(MeOH) [neutral] λ max 218 (ε 58800); 268 (ε 23990) (MeOH)

----------文献----------

Yoshida, T. et al., Chem. Pharm. Bull., 1996, 44, 1436, (分離, UV, CD, H-NMR, C13-NMR)

§§ グミ科(*Shepherdia canadensis* Nuttal)の果実。

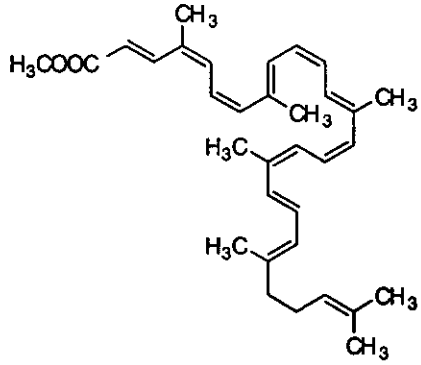
§ 6'-Apo-ψ-caroten-6'-al; Carboxylic acid, Me ester

[化学名・別名]Methyl apo-6'-lycopenate. Methyl 6'-apo-γ-carotenoate(旧 CAS 名)

[CAS No.]22255-21-6

[化合物分類]テルペノイド(Apocarotenoids)

[構造式]



[分子式]$C_{33}H_{44}O_2$

[分子量]472.709

[正確な分子量]472.33413

[基原]次の植物から分離: *Shepherdia canadensis*

[性状]結晶(C_6H_6/MeOH)

[融点]Mp 141-144 ℃ (137-145 ℃)

[その他のデータ]λ max 471, 503 nm (petrol); 445, 469 nm (Me_2CO)

----------文献----------

Kuhn, R. et al., Ber., 1932, 65, 898, (合成法)
Karrer, P. et al., Helv. Chim. Acta, 1939, 22, 69
Winterstein, A. et al., Chem. Ber., 1960, 93, 2951, (分離)
Kjosen, H. et al., Phytochemistry, 1969, 8, 483, (Methyl apo-6'-lycopenate)
Ben-Aziz, A. et al., Phytochemistry, 1973, 12, 2759, (分離)

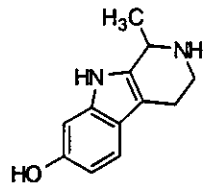
§ 7-Hydroxy-1-methyl-β-carboline; 1,2,3,4-Tetrahydro

[化学名・別名]Tetrahydroharmol. 2,3,4,9-Tetrahydro-1-methyl-1*H*-pyrido[3,4-*b*]indol-7-ol(旧 CAS 名).
1,2,3,4-Tetrahydro-7-hydroxy-1-methyl-β-carboline

[CAS No.]17952-75-9

[化合物分類]アルカロイド化合物(β-Carboline alkaloids)

[構造式]



[分子式]$C_{12}H_{14}N_2O$

[分子量]202.255

[正確な分子量]202.110613

[基原]次の植物から得られるアルカロイド: *Elaeagnus angustifolia*, *Shepherdia argentea*, *Shepherdia canadensis* (グミ科)

[融点]Mp 254-255 ℃

----------文献----------

Borkowski, B., CA, 1960, 54, 15844e
Lutomski, J., CA, 1960, 54, 16751f; 1961, 55, 21479a
Ayer, W.A. et al., Can. J. Chem., 1970, 48, 1980, (Tetrahydroharmol)
Ribas, I. et al., CA, 1972, 77, 123811n
Allen, J.R.F. et al., Phytochemistry, 1980, 19, 1573, (レビュー, 成書)

§ Shepherdine

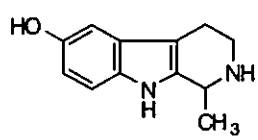
[化学名・別名]2,3,4,9-Tetrahydro-1-methyl-1*H*-pyrido[3,4-*b*]indol-6-ol(CAS 名).
1,2,3,4-Tetrahydro-6-hydroxy-1-methyl-β - carboline

[CAS No.]28090-87-1

[関連 CAS No.]3000-36-0

[化合物分類]アルカロイド化合物(β-Carboline alkaloids)

[構造式]



[分子式]$C_{12}H_{14}N_2O$

[分子量]202.255

[正確な分子量]202.110613
[基原]次の植物の根から得られるアルカロイド: *Shepherdia canadensis*（グミ科）. 確実な状態のもと, 動物のセロトニンから得られる代謝物
[比旋光度]:[α]$_D$ 0

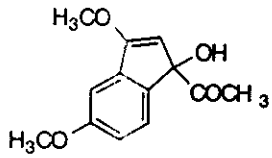
----------文献----------

Taboisky, R.G. et al., J. Med. Chem., 1964, 7, 135,（合成法, UV）
Ayer, W.A. et al., Can. J. Chem., 1970, 48, 1980,（分離, UV, IR, H-NMR, 合成法）

*********ハトムギ（Job's tears）*********

§§イネ科ハトムギ(*Coix lachryma-jobi* var. *ma-yuen*（Roman.）STAPF)の種子。

§ 1-Acetyl-1,3,5-trihydroxy-1*H*-indene; 3,5-Di-Me ether

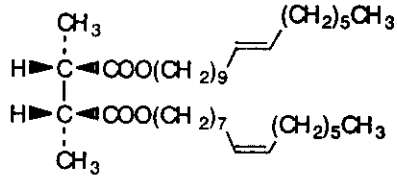


[化学名・別名]1-Acetyl-1-hydroxy-3,5-dimethoxy-1*H*-indene. Coixinden B
[CAS No.]151466-74-9
[化合物分類]多環芳香族(Indenes)
[構造式]
[分子式]$C_{13}H_{14}O_4$
[分子量]234.251
[正確な分子量]234.08921
[基原]*Coix lachryma-jobi* var. *ma-yuen*
[用途]抗菌作用

----------文献----------

Ishiguro, Y. et al., Chem. Lett., 1993, 1139,（分離）

§ Coixenolide

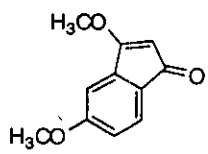


[CAS No.]29066-43-1
[化合物分類]脂肪族化合物(Branched alkenic carboxylic acids)
[構造式]
[分子式]$C_{38}H_{70}O_4$
[分子量]590.969
[正確な分子量]590.52741
[基原]次の植物の種子から分離: *Coix lachryma-jobi* var. *ma-yuen*
[用途]抗腫瘍剤
[性状]無定型
[比旋光度]:[α]$_D^{20}$ 0
[溶解性]BERDY SOL: アセトン, ヘキサンに可溶; 水, エタノール, メタノールに難溶
[濃度]d^{20} 0.8945
[屈折率]n^{20}_D 1.4705

----------文献----------

Ukita, C. et al., Chem. Pharm. Bull., 1961, 9, 43,（分離, 活性）
Tanimura, A. et al., Chem. Pharm. Bull., 1961, 9, 47,（構造決定）
Vaver, V.A. et al., Khim. Prir. Soedin., 1970, 6, 170; Chem. Nat. Compd.（Engl. Transl.）, 1970, 6, 167,（合成法, IR）

§ 5-Hydroxy-1,3-indanedione; Enol-form, Di-Me ether



[化学名・別名]3,5-Dimethoxy-1*H*-inden-1-one. Coixinden A
[CAS No.]149665-18-9
[化合物分類]多環芳香族(Indenes)
[構造式]
[分子式]$C_{11}H_{10}O_3$
[分子量]190.198
[正確な分子量]190.062995

[基原]*Coix lachryma-jobi* var. *ma-yuen*
[用途]抗菌作用
[性状]結晶
[融点]Mp 183 ℃で分解

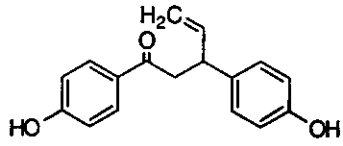
----------文献----------

Ishiguro, Y. et al., Biosci., Biotechnol., Biochem., 1993, 57, 866, (分離)

***********ハナスゲ (Hanasuge) ***********

§§ユリ科ハナスゲ(*Anemarrhena asphodeloides* Bunge)の根茎。

§ 1,3-Bis(4-hydroxyphenyl)-4-penten-1-one; (+)-form

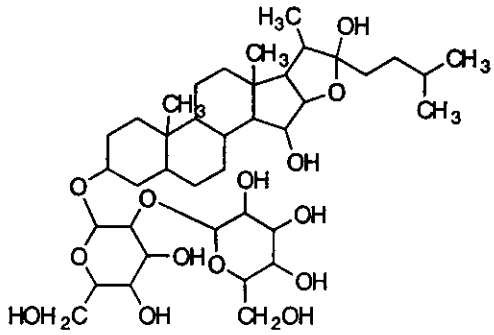


[化合物分類]リグナン化合物(Norlignans), 単環芳香族(Diarylalkyls)
[構造式]
[基原]*Anemarrhena asphodeloides* の根茎
[性状]無定型の粉末
[融点]Mp 148-150 ℃
[比旋光度]:[α]$_D^{26}$ +3 (c, 0.27 in $CHCl_3$/MeOH)

----------文献----------

Jeong, S.-J. et al., Planta Med., 1999, 65, 367, (分離, IR, H-NMR, C13-NMR, Mass)

§ Furostane-3,15,22-triol; (3 β,5 β,15 α,22 ξ)-form, 3-*O*-[β-D-Glucopyranosyl-(1 → 2)-β-D-galactopyranoside]

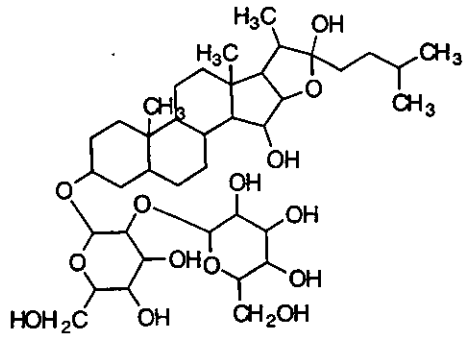


[化学名・別名]Anemarrhenasaponin I
[CAS No.]163047-21-0
[化合物分類]ステロイド(Furostane steroids). (C27).
[構造式]
[分子式]$C_{39}H_{66}O_{14}$
[分子量]758.942
[正確な分子量]758.44526
[基原]*Anemarrhena asphodeloides*
[性状]針状結晶 (EtOH)
[融点]Mp 202-204 ℃
[比旋光度]:[α]$_D$ -41.7 (c, 1.08 in Py)

