

[正確な分子量] 490.25667

[基原] *Ganoderma lucidum*

[性状] 青白い黄色のシロップ (as Me ester)

[比旋光度]: $[\alpha]_D^{25} +78$ (c, 0.1 in MeOH) (Me ester)

-----文献-----

Nishitoba, T. et al., *Phytochemistry*, 1987, 26, 1777

§ Lucidenic acid M

[化学名・別名] 3 β ,7 α ,15 α -Trihydroxy-4,4,14 α -trimethyl-11-oxo-5 α -chol-8-en-24-oic acid (CAS 名).

3 β ,7 α ,15 α -Trihydroxy-11-oxo-25,26,27-trisnorlanost-8-en-24-oic acid

[CAS No.] 110241-33-3

[化合物分類] テルペノイド (Lanostane triterpenoid)

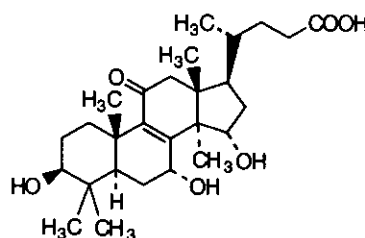
[構造式]

[分子式] C₂₇H₄₂O₆

[分子量] 462.625

[正確な分子量] 462.29814

[基原] *Ganoderma lucidum*



-----文献-----

Nishitoba, T. et al., *Phytochemistry*, 1987, 26, 1777

§ Lucidenic acid M; 7,15-Diketone, 12 β -hydroxy

[化学名・別名] 3 β ,12 β -Dihydroxy-4,4,14 α -trimethyl-7,11,15-trioxo-5 α -chol-8-en-24-oic acid (CAS 名).

3 β ,12 β -Dihydroxy-7,11,15-trioxo-25,26,27-trisnorlanost-8-en-24-oic acid. Lucidenic acid L

[CAS No.] 110267-45-3

[化合物分類] テルペノイド (Lanostane triterpenoid)

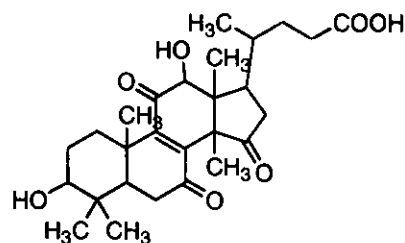
[構造式]

[分子式] C₂₇H₃₈O₇

[分子量] 474.593

[正確な分子量] 474.261755

[基原] *Ganoderma lucidum*



-----文献-----

Nishitoba, T. et al., *Phytochemistry*, 1987, 26, 1777

§ Lucidenic acid M; 3,7,15-Triketone, 12 α -hydroxy

[化学名・別名] 12 α -Hydroxy-4,4,14 α -trimethyl-3,7,11,15-tetraoxo-5 α -chol-8-en-24-oic acid (CAS 名).

12 α -Hydroxy-3,7,11,15-tetraoxo-25,26,27-trisnorlanost-8-en-24-oic acid. Lucidenic acid K

[化合物分類] テルペノイド (Lanostane triterpenoid)

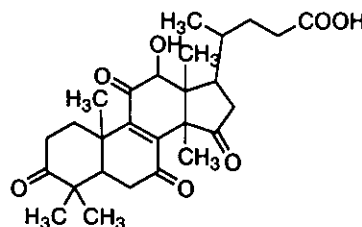
[構造式]

[分子式] C₂₇H₃₆O₇

[分子量] 472.577

[正確な分子量] 472.246105

[基原] *Ganoderma lucidum*



-----文献-----

Nishitoba, T. et al., *Phytochemistry*, 1987, 26, 1777

§ Lucidone A

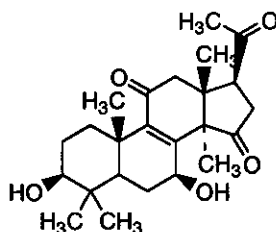
[化学名・別名] 3 β ,7 β -Dihydroxy-4,4,14-trimethyl-5 α -pregn-8-ene-11,15,20-trione (CAS 名). 3 β ,7 β -Dihydroxy-22,23,24,25,26,27-hexanorlanost-8-ene-11,15,20-trione

[CAS No.] 97653-92-4

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] $C_{24}H_{34}O_5$
 [分子量] 402.53
 [正確な分子量] 402.240625
 [基原] *Ganoderma lucidum*
 [性状] 無定型の粉末
 [融点] Mp 280-283 °C
 [比旋光度]: $[\alpha]_D^{24} +210$ (c, 0.2 in $CHCl_3$)

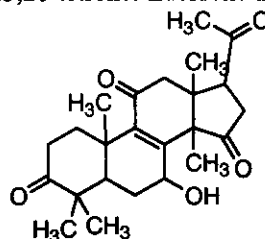


-----文献-----

Nishitoba, T. et al., *Agric. Biol. Chem.*, 1985, 49, 1547
 Lin, C.-N. et al., *Phytochemistry*, 1993, 32, 1549, (C13-NMR)

§ Lucidone A; 3-Ketone

[化学名・別名] 7β-Hydroxy-4,4,14-trimethyl-5α-pregn-8-ene-3,11,15,20-tetrone. Lucidone B
 [CAS No.] 97653-93-5
 [化合物分類] テルペノイド (Lanostane triterpenoid)
 [構造式]
 [分子式] $C_{24}H_{32}O_5$
 [分子量] 400.514
 [正確な分子量] 400.224975
 [基原] *Ganoderma lucidum*
 [性状] 結晶 (EtOAc)
 [融点] Mp 270-271 °C
 [比旋光度]: $[\alpha]_D^{22} +278$ (c, 0.2 in $CHCl_3$)

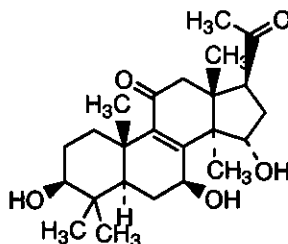


-----文献-----

Nishitoba, T. et al., *Agric. Biol. Chem.*, 1985, 49, 1547
 Lin, C.-N. et al., *Phytochemistry*, 1993, 32, 1549, (C13-NMR)

§ Lucidone C

[化合物分類] テルペノイド (Lanostane triterpenoid)
 [構造式]
 [分子式] $C_{24}H_{36}O_5$
 [分子量] 404.545
 [正確な分子量] 404.256275
 [基原] *Ganoderma lucidum* の代謝物
 [性状] シロップ
 [比旋光度]: $[\alpha]_D^{24} +145$ (c, 0.2 in MeOH)

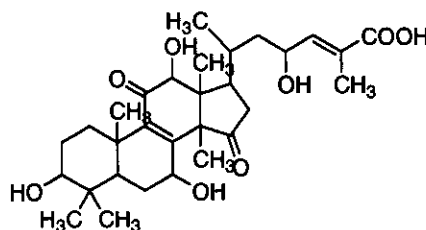


-----文献-----

Nishitoba, T. et al., *Agric. Biol. Chem.*, 1986, 50, 809

§ 3,7,12,23-Tetrahydroxy-11,15-dioxolanosta-8,24-dien-26-oic acid, (3β,7β,12β,23S,24E)-form

[化学名・別名] Ganoderic acid η
 [CAS No.] 294674-12-7
 [化合物分類] テルペノイド (Lanostane triterpenoid)
 [構造式]
 [基原] *Ganoderma lucidum*
 [性状] 黄色の針状結晶 (MeOH 溶液)
 [融点] Mp 212-214 °C
 [比旋光度]: $[\alpha]_D +128$ (c, 0.1 in EtOH)
 [UV]: [neutral] λ_{max} 209 (log ε 4.1); 257 (log ε 3.8) (溶媒の報告はない)



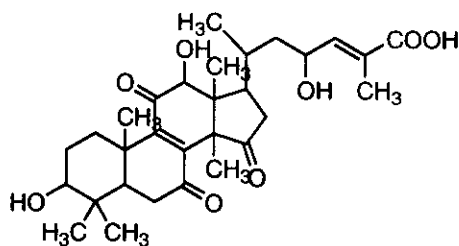
-----文献-----

Min, B.-S. et al., *Chem. Pharm. Bull.*, 2000, 48, 1026-1033, (分離, H-NMR, C13-NMR)

§ 3,7,12,23-Tetrahydroxy-11,15-dioxolanosta-8,24-dien-26-oic acid, (3β,7β,12β,23S,24E)-form, 7-Ketone

[化学名・別名] 3,12,23-Trihydroxy-7,11,15-trioxolanosta-8,24-dien-26-oic acid. Ganoderic acid θ

[CAS No.] 294674-15-0
 [化合物分類] テルペノイド (Lanostane triterpenoid)
 [構造式]
 [分子式] $C_{30}H_{42}O_8$
 [分子量] 530.657
 [正確な分子量] 530.28797
 [基原] *Ganoderma lucidum*
 [性状] 黄色の針状結晶 (MeOH 溶液)
 [融点] Mp 131-133 °C
 [比旋光度]: $[\alpha]_D +71.3$ (c, 0.1 in EtOH)

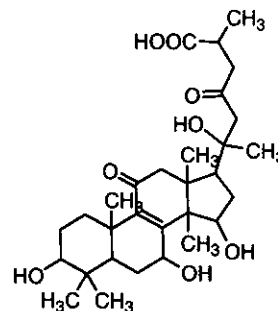


-----文献-----

Min, B.-S. et al., Chem. Pharm. Bull., 2000, 48, 1026-1033, (分離, H-NMR, C13-NMR)

§ 3,7,15,20-Tetrahydroxy-11,23-dioxolanost-8-en-26-oic acid; (3 β,7 β,15 α,20 ξ)-form

[化学名・別名] Ganoderic acid L
 [CAS No.] 102607-24-9
 [化合物分類] テルペノイド (Lanostane triterpenoid)
 [構造式]



[基原] *Ganoderma lucidum* の代謝物

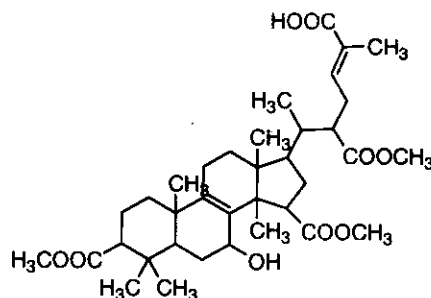
-----文献-----

Nishitoba, T. et al., Agric. Biol. Chem., 1986, 50, 809

§ 3,7,15,22-Tetrahydroxylanosta-8,24-dien-26-oic acid; (3 α,5 α,7 α,15 α,22S,24E)-form, 3,15,22-Tri-Ac

[化学名・別名] 3 α,15 α,22S-Triacetoxy-7 α-hydroxylanosta-8,24E-dien-26-oic acid. Ganoderic acid O
 [化合物分類] テルペノイド (Lanostane triterpenoid)
 [構造式]

[分子式] $C_{36}H_{54}O_9$
 [分子量] 630.817
 [正確な分子量] 630.376785
 [基原] *Ganoderma lucidum* の菌糸体培養
 [性状] 針状結晶
 [融点] Mp 156-158 °C



