

Diphenhydramine

Chemical Properties

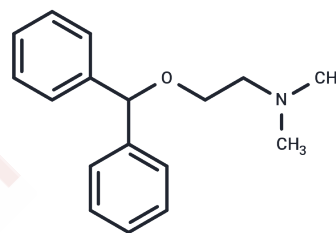
CAS No. : 58-73-1

Formula: C₁₇H₂₁NO

Molecular Weight: 255.35

Storage: Pure form: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Diphenhydramine (Syntedril), a first-generation antihistamine possessing antiemetic, antitussive, anticholinergic, and sedative properties, is mainly used in the treatment of allergies. Diphenhydramine is also used in the management of drug-induced parkinsonism and other extrapyramidal symptoms.
Targets(IC50)	Endogenous Metabolite,Antibacterial,Histamine Receptor,iGluR

Solubility Information

Solubility	H ₂ O: Insoluble DMSO: 242.5 mg/mL (949.68 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.9162 mL	19.581 mL	39.1619 mL
5 mM	0.7832 mL	3.9162 mL	7.8324 mL
10 mM	0.3916 mL	1.9581 mL	3.9162 mL
50 mM	0.0783 mL	0.3916 mL	0.7832 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

- Abdi A, Rose E, Levine M. Diphenhydramine overdose with intraventricular conduction delay treated with hypertonic sodium bicarbonate and i.v. lipid emulsion. *West J Emerg Med.* 2014 Nov;15(7):855-8.
- Gu X, Cai Y, Zheng C, et al. PK-PD relationship of poorly absorbable active ingredients from traditional Chinese medicines explaining by metabolic enzyme of gut microbiota: A case study of Dehydrocorydaline. *Journal of Pharmaceutical and Biomedical Analysis.* 2025, 252: 116478.
- Erbe S, Bschor T. [Diphenhydramine addiction and detoxification. A systematic review and case report]. *Psychiatr Prax.* 2013 Jul;40(5):248-51.
- [Current topics and problems in toxicology laboratories--7: Occurrence of poisoning due to 15 chemicals and introduction of analytical methods for diphenhydramine and SSRIs]. *Chudoku Kenkyu.* 2010 Jun;23(2):124-8. Review. Japanese.
- Björnsdóttir I, Einarson TR, Gudmundsson LS, Einarsdóttir RA. Efficacy of diphenhydramine against cough in humans: a review. *Pharm World Sci.* 2007 Dec;29(6):577-83. Epub 2007 May 8. Review.

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Tel: 781-999-4286 E_mail: info@targetmol.com Address: 34 Washington Street, Wellesley Hills, MA 02481