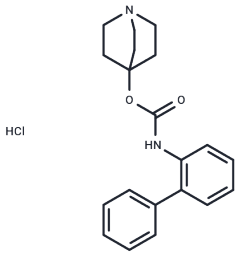
Data Sheet (Cat.No.T13370)

TargetMol

YM-46303

Chemical Properties



CAS No. :	171722-81-9
Formula:	C20H23ClN2O2
Molecular Weight:	358.86
Storage:	Store at low temperature 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	YM-46303 is a selective and potent muscarinic receptor antagonist that exhibits high affinity for the M3 receptor.YM-46303 can be used to study bradycardia in medullary rats.
Targets(IC50)	AChR
In vivo	YM-46303, when compared to oxybutynin, exhibits approximately ten times higher inhibitory activity on bladder pressure in reflexly-evoked rhythmic contraction, along with about a 5-fold greater selectivity for urinary bladder contraction over salivary secretion in rats. Evaluation of antimuscarinic effects on bradycardia and pressor responses in pithed rats, as well as on tremor in mice, reveals that YM-46303 could be valuable for treating urinary urge incontinence. It functions as a bladder-selective M3 antagonist with potent activities and fewer side effects[1]. In vivo, YM-46303 demonstrates selective inhibitory activities on bladder pressure in reflexly-evoked rhythmic contraction against oxotremorine-induced salivary secretion. Additionally, it shows potent activity in a guinea pig model of methacholine-induced bronchospasm upon intravenous administration[1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7866 mL	13.933 mL	27.866 mL
5 mM	0.5573 mL	2.7866 mL	5.5732 mL
10 mM	0.2787 mL	1.3933 mL	2.7866 mL
50 mM	0.0557 mL	0.2787 mL	0.5573 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.

Reference

Nagashima S, et al. Novel quinuclidinyl heteroarylcarbamate derivatives as muscarinic receptor antagonists. Bioorg Med Chem. 2014 Jul 1;22(13):3478-87.

Naito R, et al. Selective muscarinic antagonists. II. Synthesis and antimuscarinic properties of biphenylylcarbamate derivatives. Chem Pharm Bull (Tokyo). 1998 Aug;46(8):1286-94.

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