

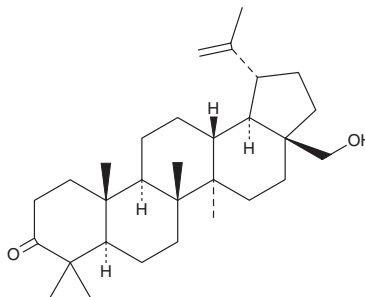
PRODUCT INFORMATION



3-Oxobetulin

Item No. 33066

CAS Registry No.: 7020-34-0
Formal Name: 28-hydroxy-lup-20(29)-en-3-one
Synonym: Betulone
MF: $C_{30}H_{48}O_2$
FW: 440.7
Purity: $\geq 95\%$
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥ 4 years
Item Origin: Semisynthetic



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

Laboratory Procedures

3-Oxobetulin is supplied as a crystalline solid. A stock solution may be made by dissolving the 3-oxobetulin in the solvent of choice, which should be purged with an inert gas. 3-Oxobetulin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 3-oxobetulin in ethanol and DMSO is approximately 10 mg/ml and approximately 30 mg/ml in DMF.

Description

3-Oxobetulin is a pentacyclic triterpenoid and derivative of betulinic acid (Item No. 11686) that has been found in *I. macropoda* and has diverse biological activities.¹⁻³ 3-Oxobetulin reduces HIV-1 replication in MT-2 cells ($IC_{50} = 4.1 \mu\text{M}$) with a 50% cytotoxic concentration (CC_{50}) value of greater than $100 \mu\text{M}$.⁴ It inhibits cadmium-induced cytotoxicity in HepG2 cells in a concentration-dependent manner.³

References

1. Kim, D.K., Nam, I.Y., Kim, J.W., *et al.* Pentacyclic triterpenoids from *Ilex macropoda*. *Arch. Pharm. Res.* **25**(5), 617-620 (2002).
2. Chien, S.-C., Xiao, J.-H., Tseng, Y.-H., *et al.* Composition and antifungal activity of balsam from *Liquidambar formosana* Hance. *Holzforschung* **67**(3), 345-351 (2013).
3. Hiroya, K., Takahashi, T., Miura, N., *et al.* Synthesis of betulin derivatives and their protective effects against the cytotoxicity of cadmium. *Bioorg. Med. Chem.* **10**(10), 3229-3236 (2002).
4. Callies, O., Bedoya, L.M., Beltrán, M., *et al.* Isolation, structural modification, and HIV inhibition of pentacyclic lupane-type triterpenoids from *Cassine xylocarpa* and *Maytenus cuzcoina*. *J. Nat. Prod.* **78**(5), 1045-1055 (2015).

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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