Nat. Prod., 1982, 45, 358, (分離, UV, IR, H-NMR, C13-NMR, Mass)

§§ムラサキ科エゾムラサキ(*Myosotis sylvatica* Hoffmann)の地上部。

§ **Heliosupine; 3'-Ac**
[化学名・別名]Acetylheliosupine
[CAS No.]31514-30-4
[化合物分類]アルカロイド化合物(Simple pyrrolizidine alkaloids)
[構造式]

[分子式]$C_{22}H_{33}NO_8$
[分子量]439.505
[基原]次の植物から得られる微量アルカロイド: *Cynoglossum officinale, Myosotis sylvatica* (ムラサキ科)
[比旋光度]:$[\alpha]_D^{24.5}$ -1.8 (c, 0.567 in EtOH)
[その他のデータ]Acetylated at the secondary OH group. Originally considered to be the 2'-Ac deriv.

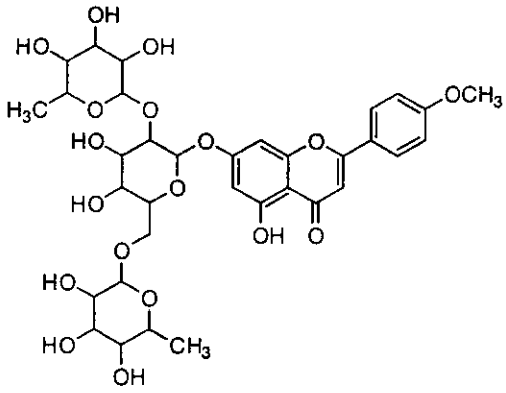
----------文献----------

Denisova, S.I. et al., Dokl. Akad. Nauk SSSR, Ser. Khim., 1953, 93, 59; CA, 49, 3992h, (分離)
Pedersen, E., Dan. Tidsskr. Farm., 1970, 44, 287; CA, 74, 72780e, (分離, 誘導体)
Man'ko, I.V. et al., Khim. Prir. Soedin., 1971, 7, 537; Chem. Nat. Compd. (Engl. Transl.), 1971, 7, 523, (生育, 酸化物)
Zalkow, L.H. et al., J. Nat. Prod., 1979, 42, 612, (分離)
Constantinidis, T. et al., Phytochemistry, 1993, 32, 1335, (3'-Acetylheliosupine-*N*-oxide)

§§ムラサキ科エゾムラサキ(*Myosotis alpestris*)の地上部。
本調査研究では、成分に関する文献はなかった。

**********ワタフジウツギ (Watafujiutsugi) **********

§§フジウツギ科ワタフジウツギ(*Buddleia officinalis* Maximowicz)の花蕾。

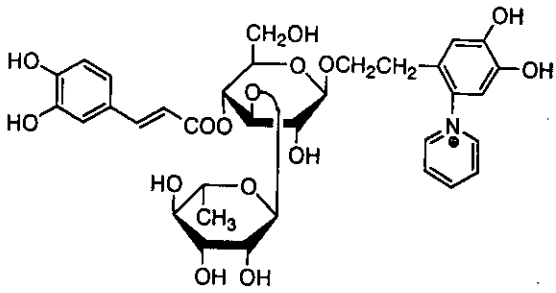
§ **5,7-Dihydroxy-4'-methoxyflavone; 7-*O*-[α-L-Rhamnopyranosyl-(1 → 2)-[α-L-rhamnopyranosyl-(1 → 6)]-β-D-glucopyranoside]**
[化学名・別名]Neobudofficide
[CAS No.]194602-91-0
[化合物分類]フラボノイド(Flavones; 3 × O-置換基)
[構造式]

[分子式]$C_{34}H_{42}O_{18}$
[分子量]738.685
[基原]*Buddleia officinalis* の花

----------文献----------

Li, J. et al., Yaoxue Xuebao, 1996, 31, 849-854; CA, 127, 202902x, (Neobuddofficide)

§ **Neobudofficide B**
[CAS No.]219998-44-4
[化合物分類]単環芳香族(Simple phenylpropanoids), 炭水化物(Disaccharides), アルカロイド化合物

(Miscellaneous pyridine alkaloids)
[構造式]



[分子式] $C_{34}H_{40}NO_{15}^{(+)}$
[分子量] 702.688
[基原] 次の植物から得られるアルカロイド: *Buddleia officinalis* の花
[その他のデータ] Isol. as the chloride, to which registry number refers

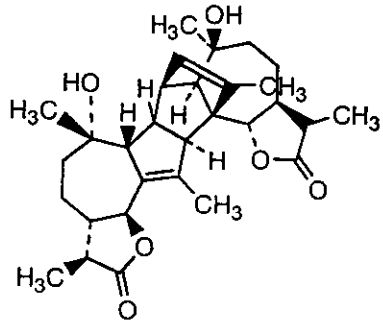
----------文 献----------

Li, J. et al., J. Chin. Pharm. Sci., 1997, 6, 178-181

**********ワームウッド (Wormwood) **********

§ §キク科ニガヨモギ(*Artemisia absinthium* L.)の全草。

§ Absinthin
[CAS No.] 1362-42-1
[化合物分類] テルペノイド (Dimeric guiaiane sesquiterpenoids)
[構造式]

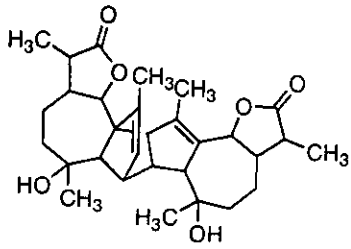


[分子式] $C_{30}H_{40}O_6$
[分子量] 496.642
[基原] *Artemisia absinthium*, *Artemisia sieversiana*
[用途] アブサンの苦味成分
[性状] 橙-黄色の針状結晶
[融点] Mp 182-183 ℃で分解
[比旋光度]: $[\alpha]_D$ +180

----------文 献----------

Beauhaire, J. et al., Tet. Lett., 1980, 3191; 1981, 2269, (分離, 構造決定)
Bohlmann, F. et al., Phytochemistry, 1985, 24, 1009, (分離, 誘導体)

§ Absinthin; 6'-Epimer
[化学名・別名] Isoabsinthin
[CAS No.] 11029-90-6
[化合物分類] テルペノイド (Dimeric guiaiane sesquiterpenoids)
[構造式]

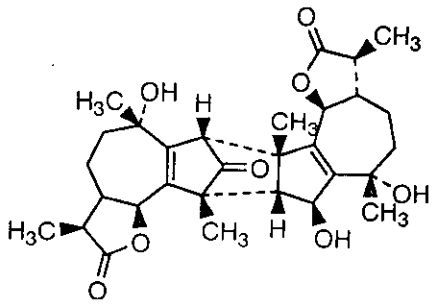


[分子式] $C_{30}H_{40}O_6$
[分子量] 496.642
[基原] *Artemisia absinthium*
[性状] 結晶 (MeOH)
[融点] Mp 172-174 ℃

----------文 献----------

Beauhaire, J. et al., Tet. Lett., 1980, 3191; 1981, 2269, (分離, 構造決定)
Bohlmann, F. et al., Phytochemistry, 1985, 24, 1009, (分離, 誘導体)

§ Absintholide
[CAS No.] 91997-90-9
[化合物分類] テルペノイド (Dimeric guiaiane sesquiterpenoids)
[構造式]

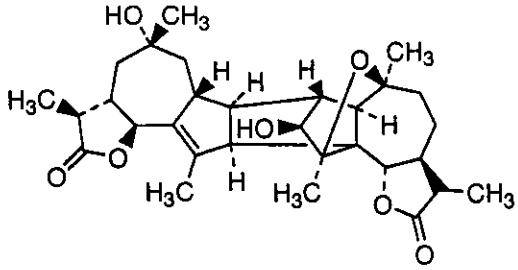


[分子式] $C_{30}H_{38}O_8$
[分子量] 526.625
[基原] *Artemisia absinthium*
[性状] 結晶 (C_6H_6)
[融点] Mp 227-228 ℃
[比旋光度]: $[\alpha]_D^{25}$ +127 (c, 1.3 in $CHCl_3$)

文献

Beauhaire, J. et al., Tet. Lett., 1984, 25, 2751

§ Anabsin

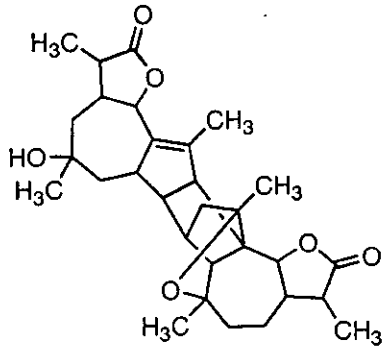


[CAS No.]72542-39-3
[化合物分類]テルペノイド(Dimeric guiaiane sesquiterpenoids)
[構造式]
[分子式]$C_{30}H_{40}O_7$
[分子量]512.642
[基原]*Artemisia absinthium*
[性状]結晶
[融点]Mp 276 ℃で分解
[比旋光度]:$[\alpha]_D^{25}$ +110 (c, 1.7 in Me_2CO)

文献

Kasyrov, Sh.Z. et al., Khim. Prir. Soedin., 1979, 495; Chem. Nat. Compd. (Engl. Transl.), 430, (構造決定, 成書)
Ullah, N. et al., Phytochemistry, 1999, 51, 559-562, (Seemarin, Absanthinin, H-NMR, C13-NMR)

§ Anabsin; 3-Deoxy

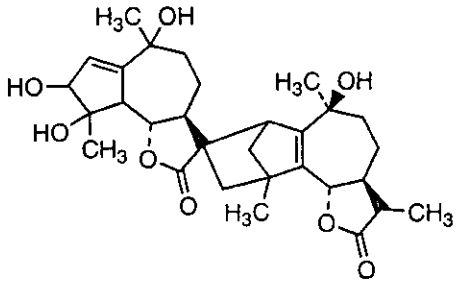


[化学名・別名]Anabsinthin
[CAS No.]6903-12-4
[化合物分類]テルペノイド(Dimeric guiaiane sesquiterpenoids)
[構造式]
[分子式]$C_{30}H_{40}O_6$
[分子量]496.642
[基原]次の植物から分離: *Artemisia absinthium*, *Daphne oleoides*
[性状]結晶 (C_6H_6)
[融点]Mp 267 ℃ (260 ℃)
[比旋光度]:$[\alpha]_D^{20}$ +113 ($CHCl_3$)

文献

Kasyrov, Sh.Z. et al., Khim. Prir. Soedin., 1979, 495; Chem. Nat. Compd. (Engl. Transl.), 430, (構造決定, 成書)
Ullah, N. et al., Phytochemistry, 1999, 51, 559-562, (Seemarin, Absanthinin, H-NMR, C13-NMR)

§ Artenolide

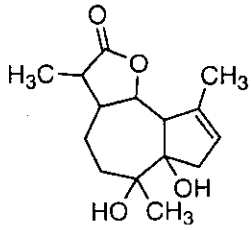


[CAS No.]113807-34-4
[化合物分類]テルペノイド(Dimeric guiaiane sesquiterpenoids)
[構造式]
[分子式]$C_{30}H_{40}O_8$
[分子量]528.641
[基原]*Artemisia absinthium*
[性状]結晶 (EtOH)
[融点]Mp 163-174 ℃

文献

Ovezdurdyev, A. et al., Khim. Prir. Soedin., 1987, 23, 667; Chem. Nat. Compd. (Engl. Transl.), 553, (分離, H-NMR, C13-NMR)

§ 1,10-Dihydroxy-3-guaien-12,6-olide; (1 ξ,5 α,6 α,10 ξ,11 α)-form



[化学名・別名]Arlatin
[CAS No.]93552-69-3
[化合物分類]テルペノイド(12,6-Guaianolide sesquiterpenoids)
[構造式]
[分子式]$C_{15}H_{22}O_4$
[分子量]266.336
[基原]*Artemisia latifolia*, *Artemisia absinthium*
[性状]結晶 (EtOH)
[融点]Mp 203-205 ℃

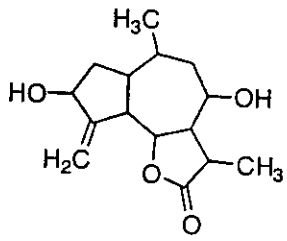
文献

[融点]Mp 203-205 ℃

----------文 献----------

Kasamov, Sh.Z. et al., Khim. Prir. Soedin., 1984, 20, 794; Chem. Nat. Compd. (Engl. Transl.), 1984, 20, 754, (分離)
Adekenov, S.M. et al., Khim. Prir. Soedin., 1984, 20, 795; Chem. Nat. Compd. (Engl. Transl.), 1984, 20, 755, (分離)

