

Alantolactone Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Alantolactone

Catalog No.: CFN99934

Cas No.: 546-43-0

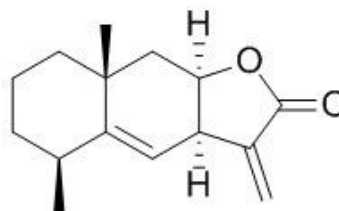
Purity: > 98%

M.F: C₁₅H₂₀O₂

M.W: 232.32

Physical Description: Cryst.

Synonyms: (3aR,5S,8aR,9aR)-5,8a-dimethyl-3-methylene-5,6,7,8,9,9a-hexahydro-3aH-benzo[f]benzofuran-2-one.



[Intended Use]

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

[Source]

The roots of *Inula helenium* L.

[Biological Activity or Inhibitors]

Alantolactone, an allergenic sesquiterpene lactone, has significant antitumor effects on malignant tumor cells, it is a promising potent agent to fight against CML cells via the inhibition of the NF- κ B signaling pathway and depletion of the Bcr/Abl protein.^[1]

Alantolactone induces cell apoptosis partially through down-regulation of testes-specific protease 50 expression.^[2]

Alantolactone can suppress inducible nitric oxide synthase and cyclooxygenase-2 expression by down-regulating NF- κ B, MAPK and AP-1 via the MyD88 signaling pathway in LPS-activated RAW 264.7 cells, it may provide a useful therapeutic approach for inflammation-associated diseases.^[3]

Alantolactone inhibits cell proliferation by interrupting the interaction between Cripto-1 and activin receptor type II A in activin signaling pathway.^[4]

[Solvent]

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

[HPLC Method]^[5]

Mobile phase: Acetonitrile : 0.1% Phosphate H₂O, gradient elution;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 225 nm.

[Storage]

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

[References]

[1] Wei W, He H, Shan Z, *et al. Apoptosis*, 2013, 18(9):1060-70.

[2] Mi X G, Song Z B, Wu P, *et al. Toxicol. Lett.*, 2014, 224(3):349-55.

[3] Chun J, Ran J C, Khan S, *et al. Int. Immunopharmacol.*, 2012, 14(4):375-83.

[4] Shi Y, Bao Y L, Wu Y, *et al. J. Biomol. Screen*, 2011, 16(5):525-35.

[5] Wang J, Zhao Y M, Zhang M L, *et al. J. Chromatogr .Sci.*, 2014, 53(4):526-30.

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