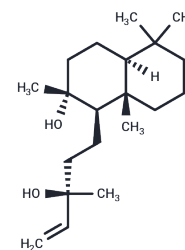


Sclareol

Chemical Properties

CAS No. :	515-03-7
Formula:	C ₂₀ H ₃₆ O ₂
Molecular Weight:	308.5
Storage:	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	Sclareol, a labdane-type diterpene isolated from clary sage (<i>Salvia sclarea</i>), exerts growth inhibition and cytotoxic activity against a variety of human Y cell lines.
Targets(IC50)	Apoptosis
In vitro	Ingestion of Sclareol in rats demonstrates an LD50 greater than 5 g/kg.
In vivo	Sclareol inhibits DNA synthesis in human breast cancer cell lines, inducing apoptosis that does not depend on p53 and causing cell cycle arrest at the G(0/1) phase. Intratumoral injection of Sclareol decreases in-vivo growth of breast cancer tumors. It demonstrates growth inhibition and cytotoxicity across various human cancer cell lines. Additionally, Sclareol exhibits anti-inflammatory activity in lipopolysaccharide-stimulated macrophages by reducing the expression of inflammatory cytokines and increasing the activity of antioxidant enzymes.

Solubility Information

Solubility	H ₂ O: < 1 mg/mL (insoluble or slightly soluble), DMSO: 250 mg/mL (810.37 mM),Sonication is recommended. Ethanol: 23 mg/mL (74.55 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: 5 mg/mL (16.21 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	3.2415 mL	16.2075 mL	32.4149 mL
5 mM	0.6483 mL	3.2415 mL	6.483 mL
10 mM	0.3241 mL	1.6207 mL	3.2415 mL
50 mM	0.0648 mL	0.3241 mL	0.6483 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

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