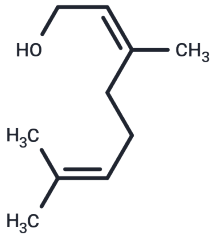
Data Sheet (Cat.No.T5645)

TargetMol

Nerol

Chemical Properties



CAS No. : 106-25-2

Formula: C10H18O

Molecular Weight: 154.25

Storage: Pure form: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.

Biological Description

Description	Nerol (Neryl alcohol) is a monoterpene found in many essential oils, such as lemon balm and hop.Nerol can lessened the severity of ouabain-triggered arrhythmias in mammalian heart.
Targets(IC50)	Apoptosis,Reactive Oxygen Species,Mitochondrial Metabolism,Endogenous Metabolite, Antifungal,ROS
In vivo	Nerol primarily by reducing Ca2+ influx through L-type Ca2+ channel blockade lessened the severity of ouabain-triggered arrhythmias in mammalian heart.
Animal Research	Guinea pigs were sacrificed by decapitation and hearts were removed and isolated left atrium mounted vertically in an organ baths containing Tyrode's solution of the following composition (mM): NaCl 120, KCl 2.7, MgCl2 0.9, NaHCO3 11.9, CaCl2 1.37, glucose 5.5, NaH2PO4 0.4, pH 7.4. The atria preparations were subsequently connected to Grass FI'-03 force displacement transducers to record changes in atrial contractile force. Each muscle was stretched to the length at which contractile force was maximal (1.0 gf). The atria were electrically paced at 1 Hz with pulses of 1.5 ms duration and stimulated by 70 V pulses. All preparations were allowed to equilibrate for 30 min until complete mechanical stabilization had been achieved. Nerol (97%) was freshly solubilized in 0.5% DMSO and cumulatively added to bath chambers. After each observation, muscles were washed several times and allowed to recover for 30 minutes until their mechanical function completely returned to control values. DMSO at this concentration did not show any significant effect on the variables measured (data not shown, n = 5).

Solubility Information

Solubility	DMSO: 250 mg/mL (1620.75 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 10 mg/mL (64.83 mM),Solution. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (12.97 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may*

In vivo Formulation	*vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	6.483 mL	32.4149 mL	64.8298 mL
5 mM	1.2966 mL	6.483 mL	12.966 mL
10 mM	0.6483 mL	3.2415 mL	6.483 mL
50 mM	0.1297 mL	0.6483 mL	1.2966 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

De Menezes-Filho JER, de Souza DS, Santos-Miranda A,et al. Nerol Attenuates Ouabain-Induced Arrhythmias[J].Evid Based Complement Alternat Med. 2019 Mar 7;2019:5935921