----------文献----------

Saito, S. et al., Chem. Pharm. Bull., 1994, 42, 2342, (分離, H-NMR, C13-NMR)

§ Furostane-3,15,22-triol; (3 β,5 β,15 β,22 ξ)-form, 3-*O*-[β-D-Glucopyranosyl-(1 → 2)-β-D-galactopyranoside]



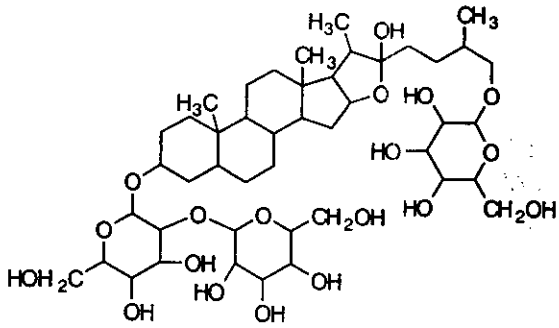
[化学名・別名]Anemarrhenasaponin II
[CAS No.]163047-22-1
[化合物分類]ステロイド(Furostane steroids). (C27).
[構造式]
[分子式]$C_{39}H_{66}O_{14}$
[分子量]758.942
[正確な分子量]758.44526
[基原]*Anemarrhena asphodeloides*
[性状]針状結晶 (MeOH)
[融点]Mp 174-176 ℃
[比旋光度]:[α]$_D$ -39.1 (c, 0.95 in Py)

----------文献----------

Saito, S. et al., Chem. Pharm. Bull., 1994, 42, 2342, (分離, H-NMR, C13-NMR)

§ Furostane-3,22,26-triol; (3 β,5 β,22 ξ,25*S*)-form, 3-*O*-[β-D-Glucopyranosyl-(1 → 2)-β

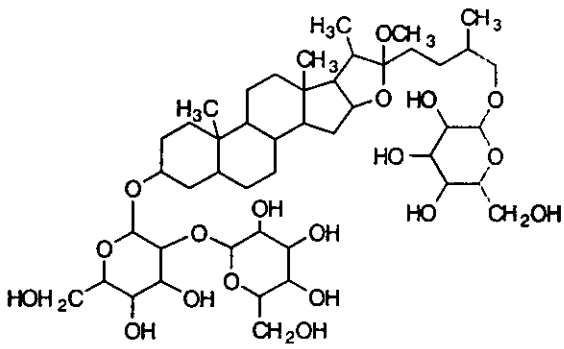
-D-galactopyranoside], 26-*O*-β-D-glucopyranoside
[CAS No.]136656-07-0
[化合物分類]ステロイド(Furostane steroids). (C27).
[構造式]
[分子式]$C_{45}H_{76}O_{19}$
[分子量]921.084
[正確な分子量]920.498085
[基原]*Anemarrhena asphodeloides*
[性状]結晶
[その他のデータ]Mp >243 ℃で分解



文献

Saito, S. et al., Chem. Pharm. Bull., 1994, 42, 2342, (分離, H-NMR, C13-NMR)
Ma, B.P. et al., Yaoxue Xuebao, 1996, 31, 271, (Anemarsaponins)

§ Furostane-3,22,26-triol; (3 β,5 β,22 ξ,25*S*)-form, 22-Me ether, 3-*O*-[β-D-glucopyranosyl-(1 → 2)-β-D-galactopyranoside], 26-*O*-β-D-glucopyranoside
[化学名・別名]Anemarsaponin E
[CAS No.]136565-73-6
[化合物分類]ステロイド(Furostane steroids). (C27).
[構造式]

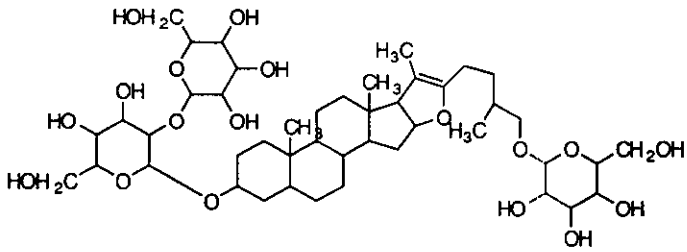


[分子式]$C_{46}H_{78}O_{19}$
[分子量]935.111
[正確な分子量]934.513735
[基原]*Anemarrhena asphodeloides*
[性状]結晶
[融点]Mp 244 ℃

文献

Ma, B.P. et al., Yaoxue Xuebao, 1996, 31, 271, (Anemarsaponins)

§ Furost-20(22)-ene-3,26-diol; (3 β,5 β,25*S*)-form, 3-*O*-[β-D-Glucopyranosyl-(1 → 2)-β-D-galactopyranoside], 26-*O*-β-D-glucopyranoside
[化学名・別名]Anemarrhenasaponin IV
[CAS No.]142759-74-8
[その他の CAS No.]139051-27-7
[化合物分類]ステロイド(Furostane steroids). (C27).
[構造式]



[分子式]$C_{45}H_{74}O_{18}$
[分子量]903.069
[正確な分子量]902.48752
[基原]*Anemarrhena asphodeloides*
[性状]無定型の粉末
[比旋光度]:$[\alpha]_D$ -11.5 (c, 1.05 in Py)

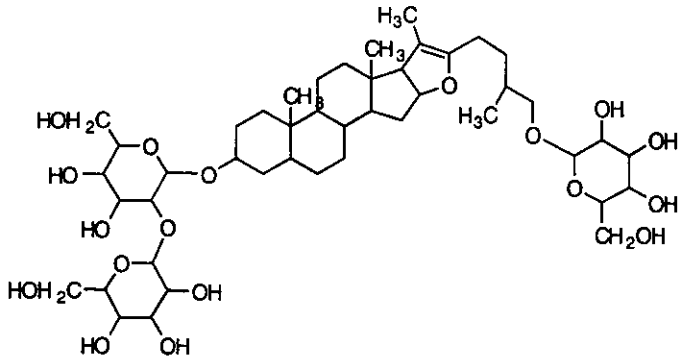
文献

Ayengar, K.N.N. et al., Curr. Sci., 1967, 36, 653
Wickramasinghe, J.A.F. et al., Phytochemistry, 1969, 8, 1433
Saito, S. et al., Chem. Pharm. Bull., 1994, 42, 2342, (Anemarrhenasaponin IV)

Meng, Z. et al., Shandong Yike Daxue Xuebao, 1998, 15, 130; CA, 129, 328222k, (Timosaponin BIV)

§ Furost-20(22)-ene-3,26-diol; (3 β,5 β,25*S*)-form, 3-*O*-[β-D-Glucopyranosyl-(1 → 2)-β-D-glucopyranoside], 26-*O*-β-D-glucopyranoside

[化学名・別名]Anemarsaponin C
[CAS No.]185432-00-2
[化合物分類]ステロイド(Furostane steroids). (C27).
[構造式]



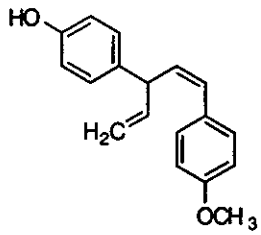
[分子式]$C_{45}H_{74}O_{18}$
[分子量]903.069
[正確な分子量]902.48752
[基原]*Anemarrhena asphodeloides*. Component of Zhi Mu
[性状]無定型の粉末
[その他のデータ]Mp >212 ℃

----------文献----------

Ayengar, K.N.N. et al., Curr. Sci., 1967, 36, 653
Wickramasinghe, J.A.F. et al., Phytochemistry, 1969, 8, 1433
Saito, S. et al., Chem. Pharm. Bull., 1994, 42, 2342, (Anemarrhenasaponin IV)
Meng, Z. et al., Shandong Yike Daxue Xuebao, 1998, 15, 130; CA, 129, 328222k, (Timosaponin BIV)

§ Hinokiresinol; (*S*)-(*Z*)-form, 4'-Me ether

[化学名・別名]4'-*O*-Methylhinokiresinol. Ellisinin A. 4'-*O*-Methylnyasol
[CAS No.]79004-25-4
[化合物分類]リグナン化合物(Norlignans)
[構造式]



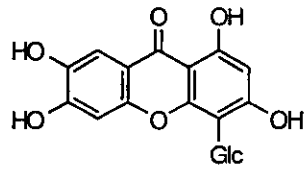
[分子式]$C_{18}H_{18}O_2$
[分子量]266.339
[正確な分子量]266.13068
[基原]*Anemarrhena asphodeloides*, *Cremanthodium ellisii*
[性状]無定型の粉末もしくはガム
[融点]Mp 77-79 ℃
[比旋光度]:$[\alpha]_D^{20}$ -34.5 (c, 0.45 in $CHCl_3$) (-261.6)
[UV]:[neutral] λ_{max} 244 () (溶媒の報告はない)

----------文献----------

Jeong, S.-J. et al., Planta Med., 1999, 65, 367, (4'-*O*-Methylhinokiresinol)
Su, B.-N. et al., Phytochemistry, 2000, 53, 1103, (構造決定, 4'-*O*-Methylhinokiresinol)

§ Isomangiferin

[化学名・別名]4-β-D-Glucopyranosyl-1,3,6,7-tetrahydroxy-9*H*-xanthen-9-one(CAS 名).
4-Glucosyl-1,3,6,7-tetrahydroxyxanthone
[CAS No.]24699-16-9
[化合物分類]単環芳香族(Xanthones; 4 × O-置換基)
[構造式]



