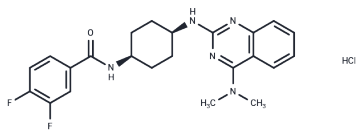
Data Sheet (Cat.No.T22591)

TargetMol
YOUR TARGET MOLECULES

ATC 0175 hydrochloride

Chemical Properties



CAS No. : 510733-97-8

Formula: C23H26ClF2N5O

Molecular Weight: 461.93

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	ATC 0175 hydrochloride is an orally active melanocyte concentrating hormone 1 receptor antagonist that is potent and selective. ATC 0175 hydrochloride has affinity for MCH1R, MCH2R, MCH1, 5-HT2B receptors and 5-HT1A receptors with IC50s of 13.5 nM, >10,000 nM, 13 nM, 9.66 nM and 16.9 nM, respectively. ATC 0175 hydrochloride exhibits antidepressant and anxiolytic effects in animal models. aTC 0175 can be used to study depression and/or anxiety disorders.
Targets(IC50)	GPR,5-HT Receptor,Melanin-concentrating Hormone Receptor (MCHR)
In vitro	In vitro, assays showed that this compound is a potent antagonist with a high affinity for MCH1R. The receptor binding and the functional assay (MCH-induced increase in [Ca2+]) indicated that ATC0175 is a noncompetitive antagonist at MCH1Rs.[1]
In vivo	ATC0175 (1, 3, 10 mg/kg ； p.o.) treatment also exhibited antidepressant effects in the forced swimming test.[2] ATC0175 displayed anxiolytic effects in numerous animal models of anxiety including the social interaction test, elevated plus-maze test, maternal separation-induced vocalization and stress-induced hyperthermia.[2]

Solubility Information

Solubility	Ethanol: 22.5 mg/mL (48.7 mM), DMSO: 9.0 mg/mL (19.4 mM), (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1648 mL	10.8242 mL	21.6483 mL
5 mM	0.433 mL	2.1648 mL	4.3297 mL
10 mM	0.2165 mL	1.0824 mL	2.1648 mL
50 mM	0.0433 mL	0.2165 mL	0.433 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.

Reference

Semple G, et al. Pyrimidine-based antagonists of h-MCH-R1 derived from ATC0175: in vitro profiling and in vivo evaluation. Bioorg Med Chem Lett. 2009 ; 19(21):6166-6171.