-----文献-----

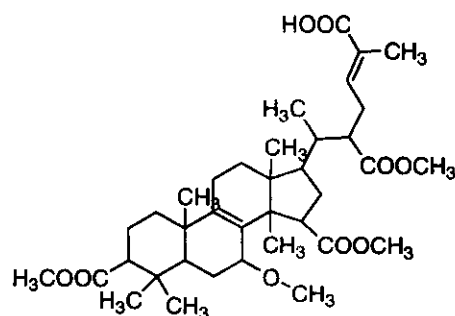
Nishitoba, T. et al., Agric. Biol. Chem., 1987, 51, 619; 1149, (分離)

Hirotsani, H. et al., Phytochemistry, 1987, 26, 2797, (分離)

§ 3,7,15,22-Tetrahydroxylanosta-8,24-dien-26-oic acid; (3 α,5 α,7 α,15 α,22S,24E)-form, 3,15,22-Tri-Ac, 7-Me ether

[化学名・別名] 3 α,15 α,22S-Triacetoxy-7 α-methoxylanosta-8,24E-dien-26-oic acid. O-Methylganoderic acid O
 [化合物分類] テルペノイド (Lanostane triterpenoid)
 [構造式]

[分子式] $C_{37}H_{56}O_9$
 [分子量] 644.844
 [正確な分子量] 644.392435
 [基原] *Ganoderma lucidum* の菌糸体培養
 [性状] 結晶
 [融点] Mp 228-229.5 °C



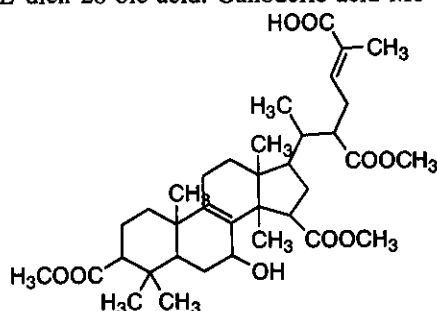
-----文献-----

Nishitoba, T. et al., Agric. Biol. Chem., 1987, 51, 619; 1149, (分離)
 Hirotani, H. et al., Phytochemistry, 1987, 26, 2797, (分離)

§ 3,7,15,22-Tetrahydroxylanosta-8,24-dien-26-oic acid; (3 α ,5 α ,7 α ,15 α ,22 ξ ,24E)-form,
 3,15,22-Tri-Ac

[化学名・別名] 3 α ,15 α ,22-Triacetoxy-7 α -hydroxylanosta-8,24E-dien-26-oic acid. Ganoderic acid Mb
 [化合物分類] テルペノイド (Lanostane triterpenoid)
 [構造式]

[分子式] C₃₆H₅₄O₉
 [分子量] 630.817
 [正確な分子量] 630.376785
 [基原] *Ganoderma lucidum* の代謝物
 [性状] シロップ
 [比旋光度]: [α]_D²⁷ -4 (c, 0.2 in MeOH)



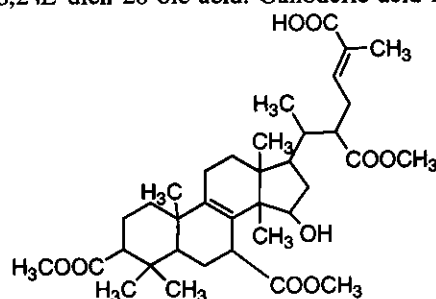
-----文献-----

Nishitoba, T. et al., Agric. Biol. Chem., 1987, 51, 619; 1149, (分離)
 Hirotani, H. et al., Phytochemistry, 1987, 26, 2797, (分離)

§ 3,7,15,22-Tetrahydroxylanosta-8,24-dien-26-oic acid; (3 α ,5 α ,7 α ,15 α ,22 ξ ,24E)-form,
 3,7,22-Tri-Ac

[化学名・別名] 3 α ,7 α ,22-Triacetoxy-15 α -hydroxylanosta-8,24E-dien-26-oic acid. Ganoderic acid Mc
 [化合物分類] テルペノイド (Lanostane triterpenoid)
 [構造式]

[分子式] C₃₆H₅₄O₉
 [分子量] 630.817
 [正確な分子量] 630.376785
 [基原] *Ganoderma lucidum* の代謝物
 [性状] シロップ
 [比旋光度]: [α]_D²⁷ -23 (c, 0.2 in MeOH)



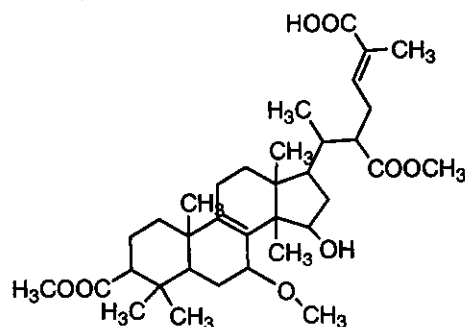
-----文献-----

Nishitoba, T. et al., Agric. Biol. Chem., 1987, 51, 619; 1149, (分離)
 Hirotani, H. et al., Phytochemistry, 1987, 26, 2797, (分離)

§ 3,7,15,22-Tetrahydroxylanosta-8,24-dien-26-oic acid; (3 α ,5 α ,7 α ,15 α ,22 ξ ,24E)-form,
 3,22-Di-Ac, 7-Me ether

[化学名・別名] 3 α ,22-Diacetoxy-15 α -hydroxy-7 α -methoxylanosta-8,24E-dien-26-oic acid. Ganoderic acid Mg
 [CAS No.] 110042-11-0
 [化合物分類] テルペノイド (Lanostane triterpenoid)
 [構造式]

[分子式] C₃₅H₅₄O₈
 [分子量] 602.807
 [正確な分子量] 602.38187
 [基原] *Ganoderma lucidum* の代謝物
 [性状] 無定型の粉末
 [融点] Mp 126-129 °C
 [比旋光度]: [α]_D²³ -23 (c, 0.2 in MeOH)



-----文献-----

Nishitoba, T. et al., Agric. Biol. Chem., 1987, 51, 619; 1149, (分離)
 Hirotani, H. et al., Phytochemistry, 1987, 26, 2797, (分離)

§ 7,15,26,27-Tetrahydroxylanosta-8,24-dien-3-one; (7 α ,15 α)-form, 7-Me ether

[化学名・別名] 15 α ,26,27-Trihydroxy-7 α -methoxy-8,24-lanostadien-3-one. Ganoderiol I

[CAS No.] 114567-49-6

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] $C_{31}H_{50}O_5$

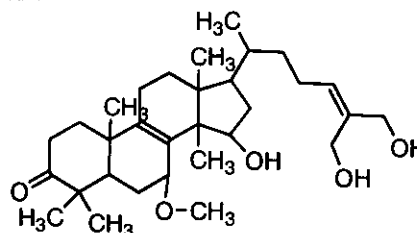
[分子量] 502.733

[正確な分子量] 502.365825

[基原] *Ganoderma lucidum* の代謝物

[性状] シロップ

[比旋光度]: $[\alpha]_D^{25} +53$ (c, 0.1 in MeOH)



-----文献-----

Nishitoba, T. et al., Agric. Biol. Chem., 1988, 52, 367, (分離, H-NMR, C13-NMR)

§ 7,24,25,26-Tetrahydroxylanost-8-en-3-one; (7 α ,24 ξ ,25 ξ)-form, 7-Me ether

[化学名・別名] 24,25,26-Trihydroxy-7 α -methoxy-8-lanosten-3-one. Ganoderiol G

[CAS No.] 114567-48-5

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] $C_{31}H_{52}O_5$

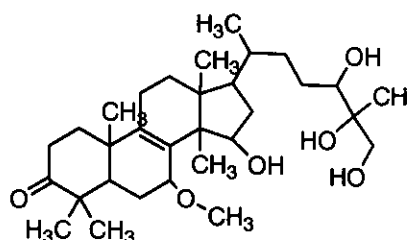
[分子量] 504.749

[正確な分子量] 504.381475

[基原] *Ganoderma lucidum* の代謝物

[性状] シロップ

[比旋光度]: $[\alpha]_D^{24} +34$ (c, 0.1 in MeOH)



-----文献-----

Nishitoba, T. et al., Agric. Biol. Chem., 1988, 52, 367, (分離, H-NMR, C13-NMR)

§ 7,24,25,26-Tetrahydroxylanost-8-en-3-one; (7 α ,24 ξ ,25 ξ)-form, 7-Et ether

[化学名・別名] 7 α -Ethoxy-24,25,26-trihydroxy-8-lanosten-3-one. Ganoderiol C

[CAS No.] 114567-44-1

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] $C_{32}H_{54}O_5$

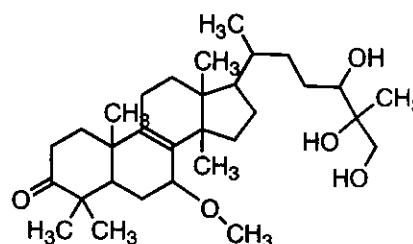
[分子量] 518.776

[正確な分子量] 518.397125

[基原] *Ganoderma lucidum* の代謝物

[性状] シロップ (as di-Ac)

[比旋光度]: $[\alpha]_D^{23} +54$ (c, 0.1 in EtOH) (di-Ac)



-----文献-----

Nishitoba, T. et al., Agric. Biol. Chem., 1988, 52, 367, (分離, H-NMR, C13-NMR)

§ 7,24,25,26-Tetrahydroxylanost-8-en-3-one; (7 α ,24 ξ ,25 ξ)-form, 7-Ketone

[化学名・別名] 24,25,26-Tetrahydroxy-8-lanosten-3,7-dione. Ganoderiol D

[CAS No.] 114567-45-2

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] $C_{30}H_{48}O_5$

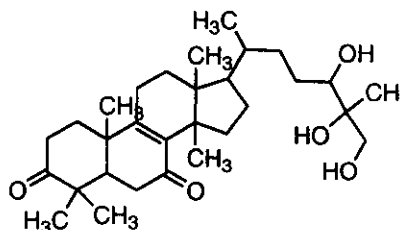
[分子量] 488.706

[正確な分子量] 488.350175

[基原] *Ganoderma lucidum* の代謝物

[性状] シロップ (as di-Ac)

[比旋光度]: $[\alpha]_D^{21} +8$ (c, 0.1 in MeOH) (di-Ac)



-----文献-----

Nishitoba, T. et al., Agric. Biol. Chem., 1988, 52, 367, (分離, H-NMR, C13-NMR)

§ 7,24,25,26-Tetrahydroxylanost-8-en-3-one; (7 α , 24 ξ , 25 ξ)-form, 7-Ketone, 3 β -alcohol

[化学名・別名] 3 β , 24, 25, 26-Tetrahydroxy-8-lanosten-7-one. Ganoderiol H

[CAS No.] 114612-72-5

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] $C_{30}H_{50}O_5$

[分子量] 490.722

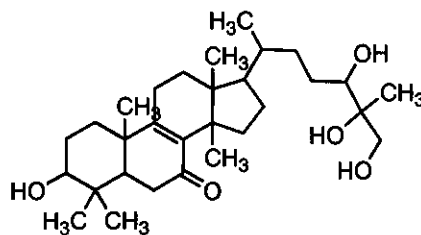
[正確な分子量] 490.365825

[基原] *Ganoderma lucidum* の代謝物

[性状] 針状結晶

[融点] Mp 200-201.5 °C

[比旋光度]: $[\alpha]_D^{24} +22$ (c, 0.1 in MeOH)