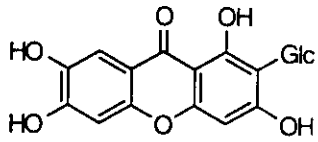
[分子式]$C_{19}H_{18}O_{11}$
[分子量]422.345
[正確な分子量]422.084915
[基原]*Anemarrhena asphodeloides*, *Hedysarum flavescens*, *Mangifera indica*, *Iris unguicularis*. Widespread in ferns and apparently randomly distributed among fern spp. (Murakami review 参照)
[性状]青白い黄色の針状結晶 (MeOH)
[融点]Mp 260 ℃で分解
[比旋光度]:$[\alpha]_D$ +5.5 (Py)

----------文献----------

Aritami, M. et al., Tet. Lett., 1969, 941, (分離, 構造決定)
Smith, D.M. et al., Phytochemistry, 1971, 10, 2117, (Isomangiferin *O*-glucoside)
Arisawa, M. et al., Chem. Pharm. Bull., 1976, 24, 1609, (分離)
Fujita, M. et al., Chem. Pharm. Bull., 1982, 30, 2342, (分離)
Imperato, F., Can. J. Bot., 1991, 69, 218, (Isochinomin)

§ Mangiferin

[化学名・別名]2-β-D-Glucopyranosyl-1,3,6,7-tetrahydroxy-9*H*-xanthen-9-one(CAS 名). Euxanthogen. Chinomine. Alpizarin. Hedysaride. Mannipherin. Chedisaride
[CAS No.]4773-96-0
[関連 CAS No.]74484-89-2
[化合物分類]単環芳香族(Xanthones; 4 × O-置換基)
[構造式]



[分子式]$C_{19}H_{18}O_{11}$
[分子量]422.345
[正確な分子量]422.084915
[基原]*Mangifera indica* の葉, 心材, 茎皮, *Iris* spp., また, *Salacia prenoides*, *Aphloia madagascariensis*, *Athyrium mesosorum*, *Anemarrhena asphodeloides*, *Belamcanda chinensis*, *Hedysarum ussuriense*.
Widespread in ferns (Murakami review 参照). Distribution in fern spp. appears random
[性状]青白い黄色の針状結晶 (EtOH 溶液)
[融点]Mp 278-280 ℃ (270-272 ℃で分解)
[比旋光度]:[α]$_D^{32}$ +32 (EtOH 溶液)
[UV]:[neutral] λ $_{max}$ 240 (); 241 (ε 18200); 257 (ε 19500); 315 (ε 9600); 316 (); 364 (); 365 (ε 8500) (MeOH) [base] λ $_{max}$ 247 (); 270 (); 271 (); 389 (); 390 () (MeOH-NAOH)
[化学物質毒性データ総覧(RTECS)登録番号]OP1927800

----------文献----------

Glyzina, G.S. et al., Khim. Prir. Soedin., 1969, 5, 322; Chem. Nat. Compd. (Engl. Transl.), 1969, 5, 272, (分離)
Smith, D.M. et al., Phytochemistry, 1971, 10, 2117, (Mangiferin *O*-glucoside)
Wada, H. et al., Chem. Pharm. Bull., 1995, 43, 461, (分離, H-NMR)

*****RTECS (化学物質毒性データ) *****

生体影響物質　　: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*****

〈〈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-ラット.
投与量・期間 : 365 mg/kg
毒性影響　　: 致死量以外に毒性影響に関する報告はない.
参照文献

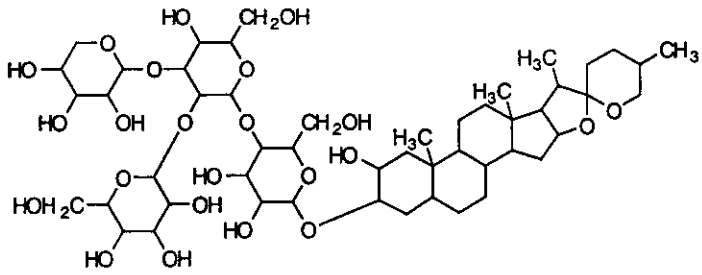
JPMSAE Journal of Pharmaceutical Sciences. (American Pharmaceutical Assoc., 2215 Constitution Ave., NW, Washington, DC 20037) V.50- 1961- [Vol.,頁,年(19-)]61,1838,1972

〈〈試験方法〉〉 LD50 試験(50%致死量試験).
曝露経路　　: 経口投与.
被験動物　　: げっ歯類-マウス
投与量・期間 : 2300 ug/kg
毒性影響　　: 致死量以外に毒性影響に関する報告はない.
参照文献

PBVMA9 Problemi na Vutreshnata Meditsina. Problems of Internal Medicine. (Durzhavno Izdatel'stvo Meditsina i Fizkultura, Pl. Slaveikov 11, Sofia, Bulgaria) V.1- 1973- [Vol.,頁,年(19-)]8(2),109,1980

§ Spirostane-2,3-diol; (2 α,3 β,5 α,25*S*)-form, 3-*O*-[β-D-Glucopyranosyl-(1 → 2)-[β-D-xylopyranosyl-(1 → 3)]-β-D-glucopyranosyl-(1 → 4)-β-D-galactopyranoside]

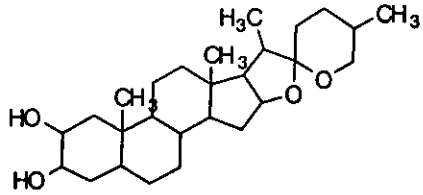
[化学名・別名]Anemarsaponin F
[CAS No.]195304-79-1
[化合物分類]ステロイド(Spirostane steroids). (C27).
[構造式]
[分子式]$C_{50}H_{82}O_{23}$
[分子量]1051.184
[正確な分子量]1050.524695
[基原]*Anemarrhena asphodeloides*
[性状]無定型の粉末
[融点]Mp 247 ℃で分解



文献

Ma, B. et al., Planta Med., 1997, 63, 376, (Anemarsaponin F)

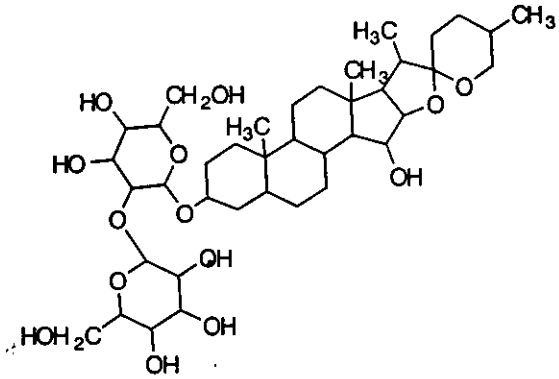
§ Spirostane-2,3-diol; (2 β,3 β,5 β,25 *S*)-form
[化学名・別名]Markogenin. Texogenin. Neosamogenin
[CAS No.]562-35-6
[化合物分類]ステロイド(Spirostane steroids). (C27).
[構造式]
[基原]*Yucca* spp., *Anemarrhena asphodeloides*
[性状]結晶(MeOH)
[融点]Mp 255-257 ℃ (171-172 ℃)
[比旋光度]:[α]$_D^{25}$ -70.3 ($CHCl_3$)



文献

Karrer, W. et al., Konstitution und Vorkommen der Organischen Pflanzenstoffe, 2nd edn., Birkhäuser Verlag, Basel, 1972, nos. 2101-2104
El-Olemy, M.M. et al., Phytochemistry, 1974, 13, 489, (分離, Markogenin)

§ Spirostane-3,15-diol; (3 β,5 β,15 α,25*S*)-form, 3-*O*-[β-D-Glucopyranosyl-(1 → 2)-β-D-galactopyranoside]
[化学名・別名]Anemarrhenasaponin III
[CAS No.]163047-23-2
[化合物分類]ステロイド(Spirostane steroids). (C27).
[構造式]
[分子式]$C_{39}H_{64}O_{14}$
[分子量]756.926
[正確な分子量]756.42961
[基原]*Anemarrhena asphodeloides*
[性状]針状結晶 (EtOH)
[融点]Mp 260-262 ℃
[比旋光度]:[α]$_D$ -45.1 (c, 1.12 in Py)

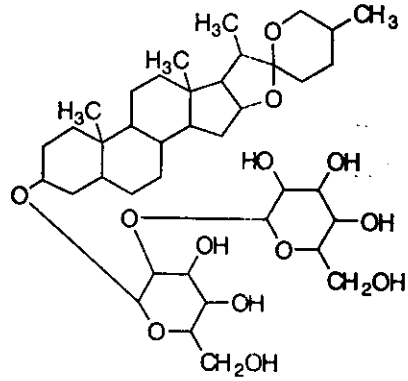


文献

Tschesche, R. et al., Chem. Ber., 1961, 94, 2019, (分離)
Tschesche, R. et al., Tetrahedron, 1963, 19, 621; 2323
Faul, W.H. et al., J.O.C., 1970, 35, 2571, (合成法, Mass)
Saito, S. et al., Chem. Pharm. Bull., 1994, 42, 2342, (Anemarrhenasaponin III)

§ Spirostan-3-ol; (3 β,5 β,25*R*)-form, 3-*O*-[β-D-Glucopyranosyl-(1 → 2)-β-D-mannopyranoside]
[化学名・別名]Smilageninoside

[CAS No.] 138831-68-2
[化合物分類] ステロイド (Spirostane steroids). (C27).
[構造式]

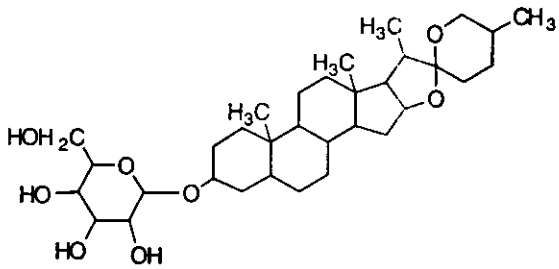


[分子式] $C_{39}H_{64}O_{13}$
[分子量] 740.927
[正確な分子量] 740.434695
[基原] *Anemarrhena asphodeloides*
[性状] 結晶
[融点] Mp 265-267 ℃

