**Natural Products** 



# **Alisol B 23-acetate Datasheet**

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

#### [Product Information]

Name: Alisol B 23-acetate

Catalog No.: CFN99753

Cas No.: 26575-95-1

**Purity:** >=98%

**M.F:** C<sub>32</sub>H<sub>50</sub>O<sub>5</sub>

**M.W:** 514.74

Physical Description: White powder

#### Synonyms:

(23S,24R)-24,25-Epoxy-11b,23-dihydroxy-8a,9b,14b-dammar-13(17)-en-3-one 23-acetate;(5xi,8alpha,9xi,11beta,14beta,20xi)-11-hydroxy-3-oxo-24,25-epoxydammar-13

(17)-en-23-yl acetate.

#### [Intended Use]

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

### [Source]

The tubers of Alisma plantago-aquatica Linn.

#### [Biological Activity or Inhibitors]

Alisol B 23-acetate , a protostane-type triterpene isolated from the *Alismatis Rhizoma*, it obviously inhibits proliferation of the three ovarian cancer cell lines, down-regulates the protein levels of CDK4, CDK6, and cyclin D1, and blocks the cell cycle progressions in G1 phase; suggests that it possesses anti-proliferation, anti-migration and anti-invasion activities as a single agent on ovarian cancer cells.<sup>[1]</sup>

Alisol B 23-acetate could be a transporter substrate for P-glycoprotein (P-gp), it is also a partial non-competitive inhibitor of P-gp when verapamil was used as a substrate, suggests that it may be a potential MDR reversal agent and could serve as a lead compound in the development of novel drugs.<sup>[2]</sup>

Alisol B 23-acetate shows moderate cytotoxic activities against B16-F10 and HT1080 tumor cells.<sup>[3]</sup>

Alisol B 23-acetate produces promotive effect on liver regeneration, due to FXR-mediated regulation of genes involved in hepatocyte proliferation and hepato-protection, it has the potential to be a novel therapeutic option for facilitating efficient liver regeneration in patients subjected to liver resection.<sup>[4]</sup>

#### [ <u>Solvent</u> ]

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

### [ HPLC Method ]<sup>[5]</sup>

Mobile phase: Acetonitrile-1%Phosphoric acid H2O =62:38 ; Flow rate: 1.0 ml/min; Column temperature: 35 ℃; The wave length of determination: 208 nm.

### [ <u>Storage</u> ]

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

#### [ References ]

[1] Zhang L L, Xu Y L, Tang Z H, *et al. Phytomed. Int. J.Phytother. Phytopharmacol., 2016, 23(8):800-9.* 

[2] Wang C, Zhang J X, Shen X L, et al. Biochem. Pharmacol., 2004, 68(5):843-55.

[3] Lee S, Min B, Bae K. Arch. Pharm. Res., 2002, 25(5):608-12.

[4] Meng Q, Chen X, Wang C, et al. Biochem. Pharmacol., 2014, 92(2):289-98.

[5] Zhao S, Sun H, Ding Y, *et al.China Pharmacist, 2014(12):2149-51.* 

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