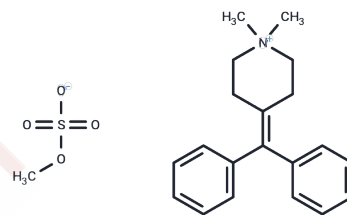


Diphenmanil methylsulfate

Chemical Properties

CAS No. :	62-97-5
Formula:	C ₂₀ H ₂₄ N ⁺ ·CH ₃ O ₄ S ⁻
Molecular Weight:	389.51
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	Diphenmanil methylsulfate (Diphenmanil mesylate), a quaternary ammonium anticholinergic, binds muscarinic acetylcholine receptors and thus decreases secretory excretion of stomach acids, sweat, and saliva.
Targets(IC50)	AChR
In vitro	Pharmacokinetic studies indicate that Diphenmanil Methylsulphate is slowly absorbed, with a peak time (tmax) of 2-4 hours and an average half-life of 8.35 hours. Within 48 hours, 0.6%-7.4% of the administered dose is recovered in the urine. The compound exhibits poor gastrointestinal absorption, with bioavailability ranging from 15% to 25%.
In vivo	Diphenmanil Methylsulfate exerts its anticholinergic effects primarily by binding to muscarinic M3 receptors, and it also acts directly on smooth muscle to provide antispasmodic benefits.

Solubility Information

Solubility	DMSO: 50 mg/mL (128.37 mM),Sonication is recommended. H ₂ O: 26 mg/mL (66.75 mM),Sonication is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5673 mL	12.8366 mL	25.6733 mL
5 mM	0.5135 mL	2.5673 mL	5.1347 mL
10 mM	0.2567 mL	1.2837 mL	2.5673 mL
50 mM	0.0513 mL	0.2567 mL	0.5135 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

Vidal AM, et al. Eur J Clin Pharmacol, 1992, 42(6), 689-691.

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