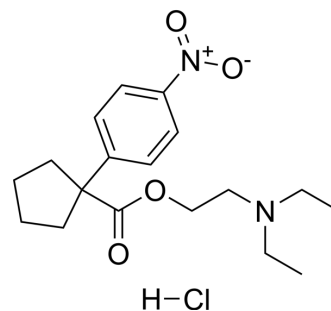


Nitrocaramiphen hydrochloride

Cat. No.:	HY-100945
CAS No.:	98636-73-8
Molecular Formula:	C ₁₈ H ₂₇ ClN ₂ O ₄
Molecular Weight:	370.87
Target:	mAChR
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 10 mg/mL (26.96 mM; Need ultrasonic)
 H₂O : 8.33 mg/mL (22.46 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
			1 mM	2.6964 mL	13.4818 mL
	5 mM	0.5393 mL	2.6964 mL	5.3927 mL	
	10 mM	0.2696 mL	1.3482 mL	2.6964 mL	

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Nitrocaramiphen hydrochloride is a selective M1 receptor antagonist (K_i: 5.5 nM). Nitrocaramiphen Hydrochloride inhibits the hyperpolarizing effect of muscarine in the muscle fibers^{[1][2][3]}.

IC₅₀ & Target

K_i: 5.5 nM (M1 receptor)^[2]

REFERENCES

- [1]. Hussain RI, et al. Activation of muscarinic receptors elicits inotropic responses in ventricular muscle from rats with heart failure through myosin light chain phosphorylation. *Br J Pharmacol.* 2009 Feb;156(4):575-86.
- [2]. Hudkins RL, et al. Caramiphen, iodocaramiphen and nitrocaramiphen are potent, competitive, muscarinic M1 receptor-selective agents. *Eur J Pharmacol.* 1993 Feb 16;231(3):485-8.
- [3]. Naumenko NV, et al. [Pharmacological parameters of muscarinic cholinoreceptors in skeletal muscles]. *Ross Fiziol Zh Im I M Sechenova.* 2002 May;88(5):619-26.

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

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