Proteins

Product Data Sheet

Farnesol

Cat. No.: HY-Y0248A CAS No.: 4602-84-0 Molecular Formula: $C_{15}H_{26}O$ Molecular Weight: 222.37

Endogenous Metabolite; Bacterial; Antibiotic Target: Pathway: Metabolic Enzyme/Protease; Anti-infection

Storage: 4°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)

SOLVENT & SOLUBILITY

In Vitro

DMSO: 100 mg/mL (449.70 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	4.4970 mL	22.4850 mL	44.9701 mL
	5 mM	0.8994 mL	4.4970 mL	8.9940 mL
	10 mM	0.4497 mL	2.2485 mL	4.4970 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (11.24 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (11.24 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (11.24 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	Farnesol is a sesquiterpene alcohol that modulates cell-to-cell communication in Candida albicans, and has the activity in inhibiting bacteria.	
IC ₅₀ & Target	Human Endogenous Metabolite	
In Vitro	Farnesol is a sesquiterpene alcohol that modulates cell-to-cell communication in Candida albicans. It is also shown that molecule presents inhibitory effects against non-albicans Candida species, Paracoccidioides brasiliensis and bacteria. minimum inhibitory concentrations (MICs) are determined in accordance with the M27-A3 protocol as described and Farnesol is tested at a concentration range of 0.29-150 μM. It is observed that Farnesol presents an inhibitory activity a	

C. neoformans and C. gattii (MIC range: $0.29-75.0 \,\mu\text{M}$). Although Farnesol does not significantly alter phospholipase activity, a tendency to decrease this activity is observed [1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

• Int J Antimicrob Agents. 2023 Jun 22;106899.

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REFERENCES

[1]. Cordeiro Rde A, et al. Farnesol inhibits in vitro growth of the Cryptococcus neoformans species complex with no significant changes in virulence-related exoenzymes. Vet Microbiol. 2012 Oct 12;159(3-4):375-80.

Caution: Product has not been fully validated for medical applications. For research use only.

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