----------文献----------

Guo, D. et al., CA, 1992, 116, 80421q, (Smilageninoside)

§ Spirostan-3-ol; (3 β,5 β,25*S*)-form, 3-*O*-β-D-Galactopyranoside
[化学名・別名] Timosaponin A1
[CAS No.] 11032-26-1
[化合物分類] ステロイド (Spirostane steroids). (C27).
[構造式]

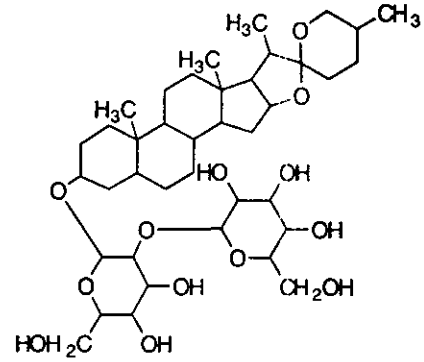


[分子式] $C_{33}H_{54}O_8$
[分子量] 578.785
[正確な分子量] 578.38187
[基原] 次の植物の乾燥根茎から分離: *Anemarrhena asphodeloides*
[性状] 結晶
[融点] Mp 240-245 ℃で分解
[比旋光度]: $[\alpha]_D^{31}$ -68.5 (H_2O)

----------文献----------

Kawasaki, T. et al., Chem. Pharm. Bull., 1963, 11, 1221; 1546, (Timosaponins)
Karrer, W. et al., Konstitution und Vorkommen der Organischen Pflanzenstoffe, 2nd edn., Birkhäuser Verlag,

§ Spirostan-3-ol; (3 β,5 β,25*S*)-form, 3-*O*-[β-D-Glucopyranosyl-(1 → 2)-β-D-galactopyranoside]
[化学名・別名] Timosaponin A3. Filiferin B. Anemarsaponin A3
[CAS No.] 41059-79-4
[化合物分類] ステロイド (Spirostane steroids). (C27).
[構造式]



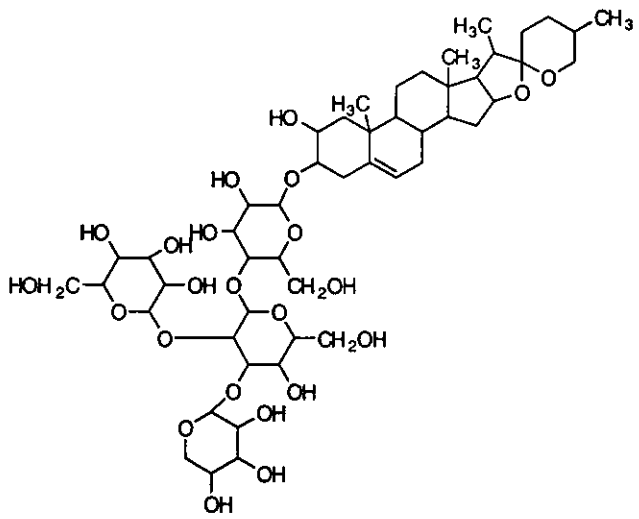
[分子式] $C_{39}H_{64}O_{13}$
[分子量] 740.927
[正確な分子量] 740.434695
[基原] 次の植物から分離: *Anemarrhena asphodeloides* の根茎
[性状] プリズム結晶
[融点] Mp 317-322 ℃で分解
[比旋光度]: $[\alpha]_D$ -41.6 (c, 0.27 in dioxan)

----------文献----------

Kawasaki, T. et al., Chem. Pharm. Bull., 1963, 11, 1221; 1546, (Timosaponins)
Dominguez, X.A. et al., Rev. Latinoam. Quim., 1981, 12, 35, (Filiferin A)

§ Spirost-5-ene-2,3-diol; (2 α,3 β,25*S*)-form, 3-*O*-[β-D-Glucopyranosyl-(1 → 2)-[β

-D-xylopyranosyl-(1 → 3)]-β-D-glucopyranosyl-(1 → 4)-β-D-galactopyranoside]
[化学名・別名]Anemarsaponin G
[CAS No.]195304-82-6
[化合物分類]ステロイド(Spirostane steroids).
(C27).
[構造式]



[分子式]$C_{50}H_{80}O_{23}$
[分子量]1049.168
[正確な分子量]1048.509045
[基原]*Anemarrhena asphodeloides*
[性状]無定型の粉末
[融点]Mp 258 ℃で分解

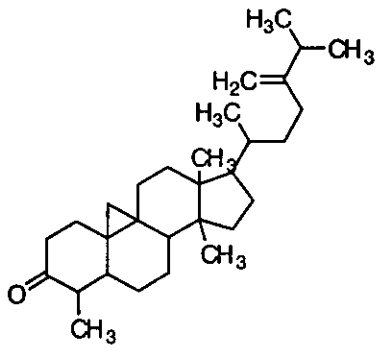
----------文献----------

Ma, B. et al., Planta Med., 1997, 63, 376, (Anemarsaponin G)

***********バナナ (Banana) **********

§§バショウ科バナナ(*Musa sapientum* L.)の果実。

§ Cycloeucalenol; 3-Ketone
[化学名・別名]24-Methylene-29-norcycloartan-3-one. Cycloeucalenone
[CAS No.]1255-12-5
[化合物分類]テルペノイド(Cycloartane triterpenoids)
[構造式]

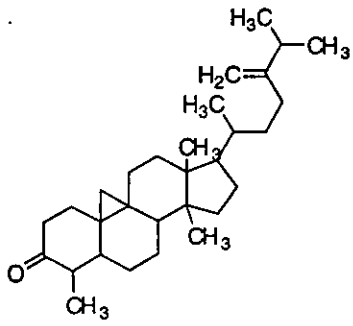


[分子式]$C_{30}H_{48}O$
[分子量]424.709
[正確な分子量]424.370515
[基原]*Musa sapientum*

----------文献----------

Akihisa, T. et al., Lipids, 1986, 21, 494, (Cycloeucalenone)
Boumlhme, F. et al., Phytochemistry, 1997, 45, 1041, (Cycloeucalanone, Mass)
Akihisa, T. et al., Phytochemistry, 1998, 47, 1107, (3-Epicycloeucalenol)

§ Cycloeucalenol; 3-Ketone, 4-epimer
[化学名・別名]24-Methylene-28-norcycloartan-3-one.
4-Epicycloeucalenone
[化合物分類]テルペノイド(Cycloartane triterpenoids)
[構造式]

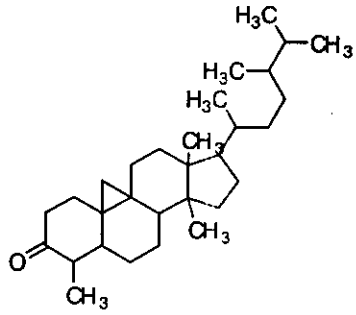


[分子式]$C_{30}H_{48}O$
[分子量]424.709
[正確な分子量]424.370515
[基原]次の植物から分離: *Musa sapientum*
[性状]結晶
[融点]Mp 130-131 ℃

----------文献----------

Akihisa, T. et al., Chem. Pharm. Bull., 1997, 45, 744, (4-Epicycloeucalenone)

§ Cycloeucalenol; 24*R*, 28-Dihydro, 3-ketone
[化学名・別名]24-Methyl-29-norcycloartan-3-one. Cycloeucalanone
[化合物分類]テルペノイド(Cycloartane triterpenoids)
[構造式]

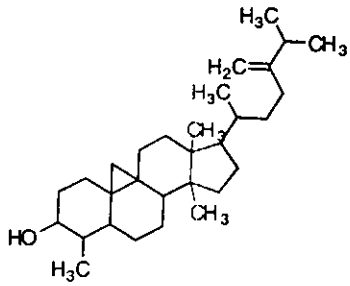


[分子式]$C_{30}H_{50}O$
[分子量]426.724
[正確な分子量]426.386165
[基原]*Costus tonkinensis*, *Musa sapientum*

----------文献----------

Akihisa, T. et al., Lipids, 1986, 21, 494, (Cycloeucalenone)
Boumlhme, F. et al., Phytochemistry, 1997, 45, 1041, (Cycloeucalanone, Mass)

§ Cycloeucalenol; 3-Epimer
[化学名・別名]3-Epicycloeucalenol
[化合物分類]テルペノイド(Cycloartane triterpenoids)
[構造式]

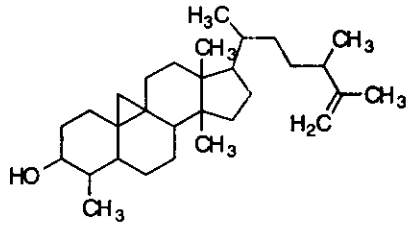


[分子式]$C_{30}H_{50}O$
[分子量]426.724
[正確な分子量]426.386165
[基原]*Musa sapientum* の果実の皮
[性状]結晶
[融点]Mp 121-122 ℃

----------文献----------

Akihisa, T. et al., Phytochemistry, 1998, 47, 1107, (3-Epicycloeucalenol)

§ 4,14-Dimethyl-9,19-cycloergost-25-en-3-ol; (3 α,4 α,5 α)-form
[化学名・別名]3-Epicyclomusalenol
[CAS No.]207850-20-2
[化合物分類]テルペノイド(Cycloartane triterpenoids)
[構造式]

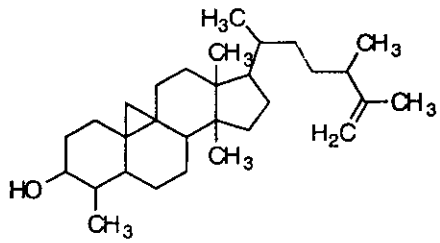


[基原]*Musa sapientum*
[性状]結晶
[融点]Mp 121-122 ℃

----------文献----------

Knapp, F.F. et al., Steroids, 1970, 16, 329, (ketone, 分離)
Morelli, I. et al., Fitoterapia, 1981, 52, 45, (分離)
Akihisa, T. et al., Lipids, 1986, 21, 494, (Cyclomusalenone)
Ageta, H. et al., J. Nat. Prod., 1990, 53, 325, (分離)
Akihisa, T. et al., Chem. Pharm. Bull., 1997, 45, 744, (4-Epicyclomusalenone)

