

Alphitolic acid Datasheet

5th Edition (Revised in January, 2017)

[Product Information]

Name: Alphitolic acid

Catalog No.: CFN99896

Cas No.: 19533-92-7

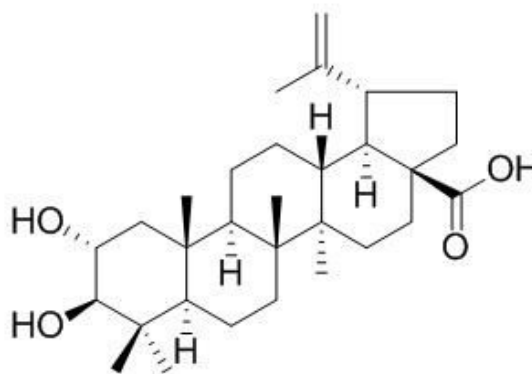
Purity: > 95%

M.F: C₃₀H₄₈O₄

M.W: 472.7

Physical Description: Powder

Synonyms: 2 α ,3 β -Dihydroxylup-20(29)-en-28-oic acid.



[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Food research;
4. Synthetic precursor compounds;
5. Intermediates & fine chemicals;
6. Ingredient in supplements, beverages;
7. Others.

[Source]

The seeds of *Zizyphus joazeiro*.

[Biological Activity or Inhibitors]

Alphitolic acid is an anti-inflammatory triterpene, has antitumour activity in oral squamous cell carcinoma (OSCC) cells, it can suppress the proliferation of SCC4 and SCC2095 OSCC cells with IC₅₀ values of 12 and 15 uM, respectively, via apoptotic induction, this drug effect on apoptosis is, in part, associated with its ability to block Akt-NF-κB signalling; suggests the translational value of alphitolic acid as an ingredient in functional food/dietary supplement for OSCC prevention.^[1]

Alphitolic acid is a potent Hh/GLI signaling inhibitor, it shows an important relationship between Hh/GLI signaling inhibition, the decrease of BCL2, and cytotoxicity against cancer cells.^[2]

Alphitolic acid shows antimicrobial activity on Gram-positive bacteria and yeasts. ^[3]

Alphitolic acid can inhibit NO release and iNOS expression in LPS-stimulated J774.A1 cultured macrophages.^[4]

[Solvent]

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

[HPLC Method]^[5]

HPLC-ELSD:

Mobile phase: Acetonitrile-0.2 % Acetic acid in water, gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature ;

Drift tube temperature: 80 °C;

Flow rate of gas : 2.7 L/min;

Carrier gas: N₂.

[Storage]

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

[References]

- [1] Bai L Y, Chiu C F, Chiu S J, *et al. J. Funct. Foods*, 2015, 18:368-78.
- [2] Arai M A, Tateno C, Hosoya T, *et al. Bioorg. Med. Chem.*, 2008, 16(21):9420-4.
- [3] Braca A, Morelli I, Mendez J, *et al. Planta Med.*, 2000, 66(8):768-9.
- [4] Masullo M, Montoro P, Autore G, *et al. Food Res. Int.*, 2015, 77(2):109-17.
- [5] Guo S, Duan J A, Tang Y, *et al. J. Pharm. Biomed. Anal.*, 2011, 56(2):264-70.

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