-----文献-----

Nishitoba, T. et al., Agric. Biol. Chem., 1988, 52, 367, (分離, H-NMR, C13-NMR)

§ 5'-Thioadenosine; S-Me, S-oxide (R-)

[化学名・別名] 5'-Deoxy-5'-(methylsulfinyl) adenosine (CAS 名)

[CAS No.] 897-42-7

[その他の CAS No.] 3387-65-3

[化合物分類] 炭水化物 (Nucleoside), 炭水化物 (Other thiosugar)

[構造式]

[分子式] $C_{11}H_{15}N_5O_4S$

[分子量] 313.337

[正確な分子量] 313.084475

[基原] *Ganoderma lucidum*

[用途] 血小板凝集阻害作用

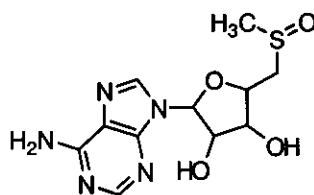
[性状] 結晶

[融点] Mp 185-187 °C

[比旋光度]: $[\alpha]_D^{20} -23.5$ (c, 1.4 in H₂O)

[溶解性] 水, メタノールに可溶

[UV]: [neutral] λ_{max} 270 (H₂O)



-----文献-----

Kawagishi, H. et al., Phytochemistry, 1993, 32, 239, (S-Me-S-oxide)

Trauth, O. et al., Nature (London), 1951, 167, 359, (S-Me, 合成法)

Zappia, V. et al., J. Biol. Chem., 1969, 244, 4499, (S-Me, biochem)

Borkakoti, N. et al., Acta Cryst. B, 1978, 34, 867, (S-Me, 結晶構造)

Porcelli, M. et al., Adv. Exp. Med. Biol., 1988, 250, 219, (3'-epimer-S-Me)

Porcelli, M. et al., Biochem. J., 1989, 263, 635, (3'-epimer-S-Me)

Robins, M.J. et al., Can. J. Chem., 1991, 69, 1468, (S-Me, UV, H-NMR, C13-NMR, Mas)

Pignot, M. et al., Eur. J. Org. Chem., 2000, 549, (合成法, H-NMR, C13-NMR)

§ 5'-Thioadenosine; S-Me, S-oxide (S-)

[CAS No.] 737-74-6

[化合物分類] 炭水化物 (Other thiosugar), 炭水化物 (Nucleoside)

[構造式]

[分子式] $C_{11}H_{15}N_5O_4S$

[分子量] 313.337

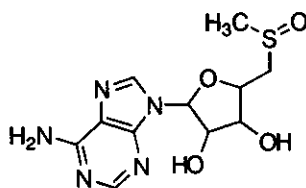
[正確な分子量] 313.084475

[基原] *Ganoderma lucidum*

[性状] 結晶

[融点] Mp 210-211 °C

[比旋光度]: $[\alpha]_D -93.3$ (c, 1 in H₂O)



-----文献-----

Kawagishi, H. et al., Phytochemistry, 1993, 32, 239, (S-Me-S-oxide)

Borkakoti, N. et al., Acta Cryst. B, 1978, 34, 867, (S-Me, 結晶構造)

Porcelli, M. et al., Adv. Exp. Med. Biol., 1988, 250, 219, (3'-epimer-S-Me)

Porcelli, M. et al., Biochem. J., 1989, 263, 635, (3'-epimer-S-Me)

Robins, M.J. et al., Can. J. Chem., 1991, 69, 1468, (S-Me, UV, H-NMR, C13-NMR, Mas)

§ 3,7,15-Trihydroxy-11,23-dioxolanosta-8,20(22)-dien-26-oic acid; (3 β ,7 β ,15 α ,20(22)*E*)-form

[化学名・別名] Ganoderenic acid C

[CAS No.] 100665-42-7

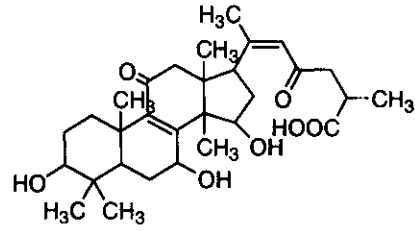
[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[基原] カビ類: *Ganoderma lucidum*

[性状] 無定型の粉末

[比旋光度]: $[\alpha]_D^{22} +66.2$ (c, 0.15 in CHCl₃/MeOH)



-----文献-----

Komoda, Y. et al., Chem. Pharm. Bull., 1985, 33, 4829

§ 3,7,15-Trihydroxy-11,23-dioxolanosta-8,20(22)-dien-26-oic acid; (3 β ,7 β ,15 α ,20(22)*E*)-form, 3-Ketone

[化学名・別名] 7 β ,15 α -Dihydroxy-3,11,23-trioxolanosta-8,20(22)*E*-dien-26-oic acid. Ganoderenic acid A

[CAS No.] 100665-40-5

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] C₃₀H₄₂O₇

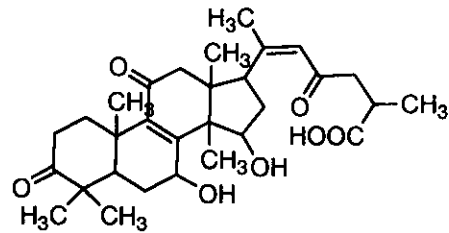
[分子量] 514.658

[正確な分子量] 514.293055

[基原] *Ganoderma lucidum*

[性状] 無定型の粉末

[比旋光度]: $[\alpha]_D^{22} +127.8$ (c, 0.43 in CHCl₃)



-----文献-----

Komoda, Y. et al., Chem. Pharm. Bull., 1985, 33, 4829

§ 3,7,15-Trihydroxy-11,23-dioxolanosta-8,20(22)-dien-26-oic acid; (3 β ,7 β ,15 α ,20(22)*E*)-form, 15-Ketone

[化学名・別名] 3 β ,7 β -Dihydroxy-11,15,23-trioxolanosta-8,20(22)*E*-dien-26-oic acid. Ganoderenic acid B

[CAS No.] 100665-41-6

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] C₃₀H₄₂O₇

[分子量] 514.658

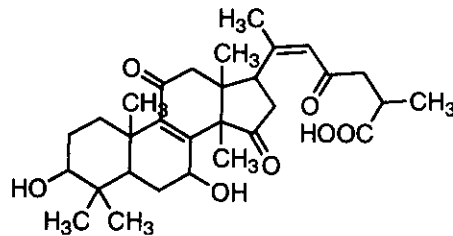
[正確な分子量] 514.293055

[基原] *Ganoderma lucidum*

[性状] 板状結晶 (EtOAc/MeOH)

[融点] Mp 211-214 °C

[比旋光度]: $[\alpha]_D^{22} +102.9$ (c, 0.30 in CHCl₃)



-----文献-----

Komoda, Y. et al., Chem. Pharm. Bull., 1985, 33, 4829

§ 3,7,15-Trihydroxy-11,23-dioxolanosta-8,20(22)-dien-26-oic acid; (3 β ,7 β ,15 α ,20(22)*E*)-form, 3,15-Diketone

[化学名・別名] 7 β -Hydroxy-3,11,15,23-tetraoxolanosta-8,20(22)-dien-26-oic acid. Ganoderenic acid D

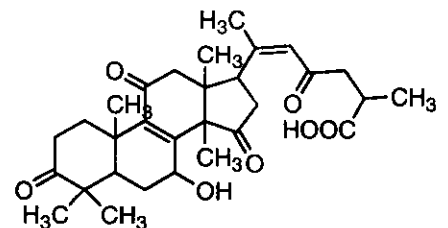
[CAS No.] 100665-43-8

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] C₃₀H₄₀O₇

[分子量] 512.642



[正確な分子量] 512.277405

[基原] *Ganoderma lucidum*

[性状] 針状結晶 (EtOH 溶液)

[融点] Mp 214-216 °C

[比旋光度]: $[\alpha]_D^{22} +163.4$ (c, 0.34 in CHCl₃)

-----文献-----

Komoda, Y. et al., Chem. Pharm. Bull., 1985, 33, 4829

§ 7,15,23-Trihydroxy-3,11-dioxolanosta-8,24-dien-26-oic acid; (7 α ,15 α ,23S,24E)-form

[化学名・別名] Ganoderic acid δ

[CAS No.] 294674-02-5

[化合物分類] テルペノイド (Lanostane triterpenoid)

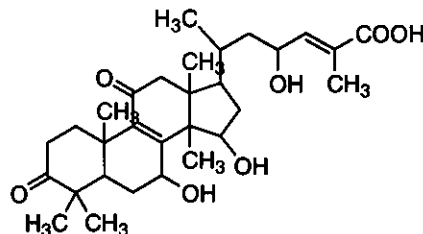
[構造式]

[基原] *Ganoderma lucidum*

[性状] 無定形の粉末

[比旋光度]: $[\alpha]_D +160$ (c, 0.074 in EtOH)

[UV]: [neutral] λ_{max} 207 (log ϵ 3.95); 252 (log ϵ 3.7) (溶媒の報告はない)



-----文献-----

Min, B.-S. et al., Chem. Pharm. Bull., 2000, 48, 1026-1033, (分離, H-NMR, C13-NMR)

§ 7,15,23-Trihydroxy-3,11-dioxolanosta-8,24-dien-26-oic acid; (7 β ,15 α ,23S,24E)-form

[化学名・別名] Ganoderic acid γ

[CAS No.] 294674-00-3

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

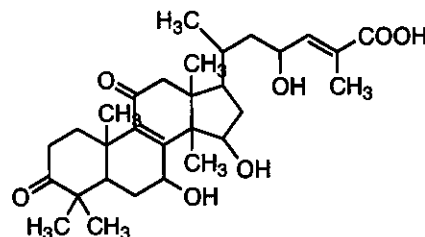
[基原] *Ganoderma lucidum*

[性状] 針状結晶 (MeOH 溶液)

[融点] Mp 243-245 °C

[比旋光度]: $[\alpha]_D +155.3$ (c, 0.1 in EtOH)

[UV]: [neutral] λ_{max} 208 (log ϵ 4.05); 252 (log ϵ 3.82) (溶媒の報告はない)



-----文献-----

Min, B.-S. et al., Chem. Pharm. Bull., 2000, 48, 1026-1033, (分離, H-NMR, C13-NMR)

§ 7,15,23-Trihydroxy-3,11-dioxolanosta-8,24-dien-26-oic acid; (7 β ,15 α ,23S,24E)-form, 15-Ketone, 3 β -alcohol

[化学名・別名] 3,7,23-Trihydroxy-11,15-dioxolanosta-8,24-dien-26-oic acid. Ganoderic acid ϵ

