

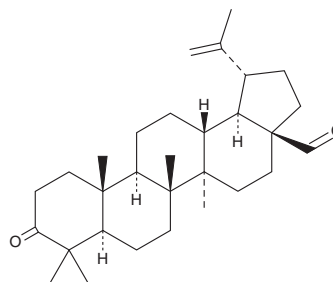
PRODUCT INFORMATION



Betulonaldehyde

Item No. 33042

CAS Registry No.: 4439-98-9
Formal Name: 3-oxo-lup-20(29)-en-28-al
Synonyms: (+)-Betulonal, Betulonic Aldehyde
MF: C₃₀H₄₆O₂
FW: 438.7
Purity: ≥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

Betulonaldehyde is supplied as a crystalline solid. A stock solution may be made by dissolving the betulonaldehyde in the solvent of choice, which should be purged with an inert gas. Betulonaldehyde is soluble in the organic solvent dimethyl formamide at a concentration of approximately 10 mg/ml.

Description

Betulonaldehyde is a pentacyclic triterpenoid and derivative of the cholesterol biosynthesis inhibitor betulin (Item No. 11041) that has been found in *Betula*.¹ It is active against *P. falciparum* (IC₅₀ = 3.36 µg/ml) and cytotoxic to NCI H187 lung cancer cells and non-cancerous Vero cells (IC₅₀s = 19.23 and 17.09 µg/ml, respectively).² Topical application of betulonaldehyde (1 mg/ear) reduces ear edema induced by phorbol 12-myristate 13-acetate (TPA; Item No. 10008014) in mice.³ It has also been used a precursor in the semisynthesis of C-2 and C-28 betulonic aldehyde derivatives.¹

References

1. Ayers, S., Benkovics, T., Marshall, J., et al. Autoxidation products of betulonaldehyde. *J. Nat. Prod.* **79**(10), 2758-2761 (2016).
2. Wisetsai, A., Schevenels, F.T., and Lekphrom, R. Chemical constituents and their biological activities from the roots of *diospyros filipendula*. *Nat. Prod. Res.* 1-5 (2019).
3. Yasukawa, K., Yu, S., Yamanouchi, S., et al. Some lupane-type triterpenes inhibit tumor promotion by 12-O-tetradecanoylphorbol-13-acetate in two-stage carcinogenesis in mouse skin. *Phytomedicine* **1**(4), 309-313 (1995).

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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