Data Sheet (Cat.No.T23008L)

TargetMol

MMPIP hydrochloride

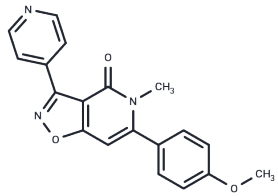
Chemical Properties

CAS No. : 1215566-78-1

Formula: C19H16ClN3O3

Molecular Weight: 369.8

Storage: 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	MMPIP hydrochloride is a selective antagonist of allosteric mGluR7. MMPIP hydrochloride can be used in research on the roles of mGluR7 on central nervous system functions.
Targets(IC50)	GluR
In vitro	In CHO cells coexpressing rat mGluR7 with Gα15, MMPIP hydrochloride inhibits L-(+)-2-amino-4-phosphonobutyric acid (L-AP4; 0.5 mM)-induced intracellular Ca2+ mobilization with an IC50 of 26 nM. MMPIP hydrochloride also antagonizes L-AP4-induced inhibition of cAMP accumulation with an IC50 of 610 nM. MMPIP hydrochloride inhibits L-AP4-induced inhibition of forskolin-stimulated cAMP accumulation in CHO cells expressing rat mGluR7[1].
In vivo	MMPIP hydrochloride alleviates pain and normalizes affective and cognitive behavior in neuropathic mice. MMPIP hydrochloride (10 mg/kg; i.p.) rescues the MK-801 (0.1 mg/kg) -induced cognitive impairments, by improving the choice accuracy. MMPIP hydrochloride (10 mg/kg) attenuates the amplitude of the acoustic startle response and markedly enhances the prepulse-induced inhibition of the acoustic startle response (up to 137% of control)[2].

Solubility Information

Solubility	DMSO: 3.7 mg/mL (10.01 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7042 mL	13.5208 mL	27.0416 mL
5 mM	0.5408 mL	2.7042 mL	5.4083 mL
10 mM	0.2704 mL	1.3521 mL	2.7042 mL
50 mM	0.0541 mL	0.2704 mL	0.5408 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

Gentaroh Suzuki, et al. In vitro pharmacological characterization of novel isoxazolopyridone derivatives as allosteric metabotropic glutamate receptor 7 antagonists. J Pharmacol Exp Ther. 2007 Oct;323(1):147-56.
Paulina Cieślik, et al. Negative Allosteric Modulators of mGlu 7 Receptor as Putative Antipsychotic Drugs. Front Mol Neurosci. 2018 Sep 20;11:316.