[CAS No.] 294674-05-8

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] C₃₀H₄₄O₇

[分子量] 516.673

[正確な分子量] 516.308705

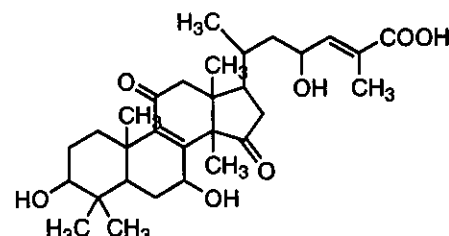
[基原] *Ganoderma lucidum*

[性状] 針状結晶 (MeOH 溶液)

[融点] Mp 249-251 °C

[比旋光度]: $[\alpha]_D +153.3$ (c, 0.1 in MeOH)

[UV]: [neutral] λ_{max} 212 (log ϵ 4.13); 253 (log ϵ 4.03) (溶媒の報告はない)



-----文献-----

Min, B.-S. et al., Chem. Pharm. Bull., 2000, 48, 1026-1033, (分離, H-NMR, C13-NMR)

§ 7,15,23-Trihydroxy-3,11-dioxolanosta-8,24-dien-26-oic acid; (7 β ,15 α ,23S,24E)-form, 7,15-Diketone, 3 β -alcohol

[化学名・別名] 3,23-Dihydroxy-7,11,15-trioxolanosta-8,24-dien-26-oic acid. Ganoderic acid ξ

[CAS No.] 294674-09-2

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] $C_{30}H_{42}O_7$

[分子量] 514.658

[正確な分子量] 514.293055

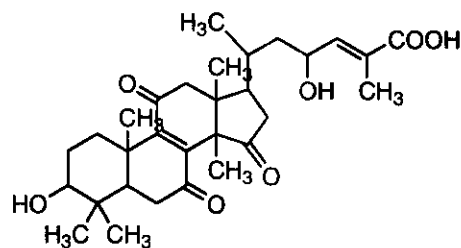
[基原] *Ganoderma lucidum*

[性状] 針状結晶 (MeOH 溶液)

[融点] Mp 143-145 °C

[比旋光度]: $[\alpha]_D^{25} +213.5$ (c, 0.015 in EtOH)

[UV]: [neutral] λ_{max} 210 (log ϵ 4.13); 257 (log ϵ 3.81) (溶媒の報告はない)



-----文献-----

Min, B.-S. et al., Chem. Pharm. Bull., 2000, 48, 1026-1033, (分離, H-NMR, C13-NMR)

§ 3,7,15-Trihydroxy-11,23-dioxolanost-8-en-26-oic acid; (3 β , 7 β , 15 α , 25R)-form

[化学名・別名] Ganoderic acid C. Ganoderic acid D. Ganoderic acid E.

Ganoderic acid C2

[CAS No.] 98296-48-1

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

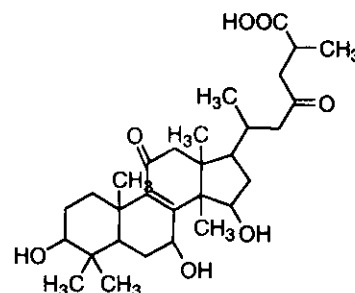
[基原] *Ganoderma lucidum*

[用途] ヒスタミン放出抑制因子

[性状] 結晶 (MeOH)

[融点] Mp 231-232 °C (198-199.5 °C)

[比旋光度]: $[\alpha]_D^{15} +95.5$ (c, 0.147 in MeOH)



-----文献-----

Kohda, H. et al., Chem. Pharm. Bull., 1985, 33, 1367, (分離)

Kikuchi, T. et al., Chem. Pharm. Bull., 1985, 33, 2624; 2628, (分離)

Hirotsani, M. et al., Phytochemistry, 1986, 25, 1189, (分離)

Lin, C.N. et al., Phytochemistry, 1993, 32, 1549, (Ganoderic acid AM1)

§ 3,7,15-Trihydroxy-11,23-dioxolanost-8-en-26-oic acid; (3 β , 7 β , 15 α , 25R)-form, 3,15-Diketone

[化学名・別名] 7-Hydroxy-3,11,15,23-tetraoxolanost-8-en-26-oic acid. Ganoderic acid C1. Ganoderic acid D

[CAS No.] 95311-97-0

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] $C_{30}H_{42}O_7$

[分子量] 514.658

[正確な分子量] 514.293055

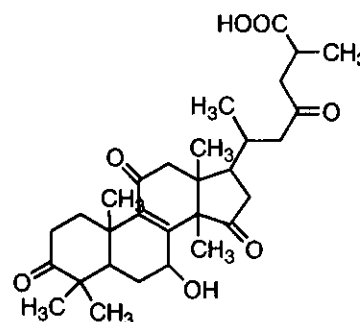
[基原] *Ganoderma lucidum*

[用途] ヒスタミン放出抑制因子

[性状] 結晶 (MeOH)

[融点] Mp 150-151 °C

[比旋光度]: $[\alpha]_D^{15} +175.4$ (c, 0.057 in CHCl₃)



-----文献-----

Kohda, H. et al., Chem. Pharm. Bull., 1985, 33, 1367, (分離)

Kikuchi, T. et al., Chem. Pharm. Bull., 1985, 33, 2624; 2628, (分離)

Hirotsani, M. et al., Phytochemistry, 1986, 25, 1189, (分離)

Lin, C.N. et al., Phytochemistry, 1993, 32, 1549, (Ganoderic acid AM1)

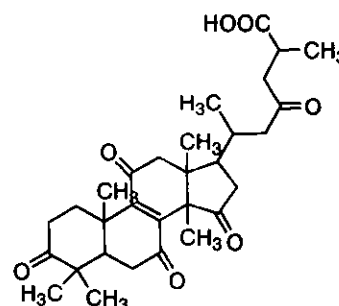
§ 3,7,15-Trihydroxy-11,23-dioxolanost-8-en-26-oic acid; (3 β , 7 β , 15 α , 25R)-form, 3,7,15-Triketone

[化学名・別名] 3,7,11,15,23-Pentaoxolanost-8-en-26-oic acid. Ganoderic acid

E. Ganoderic acid F

[CAS No.] 98665-14-6

[化合物分類] テルペノイド (Lanostane triterpenoid)



[構造式]

[分子式] $C_{30}H_{40}O_7$

[分子量] 512.642

[正確な分子量] 512.277405

[基原] *Ganoderma lucidum*

[性状] 黄色の針状結晶 (as Me ester)

[融点] Mp 211-213 °C (206-208 °C) (Me ester)

[比旋光度]: $[\alpha]_D^{25} +167$ ($CHCl_3$) (Me ester)

-----文献-----

Kohda, H. et al., Chem. Pharm. Bull., 1985, 33, 1367, (分離)

Kikuchi, T. et al., Chem. Pharm. Bull., 1985, 33, 2624; 2628, (分離)

Hirotsani, M. et al., Phytochemistry, 1986, 25, 1189, (分離)

Lin, C.N. et al., Phytochemistry, 1993, 32, 1549, (Ganoderic acid AM1)

§ 3,7,15-Trihydroxy-11,23-dioxolanost-8-en-26-oic acid; (3 β ,7 β ,15 α ,25R)-form, 7-Deoxy

[化学名・別名] 3,15-Dihydroxy-11,23-dioxolanost-8-en-26-oic acid. Ganolucidic acid B

[CAS No.] 98683-75-1

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] $C_{30}H_{46}O_6$

[分子量] 502.69

[正確な分子量] 502.32944

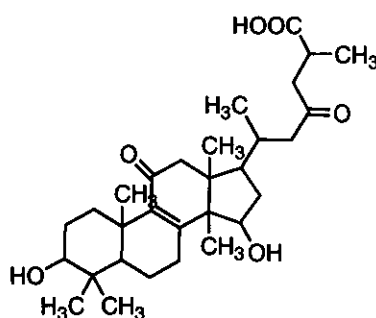
[基原] *Ganoderma lucidum*

[性状] 針状結晶 (as Me ester)

[融点] Mp 167-169 °C (Me ester)

[比旋光度]: $[\alpha]_D^{25} +114$ ($CHCl_3$) (Me ester)

[UV]: [neutral] λ_{max} 255 (ϵ 10000) (EtOH)



-----文献-----

Kohda, H. et al., Chem. Pharm. Bull., 1985, 33, 1367, (分離)

Kikuchi, T. et al., Chem. Pharm. Bull., 1985, 33, 2624; 2628, (分離)

Hirotsani, M. et al., Phytochemistry, 1986, 25, 1189, (分離)

Lin, C.N. et al., Phytochemistry, 1993, 32, 1549, (Ganoderic acid AM1)

§ 3,7,15-Trihydroxy-11,23-dioxolanost-8-en-26-oic acid; (3 β ,7 β ,15 α ,25R)-form, 7-Deoxy, 3-ketone

[化学名・別名] 15-Hydroxy-3,11,23-trioxolanost-8-en-26-oic acid.

Ganolucidic acid A

[CAS No.] 98665-21-5

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

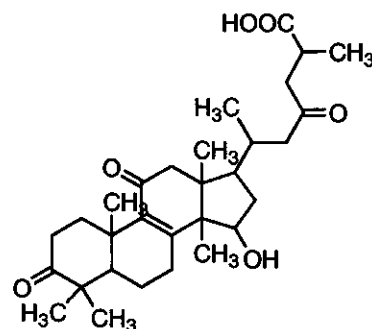
[分子式] $C_{30}H_{44}O_6$

[分子量] 500.674

[正確な分子量] 500.31379

[基原] *Ganoderma lucidum*

[UV]: [neutral] λ_{max} 255 (ϵ 10000) (EtOH)



-----文献-----

Kohda, H. et al., Chem. Pharm. Bull., 1985, 33, 1367, (分離)

Kikuchi, T. et al., Chem. Pharm. Bull., 1985, 33, 2624; 2628, (分離)

Hirotsani, M. et al., Phytochemistry, 1986, 25, 1189, (分離)

Lin, C.N. et al., Phytochemistry, 1993, 32, 1549, (Ganoderic acid AM1)

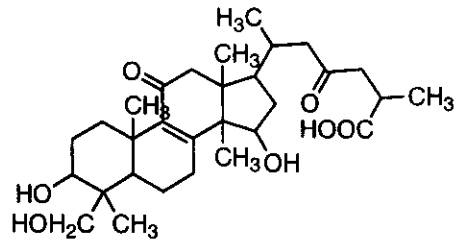
§ 3,15,29-Trihydroxy-11,23-dioxolanost-8-en-26-oic acid; (3 β ,15 α ,25 ξ)-form

[化学名・別名] Ganolucidic acid C

[CAS No.] 100440-27-5

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]



[基原] *Ganoderma lucidum* の代謝物

-----文献-----

Nishitoba, T. et al., Agric. Biol. Chem., 1985, 49, 3637, (分離, H-NMR, C13-NMR)

§ 3,7,15-Trihydroxylanosta-8,24-dien-26-oic acid; (3 α ,5 α ,7 α ,15 α ,24E)-form, 3,7-Di-Ac