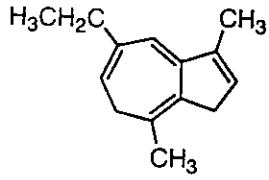
§ 3,8-Dihydroxy-4(15)-guaien-12,6-olide; (1 ξ,3 β,5 β,6 α,8 α,10 ξ,11 ξ)-form
[化学名・別名]Absindiol
[CAS No.]213198-34-6
[化合物分類]テルペノイド(12,6-Guaianolide sesquiterpenoids)
[構造式]
[分子式]$C_{15}H_{22}O_4$
[分子量]266.336
[基原]*Artemisia absinthium*
[性状]結晶 ($CHCl_3$/petrol)
[融点]Mp 161-163 ℃



----------文 献----------

Safarova, A.G. et al., Khim. Prir. Soedin., 1997, 33, 834-836; Chem. Nat. Compd. (Engl. Transl.), 1997, 33, 653-654, (分離)

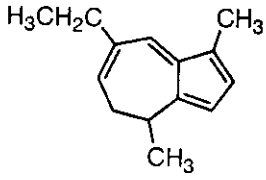
§ 1,4-Dimethyl-7-ethylazulene; 3,6-Dihydro
[化学名・別名]7-Ethyl-3,6-dihydro-1,4-dimethylazulene
[CAS No.]18454-88-1
[化合物分類]テルペノイド(Seco-, cyclo-, abeo- and norguaiane sesquiterpenoids)
[構造式]
[分子式]$C_{14}H_{18}$
[分子量]186.296
[基原]*Artemisia absinthium* の微量成分
[性状]青白い黄色の不安定なオイル



----------文 献----------

Takeda, K. et al., Chem. Pharm. Bull., 1953, 75, 3865, (構造決定)
Bertelli, D.J. et al., Tetrahedron, 1968, 24, 2079, (分離, 構造決定)
Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, 1993, 755
Roth, L. et al., Roth Collection of Natural Product Data, VCH, Weinheim, 1995, (成書)
Adam, K.-P. et al., Phytochemistry, 1998, 48, 953-959, (生合成)
DRV000

§ 1,4-Dimethyl-7-ethylazulene; 5,6-Dihydro
[化学名・別名]7-Ethyl-5,6-dihydro-1,4-dimethylazulene
[CAS No.]18454-89-2
[化合物分類]テルペノイド(Seco-, cyclo-, abeo- and norguaiane sesquiterpenoids)
[構造式]
[分子式]$C_{14}H_{18}$
[分子量]186.296
[基原]*Artemisia absinthium* の微量成分
[性状]橙-黒色の不安定なオイル

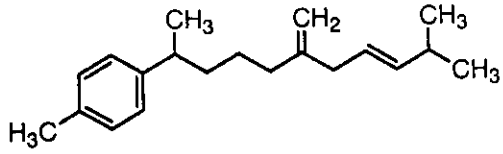


----------文 献----------

Takeda, K. et al., Chem. Pharm. Bull., 1953, 75, 3865, (構造決定)
Bertelli, D.J. et al., Tetrahedron, 1968, 24, 2079, (分離, 構造決定)
Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, 1993, 755
Roth, L. et al., Roth Collection of Natural Product Data, VCH, Weinheim, 1995, (成書)
Adam, K.-P. et al., Phytochemistry, 1998, 48, 953-959, (生合成)

§ 1-(1,9-Dimethyl-5-methylene-8-decenyl)-4-methylbenzene
[化学名・別名]*ar*-Artemisene

[CAS No.]6089-98-1
[関連 CAS No.]19907-39-2
[化合物分類]テルペノイド(Prenylbisabolane diterpenoids)
[構造式]

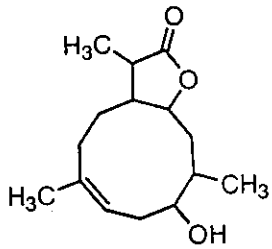


[分子式]$C_{20}H_{30}$
[分子量]270.457
[基原]ワームウッドオイル(*Artemisia absinthium*)
[性状]オイル
[比旋光度]:[α]$_D$ -19.2

----------文献----------

Sorm, F. et al., Coll. Czech. Chem. Comm., 1951, 16, 268, (分離)
Vig, O.P. et al., J. Indian Chem. Soc., 1965, 42, 773, (合成法)
Crawford, R.J., J.O.C., 1972, 37, 3543, (合成法, H-NMR)

§ 3-Hydroxy-1(10)-germacren-12,6-olide; (1(10)*E*,3 α,4 β *H*,6 α,11 α *H*)-form
[化学名・別名]Hydroxypelenolide
[CAS No.]17909-94-3
[化合物分類]テルペノイド(12,6-Germacranolide sesquiterpenoids)
[構造式]

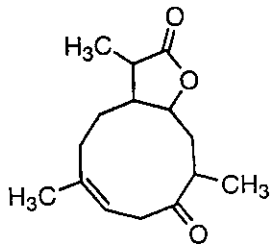


[分子式]$C_{15}H_{24}O_3$
[分子量]252.353
[基原]*Artemisia absinthium*
[性状]結晶
[融点]Mp 108℃ (98℃)
[比旋光度]:[α]$_D$ -41

----------文献----------

Such'y, M. et al., Coll. Czech. Chem. Comm., 1967, 32, 3917
Wang, W.Z. et al., Phytochemistry, 1994, 37, 1347, (Ketopelenolide b, H-NMR, C13-NMR)
Adekenov, S.M. et al., Fitoterapia, 1995, 66, 142, (Dihydroargolide, H-NMR)
Edil'baeva, T.T. et al., Khim. Prir. Soedin., 1999, 35, 481-483; Chem. Nat. Compd. (Engl. Transl.), 1999, 35, 430-432, (Ketoplenolide B, 結晶構造)

§ 3-Hydroxy-1(10)-germacren-12,6-olide; (1(10)*E*,3 α,4 β *H*,6 α,11 α *H*)-form, 3-Ketone
[化学名・別名]3-Oxo-1(10)-germacren-12,6-olide. Ketopelenolide a. Oxopelenolide a
[CAS No.]17909-92-1
[化合物分類]テルペノイド(12,6-Germacranolide sesquiterpenoids)
[構造式]

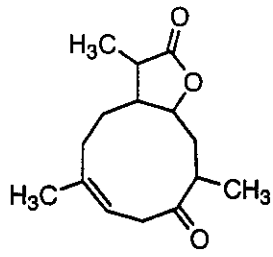


[分子式]$C_{15}H_{22}O_3$
[分子量]250.337
[基原]*Artemisia absinthium*
[性状]結晶
[融点]Mp 114℃

----------文献----------

Such'y, M. et al., Coll. Czech. Chem. Comm., 1967, 32, 3917
Wang, W.Z. et al., Phytochemistry, 1994, 37, 1347, (Ketopelenolide b, H-NMR, C13-NMR)
Adekenov, S.M. et al., Fitoterapia, 1995, 66, 142, (Dihydroargolide, H-NMR)
Edil'baeva, T.T. et al., Khim. Prir. Soedin., 1999, 35, 481-483; Chem. Nat. Compd. (Engl. Transl.), 1999, 35, 430-432, (Ketoplenolide B, 結晶構造)

§ 3-Hydroxy-1(10)-germacren-12,6-olide; (1(10)*E*,4 α *H*,6 α,11 α *H*)-form, 3-Ketone
[化学名・別名]Ketopelenolide b. Oxopelenolide b. Dihydroargolide
[化合物分類]テルペノイド(12,6-Germacranolide sesquiterpenoids)
[構造式]

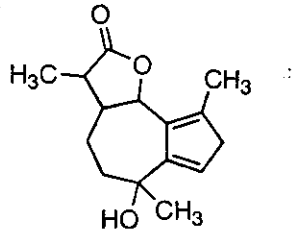


[分子式] $C_{15}H_{22}O_3$
[分子量] 250.337
[基原] *Artemisia absinthium, Artemisia glabella, Ajania fruticulosa*
[性状] 結晶
[融点] Mp 172 ℃
[比旋光度]: $[\alpha]_D^{22}$ +45 (c, 0.43 in $CHCl_3$)

---文 献---

Wang, W.Z. et al., Phytochemistry, 1994, 37, 1347, (Ketopelenolide b, H-NMR, C13-NMR)
Adekenov, S.M. et al., Fitoterapia, 1995, 66, 142, (Dihydroargolide, H-NMR)
Edil'baeva, T.T. et al., Khim. Prir. Soedin., 1999, 35, 481-483; Chem. Nat. Compd. (Engl. Transl.), 1999, 35, 430-432, (Ketoplenolide B, 結晶構造)

§ 10-Hydroxy-1,3-guaiadien-12,6-olide; (6 α,10 β,11 α)-form

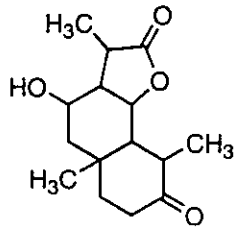


[化学名・別名] Artabsin. Prochamazulenogenin
[CAS No.] 24399-20-0
[化合物分類] テルペノイド (12,6-Guaianolide sesquiterpenoids)
[構造式]
[分子式] $C_{15}H_{20}O_3$
[分子量] 248.321
[基原] *Artemisia absinthium, Artemisia sieversiana*
[性状] 結晶 (EtOH)
[融点] Mp 133-135 ℃
[比旋光度]: $[\alpha]_D^{20}$ -49

---文 献---

Herout, V. et al., Coll. Czech. Chem. Comm., 1953, 18, 854, (分離)
Vokacÿ, K. et al., Coll. Czech. Chem. Comm., 1972, 37, 1346, (構造決定)

§ 8-Hydroxy-3-oxo-12,6-eudesmanolide; (4 β,6 α,8 α,11 α)-form

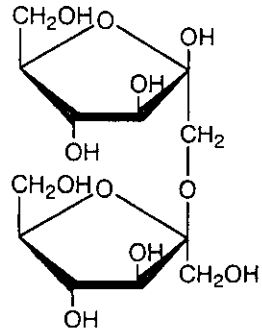


[化学名・別名] Arabsin
[CAS No.] 38412-44-1
[化合物分類] テルペノイド (12,6-Eudesmanolide sesquiterpenoids)
[構造式]
[分子式] $C_{15}H_{22}O_4$
[分子量] 266.336
[基原] *Artemisia absinthium*
[性状] 結晶 (C_6H_6)
[融点] Mp 188-189 ℃
[比旋光度]: $[\alpha]_D^{23}$ +89 (c, 2.71 in EtOH)

---文 献---

Akhmedov, I.S. et al., Khim. Prir. Soedin., 1972, 8, 245; Chem. Nat. Compd. (Engl. Transl.), 1972, 8, 245

§ Inulobiose



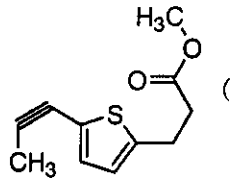
[化学名・別名] 1-*O*-β-D-Fructofuranosyl-D-fructose. Difructan
[CAS No.] 470-58-6
[化合物分類] AF9200, 炭水化物 (Disaccharides)
[構造式]
[分子式] $C_{12}H_{22}O_{11}$
[分子量] 342.299
[基原] Formed by partial acid hydrol. of Inulin and by the action of purified yeast invertase on Fructose; *Artemisia absinthium* の葉, *Artemisia dracunculus* の根
[比旋光度]: $[\alpha]_D^{20}$ -72.4 (c, 2.7 in H_2O) (-32.5)
[その他のデータ] 蔗糖より甘い

---文 献---

Schlubach, H.H. et al., Annalen, 1954, 588, 192, (分離)
Lombard, A. et al., CA, 1976, 85, 74938p, (生育)

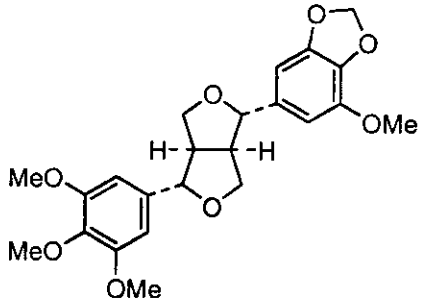
Senda, T. et al., CA, 1990, 113, 170368v, (合成法)
Calub, T.M. et al., Carbohydr. Res., 1990, 207, 221, (conformn)

§ 5-(1-Propynyl)-2-thiophenepropanoic acid; Me ester
[CAS No.]67901-30-8
[化合物分類]脂肪族化合物(Acetylenic acids and esters), 脂肪族化合物(Miscellaneous thiophenes)
[構造式]



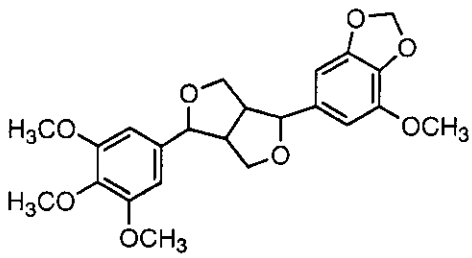
[分子式]$C_{11}H_{12}O_2S$
[分子量]208.281
[基原]次の植物から分離: *Artemisia absinthium* の根
----------文献----------
Greger, H., Phytochemistry, 1978, 17, 806, (分離, H-NMR, 構造決定)

