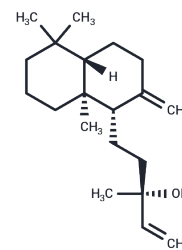


Manool

Chemical Properties

CAS No. :	596-85-0
Formula:	C ₂₀ H ₃₄ O
Molecular Weight:	290.48
Storage:	Store under nitrogen Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	Manool, a diterpene from <i>Salvia miltiorrhiza</i> , showed antitumor activity in a mouse melanoma model. Manool caused cell cycle arrest in the G(2)/M phase of cancer cells, reducing the prevention of chromosomal damage and precancerous lesions. Manool induced endothelium-independent vasorelaxation mediated by the NO/cGMP signaling pathway in rat aorta and lowered blood pressure.
Targets(IC50)	Others
In vitro	Manool exhibits higher cytotoxic activity against HeLa and U343 cells, with an IC50 of 6.7 µg/mL for both.[1] Manool exhibits a protective effect against chromosome damage induced by MMS in HepG2 cells.[3]

Solubility Information

Solubility	DMSO: 80 mg/mL (275.41 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: 3.3 mg/mL (11.36 mM), Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.4426 mL	17.2129 mL	34.4258 mL
5 mM	0.6885 mL	3.4426 mL	6.8852 mL
10 mM	0.3443 mL	1.7213 mL	3.4426 mL
50 mM	0.0689 mL	0.3443 mL	0.6885 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 Oliveira PF, et al. Manool, a *Salvia officinalis* diterpene, induces selective cytotoxicity in cancer cells. *Cytotechnology*. 2016 Oct;68(5):2139-43.

Pratsinis H, et al. Antiproliferative activity of Greek propolis. *J Med Food*. 2010 Apr;13(2):286-90.

Nicolella HD, et al. Differential effect of manool--a diterpene from *Salvia officinalis*, on genotoxicity induced by methyl methanesulfonate in V79 and HepG2 cells. *Food Chem Toxicol*. 2014 Oct;72:8-12.

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