[化学名・別名] Ganoderic acid Ma

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] C₃₃H₅₂O₇

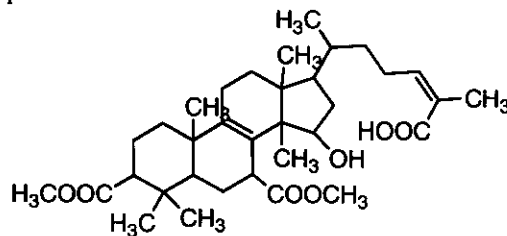
[分子量] 572.781

[正確な分子量] 572.371305

[基原] *Ganoderma lucidum* の代謝物

[性状] シロップ

[比旋光度]: $[\alpha]_D^{24}$ -16 (c, 0.3 in MeOH)



-----文献-----

Toth, J.O. et al., J. Chem. Res., Miniprint, 1983, 2733, (Ganoderic acid W, Ganoderic acid V)

Nishitoba, T. et al., Agric. Biol. Chem., 1987, 51, 619; 1149, (Ganoderic acid Ma, Ganoderic acid Mi)

§ 3,7,15-Trihydroxylanosta-8,24-dien-26-oic acid; (3 α ,5 α ,7 α ,15 α ,24E)-form, 3,15-Di-Ac

[化学名・別名] Ganoderic acid W

[CAS No.] 86377-49-3

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] C₃₃H₅₂O₇

[分子量] 572.781

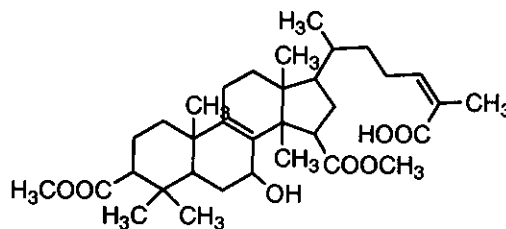
[正確な分子量] 572.371305

[基原] *Ganoderma lucidum*

[用途] 細胞毒作用

[性状] 無定型

[融点] Mp 114-117 °C



-----文献-----

Toth, J.O. et al., J. Chem. Res., Miniprint, 1983, 2733, (Ganoderic acid W, Ganoderic acid V)

Nishitoba, T. et al., Agric. Biol. Chem., 1987, 51, 619; 1149, (Ganoderic acid Ma, Ganoderic acid Mi)

§ 3,7,15-Trihydroxylanosta-8,24-dien-26-oic acid; (3 α ,5 α ,7 α ,15 α ,24E)-form, 7-Me ether, 3-Ac

[化学名・別名] 3-Acetoxy-15-hydroxy-7-methoxylanosta-8,24-dien-26-oic acid. Ganoderic acid Mi

[CAS No.] 110024-16-3

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] C₃₃H₅₂O₆

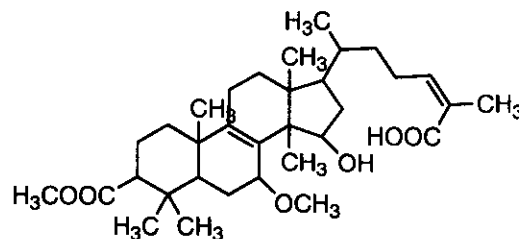
[分子量] 544.77

[正確な分子量] 544.37639

[基原] *Ganoderma lucidum* の代謝物

[性状] シロップ

[比旋光度]: $[\alpha]_D^{23}$ -11 (c, 0.2 in MeOH)



-----文献-----

Toth, J.O. et al., J. Chem. Res., Miniprint, 1983, 2733, (Ganoderic acid W, Ganoderic acid V)

Nishitoba, T. et al., Agric. Biol. Chem., 1987, 51, 619; 1149, (Ganoderic acid Ma, Ganoderic acid Mi)

§ 3,7,15-Trihydroxylanosta-8,24-dien-26-oic acid; (3 α ,5 α ,7 α ,15 α ,24E)-form, 3-Ketone, 15-Ac

[化学名・別名] 15-Acetoxy-7-hydroxy-3-oxolanosta-8,24-dien-26-oic acid. Ganoderic acid V

[CAS No.] 86377-50-6

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

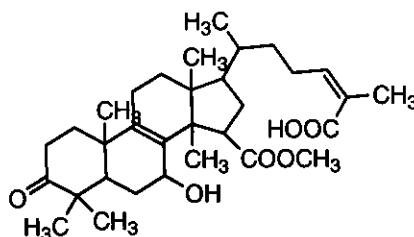
[分子式] C₃₂H₄₈O₆

[分子量] 528.728

[正確な分子量] 528.34509

[基原] *Ganoderma lucidum*

[用途] 細胞毒



-----文献-----

Toth, J.O. et al., J. Chem. Res., Miniprint, 1983, 2733, (Ganoderic acid W, Ganoderic acid V)

Nishitoba, T. et al., Agric. Biol. Chem., 1987, 51, 619; 1149, (Ganoderic acid Ma, Ganoderic acid Mi)

§ 3,7,22-Trihydroxylanosta-8,24-dien-26-oic acid; (3 α ,5 α ,7 α ,22 ξ ,24E)-form, 3,22-Di-Ac, 7-Me ether

[化学名・別名] 3 α ,22-Diacetoxy-7 α -methoxylanosta-8,24E-dien-26-oic acid. Ganoderic acid Md

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] C₃₅H₅₄O₇

[分子量] 586.807

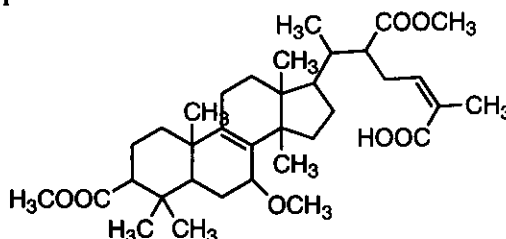
[正確な分子量] 586.386955

[基原] *Ganoderma lucidum* の代謝物

[性状] 結晶

[融点] Mp 181-182 °C

[比旋光度]: [α]_D²⁴ -20 (c, 0.33 in MeOH)



-----文献-----

Nishitoba, T. et al., Agric. Biol. Chem., 1987, 51, 619; 1149

§ 3,7,22-Trihydroxylanosta-8,24-dien-26-oic acid; (3 α ,5 α ,7 α ,22 ξ ,24E)-form, 22-Ac, 7-Me ether

[化学名・別名] 22-Acetoxy-3 α -hydroxy-7 α -methoxylanosta-8,24E-dien-26-oic acid. Ganoderic acid Mj

[CAS No.] 110024-15-2

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] C₃₅H₅₂O₆

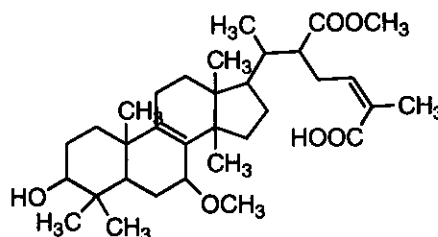
[分子量] 544.77

[正確な分子量] 544.37639

[基原] *Ganoderma lucidum* の代謝物

[性状] シロップ

[比旋光度]: [α]_D²³ -8 (c, 0.05 in MeOH)



-----文献-----

Nishitoba, T. et al., Agric. Biol. Chem., 1987, 51, 619; 1149

§ 3,26,27-Trihydroxylanosta-8,24-dien-7-one; 3 β -form

[化学名・別名] Ganoderiol E

[CAS No.] 114567-46-3

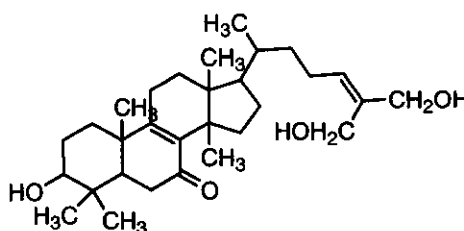
[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[基原] *Ganoderma lucidum* の代謝物

[性状] シロップ (as Tri-Ac)

[比旋光度]: [α]_D²¹ +18 (c, 0.1 in MeOH) (as Tri-Ac)



-----文献-----

Nishitoba, T. et al., Agric. Biol. Chem., 1988, 52, 367, (分離, H-NMR, C13-NMR)

§ 3,15,22-Trihydroxylanosta-7,9(11),24-trien-26-oic acid; (3 α ,15 α ,22S,24E)-form, 3-Ac

[化学名・別名] 3 α -Acetoxy-15 α ,22S-dihydroxylanosta-7,9(11),24E-trien-26-oic acid

[化合物分類] テルペノイド (Lanostane triterpenoid)

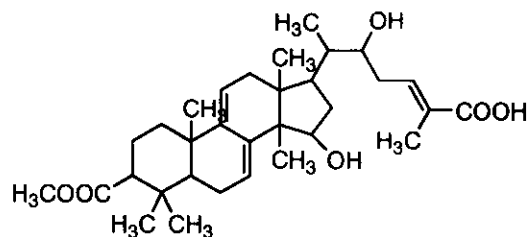
[構造式]

[分子式] C₃₂H₄₈O₆

[分子量] 528.728

[正確な分子量] 528.34509

[基原] *Ganoderma lucidum*



-----文献-----

Toth, J.O. et al., Tet. Lett., 1983, 24, 1081, (分離, 誘導體)

Hirotnani, M. et al., Chem. Pharm. Bull., 1986, 34, 2282, (分離)

Nishitoba, T. et al., Agric. Biol. Chem., 1987, 51, 1149, (分離)

Hirotnani, M. et al., Phytochemistry, 1987, 26, 2797, (分離)

Lin, L.-J. et al., J. Nat. Prod., 1988, 51, 918, (分離)

Shiao, M.-S. et al., Phytochemistry, 1988, 27, 873; 2911, (分離)

Hirotnani, M. et al., J.C.S. Perkin 1, 1990, 2751, (合成)

§ 3,15,22-Trihydroxylanosta-7,9(11),24-trien-26-oic acid; (3 α ,15 α ,22S,24E)-form, 22-Ac

[化学名・別名] 22S-Acetoxy-3 α ,15 α -dihydroxylanosta-7,9(11),24-trien-26-oic acid

[化合物分類] テルペノイド (Lanostane triterpenoid)

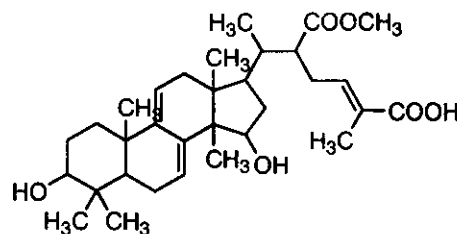
[構造式]

[分子式] C₃₂H₄₈O₆

[分子量] 528.728

[正確な分子量] 528.34509

[基原] *Ganoderma lucidum*



-----文献-----

Toth, J.O. et al., Tet. Lett., 1983, 24, 1081, (分離, 誘導體)

Hirotnani, M. et al., Chem. Pharm. Bull., 1986, 34, 2282, (分離)

Nishitoba, T. et al., Agric. Biol. Chem., 1987, 51, 1149, (分離)

Hirotnani, M. et al., Phytochemistry, 1987, 26, 2797, (分離)

