

Product Data Sheet

Product Name: (+)-Valencene

Cat. No.: GC40264

Chemical Properties

Cas. No. 4630-07-3

Chemical Name (1R,7R,8aS)-1,2,3,5,6,7,8,8a-octahydro-1,8a-dimethyl-7-(1-methylethenyl)-naphthalene

SMILES CC([C@@H]1CCC2=CCC[C@H](C)[C@]2(C)C1)=C

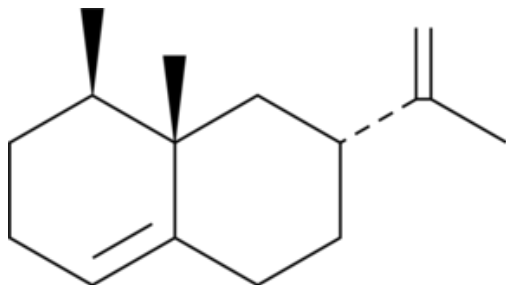
Formula C₁₅H₂₄ M.Wt 204.4

Solubility DMSO : 50 mg/mL (244.68 mM; Need ultrasonic) Storage Store at 4°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

(+)-Valencene is a sesquiterpene that has been found in *C. sativa* and is an aromatic component of orange essence oil.[1],[2] (+)-Valencene (50 μM) induces heme oxygenase-1 (HO-1) expression in macrophages and inhibits the expression of inducible nitric oxide synthase (iNOS), the production of nitric oxide (NO), and the release of high-mobility group box-1 (HMGB1) in RAW 264.7 cells stimulated with LPS.[3] It also increases the survival rate in a mouse model of sepsis induced by cecal ligation and puncture. (+)-Valencene has been used in the synthesis of nootkatone.[4]

Referece:

Caution: Product has not been fully validated for medical applications. For research use only.

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- [1]. Naz, S., Hanif, M.A., Bhatti, H.N., et al. Impact of supercritical fluid extraction and traditional distillation on the isolation of aromatic compounds from Cannabis indica and Cannabis sativa. J. Essent. Oil Bearing Plants 20(1), 175-184 (2017).
- [2]. Högnadóttir, A., and Rouseff, R.L. Identification of aroma active compounds in orange essence oil using gas chromatography-olfactometry and gas chromatography-mass spectrometry. J. Chromatogr. A. 998(1-2), 201-211 (2003).
- [3]. Tsoyi, K., Jang, H.J., Lee, Y.S., et al. (+)-Nootkatone and (+)-valencene from rhizomes of Cyperus rotundus increase survival rates in septic mice due to heme oxygenase-1 induction. J. Ethnopharmacol. 137(3), 1311-1317 (2011).
- [4]. Kolwek, J., Behrens, C., Linke, D., et al. Cell-free one-pot conversion of (+)-valencene to (+)-nootkatone by a unique dye-decolorizing peroxidase combined with a laccase from Funalia troglia. J. Ind. Microbiol. Biotechnol. 45(2), 89-101 (2018).

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