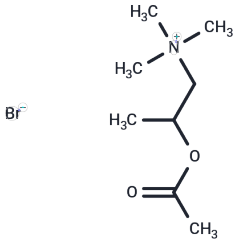
Data Sheet (Cat.No.T60332)

TargetMol

Methacholine bromide

Chemical Properties



CAS No. :	333-31-3
Formula:	C8H18BrNO2
Molecular Weight:	240.141
Storage:	Powder: -20°C for 3 years | In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.

Biological Description

Description	Methacholine bromide (Acetyl-β-methylcholine bromide) is a potent muscarinic-3 (M3) agonist that specifically acts on acetylcholine receptors located on smooth muscle, inducing bronchoconstriction and narrowing of the airways. Its high sensitivity in identifying bronchial hyperresponsiveness (BHR), a hallmark of asthma, makes it useful in the assessment of airway hyperresponsiveness (AHR) as a diagnostic tool for individuals exhibiting asthma-like symptoms with normal resting expiratory flow rates [1] [2] [3] [4].
Targets(IC50)	Others,AChR
In vivo	Methacholine bromide (0.5 μg/kg plus 5 μg/kg/min for 30 min) induces bronchoconstriction in dogs [4]. In mice, methacholine bromide (0.5 mg/kg; i.v.)-induced bronchoconstriction was dose-dependently inhibited by bradykinin (4-40 μg/kg; i.v.) [5]. Animal model: 9-week female BALB/c mice [6]; Dosage: 0.03, 0.1, 0.3, 1 mg/kg; Administration: i.v.; Result: Induced severe bronchoconstriction.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.1642 mL	20.8212 mL	41.6424 mL
5 mM	0.8328 mL	4.1642 mL	8.3285 mL
10 mM	0.4164 mL	2.0821 mL	4.1642 mL
50 mM	0.0833 mL	0.4164 mL	0.8328 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481