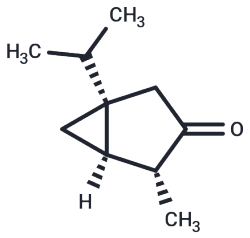
Data Sheet (Cat.No.T8193)

TargetMol

α-Thujone

Chemical Properties



CAS No. : 546-80-5

Formula: C10H16O

Molecular Weight: 152.23

Storage: Store at low temperature,Keep away from direct sunlight,Keep away from moisture
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-Thujone is an inhibitor of ACh with an IC50 value of 24.7μM.
Targets(IC50)	Apoptosis,Reactive Oxygen Species,GABA Receptor,AChR,Parasite,Autophagy,ROS
In vitro	In in-vivo one-trial passive avoidance paradigm show that thujone (1.25mg/kg, i.p.) significantly impaired nicotine-induced enhancement of learning and memory in Wistar rats[1].

Solubility Information

Solubility	DMSO: 4.4 mg/mL (28.9 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: 1 mg/mL (6.57 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	6.569 mL	32.845 mL	65.6901 mL
5 mM	1.3138 mL	6.569 mL	13.138 mL
10 mM	0.6569 mL	3.2845 mL	6.569 mL
50 mM	0.1314 mL	0.6569 mL	1.3138 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

Sultan A , Yang K H S , Isaev D , et al. Thujone inhibits the function of α 7 -nicotinic acetylcholine receptors and impairs nicotine-induced memory enhancement in one-trial passive avoidance paradigm[J]. Toxicology, 2017, 384:23-32.

Lachenmeier D W , Emmert J , Kuballa T , et al. Thujone—Cause of absinthism?[J]. forensic science international, 2006, 158(1):1-8.