Natural Products

ChemFaces

Alisol A 24-acetate Datasheet

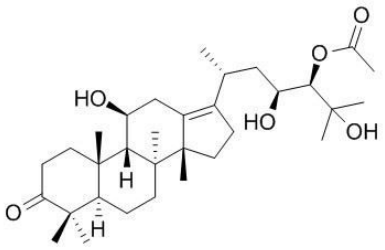
4th Edition (Revised in July, 2016)

[Product Information]

Name: Alisol A 24-acetate

Catalog No.: CFN90198

Cas No.: 18674-16-3



Purity: >=98%

M.F: $C_{32}H_{52}O_6$

M.W: 532.75

Physical Description: White powder

Synonyms: (8α,9β,14β,23S,24R)-11β,23,25-Trihydroxy-24-Acetoxydammar-13(17)-en-3-one;24-O-Acetylalisol A;Alisol A 24-monoacetate.

[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 A 24-acetate, isolated from the rhizome of Alismatis plantago-aquatice L. var. orientale Samuelson (Alismataceae), has anti-complement activity against the classical pathway of the complement system with IC50 values of 130 microM. [1]

Alisol A 24-acetate can effectively prevent bone loss in ovariectomized (OVX) mice, and that it can be considered a potential therapeutic for the treatment of postmenopausal osteoporosis.[2]

Alisol A-24-monoacetate has hypocholesterolemic effect.[3]

Alisol A 24-acetate can inhibit RANKL-mediated osteoclast differentiation by downregulating NFATc1, which plays an essential role in osteoclast differentiation; it also inhibit the expression of DC-STAMP and cathepsin K, which are related to cell-cell fusion of osteoclasts and bone resorption, respectively, therefore, alisol A 24-acetate could be developed as a new structural scaffold for inhibitors of osteoclast differentiation in order to develop new drugs against osteoporosis. [4]

Alisol A 24-acetate has antibacterial activity. [5]

[Solvent]

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

[HPLC Method][6]

HPLC-ELSD:

Mobile phase: Aeetonitrile-H2O=75:25;

Flow rate: 0.8 ml/min;

Column temperature: Room Temperature;

Drift tube temperature: 82 ℃;

Flow rate of gas : 2.0 L/min;

Carrier gas: N_2.

[Storage]

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

[References]

[1] Sang M L, Kim J H, Zhang Y, *et al. Arch. Pharm. Res., 2003, 26(6):463-5.*

[2] Hwang Y H, Kang K Y, Lee S J, *et al. Molecules, 2016, 21(1):74.*

[3]Imai Y, Matsumura H, Aramaki Y. *Jap. J. Pharmacol., 1970, 20(2):222-8.*

[4] Kim K J, Leutou A S, Yeon J T, *et al. Int. J. Endocrinol., 2015, 2015(10):132436.*

[5] Jin H G, Jin Q, Kim A R, *et al. Arch. Pharm. Res., 2012, 35(11):1919-26.*

[6] Chen J Z. *Chinese Journal of Pharmaceutical Analysis, 2007, 27(5):721-3.*

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