Lin, L.-J. et al., J. Nat. Prod., 1988, 51, 918, (分離)

Shiao, M.-S. et al., Phytochemistry, 1988, 27, 873; 2911, (分離)

Hirotnani, M. et al., J.C.S. Perkin 1, 1990, 2751, (合成)

§ 3,15,22-Trihydroxylanosta-7,9(11),24-trien-26-oic acid; (3 α ,15 α ,22S,24E)-form, 15,22-Di-Ac

[化学名・別名] 15 α ,22S-Diacetoxy-3 α -hydroxylanosta-7,9(11),24E-trien-26-oic acid. Ganoderic acid P

[CAS No.] 112667-14-8

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] C₃₄H₅₀O₇

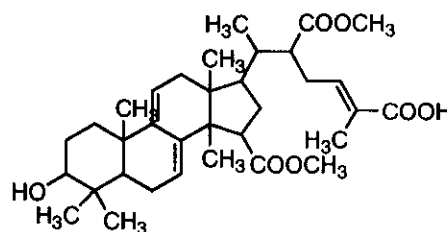
[分子量] 570.765

[正確な分子量] 570.355655

[基原] *Ganoderma lucidum* の菌糸体培養

[性状] 結晶

[融点] Mp 211-212.5 °C



-----文献-----

Toth, J.O. et al., Tet. Lett., 1983, 24, 1081, (分離, 誘導體)

Hirotnani, M. et al., Chem. Pharm. Bull., 1986, 34, 2282, (分離)

Nishitoba, T. et al., Agric. Biol. Chem., 1987, 51, 1149, (分離)

Hirotnani, M. et al., Phytochemistry, 1987, 26, 2797, (分離)

Lin, L.-J. et al., J. Nat. Prod., 1988, 51, 918, (分離)

Shiao, M.-S. et al., *Phytochemistry*, 1988, 27, 873; 2911, (分離)
Hirotsani, M. et al., *J.C.S. Perkin 1*, 1990, 2751, (生合成)

§ 3,15,22-Trihydroxylanosta-7,9(11),24-trien-26-oic acid; (3 α ,15 α ,22*S*,24*E*)-form, 3,22-Di-Ac

[化学名・別名] 3 α ,22*S*-Diacetoxy-15 α -hydroxylanosta-7,9(11),24*E*-trien-26-oic acid. Ganoderic acid Q.

Ganodermic acid P1

[CAS No.] 112790-45-1

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] C₃₄H₅₀O₇

[分子量] 570.765

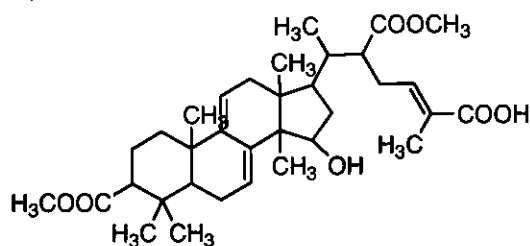
[正確な分子量] 570.355655

[基原] *Ganoderma lucidum* の菌糸体培養

[性状] 結晶

[融点] Mp 131-132 °C

[その他のデータ] または樹脂と記載されている



-----文献-----

Toth, J.O. et al., *Tet. Lett.*, 1983, 24, 1081, (分離, 誘導体)

Hirotsani, M. et al., *Chem. Pharm. Bull.*, 1986, 34, 2282, (分離)

Nishitoba, T. et al., *Agric. Biol. Chem.*, 1987, 51, 1149, (分離)

Hirotsani, M. et al., *Phytochemistry*, 1987, 26, 2797, (分離)

Lin, L.-J. et al., *J. Nat. Prod.*, 1988, 51, 918, (分離)

Shiao, M.-S. et al., *Phytochemistry*, 1988, 27, 873; 2911, (分離)

§ 3,15,22-Trihydroxylanosta-7,9(11),24-trien-26-oic acid; (3 α ,15 α ,22*S*,24*E*)-form, Tri-Ac

[化学名・別名] 3 α ,15 α ,22*S*-Triacetoxy-15 α -hydroxylanosta-7,9(11),24-trien-26-oic acid. Ganoderic acid T

[CAS No.] 103992-91-2

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] C₃₆H₅₂O₈

[分子量] 612.802

[正確な分子量] 612.36622

[基原] *Ganoderma lucidum* の菌糸体培養

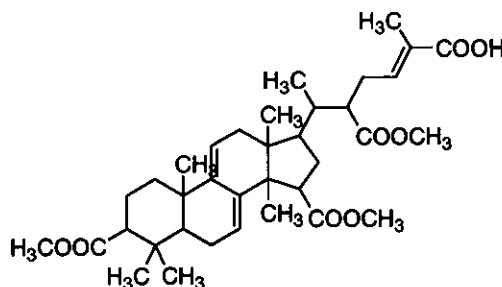
[性状] 結晶

[融点] Mp 200-202 °C

[比旋光度]: [α]_D +23 (c, 0.13 in CHCl₃)

[溶解性] メタノール, クロロホルムに可溶; 水に難溶

[UV]: [neutral] λ_{max} 215 (ε 27000); 216 (ε 10000); 225 (ε 100000); 234 (ε 100000); 241 (ε 28200); 242; 250 (ε 17500) (MeOH)



-----文献-----

Toth, J.O. et al., *Tet. Lett.*, 1983, 24, 1081, (分離, 誘導体)

Hirotsani, M. et al., *Chem. Pharm. Bull.*, 1986, 34, 2282, (分離)

Nishitoba, T. et al., *Agric. Biol. Chem.*, 1987, 51, 1149, (分離)

Hirotsani, M. et al., *Phytochemistry*, 1987, 26, 2797, (分離)

Lin, L.-J. et al., *J. Nat. Prod.*, 1988, 51, 918, (分離)

Shiao, M.-S. et al., *Phytochemistry*, 1988, 27, 873; 2911, (分離)

§ 3,15,22-Trihydroxylanosta-7,9(11),24-trien-26-oic acid; (3 α ,15 α ,22 ξ ,24*E*)-form, 3,22-Di-Ac

[化学名・別名] 3 α ,22 ξ -Diacetoxy-15 α -hydroxylanosta-

7,9(11),24-trien-26-oic acid. Ganoderic acid Mk

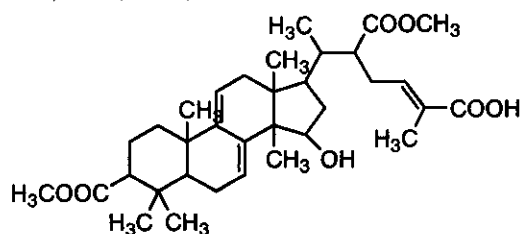
[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] C₃₄H₅₀O₇

[分子量] 570.765

[正確な分子量] 570.355655



[基原] *Ganoderma lucidum*

[性状] シロップ

[比旋光度]: $[\alpha]_D^{23} +23$ (c, 0.2 in MeOH)

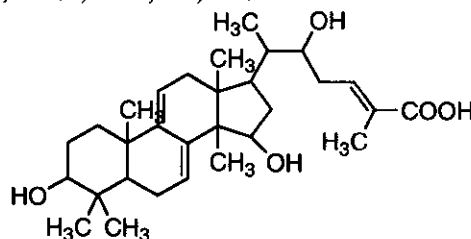
-----文献-----

- Toth, J.O. et al., Tet. Lett., 1983, 24, 1081, (分離, 誘導体)
Hirotani, M. et al., Chem. Pharm. Bull., 1986, 34, 2282, (分離)
Nishitoba, T. et al., Agric. Biol. Chem., 1987, 51, 1149, (分離)
Hirotani, M. et al., Phytochemistry, 1987, 26, 2797, (分離)
Lin, L.-J. et al., J. Nat. Prod., 1988, 51, 918, (分離)
Shiao, M.-S. et al., Phytochemistry, 1988, 27, 873; 2911, (分離)

§ 3,15,22-Trihydroxylanosta-7,9(11),24-trien-26-oic acid; (3 β ,15 α ,22S,24E)-form

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]



[基原] *Ganoderma lucidum*

[性状] 針状結晶 (CHCl₃/MeOH)

[融点] Mp 178-180 °C

-----文献-----

- Toth, J.O. et al., Tet. Lett., 1983, 24, 1081, (分離, 誘導体)
Hirotani, M. et al., Chem. Pharm. Bull., 1986, 34, 2282, (分離)
Nishitoba, T. et al., Agric. Biol. Chem., 1987, 51, 1149, (分離)
Hirotani, M. et al., Phytochemistry, 1987, 26, 2797, (分離)
Lin, L.-J. et al., J. Nat. Prod., 1988, 51, 918, (分離)
Shiao, M.-S. et al., Phytochemistry, 1988, 27, 873; 2911, (分離)

§ 3,15,22-Trihydroxylanosta-7,9(11),24-trien-26-oic acid; (3 β ,15 α ,22S,24E)-form, 15,22-Di-Ac

[化学名・別名] 15 α ,22S-Diacetoxy-3 β -hydroxylanosta-7,9(11),24E-trien-26-oic acid. Ganodermic acid P2

[CAS No.] 112430-69-0

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

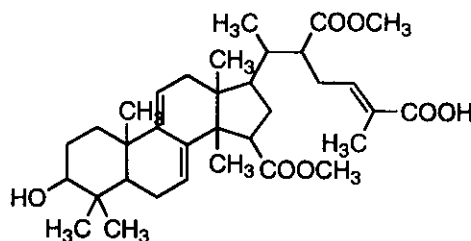
[分子式] C₃₄H₅₆O₇

[分子量] 570.765

[正確な分子量] 570.355655

[基原] *Ganoderma lucidum* の代謝物

[性状] 樹脂



-----文献-----

- Toth, J.O. et al., Tet. Lett., 1983, 24, 1081, (分離, 誘導体)
Hirotani, M. et al., Chem. Pharm. Bull., 1986, 34, 2282, (分離)
Nishitoba, T. et al., Agric. Biol. Chem., 1987, 51, 1149, (分離)
Hirotani, M. et al., Phytochemistry, 1987, 26, 2797, (分離)
Lin, L.-J. et al., J. Nat. Prod., 1988, 51, 918, (分離)
Shiao, M.-S. et al., Phytochemistry, 1988, 27, 873; 2911, (分離)

§ 3,15,22-Trihydroxylanosta-7,9(11),24-trien-26-oic acid; (3 β ,15 α ,22S,24E)-form, Tri-Ac

[化学名・別名] 3 β ,15 α ,22S-Triacetoxyylanosta-7,9(11),24E

-trien-26-oic acid

[CAS No.] 112430-70-3

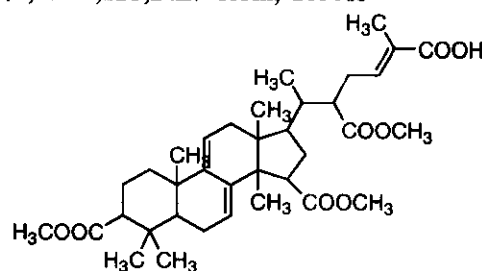
[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] C₃₆H₅₂O₈

