

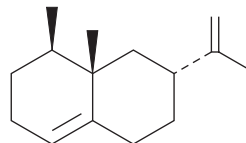
PRODUCT INFORMATION



(+)-Valencene

Item No. 23167

CAS Registry No.: 4630-07-3
Formal Name: (1R,7R,8aS)-1,2,3,5,6,7,8,8a-octahydro-1,8a-dimethyl-7-(1-methylethenyl)-naphthalene
Synonym: NSC 148969
MF: C₁₅H₂₄
FW: 204.4
Purity: ≥75%
Supplied as: A liquid
Storage: 4°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

(+)-Valencene is supplied as a liquid. A stock solution may be made by dissolving the (+)-valencene in the solvent of choice. (+)-Valencene is slightly soluble in water. We do not recommend storing the aqueous solution for more than one day.

Description

(+)-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 (Item No. 24910).⁴

References

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 trogii*. *J. Ind. Microbiol. Biotechnol.* **45(2)**, 89-101 (2018).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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