§ Sesartemin
[化学名・別名] 4-Methoxy-6-[tetrahydro-4-(3,4,5-trimethoxyphenyl)-1*H*,3*H*-furo[3,4-*c*]furan-1-yl]-1,3-benzodioxole(CAS 名). 2-(3-Methoxy-4,5-methylenedioxyphenyl)-6-(3,4,5-trimethoxyphenyl)-3,7-dioxabicyclo[3.3.0]octane. 3,3',4',5'-Tetramethoxy-4,5-methylenedioxy-7,9',7',9-diepoxylignan. Sesalatin
[CAS No.]77394-27-5
[化合物分類]リグナン化合物(Simple furofuranoid lignans)
[構造式]



[分子式]$C_{23}H_{26}O_8$
[分子量]430.454
[基原]次の植物から分離: *Virola elongata* の樹皮, *Artemisia absinthium* の根
[融点]Mp 115-116 ℃
[比旋光度]:$[\alpha]_D^{25}$ +50 ($CHCl_3$)
----------文献----------
Greger, H. et al., Tetrahedron, 1980, 36, 3551, (分離, NMR, Mass)
MacRae, W.D. et al., Phytochemistry, 1985, 24, 561, (分離, NMR)
Hofer, O. et al., Monatsh. Chem., 1988, 119, 1143, (結晶構造)
Kamal-Eldin, A. et al., Phytochemistry, 1992, 31, 2911, (Episesalitin)

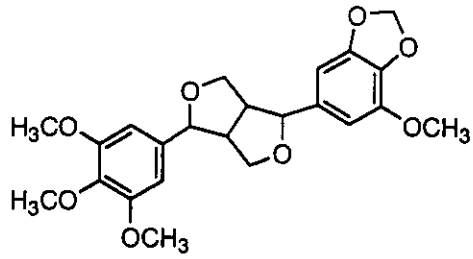
§ Sesartemin; 7-Epimer
[化学名・別名]Episesartemin A
[CAS No.]77449-31-1
[化合物分類]リグナン化合物(Simple furofuranoid lignans)
[構造式]



[分子式]$C_{23}H_{26}O_9$
[分子量]430.454
[基原]次の植物から分離: *Artemisia absinthium* の根
[融点]Mp 112-114 ℃
[比旋光度]:$[\alpha]_D$ +115
----------文献----------
Greger, H. et al., Tetrahedron, 1980, 36, 3551, (分離, NMR, Mass)
MacRae, W.D. et al., Phytochemistry, 1985, 24, 561, (分離, NMR)
Hofer, O. et al., Monatsh. Chem., 1988, 119, 1143, (結晶構造)
Kamal-Eldin, A. et al., Phytochemistry, 1992, 31, 2911, (Episesalitin)

§ Sesartemin; 7,7'-Diepimer
[化学名・別名]Diasesartemin

[CAS No.]77449-33-3
[化合物分類]リグナン化合物(Simple furofuranoid lignans)
[構造式]

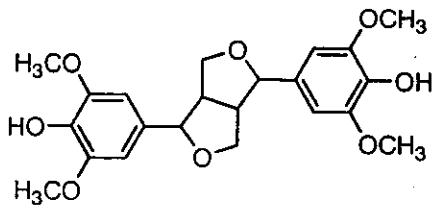


[分子式]$C_{23}H_{26}O_8$
[分子量]430.454
[基原]次の植物から分離: *Artemisia absinthium* の根
[融点]Mp 102-104 ℃
[比旋光度]:[α]$_D$ +315

----------文 献----------

Greger, H. et al., Tetrahedron, 1980, 36, 3551, (分離, NMR, Mass)
MacRae, W.D. et al., Phytochemistry, 1985, 24, 561, (分離, NMR)
Hofer, O. et al., Monatsh. Chem., 1988, 119, 1143, (結晶構造)
Kamal-Eldin, A. et al., Phytochemistry, 1992, 31, 2911, (Episesalitin)

§ Syringaresinol; (+)-form, 7-Epimer
[化学名・別名](+)-Episyringaresinol. Lirioresinol A
Symplicosigenol
[CAS No.]21453-71-4
[化合物分類]リグナン化合物(Simple furofuranoid lignans)
[構造式]

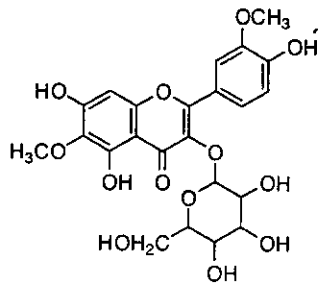


[基原]次の植物から分離: *Liriodendron tulipifera*, *Artemisia absinthium*, *Magnolia grandiflora*, prod. of degradation of birch lignin
[性状]結晶 ($CHCl_3$/MeOH)
[融点]Mp 210-211 ℃
[比旋光度]:[α]$_D$ +127 ($CHCl_3$)
UV: [neutral] λ $_{max}$ 217 (ε 16500); 237 (sh) (ε 11200); 273 (ε 2090) (MeOH) (Derep)

----------文 献----------

Nimz, H. et al., Chem. Ber., 1965, 98, 538, (分離, (±)-Syringaresinol)
Seikel, M.F. et al., Phytochemistry, 1971, 10, 2249, (分離)
Kinjo, J. et al., Chem. Pharm. Bull., 1991, 39, 1623, ((-)-Syringaresinol glycosides)
Das, B. et al., Fitoterapia, 1999, 70, 101-102, (Syringaresinol, H-NMR)

§ 3,4',5,7-Tetrahydroxy-3',6-dimethoxyflavone; 3-*O*-β-D-Glucopyranoside
[CAS No.]81563-84-0
[化合物分類]フラボノイド(Flavonols; 6 × O-置換基)
[構造式]

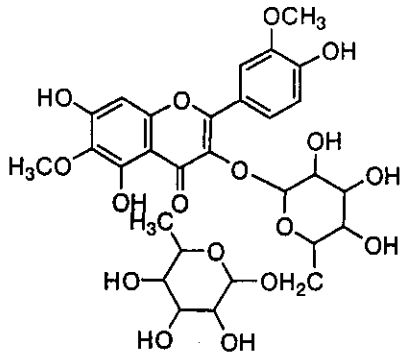


[分子式]$C_{23}H_{24}O_{13}$
[分子量]508.435
[基原]次の植物から分離: *Artemisia absinthium*

----------文 献----------

Zane, A. et al., J.O.C., 1961, 26, 4718, (分離)
Saunders, J. et al., Phytochemistry, 1976, 15, 809, (生育)
Bacon, J.D. et al., Phytochemistry, 1978, 17, 1939, (分離)
Ulubelen, A. et al., J. Nat. Prod., 1979, 42, 624, (3-rutinoside)
Hoffmann, B. et al., Z. Lebensm.-Unters. -Forsch., 1982, 174, 211, (3-glucoside)
The Flavonoids: Advances in Research since 1980, (Ed. Harborne, J.B.), Chapman and Hall, London, 1988

