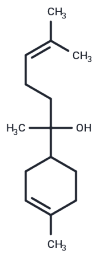
Data Sheet (Cat.No.T8199)

TargetMol

(±)-α-Bisabolol

Chemical Properties



CAS No. : 515-69-5

Formula: C15H26O

Molecular Weight: 222.37

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	(±)-α-Bisabolol (Bisabolol) isa sesquiterpenol extracted from essential oils of chamomile, candida and other plants. It isa natural antiseptic with soothing, antiirritating, anti-inflammatory, antioxidant and anticancer activities. (±)-α-Bisabolol has anticancer effects on A549 NSC-LC cells by inducing cell cycle arrest, mitochondrial death and inhibiting PI3K/Akt signaling (IC50 = 15 μM). (±)-α-Bisabolol can induce apoptosis of glioma cells.
Targets(IC50)	Apoptosis,Antioxidant,PI3K
In vitro	Under resting tonus, (-)-a-bisabolol (30–300 μmol/L) relaxed duodenal strips. Contracting endothelium-intact aortic rings and urinary bladder strips, and relaxing these tissues at higher concentrations (600–1000 μmol/L). In preparations precontracted either electromechanically (by 60 mmol/L K+) or pharmacomechanically (by phenylephrine or carbachol), (-)-a-bisabolol showed only relaxing properties. [1]
In vivo	(-)-α-Bisabolol (100-200 mg/kg; p.o.; one day before and 1 h after pMCAO; once daily for the following five days; mice) significantly reduces the infarcted area and neurological deficits caused by pMCAO. (–)-α-bisabolol can exert anti-inflammatory effects by reducing astrogliosis, MPO activity, and TNF-α and iNOS production.[1] (-)-a-bisabolol attenuated the increased responses of carbachol in tracheal rings of ovalbumin-sensitized rats challenged with ovalbumin, but was without effect in the decreased responsiveness of urinary bladder strips in mice treated with ifosfamide. (-)-a-bisabolol may be an inhibitor of voltage-dependent Ca2+ channels.[2]

Solubility Information

Solubility	DMSO: 90 mg/mL (404.73 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 (14.84 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	4.497 mL	22.485 mL	44.9701 mL
5 mM	0.8994 mL	4.497 mL	8.994 mL
10 mM	0.4497 mL	2.2485 mL	4.497 mL
50 mM	0.0899 mL	0.4497 mL	0.8994 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

Fernandes MYD, et al. (-)-α-bisabolol prevents neuronal damage and memory deficits through reduction of proinflammatory markers induced by permanent focal cerebral ischemia in mice. Eur J Pharmacol. 2019;842:270-280.

de Siqueira RJ, et al. In-vitro characterization of the pharmacological effects induced by (-)-α-bisabolol in rat smooth muscle preparations. Can J Physiol Pharmacol. 2012;90(1):23-35.