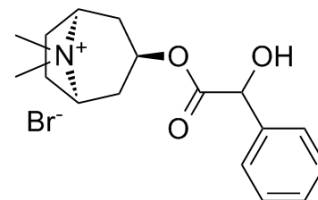


## Homatropine methylbromide

Cat. No.:	HY-B1388		
CAS No.:	80-49-9		
Molecular Formula:	C <sub>17</sub> H <sub>24</sub> BrNO <sub>3</sub>		
Molecular Weight:	370.28		
Target:	mAChR		
Pathway:	GPCR/G Protein; Neuronal Signaling		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 31 mg/mL (83.72 mM)  
 \* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
	Concentration				
	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

<b>Description</b>	Homatropine methylbromide (Homatropine methobromide) is muscarinic AChR antagonist, inhibits endothelial and smooth muscle muscarinic receptors of WKY-E and SHR-E with IC <sub>50</sub> of 162.5 nM and 170.3 nM, respectively.
<b>IC<sub>50</sub> &amp; Target</b>	IC <sub>50</sub> : WKY-E (162.5 nM), SHR-E (170.4 nM)
<b>In Vitro</b>	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.
<b>In Vivo</b>	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.

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## 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.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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