Data Sheet (Cat.No.T0427)

TargetMol

Homatropine Methylbromide

Chemical Properties

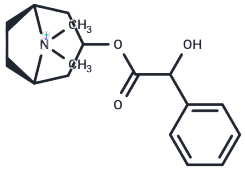
CAS No. : 80-49-9

Formula: C17H24BrNO3

Molecular Weight: 370.29

Appearance: no data available

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



Biological Description

Description	Homatropine Methylbromide is the methyl bromide salt of homatropine, a synthetic tertiary amine alkaloid with antimuscarinic properties.
Targets(IC50)	AChR
In vitro	Homatropine [14C]methylbromide administered rectally in rats achieved higher and quicker peak plasma concentrations compared to other routes. After 12 hours, 28% of the [14C] was excreted in the urine, with 56% remaining in the colon. Unlabeled homatropine methylbromide, delivered via a rectal suppository in anesthetized rats, rapidly blocked the effects of the vagus nerve on heart rate and of intravenous acetylcholine on blood pressure. A dose of 20 mg/kg homatropine increased the survival rate to 30% in rats poisoned with diazinon, with death occurring between 4 to 12 minutes, whereas a 10 mg/kg dose was ineffective in preventing mortality.
In vivo	When combined with hexamethonium, 20 μM Homatropine yields only a dose ratio of 95.0 in guinea pig atria. In contrast, 20 μM Homatropine alone produces a dose ratio of 259 in guinea pig atria.

Solubility Information

Solubility	DMSO: 50 mg/mL (135.03 mM),Sonication is recommended. Ethanol: 10 mg/mL (27.01 mM),Sonication is recommended. H2O: 68 mg/mL (183.64 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7006 mL	13.5029 mL	27.0059 mL
5 mM	0.5401 mL	2.7006 mL	5.4012 mL
10 mM	0.2701 mL	1.3503 mL	2.7006 mL
50 mM	0.054 mL	0.2701 mL	0.5401 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.

Reference

Sim MK, et al. Clin Exp Hypertens, 1993, 15(2), 409-421.
Leung E, et al. Eur J Pharmacol, 1982, 80(1), 11-17.
Gilani SA, et al. Arch Int Pharmacodyn Ther, 1987, 290(1), 46-53.
Bryant SM, et al. J Med Toxicol, 2006, 2(4), 156-159.
Cramer MB, et al. J Pharm Pharmacol, 1978, 30(5), 284-286.

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