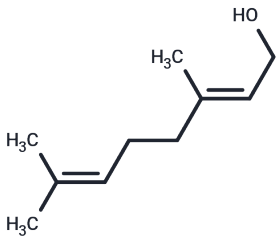
Data Sheet (Cat.No.T5665)

TargetMol

Geraniol

Chemical Properties



CAS No. : 106-24-1

Formula: C10H18O

Molecular Weight: 154.25

Storage: Keep away from direct sunlight
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	geraniol provides a potent protective effect against cardiac dysfunction induced by diabetes. This ameliorative effect could be attributed to its suppression of oxidative stress.
Targets(IC50)	Endogenous Metabolite,Antifungal
In vivo	Geraniol prevented any increase in QTc and T-peak-T-end intervals, and markers of LV ischemia and arrhythmogenesis, seen in diabetic animals. Geraniol suppressed the exaggerated oxidative stress as evidenced by preventing the increase in 8-isoprotane. In diabetic heart tissue, geraniol prevented the inhibition in catalase activity but did not affect the heart SOD. Geraniol partially reduced hyperglycemia, prevented the hypercholesterolemia, but did not affect the serum level of adiponectin in diabetic animals.
Animal Research	Diabetes was induced in rats by a single streptozotocin injection. In the treated group, geraniol (150mg/kg/day) was administered orally starting from the 15th day after induction of diabetes, and ending after 7 weeks; diabetic control rats were given vehicle for the same period. At the end of the study, cardiac contractility was assessed by using a Millar microtip catheter in anesthetised rats, and cardiac conductivity determined by a surface ECG. Serum levels of glucose, cholesterol, triglyceride and adiponectin as well as urine 8-isoprostane were determined

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+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 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

El-Bassossy HM, Ghaleb H, Elberry AA, et al. Geraniol alleviates diabetic cardiac complications: Effect on cardiac ischemia and oxidative stress.Biomed Pharmacother[J]. 2017 Apr;88:1025-1030.