

Product Name: Betulinic acid

CAS Number: 472-15-1

IUPAC Name: (+)-(3 β)-3-Hydroxylup-20(29)-en-28-oic acid

Catalog No.: 3906

Batch No.: 1

EC Number: 207-448-8

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₀H₄₈O₃· $\frac{1}{4}$ H₂O

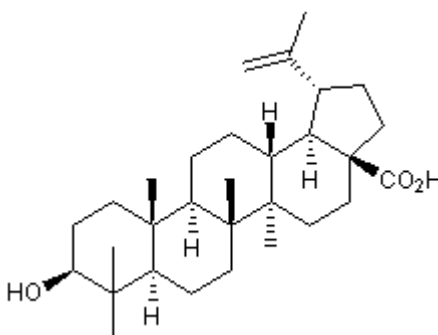
Batch Molecular Weight: 461.2

Physical Appearance: White solid

Solubility: DMSO to 50 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: [α]_D = +9.8 (Concentration = 1, Solvent = pyridine)

Microanalysis:

Carbon Hydrogen Nitrogen

Theoretical 78.13 10.6

Found 78.24 10.7

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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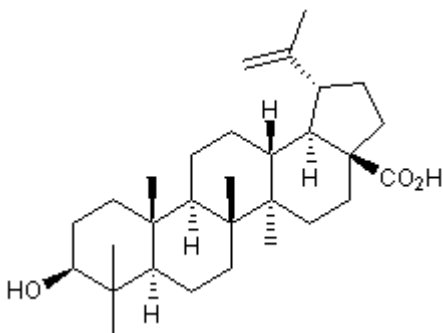
Description:

Natural triterpenoid that displays anti-HIV and antitumor activity. Induces the production of reactive oxygen species (ROS) and activates NF- κ B. Also a GPBA receptor partial agonist (EC₅₀ = 1.04 μ M, efficacy 83%).

Physical and Chemical Properties:

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References:

Genet et al (2010) Structure-activity relationship study of betulinic acid, a novel and selective TGR5 agonist, and its synthetic derivatives: potential impact in diabetes. *J.Med.Chem.* **53** 178. PMID: 19911773.

Fulda (2008) Betulinic acid for cancer treatment and prevention. *Int.J.Mol.Sci.* **9** 1096. PMID: 19325847.

Kashiwada et al (1996) Betulinic acid and dihydrobetulinic acid derivatives as potent anti-HIV agents. *J.Med.Chem.* **39** 1016. PMID: 8676334.

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 50 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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