

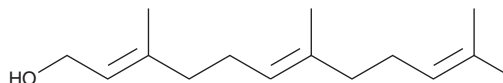
PRODUCT INFORMATION



Farnesyl Alcohol

Item No. 13268

CAS Registry No.: 4602-84-0
Formal Name: 3,7,11-trimethyl-2,6,10-dodecatrien-1-ol
Synonyms: Farnesol, FCI 119a, NSC 60597
MF: C₁₅H₂₆O
FW: 222.4
Purity: ≥98% (mixture of isomers)
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

Farnesyl alcohol is supplied as a neat oil. A stock solution may be made by dissolving the farnesyl alcohol in the solvent of choice. Farnesyl alcohol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of farnesyl alcohol in these solvents is approximately 30, 10, and 20 mg/ml, respectively.

Farnesyl alcohol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, farnesyl alcohol should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Farnesyl alcohol has a solubility of approximately 0.25 mg/ml in a 1:3 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Farnesyl alcohol is an isoprenoid that has been found in aromatic plants and has diverse biological activities.¹⁻⁴ It is an agonist of peroxisome proliferator-activator receptor α (PPAR α) and PPAR γ (EC₅₀s = 5.5 and 28 μ M, respectively, in a reporter assay using CV-1 cells) and increases the expression of mRNA encoding the PPAR α targets carnitine palmitoyltransferase 1 (CPT1) and acetyl-CoA synthetase (ACS) in HepG2 cells when used at a concentration of 100 μ M.¹ Farnesyl alcohol (250 μ M) is a fungal quorum-sensing molecule and inhibits the yeast-to-mycelium conversion in *C. albicans*.² It decreases the severity of oral candidiasis induced by *C. albicans*, but does not reduce *C. albicans* viability or the number of colony forming units (CFUs), in mice immunosuppressed by prednisolone (Item No. 20866) when administered at doses of 1.125, 2.25, and 9 μ mol/animal.³ Farnesyl alcohol (0.02-0.1 mg/cm²) repels *S. medianensis* mites and is toxic to those same mites in a contact assay (LC₅₀ = 0.048 mg/cm² per vial).⁴ Formulations containing farnesyl alcohol have been used as pesticides in agriculture.

References

1. Takahashi, N., Kawada, T., Goto, T., et al. *FEBS Lett.* **514(2-3)**, 315-322 (2002).
2. Hornby, J.M., Jensen, E.C., Lisee, A.D., et al. *Appl. Environ. Microbiol.* **67(7)**, 2982-2992 (2001).
3. Hisajima, T., Maruyama, N., Tanabe, Y., et al. *Microbiol. Immunol.* **52(7)**, 327-333 (2008).
4. Bakr, A.A., Saad, M.M.G., and Abdelgaleil, A.M. *Persian J. Acarol.* **11(1)**, 101-113 (2022).

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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