§ 3,4',5,7-Tetrahydroxy-3',6-dimethoxyflavone; 3-*O*-[α-L-Rhamnopyranosyl-(1→6)-β-D-glucopyranoside]
[化学名・別名]Spinacetin 3-rutinoside
[化合物分類]フラボノイド(Flavonols; 6 × O-置換基)
[構造式]

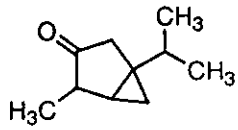


[分子式]$C_{29}H_{34}O_{17}$
[分子量]654.577
[基原]次の植物から分離: *Anvillea garcini, Artemisia absinthium*

----------文献----------

Zane, A. et al., J.O.C., 1961, 26, 4718, (分離)
Bacon, J.D. et al., Phytochemistry, 1978, 17, 1939, (分離)
Mues, R. et al., Phytochemistry, 1979, 18, 1379, (分離)
Hoffmann, B. et al., Z. Lebensm.-Unters. -Forsch., 1982, 174, 211, (3-glucoside)
The Flavonoids: Advances in Research since 1980, (Ed. Harborne, J.B.), Chapman and Hall, London, 1988

§ 3-Thujanone; (1*S*,4*R*,5*R*)-form



[化学名・別名](-)-3-Isothujone. (-)-α-Thujone
[CAS No.]546-80-5
[化合物分類]テルペノイド(Thujane monoterpenoids), WG2500
[構造式]
[分子式]$C_{10}H_{16}O$
[分子量]152.236
[基原]次の植物を含む多くの精油; Western Red Cedar leaf oil (*Thuja plicata*). ワームウッドオイル(*Artemisia absinthium*)の主成分. アブサンの成分
[用途]Used in homeopathic medicine
[性状]液体
[沸点]Bp_{12} 78 ℃
[比旋光度]:$[\alpha]_D^{23}$ -20.5 (c, 2 in $CHCl_3$)
[傷害・毒性]アブサンの乱用はヒトにおいて痙攣を引き起こす. 50 %致死量(LD_{50})(ラット, 経口) 500 mg/kg
[化学物質毒性データ総覧(RTECS)登録番号]XO9625000
[販売元]Fluka:89230

----------文献----------

Whittaker, D. et al., Chem. Rev., 1972, 72, 305, (レビュー)
Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, 1993, 1329

***RTECS (化学物質毒性データ) ***

生体影響物質　　: 催腫瘍物質. 医薬品.

健康障害に関するデータ

急性毒性に関するデータ

〈〈試験方法〉〉 認知されている最低致死量に関する試験
曝露経路　　: 腹腔内投与.
被験動物　　: げっ歯類-ラット.
投与量・期間 : 120 mg/kg
毒性影響　　: 〔行動〕 痙攣または発作閾値への影響.

参照文献

Journal of Pharmacology and Experimental Therapeutics.65,275,1939

〈〈試験方法〉〉 LD50 試験(50%致死量試験).
曝露経路　　: 静脈内投与.
被験動物　　: げっ歯類-ウサギ.
投与量・期間 : 31 ug/kg
毒性影響　　: 〔行動〕 痙攣または発作閾値への影響.

参照文献

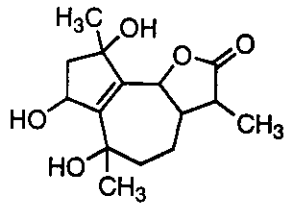
Journal of the American Pharmaceutical Association, Scientific Edition.29,2,1940

米国に於ける状況

EPA TSCA Section 8(b) CHEMICAL INVENTORY

EPA TSCA Section 8(b) CHEMICAL INVENTORY
NTP Carcinogenesis studies; selected, October 2000

§ 2,4,10-Trihydroxy-1(5)-guaien-12,6-olide; (2 α,4 α,6 α,10 β,11 α)-form

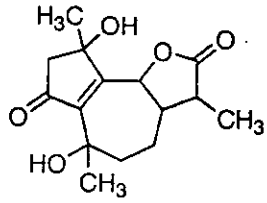


[化学名・別名]Artabsinolide C
[CAS No.]81907-05-3
[化合物分類]テルペノイド(12,6-Guaianolide sesquiterpenoids)
[構造式]
[分子式]$C_{15}H_{22}O_5$
[分子量]282.336
[基原]*Artemisia absinthium*
[性状]結晶 (EtOAc)
[融点]Mp 135-137 ℃
[比旋光度]:[α]$_D$ -22 (c, 0.1 in $CHCl_3$)

----------文 献----------

Kasymov, S.Z. et al., Khim. Prir. Soedin., 1979, 15, 658; Chem. Nat. Compd. (Engl. Transl.), 577
Beauhaire, J. et al., J.C.S. Perkin 1, 1982, 861

§ 2,4,10-Trihydroxy-1(5)-guaien-12,6-olide; (2 α,4 α,6 α,10 β,11 α)-form, 2-Ketone

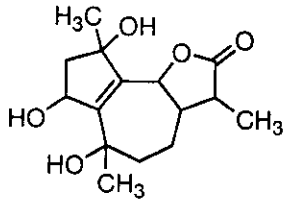


[化学名・別名]4,10-Dihydroxy-2-oxo-1(5)-guaien-12,6-olide. Artabsinolide A
[CAS No.]82078-63-5
[化合物分類]テルペノイド(12,6-Guaianolide sesquiterpenoids)
[構造式]
[分子式]$C_{15}H_{20}O_5$
[分子量]280.32
[基原]*Artemisia absinthium*
[性状]結晶 (EtOH)
[融点]Mp 160-162 ℃
[比旋光度]:[α]$_D$ +9 (c, 0.1 in $CHCl_3$)

----------文 献----------

Kasymov, S.Z. et al., Khim. Prir. Soedin., 1979, 15, 658; Chem. Nat. Compd. (Engl. Transl.), 577
Beauhaire, J. et al., J.C.S. Perkin 1, 1982, 861

