Data Sheet (Cat.No.T3865)

TargetMol

beta-Eudesmol

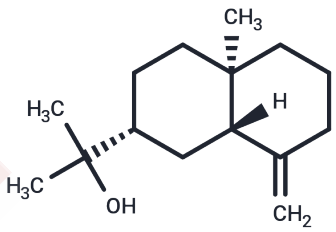
Chemical Properties

CAS No. : 473-15-4

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	beta-Eudesmol (Beta-Selinenol) is a noncompetitive antagonist of nicotinic acetylcholine receptors (nAChRs). It is a sesquiterpene that has been found in a variety of plants, including Cannabis, and has diverse biological activities.
Targets(IC50)	Reactive Oxygen Species,Caspase,AChR,ROS,TNF,TRP/TRPV Channel
In vitro	β-Eudesmol is a noncompetitive antagonist of nicotinic acetylcholine receptors (nAChRs) that decreases the open time and opening frequency of nAChR channels when used at concentrations of 40 and 80 μM and increases the decay phase of the depolarization when used at a concentration of 100 μM in isolated mouse diaphragm muscle [1]. β-Eudesmol (50-100 μM) inhibits VEGF- and bFGF-induced proliferation in human umbilical vein endothelial cells (HUVECs) [2].
In vivo	β-Eudesmol also inhibits proliferation of HeLa, SGC-7901, and BEL-7402 cells when used at concentrations ranging from 10 to 100 μM and reduces tumour growth in H22 and S-180 mouse tumor models when administered at doses ranging from 2.5 to 5 mg/kg. β-Eudesmol is an agonist of the transient receptor potential (TRP) receptor subtypes TRPA1, TRPV3, and TRPM8 and increases food intake and plasma levels of ghrelin in rats [3].

Solubility Information

Solubility	DMSO: 25 mg/mL (112.43 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

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

Kimura M, et al. Mechanism of the blocking action of beta-eudesmol on the nicotinic acetylcholine receptor channel in mouse skeletal muscles[J]. Neuropharmacology, 1991, 30(8):835-41.
Ma E L, et al. Beta-eudesmol suppresses tumour growth through inhibition of tumour neovascularisation and tumour cell proliferation.[J]. Journal of Asian Natural Products Research, 2008, 10(2):159-167.
Ohara K, et al. Identification of Significant Amino Acids in Multiple Transmembrane Domains of Human Transient Receptor Potential Ankyrin 1 (TRPA1) for Activation by Eudesmol, an Oxygenized Sesquiterpene in Hop Essential Oil.[J]. Journal of Biological Chemistry, 2015, 290(5):3161-3171.
Elzinga S, et al. Cannabinoids and Terpenes as Chemotaxonomic Markers in Cannabis[J]. Natural Products Chemistry & Research, 2015, 3.
Ohara K, et al. β-Eudesmol, an oxygenized sesquiterpene, stimulates appetite via TRPA1 and the autonomic nervous system. Sci Rep. 2017 Nov 17;7(1):15785.