Natural Products

ChemFaces

Beta-pinene Datasheet

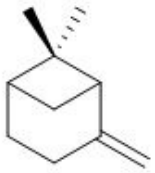
4th Edition (Revised in July, 2016)

[Product Information]

Name: Beta-pinene

Catalog No.: CFN93287

Cas No.: 18172-67-3



Purity: >=98%

M.F: $C_{10}H_{16}$

M.W: 136.2

Physical Description: Oil

Synonyms:(1S)-(-)-Beta-Pinene;(1S,5S)-6,6-dimethyl-4-methylidenebicyclo[3.1.1]heptane;(-)-Beta-pinene.

[Intended Use]

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

[Source]

The heartwoods of *Pinus armandii Franch.*

[Biological Activity or Inhibitors]

beta-Pinene exerts supraspinal antinociceptive actions in rats and it reverses the antinociceptive effect of morphine in a degree equivalent to naloxone, probably acting as a partial agonist through the μ opioid receptors.[1]

beta-Pinene, alpha-pinene and eugenol have inhibitory effect on the growth of potential infectious endocarditis causing Gram-positive bacteria.[2]

C. zeylanicum essential oil and beta-pinene have intense antimould potential, they could be regarded in a rational use in pharmaceutical formulations used to treat some mycoses, particularly, those caused by dematiaceous moulds. [3]

Beta-pinene and limonenen have antiviral activity against herpes simplex virus type 1 (HSV-1) in vitro, they can reduce viral infectivity by 100 %.[4]

[Solvent]

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

[HPLC Method][5]

Mobile phase: Acetonitrile-0.01%Phosphoric acid H2O, gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 35 ℃;

The wave length of determination: 310 nm.

[Storage]

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

[References]

[1] Liapi C, Anifandis G, Anifantis G, *et al. Planta Med., 2007, 73(12):1247-54.*

[2] Leite A M, Lima E D O, Souza E L D, *et al. Revista Brasileira De Ciências Farmacêuticas, 2007, 43(1):121-6.*

[3] Moreira A C P, Lima E D O, Souza E L D, *et al. Braz. J. Microbiol., 2007, 7(38):33-8.*

[4] Astani A, Schnitzler P. *Iranian Journal of Microbiology, 2014, 6(3):149-55.*

[5] Wang Y, Huang L. *Molecules, 2015, 20(3):5062-73.*

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