[分子量] 612.802

[正確な分子量] 612.36622



[基原] *Ganoderma lucidum* の代謝物

-----文献-----

Toth, J.O. et al., Tet. Lett., 1983, 24, 1081, (分離, 誘導體)
Hirotsu, M. et al., Chem. Pharm. Bull., 1986, 34, 2282, (分離)
Nishitoba, T. et al., Agric. Biol. Chem., 1987, 51, 1149, (分離)
Hirotsu, M. et al., Phytochemistry, 1987, 26, 2797, (分離)
Lin, L.-J. et al., J. Nat. Prod., 1988, 51, 918, (分離)
Shiao, M.-S. et al., Phytochemistry, 1988, 27, 873; 2911, (分離)
Hirotsu, M. et al., J.C.S. Perkin 1, 1990, 2751, (生合成)

§ 3,15,22-Trihydroxylanosta-7,9(11),24-trien-26-oic acid; (3 β,15 α,22S,24E)-form, 22-Ac

[化学名・別名] 22S-Acetoxy-3 β,15 α-dihydroxylanosta-7,9(11),24-trien-26-oic acid

[化合物分類] テルペノイド (Lanostane triterpenoid)

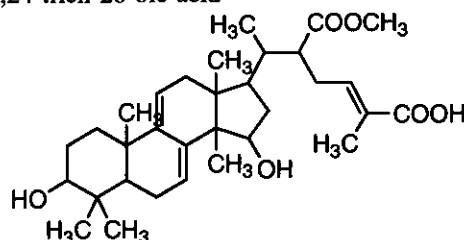
[構造式]

[分子式] C₃₂H₄₈O₆

[分子量] 528.728

[正確な分子量] 528.34509

[基原] *Ganoderma lucidum*



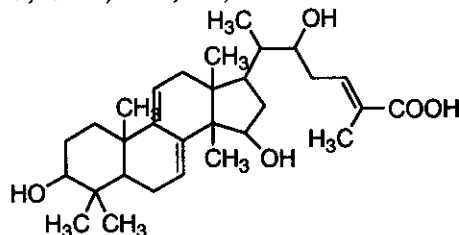
-----文献-----

Toth, J.O. et al., Tet. Lett., 1983, 24, 1081, (分離, 誘導體)
Hirotsu, M. et al., Chem. Pharm. Bull., 1986, 34, 2282, (分離)
Nishitoba, T. et al., Agric. Biol. Chem., 1987, 51, 1149, (分離)
Hirotsu, M. et al., Phytochemistry, 1987, 26, 2797, (分離)
Lin, L.-J. et al., J. Nat. Prod., 1988, 51, 918, (分離)
Shiao, M.-S. et al., Phytochemistry, 1988, 27, 873; 2911, (分離)
Hirotsu, M. et al., J.C.S. Perkin 1, 1990, 2751, (生合成)

§ 3,15,22-Trihydroxylanosta-7,9(11),24-trien-26-oic acid; (3 α,15 α,22R,24E)-form

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]



[基原] *Ganoderma lucidum*

-----文献-----

Toth, J.O. et al., Tet. Lett., 1983, 24, 1081, (分離, 誘導體)
Hirotsu, M. et al., Chem. Pharm. Bull., 1986, 34, 2282, (分離)
Nishitoba, T. et al., Agric. Biol. Chem., 1987, 51, 1149, (分離)
Hirotsu, M. et al., Phytochemistry, 1987, 26, 2797, (分離)
Lin, L.-J. et al., J. Nat. Prod., 1988, 51, 918, (分離)
Shiao, M.-S. et al., Phytochemistry, 1988, 27, 873; 2911, (分離)
Hirotsu, M. et al., J.C.S. Perkin 1, 1990, 2751, (生合成)

§ 3,15,22-Trihydroxylanosta-7,9(11),24-trien-26-oic acid; (3 α,15 α,22R,24E)-form, 3,15-Di-Ac

[化学名・別名] 3 α,15 α-Diacetoxy-22R-hydroxylanosta-7,9(11),24-trien-26-oic acid

[化合物分類] テルペノイド (Lanostane triterpenoid)

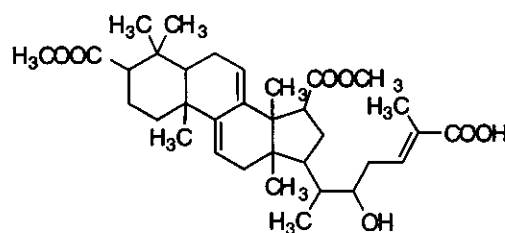
[構造式]

[分子式] C₃₄H₅₀O₇

[分子量] 570.765

[正確な分子量] 570.355655

[基原] *Ganoderma lucidum*



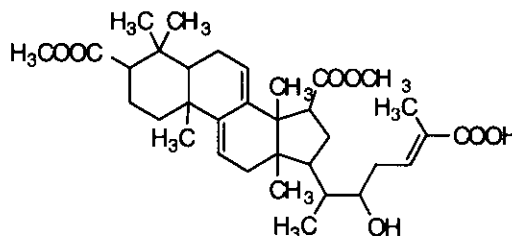
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- Toth, J.O. et al., Tet. Lett., 1983, 24, 1081, (分離, 誘導體)
 Hirotani, M. et al., Chem. Pharm. Bull., 1986, 34, 2282, (分離)
 Nishitoba, T. et al., Agric. Biol. Chem., 1987, 51, 1149, (分離)
 Hirotani, M. et al., Phytochemistry, 1987, 26, 2797, (分離)
 Lin, L.-J. et al., J. Nat. Prod., 1988, 51, 918, (分離)
 Shiao, M.-S. et al., Phytochemistry, 1988, 27, 873; 2911, (分離)
 Hirotani, M. et al., J.C.S. Perkin 1, 1990, 2751, (生合成)

§ 3,15,22-Trihydroxylanosta-7,9(11),24-trien-26-oic acid; (3 β,15 α,22R,24E)-form, 3,15-Di-Ac
 [化学名・別名] 3 β,15 α-Diacetoxy-22R-hydroxylanosta-7,9(11)24-trien-26-oic acid

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]



[分子式] C₃₄H₅₀O₇

[分子量] 570.765

[正確な分子量] 570.355655

[基原] *Ganoderma lucidum*

-----文献-----

- Toth, J.O. et al., Tet. Lett., 1983, 24, 1081, (分離, 誘導體)
 Hirotani, M. et al., Chem. Pharm. Bull., 1986, 34, 2282, (分離)
 Nishitoba, T. et al., Agric. Biol. Chem., 1987, 51, 1149, (分離)
 Hirotani, M. et al., Phytochemistry, 1987, 26, 2797, (分離)
 Lin, L.-J. et al., J. Nat. Prod., 1988, 51, 918, (分離)
 Shiao, M.-S. et al., Phytochemistry, 1988, 27, 873; 2911, (分離)
 Hirotani, M. et al., J.C.S. Perkin 1, 1990, 2751, (生合成)

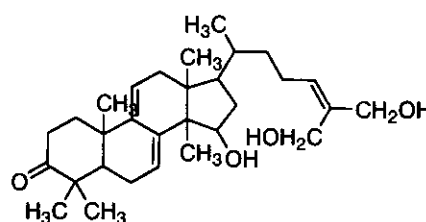
§ 15,26,27-Trihydroxylanosta-7,9(11),24-trien-3-one; 15 α-form

[化学名・別名] Ganoderiol B

[CAS No.] 106518-62-1

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]



[基原] *Ganoderma lucidum*

[性状] 無定型の粉末

-----文献-----

- Sato, H. et al., Agric. Biol. Chem., 1986, 50, 2887

§ 3,7,12-Trihydroxy-25,26,27-trinor-11,15-dioxolanost-8-en-24-oic acid; (3 β,7 β,12 β)-form

[化学名・別名] Lucidenic acid C

[CAS No.] 95311-96-9

[化合物分類] テルペノイド (Lanostane triterpenoid)

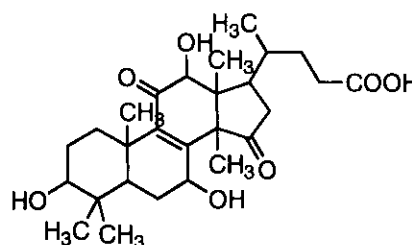
[構造式]

[基原] *Ganoderma lucidum* の代謝物

[性状] 青白い黄色の針状結晶 (CHCl₃/hexane)

[融点] Mp 199-200 °C

[比旋光度]: [α]_D²⁴ +140 (c, 0.2 in MeOH)



-----文献-----

- Nishitoba, T. et al., Agric. Biol. Chem., 1984, 48, 2905; 1985, 49, 1793, (分離, H-NMR, C13-NMR)

§ 3,7,12-Trihydroxy-25,26,27-trinor-11,15-dioxolanost-8-en-24-oic acid; (3 β,7 β,12 β)-form, 3-Ketone

[化学名・別名] 7,12-Dihydroxy-3,11,15-trioxo-25,26,27-trinor-8-lanosten-24-oic acid. Lucidenic acid B

[CAS No.] 95311-95-8

[化合物分類]テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] $C_{27}H_{48}O_7$

[分子量] 474.593

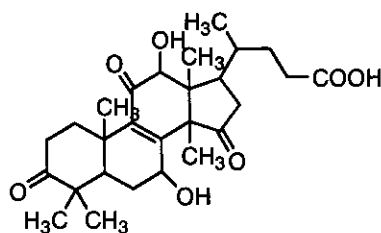
[正確な分子量] 474.261755

[基原] *Ganoderma lucidum* の代謝物

[性状] 針状結晶 (EtOAc)

[融点] Mp 179-181 °C

[比旋光度]: $[\alpha]_D^{24} +169$ (c, 0.22 in MeOH)



-----文献-----

Nishitoba, T. et al., *Agric. Biol. Chem.*, 1984, 48, 2905; 1985, 49, 1793, (分離, H-NMR, C13-NMR)

§ 3,7,12-Trihydroxy-11,15,23-trioxolanost-8-en-26-oic acid; (3 β ,7 β ,12 β ,25 ξ)-form

[化学名・別名] Ganoderic acid G

[CAS No.] 98665-22-6

[化合物分類]テルペノイド (Lanostane triterpenoid)

[構造式]

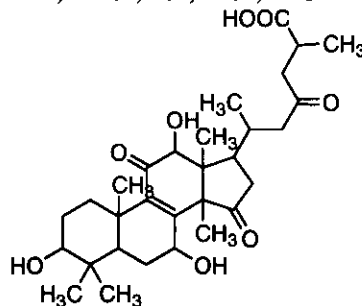
[基原] *Ganoderma lucidum*

[性状] 板状結晶 (EtOAc/MeOH)

[融点] Mp 218-220 °C

[比旋光度]: $[\alpha]_D^{22} +105.7$ (c, 0.48 in $CHCl_3$)

[UV]: [neutral] λ_{max} 252 (ϵ 10023) (EtOH)



-----文献-----

Nishitoba, T. et al., *Agric. Biol. Chem.*, 1985, 49, 1547, (Ganoderic acid D)