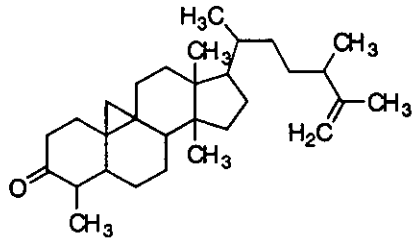
§ 4,14-Dimethyl-9,19-cycloergost-25-en-3-ol; (3 α,4 β,5 α)-form
[化学名・別名]24-Methyl-28-norcycloart-25-en-3-ol
[CAS No.]92694-03-6
[化合物分類]テルペノイド(Cycloartane triterpenoids), ステロイド(Ergostane steroids;excluding withanolides and brassinolides). (C28).
[構造式]



[基原]*Musa sapientum*

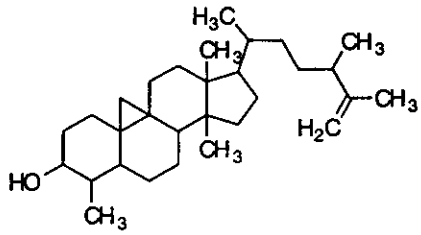
----------文献----------

Itoh, T. et al., Steroids, 1976, 27, 275, (H-NMR)
Morelli, I. et al., Fitoterapia, 1981, 52, 45, (分離)
Akihisa, T. et al., Lipids, 1986, 21, 494, (Cyclomusalenone)
Ageta, H. et al., J. Nat. Prod., 1990, 53, 325, (分離)
Akihisa, T. et al., Chem. Pharm. Bull., 1997, 45, 744, (4-Epicyclomusalenone)

§ 4,14-Dimethyl-9,19-cycloergost-25-en-3-ol; (3 α,4 β,5 α)-form, 3-Ketone
[化学名・別名]4,14-Dimethyl-9,19-cycloergost-25-en-3-one. 24-Methyl-28-norcycloart-25-en-3-one. 4-Epicyclomusalenone
[CAS No.]2315-18-6
[化合物分類]ステロイド(Ergostane steroids;excluding withanolides and brassinolides). (C28). , テルペノイド(Cycloartane triterpenoids)
[構造式]

[分子式]$C_{30}H_{48}O$
[分子量]424.709
[正確な分子量]424.370515
[基原]*Musa sapientum*
[性状]結晶
[融点]Mp 125-127 ℃

----------文献----------

Knapp, F.F. et al., Steroids, 1970, 16, 329, (ketone, 分離)
Itoh, T. et al., Steroids, 1976, 27, 275, (H-NMR)
Morelli, I. et al., Fitoterapia, 1981, 52, 45, (分離)
Akihisa, T. et al., Lipids, 1986, 21, 494, (Cyclomusalenone)
Ageta, H. et al., J. Nat. Prod., 1990, 53, 325, (分離)
Akihisa, T. et al., Chem. Pharm. Bull., 1997, 45, 744, (4-Epicyclomusalenone)

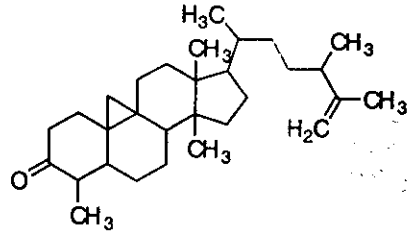
§ 4,14-Dimethyl-9,19-cycloergost-25-en-3-ol; (3 β,4 α,5 α)-form
[化学名・別名]31-Norcyclolaudenol. 24-Methyl-29-norcycloart-25-en-3-ol. Cyclomusalenol
[CAS No.]2464-44-0
[その他 CAS No.]107349-26-9
[化合物分類]テルペノイド(Cycloartane triterpenoids), ステロイド(Ergostane steroids;excluding withanolides and brassinolides). (C28).
[構造式]

[基原]*Crinum asiaticum*, *Polypodium polypodioides*, *Musa sapientum*, *Racomitrum lanuginosum*. またキノコ *Clitocybe nebularis*, *Hydnum repandum* からも得られる
[融点]Mp 137-139 ℃

----------文献----------

Knapp, F.F. et al., Steroids, 1970, 16, 329, (ketone, 分離)
Itoh, T. et al., Steroids, 1976, 27, 275, (H-NMR)
Morelli, I. et al., Fitoterapia, 1981, 52, 45, (分離)
Akihisa, T. et al., Lipids, 1986, 21, 494, (Cyclomusalenone)
Ageta, H. et al., J. Nat. Prod., 1990, 53, 325, (分離)
Akihisa, T. et al., Chem. Pharm. Bull., 1997, 45, 744, (4-Epicyclomusalenone)

§ 4,14-Dimethyl-9,19-cycloergost-25-en-3-ol; (3 β,4 α,5 α)-form, 3-Ketone
[化学名・別名]24-Methyl-29-norcycloart-25-en-3-one. 31-Norcyclolaudenone. Cyclomusalenone
[CAS No.]30452-60-9
[その他の CAS No.]107439-7-0
[化合物分類]テルペノイド(Cycloartane triterpenoids), ステロイド(Ergostane steroids;excluding

withanolides and brassinolides). (C28).
[構造式]

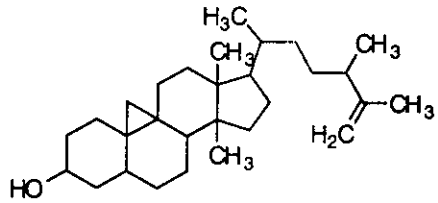


[分子式] $C_{30}H_{48}O$
[分子量] 424.709
[正確な分子量] 424.370515
[基原] *Musa sapientum*

----------文献----------

Knapp, F.F. et al., Steroids, 1970, 16, 329, (ketone, 分離)
Itoh, T. et al., Steroids, 1976, 27, 275, (H-NMR)
Morelli, I. et al., Fitoterapia, 1981, 52, 45, (分離)
Akihisa, T. et al., Lipids, 1986, 21, 494, (Cyclomusalenone)
Ageta, H. et al., J. Nat. Prod., 1990, 53, 325, (分離)
Akihisa, T. et al., Chem. Pharm. Bull., 1997, 45, 744, (4-Epicyclomusalenone)

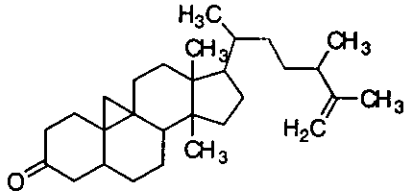
§ 14-Methyl-9,19-cycloergost-25-en-3-ol; (3 β,5 α)-form
[CAS No.] 62305-30-0
[化合物分類] テルペノイド(Cycloartane triterpenoids), ステロイド(Ergostane steroids;excluding withanolides and brassinolides). (C28).
[構造式]
[基原] *Musa sapientum*



----------文献----------

Chiu, P.-L. et al., Phytochemistry, 1976, 15, 1907, (Mass)
Akihisa, T. et al., Lipids, 1986, 21, 494, (分離)

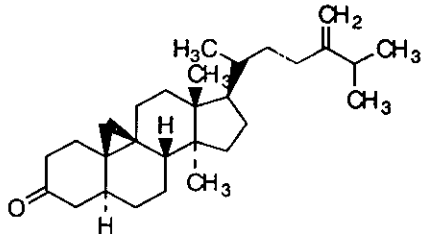
§ 14-Methyl-9,19-cycloergost-25-en-3-ol; (3 β,5 α)-form, 3-Ketone
[化学名・別名] 14-Methyl-9,19-cycloergost-25-en-3-one. 28-Norcyclomusalenone
[CAS No.] 207850-21-3
[化合物分類] テルペノイド(Cycloartane triterpenoids), ステロイド(Ergostane steroids;excluding withanolides and brassinolides). (C28).
[構造式]
[分子式] $C_{29}H_{46}O$
[分子量] 410.682
[正確な分子量] 410.354865
[基原] *Musa sapientum*



----------文献----------

Chiu, P.-L. et al., Phytochemistry, 1976, 15, 1907, (Mass)
Akihisa, T. et al., Lipids, 1986, 21, 494, (分離)

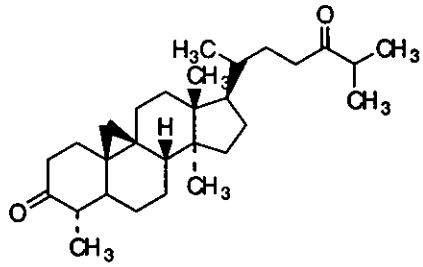
§ 14-Methyl-9,19-cycloergost-24(28)-en-3-one
[化学名・別名] 24-Methylene-28,29-dinorcycloartan-3-one. 24-Methylenepollinastanone. 28-Norcycloeucalenone
[CAS No.] 149756-25-2
[化合物分類] テルペノイド(Cycloartane triterpenoids), ステロイド(Ergostane steroids;excluding withanolides and brassinolides). (C28).
[構造式]
[分子式] $C_{29}H_{46}O$
[分子量] 410.682
[正確な分子量] 410.354865
[基原] *Musa sapientum* の果実の皮, *Ammocharis coranica*
[性状] 結晶
[融点] Mp 76-77 ℃ (65-67 ℃)



----------文献----------

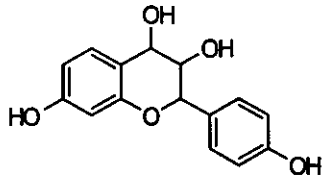
Akihisa, T. et al., Phytochemistry, 1998, 47, 1107
Koorbanally, N. et al., Phytochemistry, 2000, 54, 93, (分離, H-NMR, C13-NMR)

§ 29-Norcycloartane-3,24-dione
[CAS No.]207850-22-4
[化合物分類]テルペノイド(Cycloartane triterpenoids)
[構造式]
[分子式]$C_{29}H_{46}O_2$
[分子量]426.681
[正確な分子量]426.34978
[基原]*Musa sapientum* の果実の皮



