Homatropine methylbromide

Cat. No.: HY-B1388

CAS No.: 80-49-9

Molecular Formula: $C_{17}H_{24}BrNO_3$

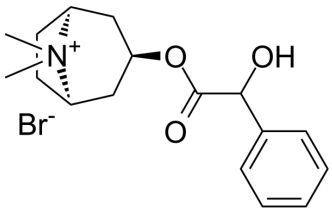
Molecular Weight: 370.28

Target: mAChR

Pathway: GPCR/G Protein; Neuronal Signaling

Storage: 4°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 31 mg/mL (83.72 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.7007 mL	13.5033 mL	27.0066 mL
5 mM	0.5401 mL	2.7007 mL	5.4013 mL
10 mM	0.2701 mL	1.3503 mL	2.7007 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Homatropine methylbromide (Homatropine methobromide) is muscarinic AChR antagonist, inhibits endothelial and smooth muscle muscarinic receptors of WKY-E and SHR-E with IC_{50} of 162.5 nM and 170.3 nM, respectively.

IC_{50} & Target

IC50: WKY-E (162.5 nM), SHR-E (170.4 nM)

In Vitro

Homatropine methylbromide (Homatropine methobromide) (20 μM) alone produces a dose ratio of 259 in atrium from guinea-pigs. Homatropine methylbromide (Homatropine methobromide) (20 μM) produces a dose ratio of only 95.0 when combined with hexamethonium in atrium from guinea-pigs.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Pre-treatment with Homatropine methylbromide (Homatropine methobromide) (20 mg/kg) was comparable with atropine (10 mg/kg) in preventing lethality in this rat model of acute OC poisoning.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Sim MK et al. Muscarinic receptors in the aortae of normo- and hypertensive rats: a binding study.Clin Exp Hypertens. 1993 Mar;15(2):409-21.

[2]. Bryant SM et al. Intramuscular ophthalmic homatropine vs. atropine to prevent lethality in rates with dichlorvos poisoning. J Med Toxicol. 2006 Dec;2(4):156-9.

[3]. Leung E et al. Modification by hexamethonium of the muscarinic receptors blocking activity of pancuronium and homatropine in isolated tissues of the guinea-pig.Eur J Pharmacol. 1982 May 7;80(1):11-7.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA