Homatropine

Cat. No.: HY-B0547

CAS No.: 87-00-3

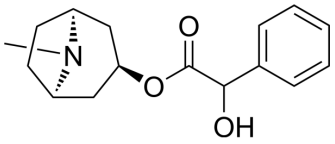
Molecular Formula: $C_{16}H_{21}NO_3$

Molecular Weight: 275.34

Target: mAChR

Pathway: GPCR/G Protein; Neuronal Signaling

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Homatropine is an orally active muscarinic acetylcholine receptor antagonist and can be used as an anticholinergic agent[1].
In Vitro	Homatropine (20 μM) alone produces a dose ratio of 259 in atrium from guinea-pigs, and produces a dose ratio of only 95.0 when combined with Hexamethonium Bromide (HY-B0569) in atrium from guinea-pigs[1]. Homatropine has affinities for muscarinic receptors in stomach (pA2 = 7.13) and for those in atria mediating force (pA2 = 7.21) and rate (pA2 = 7.07) responses[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Homatropine methylbromide (9 mm x 5 mm conical suppository) causes prompt blockade of the effects of vagal stimulation on pulse rate and of intravenous acetylcholine on blood pressure in rats[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male albino rats[3]
Dosage:	9 mm x 5 mm conical suppository
Administration:	By suppository
Result:	Blocked cardiovascular responses to vagal stimulation and acetylcholine; 10-20 min after insertion of the suppository the effects of vagal stimulation over a range of 2-16 Hz, 5 V, on pulse rate was virtually abolished and remained unchanged at 45-60 min.

REFERENCES

[1]. Leung, E. and F. Mitchelson, Modification by hexamethonium of the muscarinic receptors blocking activity of pancuronium and homatropine in isolated tissues of the guinea-pig. Eur J Pharmacol, 1982. 80(1): p. 11-7.

[2]. Gilani, S.A. and L.B. Cobbin, Interaction of himbacine with carbachol at muscarinic receptors of heart and smooth muscle. Arch Int Pharmacodyn Ther, 1987. 290(1): p. 46-53.

[3]. Cramer, M.B., L.A. Cates, and D.E. Clarke, Rectal absorption of homatropine [14C]methylbromide in the rat. J Pharm Pharmacol, 1978. 30(5): p. 284-6.

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

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