mAChR antagonist 1

Cat. No.: HY-155367

CAS No.: 101491-79-6

Molecular Formula: $C_{19}H_{22}N_2O_2$

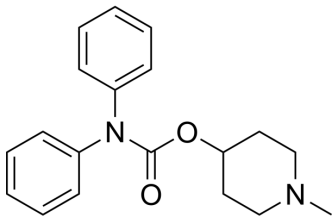
Molecular Weight: 310.39

Target: mAChR

Pathway: GPCR/G Protein; Neuronal Signaling

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (322.18 mM; Need ultrasonic)

Preparing Stock Solutions	Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
	1 mM	3.2218 mL	16.1088 mL	32.2175 mL
	5 mM	0.6444 mL	3.2218 mL	6.4435 mL
	10 mM	0.3222 mL	1.6109 mL	3.2218 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (8.05 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (8.05 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

mAChR antagonist 1 (compound 4a) is a mAChR antagonist with K_i values of 255 nM, 121 nM, 158 nM, and 255 nM for M1, M3, M4, and M5 subtype, respectively[1].

IC_{50} & Target

mAChR1 255 nM (Ki)	mAChR3 121 nM (Ki)	mAChR4 158 nM (Ki)	mAChR5 255 nM (Ki)
mAChR2 >1000 nM (Ki)			

REFERENCES

[1]. Marlon Millard, et al. Design, synthesis and preclinical evaluation of muscarine receptor antagonists via a scaffold-hopping approach. Eur J Med Chem. 2023 Oct 21:262:115891.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA