Natural Products

ChemFaces

Linalool Datasheet

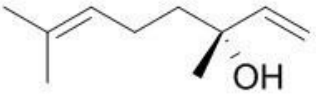
4th Edition (Revised in July, 2016)

[Product Information]

Name: Linalool

Catalog No.: CFN99582

Cas No.: 78-70-6



Purity: >=98%

M.F: $C_{10}H_{18}O$

M.W: 154.25

Physical Description: Oil

Synonyms:1,6-Octadien-3-ol, 3,7-dimethyl-;2,6-dimethyl-2,7-octadien-6-ol.

[Intended Use]

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

[Source]

The leaves of *Cinnamomum camphora*.

[Biological Activity or Inhibitors]

Linalool is a natural compound of the essential oils in several aromatic plants species, it

possesses anti-inflammatory, antinociceptive, and other bioactive properties; it can attenuate the production of LPS-induced tumor necrosis-α and interleukin-6 bothand, phosphorylation of IκBαprotein, p38, c-Jun terminal kinase, and extracellular signal-regulated kinase in LPS-stimulated RAW 264.7 cells is blocked by linalool, suggests that linalool inhibits inflammation bothand, and may be a potential therapeutic candidate for the treatment of inflammatory diseases. [1]

Linalool-rich essential oil is a strikingly potent leishmanicidal plant extract (50% lethal doses, 8.3 ng/ml for promastigotes and 8.7 ng/ml for amastigotes) which inhibited the growth of L. amazonensis promastigotes at very low concentrations (MIC, 85.0 pg/ml) and which presents no cytotoxic effects against mammalian cells.[2]

The purified linalool fraction is only inhibitory for *C. albicans*.[3]

Linalool has dose-dependent marked sedative effects at the central nervous system (CNS), including hypnotic, anticonvulsant and hypothermic properties, it has been suggested that these neurochemical effects might be ascribed to the local anaesthetic activity of linalool, linalool also has an inhibitory effect on the acetylcholine (ACh) release and on the channel open time in the mouse neuromuscular junction. [4]

Linalool, myrcene and eucalyptol have protective effect against t -butyl hydroperoxide induced genotoxicity in bacteria and cultured human cells, they also have insecticidal activity.[5]

Inhaling linalool rich essential oils can be useful as a mean to attain relaxation and counteract anxiety.[6]

[Solvent]

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

[HPLC Method][7]

Mobile phase: Methanol -H2O=65:35 ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 220 nm.

[Storage]

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

[References]

[1] Huo M, Cui X, Xue J, *et al. J. Surg.Res., 2013, 180(1):e47–e54.*

[2] do Socorro S Rosa Mdo S, Mendonça-Filho RR, Bizzo HR, *et al. Antimicrob. Agents Ch., 2003, 47(6):1895-901.*

[3] Alviano W S, Mendonça-Filho R R, Alviano D S, *et al. Oral Microbiol. Immun., 2005, 20(2):101-5.*

[4] Re L, Barocci S, Sonnino S, *et al. Pharmacol. Res., 2000, 42(2):177-81.*

[5] D. Mitić-Ćulafić, B.Žegura, B. Nikolić, *et al. Food Chem. Toxicol. , 2009, 47(1):260-6.*

[6] Linck V M, Silva A L D, Figueir M, *et al. Phytomed. Int. J. Phytother. Phytopharmacol., 2010, 17(8-9):679-83.*

[7] Dan H E, Yang L. *Chinese Journal of Spectroscopy Laboratory, 2013,30(1):253-6.*

[Contact]

Address:
S5-3 Building, No. 111, Dongfeng Rd.,
Wuhan Economic and Technological Development Zone,
Wuhan, Hubei 430056,
China

Email: info@chemfaces.com
Tel: +86-27-84237783
Fax: +86-27-84254680
Web: www.chemfaces.com
Tech Support: service@chemfaces.com