

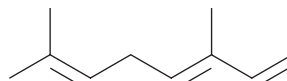
PRODUCT INFORMATION



β-Ocimene

Item No. 23466

CAS Registry No.: 13877-91-3
Formal Name: 3,7-dimethyl-1,3,6-octatriene
MF: C₁₀H₁₆
FW: 136.2
Purity: ≥90% (mixture of isomers)
UV/Vis.: λ_{max}: 233, 276 nm
Supplied as: An oil
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

β-Ocimene is supplied as an oil. A stock solution may be made by dissolving the ocimene in the solvent of choice, which should be purged with an inert gas. β-Ocimene is slightly soluble in chloroform and methanol.

Description

β-Ocimene is a monoterpene that has been found in a variety of plants and is a volatile compound involved in plant-plant signaling and plant defense against pests.^{1,2} It is emitted by tea (*C. sinensis*) plants in response to a jasmonic acid combined with mechanical damage (JAMD) model of herbivore attack.¹ β-Ocimene reduces the number of winged aphids (*M. persicae*) that settle on Chinese cabbage and the feeding time and number of nymphs produced by aphids on leaves.² The aphid endoparasitoid *A. gifuensis* demonstrates a preference for β-ocimene-treated Chinese cabbage over control plants in a wind tube two-choice test. β-Ocimene (100-1,000 ppm) also has antioxidant activity in a thiobarbituric acid reactive substances (TBARS) assay.³

References

1. Zeng, L., Liao, Y., Li, J., *et al.* α-Farnesene and ocimene induce metabolite changes by volatile signaling in neighboring tea (*Camellia sinensis*) plants. *Plant Sci.* **264**, 29-36 (2017).
2. Kang, Z.-W., Liu, F.-H., Zhang, Z.-F., *et al.* Volatile β-ocimene can regulate developmental performance of peach aphid *Myzus persicae* through activation of defense responses in chinese cabbage *Brassica pekinensis*. *Front. Plant Sci.* **9:708**, (2018).
3. Miles, A.M., Chen, Y., Owens, M.W., *et al.* Fluorometric determination of nitric oxide. *Methods* **7(1)**, 40-47 (1995).

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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