

Product Data Sheet

Product Name: Betulonaldehyde

Cat. No.: GC48520

Chemical Properties

Cas. No. 4439-98-9

SMILES C[C@]1([C@]2([C@]([C@@]3([C@@](C(C)(C(CC3=O)C)([H])CC2)C)([H])CC4)C)[C@@]4([H])[C@]([C@@H](CC5)C(C)=C)([H])[C@@]5(C=O)CC1

Formula $C_{30}H_{46}O_2$

M.Wt 438.7

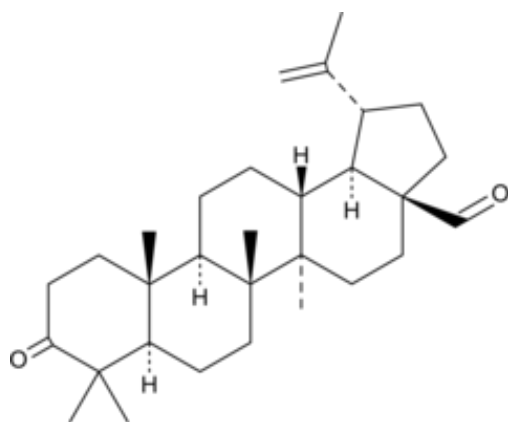
Solubility DMF: 10 mg/ml

Storage $-20^{\circ}C$

General tips For obtaining a higher solubility, please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Betulonaldehyde is a pentacyclic triterpenoid and derivative of the cholesterol biosynthesis inhibitor betulin that has been found in *Betula*.¹ It is active against *P. falciparum* ($IC_{50} = 3.36 \mu g/ml$) and cytotoxic to NCI H187 lung cancer cells and non-cancerous Vero cells ($IC_{50}s = 19.23$ and $17.09 \mu g/ml$, respectively).² Topical application of betulonaldehyde (1 mg/ear) reduces ear edema induced by phorbol 12-myristate 13-acetate in mice.³ It has also been used as a precursor in the semisynthesis

Caution: Product has not been fully validated for medical applications. For research use only.

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of C-2 and C-28 betulonic aldehyde derivatives.¹

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)

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