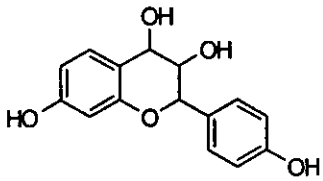
----------文献----------
Akihisa, T. et al., Phytochemistry, 1998, 47, 1107, (分離, H-NMR, C13-NMR)

§ 3,4,4',7-Tetrahydroxyflavan; (2*S*,3*R*,4*R*)-form
[CAS No.]149820-45-1
[化合物分類]フラボノイド(Leucoanthocyanidins)
[構造式]



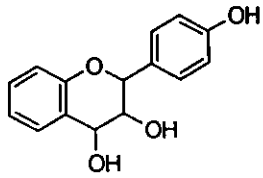
[基原]*Musa sapientum* の種子
----------文献----------
Roux, D.G. et al., Biochem. J., 1963, 87, 439, (分離, 合成法)
Saayman, H.M. et al., Biochem. J., 1965, 96, 36, (構造決定, 合成法, 構造)
du Preez, I.C. et al., J.C.S.(C), 1970, 1800, (分離, H-NMR)
Clark-Lewis, J.W. et al., Aust. J. Chem., 1972, 25, 1943, (分離)
Ferreira, D. et al., Phytochemistry, 1985, 24, 2415, (分離)
Steynberg, J.P. et al., J.C.S. Perkin 1, 1987, 1705, (分離, 合成法)
Ali, M. et al., Pharmazie, 1993, 48, 455, (分離)

§ 3,4,4',7-Tetrahydroxyflavan; (2*S*,3*S*,4*R*)-form
[CAS No.]149820-44-0
[化合物分類]フラボノイド(Leucoanthocyanidins)
[構造式]



[基原]*Musa sapientum* の種子
----------文献----------
Roux, D.G. et al., Biochem. J., 1963, 87, 439, (分離, 合成法)
Saayman, H.M. et al., Biochem. J., 1965, 96, 36, (構造決定, 合成法, 構造)
Drewes, S.E., J.C.S.(C), 1968, 1140, (Mass)
du Preez, I.C. et al., J.C.S.(C), 1970, 1800, (分離, H-NMR)
Clark-Lewis, J.W. et al., Aust. J. Chem., 1972, 25, 1943, (分離)
Ferreira, D. et al., Phytochemistry, 1985, 24, 2415, (分離)
Steynberg, J.P. et al., J.C.S. Perkin 1, 1987, 1705, (分離, 合成法)
Ali, M. et al., Pharmazie, 1993, 48, 455, (分離)

§ 3,4,4'-Trihydroxyflavan; (2*S*,3*R*,4*R*)-form
[CAS No.]149747-10-4
[化合物分類]フラボノイド(Leucoanthocyanidins)
[構造式]
[基原]*Musa sapientum* の種子



----------文献----------
Clark-Lewis, J.W. et al., Aust. J. Chem., 1971, 24, 2581; 1973, 26, 819; 1974, 27, 865, (合成法, 誘導体)
Berge, D.D. et al., Indian J. Chem., Sect. B, 1979, 18, 77, (合成法, 誘導体)
Ali, M. et al., Pharmazie, 1993, 48, 455, (分離)

§§バショウ科サンジャクバナナ(*Musa nana* Loureiro (*M. cavendishii* Lambert))の果実。
該当物質なし

*********バニラ (Vanilla) *********

§§ラン科バニラ(*Vanilla fragrans* Ames (*V. mexicana* Miller ; *V. planifolia* Andrews))の果実(発酵)。
該当物質なし

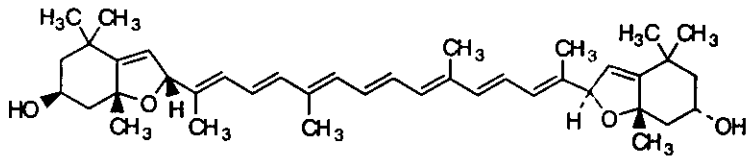
§§ラン科ニシインドバニラ(*Vanilla pompona* Schiede (*V. gradiflora* Lindley))の果実 (発酵)。
該当物質なし

§§ラン科(*Vanilla tahitensis* J. W. Moore)の果実 (発酵) 。
該当物質なし

*********ハネーサックル (Honeysuckle) *********

§§スイカズラ科スイカズラ(*Lonicera japonica* Thunberg)の花または茎葉。

§ Auroxanthin
[化学名・別名]5,8:5',8'-Diepoxy-5,5',8,8'-tetrahydro-β,β-carotene-3,3'-diol
[CAS No.]27785-15-5
[関連 CAS No.]22350-65-8
[化合物分類]テルペノイド(Tetraterpenoids)
[構造式]

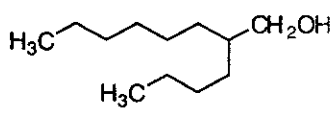


[分子式]$C_{40}H_{56}O_4$
[分子量]600.88
[正確な分子量]600.41786
[基原]次の植物から分離: *Viola tricolor*, *Lonicera japonica*, *Delonix regia*, その他の植物
[性状]黄色の結晶 (EtOH)
[融点]Mp 203 ℃

----------文献----------

Karrer, P. et al., Helv. Chim. Acta, 1944, 27, 1684; 1945, 28, 427, (構造決定)
Goodwin, T.W., Biochem. J., 1956, 62, 346, (分離)
Jungalwala, F.B. et al., Biochem. J., 1962, 85, 1, (分離)
Stobart, A.K. et al., Phytochemistry, 1967, 6, 1467, (分離)
Gross, J. et al., Phytochemistry, 1983, 22, 1479, (Cryptochrome)
Acemoglu, M. et al., Helv. Chim. Acta, 1984, 67, 471, (合成法, UV, H-NMR, C13-NMR)
Märki-Fischer, E. et al., Helv. Chim. Acta, 1984, 67, 2143, (分離)

§ 2-Butyl-1-octanol
[化学名・別名]5-Hydroxymethylundecane
[CAS No.]3913-02-8
[関連 CAS No.]35467-05-1
[化合物分類]脂肪族化合物(Branched aliphatic alcohols)
[構造式]



[分子式]$C_{12}H_{26}O$
[分子量]186.337
[正確な分子量]186.198365
[基原]*Changium smyrnioides*, *Humulus lupulus*, *Lonicera japonica*, *Portulaca oleracea*

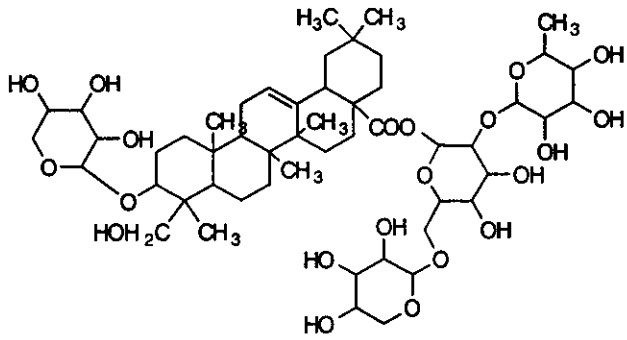
[沸点]Bp_{12} 131-133 ℃
[濃度]$d^{16.5}_{4}$ 0.84
[屈折率]n^{16}_{D} 1.4435

----------文献----------

von Braun, J. et al., Ber., 1929, 62, 2880,（合成法）
Bolle, J. et al., C. R. Hebd. Seances Acad. Sci., 1951, 233, 1466,（合成法）
Paterson, I. et al., Tet. Lett., 1979, 2179,（合成法）
Krupcik, J. et al., Coll. Czech. Chem. Comm., 1985, 50, 1808,（ガスクロマト）
Rzama, A. et al., Phytochemistry, 1995, 38, 1375,（分離）

§ Hederagenin bisdesmosides; Tetraglycosides, 3-*O*-α-L-Arabinopyranoside, 28-*O*-[α-L-rhamnopyranosyl-(1 → 2)-[β-D-xylopyranosyl-(1 → 6)]-β-D-glucopyranosyl] ester

[化学名・別名]Loniceroside A
[CAS No.]155740-20-8
[化合物分類]テルペノイド(Oleanane triterpenoids)
[構造式]



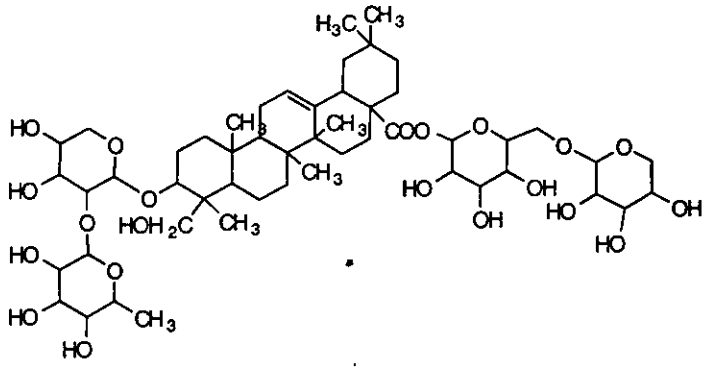
[分子式]$C_{52}H_{84}O_{21}$
[分子量]1045.223
[正確な分子量]1044.550515
[基原]*Lonicera japonica*
[性状]結晶
[融点]Mp 210-216 ℃
[比旋光度]:[α]$_{D}^{20}$ -28 (c, 0.3 in Py). [α]$_{D}^{20}$ -7.4 (c, 0.2 in MeOH)

----------文献----------

Son, K.H. et al., Phytochemistry, 1994, 35, 1005,（Lonicerosides A and B）

§ Hederagenin bisdesmosides; Tetraglycosides, 3-*O*-[α-L-Rhamnopyranosyl-(1 → 2)-α-L-arabinopyranoside], 28-*O*-[β-D-xylopyranosyl-(1 → 6)-β-D-glucopyranosyl] ester

