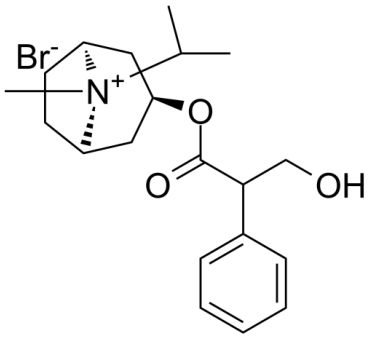
Data Sheet

Product Name:	Ipratropium (bromide)
Cat. No.:	CS-2220
CAS No.:	22254-24-6
Molecular Formula:	C20H30BrNO3
Molecular Weight:	412.36
Target:	mAChR
Pathway:	GPCR/G Protein; Neuronal Signaling
Solubility:	DMSO : ≥ 35 mg/mL (84.88 mM)



BIOLOGICAL ACTIVITY:

Ipratropium Bromide is a muscarinic antagonist, bronchodilator, N-Isopropyl salt of atropine. Target: mAChR Ipratropium bromide, a nonselective muscarinic antagonist, is widely prescribed for the treatment of chronic obstructive pulmonary disease (COPD). In anaesthetised guinea-pigs, bronchoconstriction induced by vagal nerve stimulation was potentiated by low doses of the antimuscarinic bronchodilator drug, ipratropium (0.01-1.0 g/kg); the maximum effect was obtained with 1.0 g/kg which doubled the bronchoconstriction. When the dose was increased above 1.0 g/kg potentiation no longer occurred; instead the vagally induced bronchoconstriction was antagonized [1, 2].

References:

[1]. Fryer, A.D. and J. Maclagan, Ipratropium bromide potentiates bronchoconstriction induced by vagal nerve stimulation in the guinea-pig. Eur J Pharmacol, 1987. 139(2): p. 187-91.

[2]. Harvey, K.L., A. Hussain, and H.L. Maddock, Ipratropium Bromide-Mediated Myocardial Injury in In Vitro Models of Myocardial Ischaemia/Reperfusion. Toxicol Sci, 2014.

CAIndexNames:

8-Azoniabicyclo[3.2.1]octane, 3-(3-hydroxy-1-oxo-2-phenylpropoxy)-8-methyl-8-(1-methylethyl)-, bromide (1:1), (3-endo,8-syn)-

SMILES:

C[N+]1([C@H]2CC[C@H]1CC(OC(C(CO)C3=CC=CC=C3)=O)C2)C(C)C.[Br-]

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

Tel: 732-484-9848 Fax: 888-484-5008 E-mail: sales@ChemScene.com

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