PRODUCT INFORMATION



Nerolidol

Item No. 23182

CAS Registry No.:	7212-44-4	
Formal Name:	3,7,11-trimethyl-1,6,10-dodecatrien-3-ol	
Synonym:	(±)-Nerolidol	
MF:	C ₁₅ H ₂₆ O	HQ /
FW:	222.4	
Purity:	≥95%	
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

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

Description

Nerolidol is a sesquiterpene found in a variety of plants, including C. sativa, that has diverse biological activities, including antioxidant, anthelmintic, antinociceptive, and anti-inflammatory properties.¹⁻⁵ It decreases superoxide dismutase (SOD) and catalase activity, reduces glutathione (GSH) levels, and increases malondialdehyde (MDA) levels in the brain when administered at a dose of 50 mg/kg in a rat model of Parkinson's disease induced by rotenone (Item No. 13995).³ It also inhibits rotenone-induced increases in IL-1 β , IL-6, and TNF- α in rat brain. Nerolidol (100, 200, and 400 mg/kg) reduces worm burden and egg production in a mouse model of schistosomiasis.⁴ It also decreases acetic acid-induced writhing and formalin-induced licking time in mice, indicating antinociceptive activity, and reduced carrageenan-induced paw edema when administered at doses of 300 and 400 mg/kg.⁵ Formulations containing nerolidol have been used as fragrance ingredients.

References

- 1. Ruzicka, L. Higher terpene compounds. VIII. Constitution of nerolidol (peruviol). Helv. Chim. Acta. 6, 483-492 (1923).
- 2. Marchini, M., Charvoz, C., Dujourdy, L., et al. Multidimensional analysis of cannabis volatile constituents: Identification of 5,5-dimethyl-1-vinylbicyclo[2.1.1]hexane as a volatile marker of hashish, the resin of Cannabis sativa L. J. Chromatogr. A. 1370, 200-215 (2014).
- 3. Javed, H., Azimullah, S., Abul Khair, S.B., et al. Neuroprotective effect of nerolidol against neuroinflammation and oxidative stress induced by rotenone. BMC Neurosci. 17(1), 58 (2016).
- Silva, M.P., de Oliveira, R.N., Mengarda, A.C., et al. Antiparasitic activity of nerolidol in a mouse model of 4. schistosomiasis. Int. J. Antimicrob. Agents 50(3), 467-472 (2017).
- 5. Fonseca, D.V., Salgado, P.R., de Carvalho, F.L., et al. Nerolidol exhibits antinociceptive and anti-inflammatory activity: Involvement of the GABAergic system and proinflammatory cytokines. Fundam. Clin. Pharmacol. 30(1), 14-22 (2016).

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

SAFFTY 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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/08/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD ANN ARBOR, MI 48108 · USA PHONE: [800] 364-9897 [734] 971-3335 FAX: [734] 971-3640 CUSTSERV@CAYMANCHEM.COM WWW.CAYMANCHEM.COM