§ 2,4,10-Trihydroxy-1(5)-guaien-12,6-olide; (2 β,4 β,6 α,10 β,11 α)-form

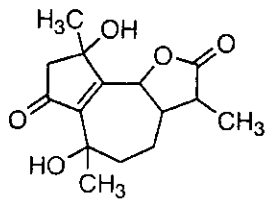


[化学名・別名]Artabsinolide D
[CAS No.]81907-04-2
[化合物分類]テルペノイド(12,6-Guaianolide sesquiterpenoids)
[構造式]
[分子式]$C_{15}H_{22}O_5$
[分子量]282.336
[基原]*Artemisia absinthium*
[性状]結晶 (EtOAc)
[融点]Mp 143-145 ℃
[比旋光度]:[α]$_D$ -51 (c, 0.1 in $CHCl_3$)

----------文 献----------

Kasymov, S.Z. et al., Khim. Prir. Soedin., 1979, 15, 658; Chem. Nat. Compd. (Engl. Transl.), 577
Beauhaire, J. et al., J.C.S. Perkin 1, 1982, 861

§ 2,4,10-Trihydroxy-1(5)-guaien-12,6-olide; (2 β,4 β,6 α,10 β,11 α)-form, 2-Ketone



[化学名・別名]Artabsinolide B. Artemoline
[CAS No.]76564-29-9
[化合物分類]テルペノイド(12,6-Guaianolide sesquiterpenoids)
[構造式]
[分子式]$C_{15}H_{20}O_5$
[分子量]280.32
[基原]*Artemisia absinthium*
[性状]結晶 (EtOAc/hexane)

[比旋光度]:[α]$_D$ +20 (c, 0.1 in $CHCl_3$)

----------文献----------

Kasymov, S.Z. et al., Khim. Prir. Soedin., 1979, 15, 658; Chem. Nat. Compd. (Engl. Transl.), 577
Beauhaire, J. et al., J.C.S. Perkin 1, 1982, 861

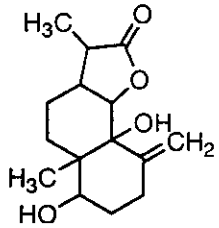
***********ワームシード (Wormseed) ***********

§§キク科ミブヨモギ(*Artemisia maritima* L.)の花または全草。

§ 1,5-Dihydroxy-4(15),11(13)-eudesmadien-12,6-olide; (1 β,5 β,6 α)-form, 11 β,13-Dihydro

[化学名・別名]1 β,5 β-Dihydroxy-4(15)-eudesmen-12,6 α-olide. 5-Epiartemin. Isogallicadiol

[CAS No.]129138-11-0



[化合物分類]テルペノイド(12,6-Eudesmanolide sesquiterpenoids)

[構造式]

[分子式]$C_{15}H_{22}O_4$

[分子量]266.336

[基原]次の植物から分離: *Artemisia maritima*, *Artemisia ifranensis*, *Artemisia diffusa*

[性状]結晶 (CH_2Cl_2/hexane)

[融点]Mp 187-189 ℃

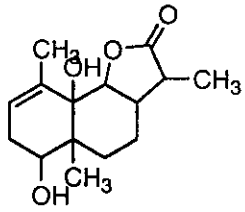
[比旋光度]:[α]$_D$ -94.2 (c, 0.2 in $CHCl_3$)

[その他のデータ]The *A. diffusa* compd. was originally assigned an incorr. struct.

----------文献----------

Samek, Z. et al., Coll. Czech. Chem. Comm., 1973, 38, 1971, (分離, 構造決定)
Gonzaacutelez, A.G. et al., J. Nat. Prod., 1990, 53, 462, (Isogallicadiol)

§ 1,5-Dihydroxy-3-eudesmen-12,6-olide; (1 β,5 α,6 α,11 α)-form



[化学名・別名]Gallicadiol

[CAS No.]119143-96-3

[化合物分類]テルペノイド(12,6-Eudesmanolide sesquiterpenoids)

[構造式]

[分子式]$C_{15}H_{22}O_4$

[分子量]266.336

[基原]*Artemisia maritima* gallica

[性状]結晶 (CH_2Cl_2/hexane)

[融点]Mp 219-221 ℃

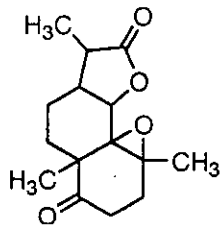
[比旋光度]:[α]$_D$ -11.7 (c, 0.2 in $CHCl_3$)

[その他のデータ]Rare *cis*-eudesmanolide

----------文献----------

Gonzalez, A.G. et al., Tetrahedron, 1988, 44, 6750, (Gallicadiol)
Marco, J.A. et al., Phytochemistry, 1994, 37, 477, (分離, H-NMR, C13-NMR)

§ 4,5-Epoxy-1-oxo-12,6-eudesmanolide; (4 α,5 α,6 α,11 β *H*)-form



[化学名・別名]Maritimin ‡

[CAS No.]81241-39-6

[化合物分類]テルペノイド(12,6-Eudesmanolide sesquiterpenoids)

[構造式]

[分子式]$C_{15}H_{20}O_4$

[分子量]264.321

[基原]*Artemisia maritima* gallica

[性状]結晶 (EtOAc/petrol)

[融点]Mp 176-178 ℃

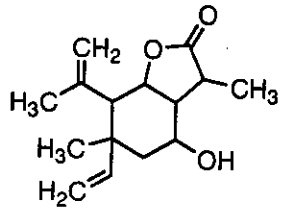
[比旋光度]:[α]$_D$ -42 (c, 0.3 in $CHCl_3$)

----------文献----------

Gonzalez, A.G. et al., Phytochemistry, 1981, 20, 2367
Van Hijfte, L. et al., Tetrahedron, 1984, 40, 4371, (合成法)

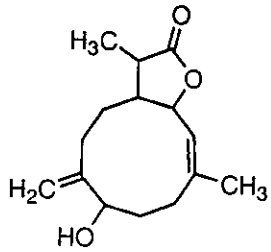
§ 8-Hydroxy-1,3-elemadien-12,6-olide; (6 α,8 α,11 α)-form

§ 8-Hydroxy-1,3-elemadien-12,6-olide; (6 α,8 α,11 α)-form
[化学名・別名]Temisin
[CAS No.]67151-76-2
[化合物分類]テルペノイド(Elemane sesquiterpenoids)
[構造式]
[分子式]$C_{15}H_{22}O_3$
[分子量]250.337
[基原]次の植物から分離: *Artemisia maritima*
[性状]プリズム結晶 (EtOH)
[融点]Mp 228 ℃
[比旋光度]:[α]$_D^{20}$ +70 ($CHCl_3$)



