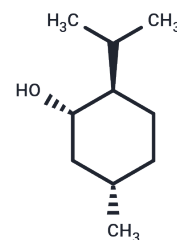


D-Menthol

Chemical Properties

CAS No. :	15356-60-2
Formula:	C ₁₀ H ₂₀ O
Molecular Weight:	156.27
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	D-Menthol ((+)-MENTHOL) is a common compound in pharmaceutical and commercial products and a popular additive to cigarettes, it attenuates α_7 mediated Ca ²⁺ transients in the cell body and neurite, suggests that menthol inhibits α_7 -nACh receptors in a noncompetitive manner.
Targets(IC50)	Calcium Channel,5-HT Receptor,AChR,Antifungal
In vitro	The algal biomass and the intracellular and extracellular MCY concentrations were evaluated during 5d incubation. After the D-Menthol exposure, the dry weight of the cells gradually decreased; the decrease in the dry weight after 5d exposure was 29, 12, and 2mgL ⁻¹ when the initial cell densities were 1.4x10 ⁷ , 1.2x10 ⁶ , and 2.9x10 ⁵ cellmL ⁻¹ , respectively. The results indicate that the D-Menthol exposure inhibited the cellular growth, thus also inhibiting the increase of the total MCY concentration. In the presence of D-Menthol, the intracellular MCY was gradually released into the medium after the cell lysis.

Solubility Information

Solubility	DMSO: 257.5 mg/mL (1647.79 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: 2 mg/mL (12.8 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	6.3992 mL	31.9959 mL	63.9918 mL
5 mM	1.2798 mL	6.3992 mL	12.7984 mL
10 mM	0.6399 mL	3.1996 mL	6.3992 mL
50 mM	0.128 mL	0.6399 mL	1.2798 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

Effects of d-menthol stress on the growth of and microcystin release by the freshwater cyanobacterium *Microcystis aeruginosa* FACHB-905. *Chemosphere*. 2014 Oct;113:30-5.

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