

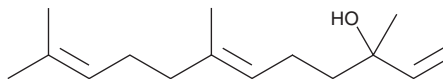
# PRODUCT INFORMATION



## *trans*-Nerolidol

Item No. 25778

CAS Registry No.: 40716-66-3  
Formal Name: (6E)-3,7,11-trimethyl-1,6,10-dodecatrien-3-ol  
MF: C<sub>15</sub>H<sub>26</sub>O  
FW: 222.4  
Purity: ≥98%  
UV/Vis.: λ<sub>max</sub>: 243 nm  
Supplied as: A neat 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

*trans*-Nerolidol is supplied as a neat oil. A stock solution may be made by dissolving the *trans*-nerolidol in the solvent of choice. *trans*-Nerolidol is miscible in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas.

*trans*-Nerolidol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, *trans*-nerolidol should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. *trans*-Nerolidol has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

*trans*-Nerolidol is a sesquiterpene that has been found in various plants, including *C. sativa*, and has diverse biological activities, including antimicrobial, antioxidant, anticancer, and insecticidal properties.<sup>1-4</sup> In a disc assay, *trans*-nerolidol inhibits the growth of *S. aureus*, *B. subtilis*, *E. coli*, and *S. cerevisiae* with zones of inhibition measuring 10, 9, 10, and 4 mm, respectively.<sup>2</sup> It reduces viability of CaCo-2 adenocarcinoma cells with an IC<sub>50</sub> value of 28.7 mg/L and reduces production of reactive oxygen species (ROS).<sup>3</sup> *trans*-Nerolidol is insecticidal against *A. aegypti* larvae with a 24-hour LC<sub>50</sub> value of 9 mg/L.<sup>4</sup>

### References

1. Nissen, L., Zatta, A., Stefanini, I., *et al.* Characterization and antimicrobial activity of essential oils of industrial hemp varieties (*Cannabis sativa* L.). *Fitoterapia* **81**(5), 413-419 (2010).
2. Skaltsa, H.D., Lazari, D.M., Mavromati, A.S., *et al.* Composition and antimicrobial activity of the essential oil of *Scutellaria albida* ssp. *albida* from Greece. *Planta Med.* **66**(7), 672-674 (2000).
3. Ambrož, M., Boušová, I., Skarka, A., *et al.* The influence of sesquiterpenes from *Myrica rubra* on the antiproliferative and pro-oxidative effects of doxorubicin and its accumulation in cancer cells. *Molecules* **20**(8), 15343-15358 (2015).
4. Chantraine, J.-M., Laurent, D., Ballivian, C., *et al.* Insecticidal activity of essential oils on *Aedes aegypti* larvae. *Phytother. Res.* **12**(5), 350-354 (1998).

#### 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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