

Caryophyllene oxide Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Caryophyllene oxide

Catalog No.: CFN99239

Cas No.: 1139-30-6

Purity: >95%

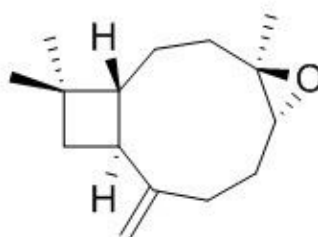
M.F: C₁₅H₂₄O

M.W: 220.35

Physical Description: Powder

Synonyms: (-)-beta-Caryophylleneepoxide;(-)-Epoxydihydrocaryophyllene;

(1r-(1r,4r,6r,10s))-4,12,12-trimethyl-9-methylene-5-oxatricyclo(8.2.0.0^{4,6})dodecane.



[Intended Use]

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

[Source]

The fruits of *Eugenia caryophyllata*.

[Biological Activity or Inhibitors]

Caryophyllene oxide, isolated from an unsaponified petroleum ether extract of the bark of *Annona squamosa*, it shows significant central as well as peripheral analgesic, along with anti-inflammatory, activity at the doses of 12.5 and 25mg/kg body wt.^[1]

Caryophyllene oxide inhibits growth and induces apoptosis through the suppression of PI3K/AKT/mTOR/S6K1 pathways and ROS-mediated MAPKs activation.^[2]

Caryophyllene oxide as an antifungal agent in an in vitro experimental model of onychomycosis. ^[3]

Artemisia campestris ssp. *campestris* essential oils with dominant caryophyllene oxide are notably toxic.^[4]

Caryophyllene Oxide and lupenone have synergistic effect against *Trypanosoma cruzi*.^[5]

β -Caryophyllene oxide has acaricidal activities against house dust mites, it and structural analogues have potential for development as preventive agents for control of house dust mites.^[6]

[Solvent]

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

[HPLC Method]^[7]

Mobile phase: Methanol-Acetonitrile-Acetic acid-Phosphoric acid-H₂O 200:100:10:

10:200 ;

Flow rate: 0.6 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 352 nm.

[Storage]

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

[References]

- [1] Chavan M J, Wakte P S, Shinde D B. *Phytomedicine*, 2010, 17(2):149-51.
- [2] Park K R, Nam D, Yun H M, *et al.* *Cancer Lett.*, 2011, 312(2):178-88.
- [3] Yang D, Michel L, Chaumont J P, *et al.* *Mycopathologia*, 1999, 148(148):79-82.
- [4] Judzentiene A, Budiene J, Butkiene R, *et al.* *Nat.Prod.Commun.*, 2010, 5(5):1981-4.
- [5] Polanco-Hernández G, Escalante-Erosa F, García-Sosa K, *et al.* *Evid.-Based Compl. Alt.*, 2013(4):3520–39.
- [6] Oh M S, Yang J Y, Kim M G, *et al.* *Pest Manag.Sci.*, 2014, 70(5):757–62.
- [7] Xiao J B, Chen X Q, Zhang Y W, *et al.* *Braz. J. Med. Biol. Res.*, 2006, 39(6):731-8.

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