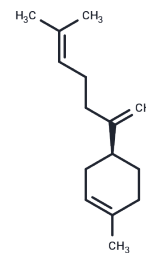


β -Bisabolene

Chemical Properties

CAS No. :	495-61-4
Formula:	C ₁₅ H ₂₄
Molecular Weight:	204.35
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	β -Bisabolene is a sesquiterpene natural product exhibiting cytotoxicity towards breast cancer cell lines, inducing apoptosis in MCF-10A, MDA-MB-231, and BT474 cells.
Targets(IC50)	Apoptosis
In vitro	β -Bisabolene exhibits selective cytotoxicity: for murine cells, the half-maximal inhibitory concentration (IC ₅₀) is >200 μ g/ml for normal cells Eph4, 65.49 μ g/ml for breast cancer cells MG1361, and 48.99 μ g/ml for breast cancer cells 4T1; for Homo sapiens breast cancer cells, the IC ₅₀ is 114.3 μ g/ml for normal mammary epithelial cells MCF-10A, 66.91 μ g/ml for breast cancer cells MCF-7, 98.39 μ g/ml for breast cancer cells MDA-MB-231, 70.62 μ g/ml for breast cancer cells SKBR3, and 74.3 μ g/ml for breast cancer cells BT474. [1]
In vivo	In vivo experiments demonstrated that β -Bisabolene effectively inhibited the growth of transplanted 4T1 mammary tumors, reducing tumor volume by 37.5% at the experimental endpoint. [1]

Solubility Information

Solubility	DMSO: 80 mg/mL (391.49 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 (16.15 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	4.8936 mL	24.4678 mL	48.9356 mL
5 mM	0.9787 mL	4.8936 mL	9.7871 mL
10 mM	0.4894 mL	2.4468 mL	4.8936 mL
50 mM	0.0979 mL	0.4894 mL	0.9787 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

Syn Kok Yeo, et al. β -Bisabolene, a Sesquiterpene From the Essential Oil Extract of Opoponax (Commiphora Guidottii), Exhibits Cytotoxicity in Breast Cancer Cell Lines. *Phytother Res.* 2016 Mar;30(3):418-25.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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