

**Product Name:** Betulinic acid

**Catalog No.:** 3906 **Batch No.:** 1

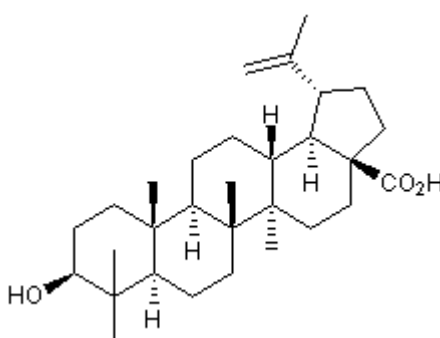
**CAS Number:** 472-15-1

**EC Number:** 207-448-8

**IUPAC Name:** (+)-(3 $\beta$ )-3-Hydroxylup-20(29)-en-28-oic acid

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>30</sub>H<sub>48</sub>O<sub>3</sub>· $\frac{1}{4}$ H<sub>2</sub>O  
**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**

**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Optical Rotation:** [α]<sub>D</sub> = +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- $\kappa$ B. Exhibits TGR5 agonist activity (EC<sub>50</sub> = 1.04  $\mu$ M).

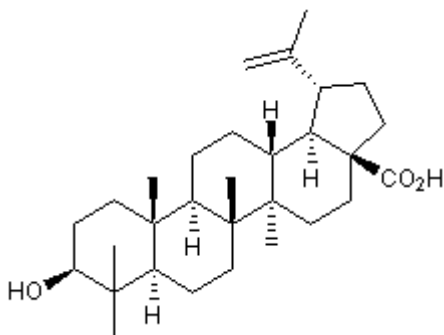
**Physical and Chemical Properties:**

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Physical Appearance: White solid

**Batch Molecular Structure:**



**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.

**References:**

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

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

**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.

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