

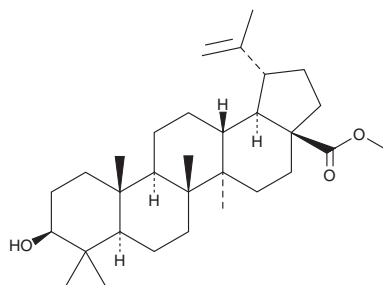
PRODUCT INFORMATION



Betulinic Acid methyl ester

Item No. 30066

CAS Registry No.:	2259-06-5
Formal Name:	(3β)-3-hydroxy-lup-20(29)-en-28-oic acid, methyl ester
Synonyms:	Methyl Betulinate, NSC 152532
MF:	C ₃₁ H ₅₀ O ₃
FW:	470.7
Purity:	≥95%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥2 years
Item Origin:	Plant/ <i>Akania bidwillii</i>



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Betulinic acid methyl ester is supplied as a solid. A stock solution may be made by dissolving the betulinic acid methyl ester in the solvent of choice, which should be purged with an inert gas. Betulinic acid methyl ester is soluble in ethanol, methanol, DMSO, and dimethyl formamide.

Description

Betulinic acid methyl ester is a lupane-type triterpenoid and an esterified version of betulinic acid (Item No. 11686) that has been found in *Helicteres hirsuta* and has diverse biological activities.¹⁻⁵ It inhibits HIV-1 reverse transcriptase (IC₅₀ = 11 μM).¹ Betulinic acid methyl ester is active against *L. braziliensis* and *T. cruzi* (IC₅₀s = 69.9 and 93.3 μM, respectively).² It induces melanogenesis in (EC₅₀ = 2.5 μM) and inhibits the growth of B16 2F2 melanoma cells *in vitro* (IC₅₀ = 4.9 μM).³ Betulinic acid methyl ester is cytotoxic to SK-LU-1, HepG2, HeLa, SK-MEL-2, and AGS cells (IC₅₀s = 60.84, 77.43, 80.17, 66.17, and 69.94 μg/ml, respectively).⁴

References

1. Akihisa, T., Ogihara, J., Kato, J., *et al.* Inhibitory effects of triterpenoids and sterols on human immunodeficiency virus-1 reverse transcriptase. *Lipids* **36**(5), 507-512 (2001).
2. Domínguez-Carmona, D.B., Escalante-Erosa, F., García-Sosa, K., *et al.* Antiprotozoal activity of betulinic acid derivatives. *Phytomedicine* **17**(5), 379-382 (2010).
3. Hata, K., Hori, K., and Takahashi, S. Differentiation- and apoptosis-inducing activities by pentacyclic triterpenes on a mouse melanoma cell line. *J. Nat. Prod.* **65**(5), 645-648 (2002).
4. Quang, D.N., Pham, C.T., Le, L.T.K., *et al.* Cytotoxic constituents from *Helicteres hirsuta* collected in Vietnam. *Nat. Prod. Res.* **34**(4), 585-589 (2020).
5. Eyong, K.O., Bairy, G., Eno, A.A., *et al.* Triterpenoids from the stem bark of *Vitellaria paradoxa* (Sapotaceae) and derived esters exhibit cytotoxicity against a breast cancer cell line. *Med. Chem. Res.* **27**(1), 268-277 (2017).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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