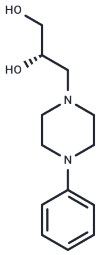
Data Sheet (Cat.No.T0217)

TargetMol

Levodropropizine

Chemical Properties



CAS No. : 99291-25-5

Formula: C13H20N2O2

Molecular Weight: 236.31

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	Levodropropizine ((S)-(-)-Dropropizine) is a histamine receptor inhibitor. It is used as an effective and very well tolerated peripheral antitussive drug.
Targets(IC50)	5-HT Receptor,Histamine Receptor
In vitro	Research indicates that Levodropropizine effectively suppresses cough in anesthetized guinea pigs and rabbits. Intravenous administration of Levodropizine in these animals, during mechanically and electrically induced coughs, shows an activity ranging from one-tenth to one-twentieth of codeine, similar to hydroxyzine. Oral Levodropizine treatment for cough induced by irritant aerosols has effects comparable to hydroxyzine and codeine. An intravenous dose of 15 mg/kg Levodropropizine reduces the duration of asphyxiation and the C-fiber response to phenylbiguanide. Additionally, Levodropropizine dose-dependently decreases capsaicin-induced Evans blue dye extravasation in rat airways.
In vivo	Levodropropizine exhibits affinity for both H1 histamine and α-adrenergic receptors.

Solubility Information

Solubility	Ethanol: 44 mg/mL (186.2 mM),Sonication is recommended. H2O: 12 mg/mL (50.78 mM),Sonication is recommended. DMSO: 55 mg/mL (232.75 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 (8.46 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	4.2317 mL	21.1586 mL	42.3173 mL
5 mM	0.8463 mL	4.2317 mL	8.4635 mL
10 mM	0.4232 mL	2.1159 mL	4.2317 mL
50 mM	0.0846 mL	0.4232 mL	0.8463 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

Melillo G, et al. Arzneimittelforschung, 1988, 38(8), 1144-1150.
Shams H, et al. Br J Pharmacol, 1996, 117(5), 853-858.
Malandrino S, et al. Arzneimittelforschung, 1988 , 38(8), 1141-1143.
Lavezzo A, et al. Pulm Pharmacol, 1992, 5(2), 143-147.
Yamawaki I, et al. Eur J Pharmacol, 1993, 243(1), 1-6.
Zanasi A, et al. Levodropropizine for treating cough in adult and children: a meta-analysis of published studies. Multidiscip Respir Med. 2015 May 31;10(1):19.