[CAS No.]128717-92-0
[化合物分類]テルペノイド(Oleanane triterpenoids)
[構造式]



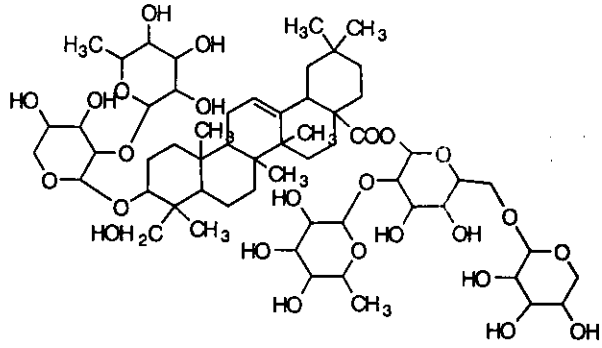
[分子式]$C_{52}H_{84}O_{21}$
[分子量]1045.223
[正確な分子量]1044.550515
[基原]*Lonicera japonica*
[性状]結晶
[融点]Mp 222-224 ℃
[比旋光度]:[α]$_{D}^{20}$ -24 (c, 0.16 in MeOH)

----------文献----------

Son, K.H. et al., Phytochemistry, 1994, 35, 1005,（Lonicerosides A and B）
Karrer, W. et al., Konstitution und Vorkommen der Organischen Pflanzenstoffe, 2nd edn., Birkhäuser Verlag,Basel, 1972, no. 1996,（生育）

§ Hederagenin bisdesmosides; Pentaglycosides, 3-*O*-[α-L-Rhamnopyranosyl-(1 → 2)-α-L-arabinopyranoside], 28-*O*-[α-L-rhamnopyranosyl-(1 → 2)-[β-D-xylopyranosyl-(1 → 6)]-β

-D-glucopyranosyl] ester

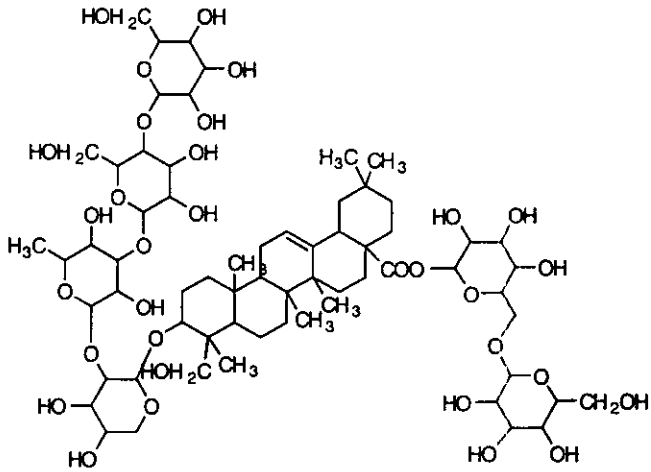


[化学名・別名]Loniceroside B
[CAS No.]155740-21-9
[化合物分類]テルペノイド(Oleanane triterpenoids)
[構造式]
[分子式]$C_{58}H_{94}O_{25}$
[分子量]1191.366
[正確な分子量]1190.608425
[基原]*Lonicera japonica*
[性状]針状結晶 (MeOH 溶液)
[融点]Mp 218-222 ℃. Mp 224-226 ℃
[比旋光度]:[α]$_D^{25}$ -70.3 (c, 0.3 in Py). [α]$_D^{20}$ -76.3 (c, 0.2 in MeOH)

----------文献----------

Son, K.H. et al., Phytochemistry, 1994, 35, 1005, (Lonicerosides A and B)

§ Hederagenin bisdesmosides; Hexaglycosides, 3-*O*-[β-D-Glucopyranosyl-(1 → 4)-β-D-glucopyranosyl-(1 → 3)-α-L-rhamnopyranosyl-(1 → 2)-α-L-arabinopyranoside], 28-*O*-[β-D-glucopyranosyl-(1 → 6)-β-D-glucopyranosyl] ester

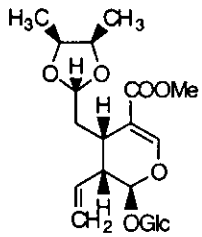


[CAS No.]136849-88-2
[化合物分類]テルペノイド(Oleanane triterpenoids)
[構造式]
[分子式]$C_{65}H_{106}O_{32}$
[分子量]1399.533
[正確な分子量]1398.66673
[基原]*Lonicera japonica*

----------文献----------

Karrer, W. et al., Konstitution und Vorkommen der Organischen Pflanzenstoffe, 2nd edn., Birkhäuser Verlag,Basel, 1972, no. 1996, (生育)
Son, K.H. et al., Phytochemistry, 1994, 35, 1005, (Lonicerosides A and B)

§ Loniceracetalide A

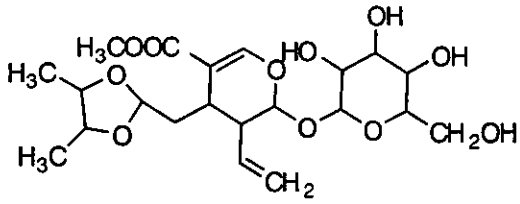


[CAS No.]329315-68-6
[化合物分類]テルペノイド(Iridoid monoterpenoids)
[構造式]
[分子式]$C_{21}H_{32}O_{11}$
[分子量]460.477
[正確な分子量]460.194465
[基原]*Lonicera japonica*
[性状]無定型の粉末
[比旋光度]:[α]$_D^{20}$ -106.1 (c, 0.1 in MeOH)
[UV]:[neutral] λ $_{max}$ 232 (log ε 4.07) (MeOH)

----------文献----------

Kakuda, R. et al., Phytochemistry, 2000, 55, 879-881, (分離, H-NMR, C13-NMR)

§ Loniceracetalide A; 2'',3''-Diepimer

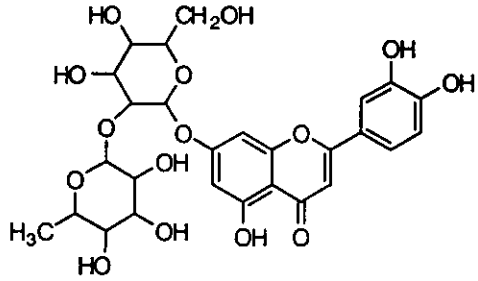


[化学名・別名]Loniceracetalide B
[CAS No.]329315-73-3
[化合物分類]テルペノイド(Iridoid monoterpenoids)
[構造式]
[分子式]$C_{21}H_{32}O_{11}$
[分子量]460.477
[正確な分子量]460.194465
[基原]*Lonicera japonica*
[性状]無定型の粉末
[比旋光度]:[α]$_D^{20}$ -115 (c, 0.3 in MeOH)
[UV]:[neutral] λ $_{max}$ 233 (log ε 4.04) (MeOH)

----------文献----------

Kakuda, R. et al., Phytochemistry, 2000, 55, 879-881, (分離, H-NMR, C13-NMR)

§ 3',4',5,7-Tetrahydroxyflavone; 7-*O*-[α-L-Rhamnopyranosyl-(1 → 2)-β-D-glucopyranoside]

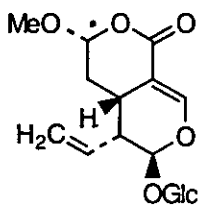


[化学名・別名]Veronicastroside. Luteolin 7-neohesperidoside. Loniceroside
[CAS No.]25694-72-8
[化合物分類]フラボノイド(Flavones; 4 × O-置換基)
[構造式]
[分子式]$C_{27}H_{30}O_{15}$
[分子量]594.525
[正確な分子量]594.158475
[基原]*Veronicastrum sibiricum*, *Veronicastrum japonicum*, *Lonicera japonica*
[性状]結晶(MeOH)
[融点]Mp 249-251 ℃

----------文献----------

Hattori, S. et al., J.A.C.S., 1954, 76, 5792, (Glucoluteolin)
Karrer, W. et al., Konstitution und Vorkommen der Organischen Pflanzenstoffe, 2nd edn., Birkhäuser Verlag, Basel, 1972, nos. 1470; 1473, (生育)
The Flavonoids: Advances in Research since 1980, (Ed. Harborne, J.B.), Chapman and Hall, London, 1988
Birkofer, L. et al., Annalen, 1989, 725, 196, (Neobignonoside)
Elangovan, V. et al., Cancer Lett. (Shannon, Irel.), 1994, 87, 107, (Luteolin, 薬理)

§ Vogeloside



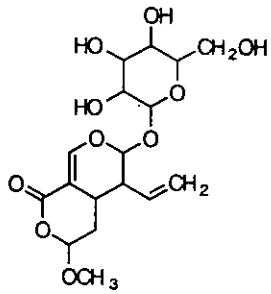
[CAS No.]60077-47-6
[化合物分類]テルペノイド(Secoiridoid monoterpenoids)
[構造式]
[分子式]$C_{17}H_{24}O_{10}$
[分子量]388.371
[正確な分子量]388.13695
[基原]*Anthocleista vogelii*. また *Halenia campanulata*, *Lonicera japonica* からも得られる
[性状]粉末
[融点]Mp 113-116 ℃

----------文献----------

Chapelle, J.P., Planta Med., 1976, 29, 268
Kawai, H. et al., Chem. Pharm. Bull., 1988, 36, 3664, (分離, epimer)
Recio-Iglesias, M.-C. et al., Phytochemistry, 1992, 31, 1387, (分離, H-NMR, C13-NMR)

§ Vogeloside; 3-Epimer

[化学名・別名]*epi*-Vogeloside
[CAS No.]118627-52-4
[化合物分類]テルペノイド(Secoiridoid monoterpenoids)
[構造式]
[分子式]$C_{17}H_{24}O_{10}$
[分子量]388.371
[正確な分子量]388.13695
[基原]*Halenia campanulata, Lonicera japonica*
[性状]針状結晶 (MeOH)
[融点]Mp 111-112 ℃
[比旋光度]:[α]$_D$ -125 (c, 0.7 in MeOH)



