

## Betulinic acid Datasheet

4<sup>th</sup> Edition (Revised in July, 2016)

### [ Product Information ]

**Name:** Betulinic acid

**Catalog No.:** CFN98706

**Cas No.:** 472-15-1

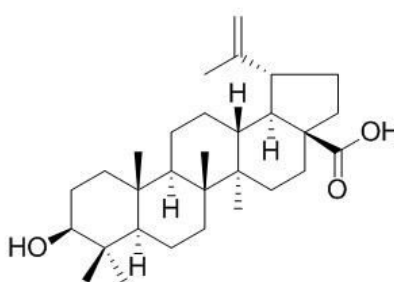
**Purity:** >=98%

**M.F:** C<sub>30</sub>H<sub>48</sub>O<sub>3</sub>

**M.W:** 456.7

**Physical Description:** Powder

**Synonyms:** 3-Beta-hydroxy-20(29)-lupene-28-oic acid.



### [ Intended Use ]

1. Reference standards;
2. Pharmacological research;
3. Synthetic precursor compounds;
4. Intermediates & Fine Chemicals;
5. Others.

### [ Source ]

The herbs of *Ziziphus jujuba*.

### [ Biological Activity or Inhibitors ]

Betulinic acid, a pentacyclic triterpene isolated from the bark of the *white birch tree*, has

been reported to be a selective inducer of apoptosis in tumor cells, it also exhibits anti-inflammatory and immunomodulatory properties; it inhibits activation of NF-kappaB and NF-kappaB-regulated gene expression induced by carcinogens and inflammatory stimuli.<sup>[1]</sup>

Betulinic acid and platanic acid are inhibitors of HIV replication in H9 lymphocyte cells.<sup>[2]</sup>

Betulinic acid, a melanoma-specific cytotoxic agent, induced apoptosis in neuroectodermal tumors, such as neuroblastoma, medulloblastoma, and Ewing's sarcoma, representing the most common solid tumors of childhood; it can trigger CD95 (APO-1/Fas)- and p53-independent apoptosis via activation of caspases in neuroectodermal tumors, it may be a promising new agent for the treatment of neuroectodermal tumors in vivo.<sup>[3]</sup>

### **[ Solvent ]**

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

### **[ HPLC Method ]<sup>[4]</sup>**

Mobile phase: Acetonitrile- H<sub>2</sub>O=86:14;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 210 nm.

### **[ Storage ]**

2-8°C, Protected from air and light, refrigerate or freeze.

### **[ References ]**

[1] Takada Y, Aggarwal B B. *J. Immunol.*, 2003, 171(6):3278-86.

[2] Fujioka T, Kashiwada Y, Kilkuskie R E, *et al. J. Nat. Prod.*, 1994, 57(2):243-7.

[3] Fulda S, Friesen C, Los M, *et al. Cancer Res.*, 1997, 57(21):4956-64.

[4] Zhao G, Yan W, Dan C. *J.Pharmaceut. Biomed.*, 2007, 43(43):959-62.

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