Kikuchi, T. et al., *Chem. Pharm. Bull.*, 1985, 33, 2624; 2628

Komoda, Y. et al., *Chem. Pharm. Bull.*, 1985, 33, 4829, (分離)

Hirotsani, M. et al., *Phytochemistry*, 1985, 24, 2055

Morigawa, A. et al., *Chem. Pharm. Bull.*, 1986, 34, 3025

Chen, R.Y. et al., *CA*, 1991, 115, 89138q, (Ganosporeric acid A)

Chen, R.Y. et al., *J. Chin. Pharm. Sci.*, 1993, 2, 91, (Ganosporeric acid A)

El-Mekkawy, S. et al., *Phytochemistry*, 1998, 49, 1651, (Ganoderic acid α)

§ 3,7,12-Trihydroxy-11,15,23-trioxolanost-8-en-26-oic acid; (3 β ,7 β ,12 β ,25 ξ)-form, 12-Ac

[化学名・別名] Ganoderic acid K

[CAS No.] 104700-95-0

[化合物分類]テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] $C_{32}H_{46}O_9$

[分子量] 574.71

[正確な分子量] 574.314185

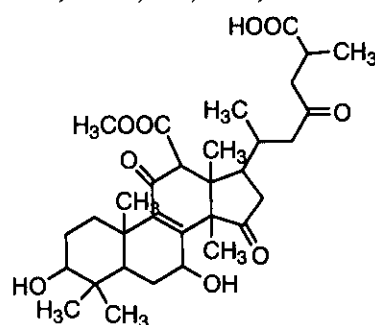
[基原] *Ganoderma lucidum*

[用途] アンギオテンシン変換酵素抑制因子

[性状] 無定型の粉末

[比旋光度]: $[\alpha]_D^{25} +48$ (c, 0.29 in $CHCl_3$)

[UV]: [neutral] λ_{max} 251 (ϵ 13800) (MeOH)



-----文献-----

Nishitoba, T. et al., *Agric. Biol. Chem.*, 1985, 49, 1547, (Ganoderic acid D)

Kikuchi, T. et al., *Chem. Pharm. Bull.*, 1985, 33, 2624; 2628

Komoda, Y. et al., *Chem. Pharm. Bull.*, 1985, 33, 4829, (分離)

Hirotsani, M. et al., *Phytochemistry*, 1985, 24, 2055

Morigawa, A. et al., *Chem. Pharm. Bull.*, 1986, 34, 3025

Chen, R.Y. et al., *CA*, 1991, 115, 89138q, (Ganosporeric acid A)

Chen, R.Y. et al., *J. Chin. Pharm. Sci.*, 1993, 2, 91, (Ganosporeric acid A)

El-Mekkawy, S. et al., *Phytochemistry*, 1998, 49, 1651, (Ganoderic acid α)

§ 3,7,12-Trihydroxy-11,15,23-trioxolanost-8-en-26-oic acid; (3 β ,7 β ,12 β ,25 ξ)-form, 3-Ketone

[化学名・別名] 7,12-Dihydroxy-3,11,15,23-tetraoxolanost-8-en-26-oic acid. Ganoderic acid D

[CAS No.] 97653-94-6

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] C₃₀H₄₂O₈

[分子量] 530.657

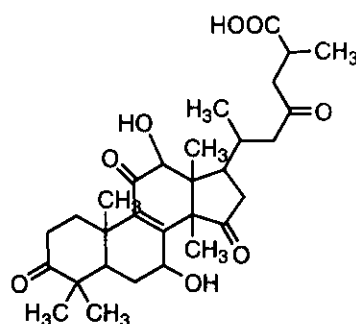
[正確な分子量] 530.28797

[基原] *Ganoderma lucidum*

[性状] 結晶 (EtOAc)

[融点] Mp 201-203 °C

[比旋光度]: [α]_D²² +185 (c, 0.1 in EtOH)



-----文献-----

Nishitoba, T. et al., Agric. Biol. Chem., 1985, 49, 1547, (Ganoderic acid D)

Kikuchi, T. et al., Chem. Pharm. Bull., 1985, 33, 2624; 2628

Komoda, Y. et al., Chem. Pharm. Bull., 1985, 33, 4829, (分離)

Hirofumi, M. et al., Phytochemistry, 1985, 24, 2055

Morigawa, A. et al., Chem. Pharm. Bull., 1986, 34, 3025

Chen, R.Y. et al., CA, 1991, 115, 89138q, (Ganosporeric acid A)

Chen, R.Y. et al., J. Chin. Pharm. Sci., 1993, 2, 91, (Ganosporeric acid A)

El-Mekkawy, S. et al., Phytochemistry, 1998, 49, 1651, (Ganoderic acid α)

§ 3,7,12-Trihydroxy-11,15,23-trioxolanost-8-en-26-oic acid; (3 β ,7 β ,12 β ,25 ξ)-form, 7-Ketone, 12-Ac

[化学名・別名]

12-Acetoxy-3-hydroxy-7,11,15,23-tetraoxolanost-8-en-26-oic acid.

Ganoderic acid H. Ganoderic acid C

[化合物分類] テルペノイド (Lanostane triterpenoid)

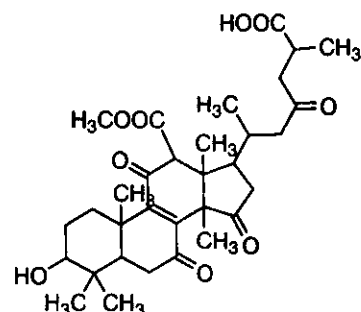
[構造式]

[分子式] C₃₂H₄₄O₉

[分子量] 572.694

[正確な分子量] 572.298535

[基原] *Ganoderma lucidum*



-----文献-----

Nishitoba, T. et al., Agric. Biol. Chem., 1985, 49, 1547, (Ganoderic acid D)

Kikuchi, T. et al., Chem. Pharm. Bull., 1985, 33, 2624; 2628

Komoda, Y. et al., Chem. Pharm. Bull., 1985, 33, 4829, (分離)

Hirofumi, M. et al., Phytochemistry, 1985, 24, 2055

Morigawa, A. et al., Chem. Pharm. Bull., 1986, 34, 3025

Chen, R.Y. et al., CA, 1991, 115, 89138q, (Ganosporeric acid A)

Chen, R.Y. et al., J. Chin. Pharm. Sci., 1993, 2, 91, (Ganosporeric acid A)

El-Mekkawy, S. et al., Phytochemistry, 1998, 49, 1651, (Ganoderic acid α)

§ 3,7,12-Trihydroxy-11,15,23-trioxolanost-8-en-26-oic acid; (3 β ,7 β ,12 β ,25 ξ)-form, 7-Ketone, 15

β -alcohol, 12-Ac

[化学名・別名] Ganoderic acid α

[CAS No.] 220181-81-7

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] $C_{32}H_{46}O_9$

[分子量] 574.71

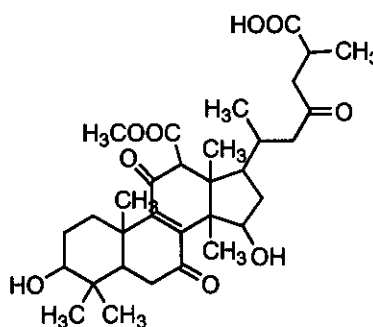
[正確な分子量] 574.314185

[基原] *Ganoderma lucidum*

[性状] 無定形の粉末

[比旋光度]: $[\alpha]_D^{25} +55$ (c, 1 in $CHCl_3$)

[UV]: [neutral] λ_{max} 254 (ϵ 6310) (MeOH)



-----文献-----

Nishitoba, T. et al., Agric. Biol. Chem., 1985, 49, 1547, (Ganoderic acid D)

Kikuchi, T. et al., Chem. Pharm. Bull., 1985, 33, 2624; 2628

Komoda, Y. et al., Chem. Pharm. Bull., 1985, 33, 4829, (分離)

Hirofani, M. et al., Phytochemistry, 1985, 24, 2055

Morigawa, A. et al., Chem. Pharm. Bull., 1986, 34, 3025

Chen, R.Y. et al., CA, 1991, 115, 89138q, (Ganosporeric acid A)

Chen, R.Y. et al., J. Chin. Pharm. Sci., 1993, 2, 91, (Ganosporeric acid A)

El-Mekkawy, S. et al., Phytochemistry, 1998, 49, 1651, (Ganoderic acid α)

§ 3,7,12-Trihydroxy-11,15,23-trioxolanost-8-en-26-oic acid; (3 β , 7 β , 12 β , 25 ξ)-form, 3,7-Diketone, 12-Ac

[化学名・別名] 12-Acetoxy-3,7,11,15,23-pentaoxolanost-8-en-26-oic acid.

Ganoderic acid F

[CAS No.] 98665-15-7

[化合物分類] テルペノイド (Lanostane triterpenoid)

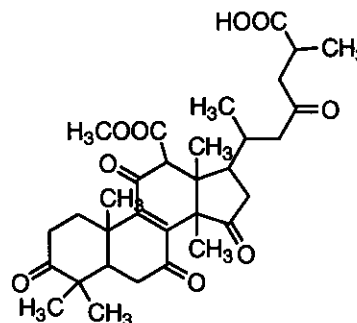
[構造式]

[分子式] $C_{32}H_{42}O_9$

[分子量] 570.678

[正確な分子量] 570.282885

[基原] *Ganoderma lucidum*



-----文献-----

Nishitoba, T. et al., Agric. Biol. Chem., 1985, 49, 1547, (Ganoderic acid D)

El-Mekkawy, S. et al., Phytochemistry, 1998, 49, 1651, (Ganoderic acid α)

§ 3,7,12-Trihydroxy-11,15,23-trioxolanost-8-en-26-oic acid; (3 β , 7 β , 12 β , 25 ξ)-form, 3,7,12-Triketone

[化学名・別名] 3,7,11,12,15,13-Hexaoxolanost-8-en-26-oic acid. Ganosporeric acid A

[CAS No.] 135357-25-4

[化合物分類] テルペノイド (Lanostane triterpenoid)

[構造式]

[分子式] $C_{30}H_{38}O_8$

[分子量] 526.625

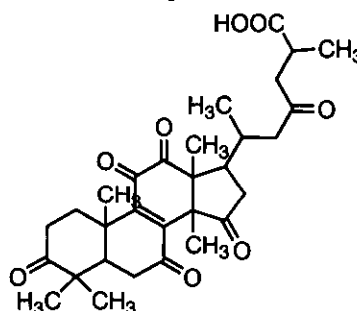
[正確な分子量] 526.25667

[基原] *Ganoderma lucidum*

[性状] 黄色の結晶

[融点] Mp 115-118 $^{\circ}C$

[比旋光度]: $[\alpha]_D^{25} +48$ (c, 0.1 in $CHCl_3$)



-----文献-----

Chen, R.Y. et al., J. Chin. Pharm. Sci., 1993, 2, 91, (Ganosporeric acid A)

§ 3,7,20-Trihydroxy-11,15,23-trioxolanost-8-en-26-oic acid; (3 β , 7 β , 20 ξ)-form