Product Data Sheet

Product Name: YM-58790
Cat. No.: GC30426

Chemical Properties

Cas. No.	214558-72-2		
SMILES	O=C(OC1CCN(CC2=CC=C(NC)C=C2)CC1)NC(C3=CC=CC=C3)C4=CC=CC=C4.[H]Cl		
Formula	$C_{27}H_{32}ClN_3O_2$	M.Wt	466.01
Solubility	DMSO : 100 mg/mL (214.59 mM; Need ultrasonic)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	YM-58790		

Background

YM-58790 is a potent antagonist of M3 muscarinic receptor, with Ki of 15 nM.

YM-58790 shows potent inhibitory effect on urinary bladder contraction, but has little effect on bradycardia. YM-58790 exhibits selective antagonism between urinary bladder contraction and salivary secretion in vitro[1].

YM-58790 (3 mg/kg, i.v.) does not inhibit oxotremorine-induced tremor in mice. The effect of YM-58790 on McN-A343-induced pressor in pithed rats, as an indication of M1 antagonism in vivo, is much less potent than bladder contraction. YM-58790 exhibits potent inhibitory activity on bladder pressuer in reflexly-evoked rhythmic contraction, similar to oxybutynin, and has appr ten times less inhibitory effect on oxotremorine-induced salivary secretion than oxybutynin in rats[1].

[1]. Naito R, et al. Selective muscarinic antagonists. I. Synthesis and antimuscarinic properties of 4-piperidyl benzhydrylcarbamate derivatives. Chem Pharm Bull (Tokyo). 1998 Aug;46(8):1274-85.

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