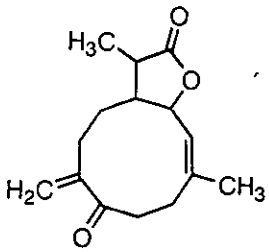
文 献
Asahina, Y. et al., Ber., 1941, 74, 952, (分離)
Nishizawa, M. et al., Chem. Comm., 1978, 76, (構造決定, 合成法)
Arno, M. et al., Tetrahedron, 1984, 40, 5243, (合成法)
Jakupovic, J. et al., Annalen, 1987, 111, (分離, H-NMR)

§ 1-Hydroxy-4,10(14)-germacradien-12,6-olide; (1 β,6 α,11 β *H*)-form
[化学名・別名]Gallicin ‡
[CAS No.]69075-77-0
[化合物分類]テルペノイド(12,6-Germacranolide sesquiterpenoids)
[構造式]
[分子式]$C_{15}H_{22}O_3$
[分子量]250.337
[基原]*Artemisia maritima*
[融点]Mp 114-116 ℃
[比旋光度]:[α]$_D$ +121 (c, 0.3 in $CHCl_3$)



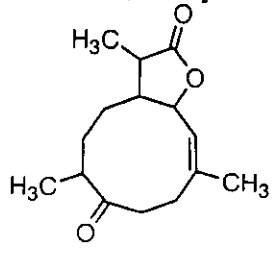
文 献
Gonzalez, A.G. et al., J.C.S. Perkin 1, 1978, 1243, (Gallicin)

§ 1-Hydroxy-4,10(14)-germacradien-12,6-olide; (1 β,6 α,11 β *H*)-form, 1-Ketone
[CAS No.]125675-20-9
[化合物分類]テルペノイド(12,6-Germacranolide sesquiterpenoids)
[構造式]
[分子式]$C_{15}H_{20}O_3$
[分子量]248.321
[基原]*Artemisia maritima*
[性状]結晶
[融点]Mp 132 ℃



文 献
Gonzalez, A.G. et al., J.C.S. Perkin 1, 1978, 1243, (Gallicin)
Gonzalez, A.G. et al., Tet. Lett., 1979, 3769, (conformn, Gallicin)
Gordon, M.M. et al., J. Nat. Prod., 1981, 44, 432, (分離)
Pathak, V.P. et al., Phytochemistry, 1987, 26, 2103, (分離, 誘導体)
Marco, J.A. et al., Phytochemistry, 1989, 28, 3121, (分離, H-NMR)

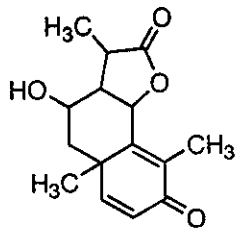
§ 1-Hydroxy-4,10(14)-germacradien-12,6-olide; (1 β,6 α,11 β *H*)-form, 1-Ketone, 10 α,14-dihydro
[化学名・別名]1-Oxo-4-germacren-12,6 α-olide
[化合物分類]テルペノイド(12,6-Germacranolide sesquiterpenoids)
[構造式]

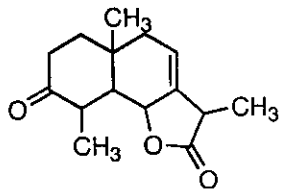


[分子式]$C_{15}H_{22}O_3$
[分子量]250.337
[基原]次の植物から分離: *Artemisia maritima*
[性状]オイル

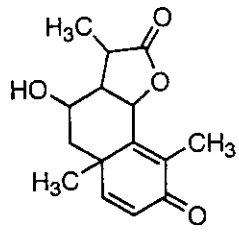
文 献
Gonzalez, A.G. et al., J.C.S. Perkin 1, 1978, 1243, (Gallicin)

Gordon, M.M. et al., J. Nat. Prod., 1981, 44, 432, (分離)
Pathak, V.P. et al., Phytochemistry, 1987, 26, 2103, (分離, 誘導体)
Marco, J.A. et al., Phytochemistry, 1989, 28, 3121, (分離, H-NMR)

§ 8-Hydroxy-3-oxo-1,4-eudesmadien-12,6-olide; (6 α,8 α,11 α)-form
[化学名・別名]Artemisin
[CAS No.]481-05-0
[化合物分類]テルペノイド(12,6-Eudesmanolide sesquiterpenoids)
[構造式]

[分子式]$C_{15}H_{18}O_4$
[分子量]262.305
[基原]*Artemisia maritima*, *Artemisia cina*
[性状]結晶 (H_2O)
[融点]Mp 202-203 ℃
[比旋光度]:[α]$_D$ -84.3 (EtOH)
[溶解性]BERDY SOL: メタノール, クロロホルムに可溶; 水, ヘキサンに難溶
----------文献----------
Bolt, A.J.N. et al., J.C.S., 1963, 5235, (構造決定)
Nakazaki, M. et al., Bull. Chem. Soc. Jpn., 1969, 42, 3366, (合成法)

§ 3-Oxo-7-eudesmen-12,6-olide
[化学名・別名]Monogynin
[化合物分類]テルペノイド(12,6-Eudesmanolide sesquiterpenoids)
[構造式]

[分子式]$C_{15}H_{20}O_3$
[分子量]248.321
[一般的性質]Tentative struct.
[基原]次の植物から分離: *Artemisia monogyna* (*Artemisia maritima*)
[性状]うろこ状(C_6H_6/Me_2O)
[融点]Mp 138 ℃
[比旋光度]:[α]$_D^{13.5}$ -164.3 ($CHCl_3$)
----------文献----------
Fukui, T. et al., Yakugaku Zasshi, 1948, 68, 269; 1958, 78, 710, (分離)
Geissman, T.A. et al., Pure Appl. Chem., 1970, 21, 167, (成書)

§§キク科シナ(*Artemisia cina* (Berg) Willkomm)の花または全草。

§ 8-Hydroxy-3-oxo-1,4-eudesmadien-12,6-olide; (6 α,8 α,11 α)-form
[化学名・別名]Artemisin
[CAS No.]481-05-0
[化合物分類]テルペノイド(12,6-Eudesmanolide sesquiterpenoids)
[構造式]

[分子式]$C_{15}H_{18}O_4$
[分子量]262.305
[基原]*Artemisia maritima*, *Artemisia cina*
[性状]結晶 (H_2O)
[融点]Mp 202-203 ℃
[比旋光度]:[α]$_D$ -84.3 (EtOH)
[溶解性]BERDY SOL: メタノール, クロロホルムに可溶; 水, ヘキサンに難溶
----------文献----------
Bolt, A.J.N. et al., J.C.S., 1963, 5235, (構造決定)
Nakazaki, M. et al., Bull. Chem. Soc. Jpn., 1969, 42, 3366, (合成法)

§§キク科クラムヨモギ(*Artemisia kurramensis* Quazilbash)の花または全草。