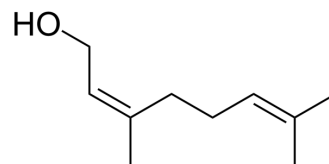


Nerol

Cat. No.:	HY-N7063												
CAS No.:	106-25-2												
Molecular Formula:	C ₁₀ H ₁₈ O												
Molecular Weight:	154.25												
Target:	Reactive Oxygen Species; Fungal; Mitochondrial Metabolism; Apoptosis; Endogenous Metabolite												
Pathway:	Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB; Anti-infection; Apoptosis												
Storage:	<table border="0"> <tr> <td>Pure form</td> <td>-20°C</td> <td>3 years</td> </tr> <tr> <td></td> <td>4°C</td> <td>2 years</td> </tr> <tr> <td>In solvent</td> <td>-80°C</td> <td>6 months</td> </tr> <tr> <td></td> <td>-20°C</td> <td>1 month</td> </tr> </table>	Pure form	-20°C	3 years		4°C	2 years	In solvent	-80°C	6 months		-20°C	1 month
Pure form	-20°C	3 years											
	4°C	2 years											
In solvent	-80°C	6 months											
	-20°C	1 month											



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (648.30 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	6.4830 mL	32.4149 mL	64.8298 mL
	5 mM	1.2966 mL	6.4830 mL	12.9660 mL
	10 mM	0.6483 mL	3.2415 mL	6.4830 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (16.21 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (16.21 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (16.21 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Nerol is a constituent of neroli oil. Nerol Nerol triggers mitochondrial dysfunction and induces apoptosis via elevation of Ca²⁺ and ROS. Antifungal activity^{[1][2]}.

IC₅₀ & Target

Human Endogenous Metabolite

In Vitro

Nerol induces apoptosis associated with the generation of ROS and Ca²⁺ overload in saprotrophic fungus *Aspergillus flavus* [1].

The antifungal activity of Nerol (NEL) against *Candida albicans*, a pathogenic fungus, has a minimum inhibitory concentration (MIC) of 4.4 μM that causes noteworthy candidacidal activity through an apoptosis-like mechanism [2].

Nerol triggers mitochondrial dysfunction and disruption via elevation of Ca²⁺ and ROS in *Candida albicans* [2].

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

REFERENCES

[1]. Tian J, et al. Nerol-induced apoptosis associated with the generation of ROS and Ca²⁺ overload in saprotrophic fungus *Aspergillus flavus*. *Appl Microbiol Biotechnol*. 2018 Aug;102(15):6659-6672.

[2]. Tian J, et al. Nerol triggers mitochondrial dysfunction and disruption via elevation of Ca²⁺ and ROS in *Candida albicans*. *Int J Biochem Cell Biol*. 2017 Apr;85:114-122.

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

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