----------文献----------

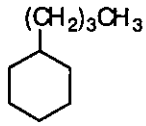
Chapelle, J.P., Planta Med., 1976, 29, 268
Kawai, H. et al., Chem. Pharm. Bull., 1988, 36, 3664, (分離, epimer)
Recio-Iglesias, M.-C. et al., Phytochemistry, 1992, 31, 1387, (分離, H-NMR, C13-NMR)

§§スイカズラ科ハネーサックル(*Lonicera caprifolium* L.)の花または茎葉。
該当物質なし

**********パパイヤ (Papaya) **********

§§パパイヤ科パパイヤ(*Carica papaya* L.)の果実。

§ **Butylcyclohexane(CAS 名)(旧 CAS 名)**
[化学名・別名]1-Cyclohexylbutane
[CAS No.]1678-93-9
[化合物分類]脂肪族化合物(Monocarbocyclic alkanes)
[構造式]
[分子式]$C_{10}H_{20}$
[分子量]140.268
[正確な分子量]140.1565
[基原]*Aglaia odorata* の花, *Carica papaya* の果実
[融点]Fp-74.7 ℃
[沸点]Bp 180.9 ℃. Bp$_{12}$ 640 ℃
[濃度]d^{20}_4 0.8005
[屈折率]n^{20}_D 1.441

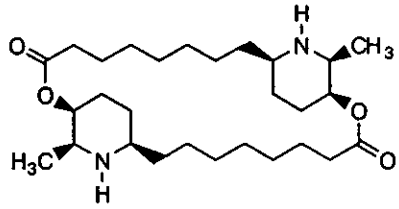


----------文献----------

Adv. Chem. Ser., 1955, 15, 453, (性質)
Adams, J.Q. et al., Am. Chem. Soc., Div. Pet. Chem., Prepr., 1972, 17, C4, (C13-NMR)
Flath, R.A. et al., J. Agric. Food Chem., 1977, 25, 103, (分離)
Corey, E.J. et al., J.O.C., 1978, 43, 3418, (合成法)
Lipschutz, B.H. et al., J.O.C., 1984, 49, 3928, (合成法)
Baldwin, J.E. et al., Tetrahedron, 1986, 42, 4235, (合成法)
Wang, T. et al., Zhiwu Xuebao, 1986, 28, 504, (分離)

§ **Carpaine(CAS 名)**
[CAS No.]3463-92-1
[化合物分類]アルカロイド化合物(Simple piperidine alkaloids), アルカロイド化合物(Miscellaneous piperidine alkaloids), 薬物: 強心剤(Cardiac stimulants), 薬物: 中枢神経抑制薬(Central depressants)

[構造式]



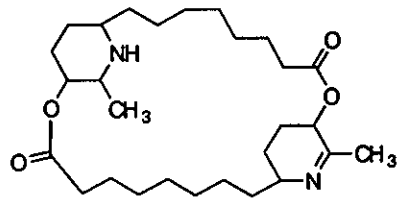
Absolute configuration

[分子式]$C_{28}H_{50}N_2O_4$
[分子量]478.714
[正確な分子量]478.377058
[一般的性質]Azimine の同族体.
[基原]次の植物の葉から得られるアルカロイド: *Carica papaya*（パパイヤ科）
[用途]強心剤, 中枢神経抑制薬, またその他生理学的影響をを示している(また心臓機能低下の報告がされている)
[性状]立方形の結晶(Et_2O)
[融点]Mp 119-120 ℃ (117-118.5 ℃)
[比旋光度]:$[\alpha]_D$ +21.65 (c, 1.0 in EtOH). $[\alpha]_D^{22}$ 230 -240 (c, 0.12 in MeOH)
[溶解性]BERDY SOL: メタノール, ベンゼンに可溶; ヘキサンに難溶
[Log P 計算値]Log P 4.77(計算値)

----------文献----------

Greshoff, M., Ber., 1890, 23, 3537, (分離)
Govindachari, T.R. et al., J.C.S., 1954, 1847; 1955, 1563, (分離, 性質, Carpaine, Pseudocarpaine)
Govindachari, T.R. et al., Tet. Lett., 1965, 1907, (Mass, H-NMR, 構造決定)
Topuriya, L.I. et al., Khim. Prir. Soedin., 1978, 414; Chem. Nat. Compd. (Engl. Transl.), 1978, 354, (分離)
Tang, C.-S., Phytochemistry, 1979, 18, 651, (Dehydrocarpaines)
Natsume, M. et al., Heterocycles, 1980, 14, 169, (合成法)
Rajnikant, G. et al., Mol. Cryst. Liq. Cryst. Sci. Technol., Sect. C, 1998, 9, 131, (結晶構造)

§ Carpaine; 1,2-Didehydro
[化学名・別名]Dehydrocarpaine I. 12,13-Didehydrocarpaine(CAS 名)
[CAS No.]72362-02-8
[化合物分類]アルカロイド化合物(Miscellaneous piperidine alkaloids), アルカロイド化合物(Simple piperidine alkaloids)
[構造式]

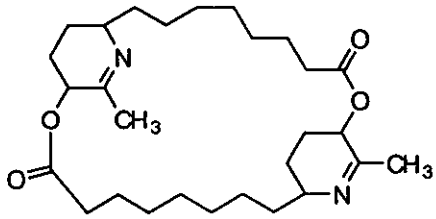


[分子式]$C_{28}H_{48}N_2O_4$
[分子量]476.698
[正確な分子量]476.361408
[基原]次の植物の葉から得られるアルカロイド: *Carica papaya*（パパイヤ科）
[性状]粘ちょう性のオイル

----------文献----------

Tang, C.-S., Phytochemistry, 1979, 18, 651, (Dehydrocarpaines)

§ Carpaine; 1,1',2,2'-Tetradehydro
[化学名・別名]Dehydrocarpaine II. 12,13,25,26-Tetradehydrocarpaine(CAS 名)
[CAS No.]72362-03-9
[化合物分類]アルカロイド化合物(Simple piperidine alkaloids), アルカロイド化合物(Miscellaneous piperidine alkaloids)
[構造式]

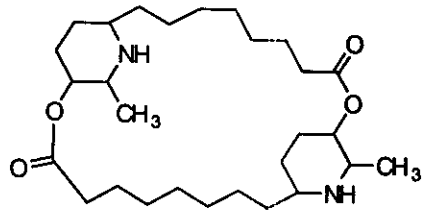


[分子式]$C_{28}H_{46}N_2O_4$
[分子量]474.682
[正確な分子量]474.345758
[基原]次の植物の葉から得られるアルカロイド: *Carica papaya*（パパイヤ科）
[性状]粘ちょう性のオイル

----------文献----------

Tang, C.-S., Phytochemistry, 1979, 18, 651, (Dehydrocarpaines)

§ Carpaine; 2-Epimer
[化学名・別名]Pseudocarpaine. ψ-Carpaine

[CAS No.]3760-91-6
[化合物分類]アルカロイド化合物(Miscellaneous piperidine alkaloids), アルカロイド化合物(Simple piperidine alkaloids)
[構造式]

[分子式]$C_{28}H_{50}N_2O_4$
[分子量]478.714
[正確な分子量]478.377058
[基原]次の植物から得られるアルカロイド微量成分: *Carica papaya* (パパイヤ科)
[性状]結晶(petrol)
[融点]Mp 65-68 ℃
[比旋光度]:$[\alpha]_D^{28}$ +4.95 (c, 1.62 in EtOH)

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Tang, C.-S., Phytochemistry, 1979, 18, 651, (Dehydrocarpaines)

§ Chymopapain, BAN, INN, USAN
[化学名・別名]Chymodiactin. Discase. NSC 107079. BAX 1526
[CAS No.]9001-09-6
[化合物分類]アミノ酸とペプチド(Enzymes), 薬物: 酵素(Enzymes)
[構造式]不明
[一般的性質]MW = 27000
[基原]次の植物から分離: *Carica papaya*
[用途]タンパク質酵素. 椎骨円盤へ注射し座骨神経痛及び腰部の痛みへの処置に用いられる (herniated lumbar discs)
[傷害・毒性]50 %致死量(LD_{50})(ラット, 静脈内)92 mg/kg
[化学物質毒性データ総覧(RTECS)登録番号]GC3045600

----------文献----------

Jansen, E.F. et al., J. Biol. Chem., 1941, 137, 459, (分離)
Ebata, M. et al., J. Biol. Chem., 1962, 237, 1086, (分離, 結晶)
Kunimitsu, D.K. et al., Methods Enzymol., 1970, 19, 244, (レビュー)
Simmons, J.W. et al., Drug Chem. Toxicol., 1984, 7, 299, (レビュー)
Einarson, T.R. et al., Drug Intell. Clin. Pharm., 1984, 18, 560, (レビュー)
Brocklehurst, K. et al., Biochem. J., 1985, 228, 525; 527; 1986, 233, 119, (レビュー)

*****RTECS (化学物質毒性データ) *****
*****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〉〉 LD50 試験(50%致死量試験).
曝露経路　　: 静脈注射
被験動物　　: げっ歯類-ラット.
投与量・期間 : 92 mg/kg
毒性影響　　: 〔肺,胸郭,または呼吸〕その他の変化.
参照文献

DCTODJ Drug and Chemical Toxicology. (Marcel Dekker, 270 Madison Ave., New York, NY 10016) V.1- 1977/78- [Vol.,頁,年(19-)]7,299,1984

〈〈試験方法〉〉 LD50 試験(50%致死量試験).
曝露経路　　: 静脈注射
被験動物　　: げっ歯類-マウス
投与量・期間 : 82 mg/kg
毒性影響　　: 〔肺,胸郭,または呼吸〕その他の変化.
参照文献

DCTODJ Drug and Chemical Toxicology. (Marcel Dekker, 270 Madison Ave., New York, NY 10016) V.1- 1977/78- [Vol.,頁,年(19-)]7,299,1984

§ β-Cryptoxanthin
[化学名・別名] β,β-Caroten-3-ol. Cryptoxanthin. 3-Hydroxy-β-carotene. Caricaxanthin.