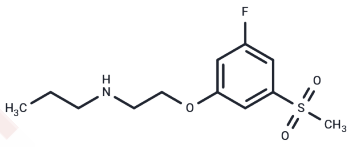
Data Sheet (Cat.No.T38828)

TargetMol

Mesdopetam

Chemical Properties



CAS No. : 1403894-72-3

Formula: C12H18FNO3S

Molecular Weight: 275.34

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	Mesdopetam (IRL790), a dopamine D3 receptor antagonist with a Ki of 90 nM and an IC50 of 9.8 μM for the human recombinant D3 receptor, exhibits psychomotor stabilizing properties and is used in the study of motor and psychiatric complications associated with Parkinson's disease.
Targets(IC50)	Others,Dopamine Receptor
In vivo	Mesdopetam (IRL790) (3.7, 11, 33, or 100 μmol/kg) dose-dependently inhibits behavioral activation following pretreatment with D-amphetamine or MK-80[1]. Mesdopetam (10 mg/kg; intraperitoneally; fourteen-week-old male C57BL/J mice) promotes a sedative effect similar to haloperidol, significantly reducing total distance traveled and average speed[2]. In male Sprague-Dawley rats, synthesized mesdopetam (HCl salt, dissolved in 0.9% saline) administered subcutaneously (3.7, 11, 33, or 100 μmol/kg) 4 minutes before recording, dose-dependently inhibited behavioral activation following pretreatment with D-amphetamine or MK-801[1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.6319 mL	18.1594 mL	36.3187 mL
5 mM	0.7264 mL	3.6319 mL	7.2637 mL
10 mM	0.3632 mL	1.8159 mL	3.6319 mL
50 mM	0.0726 mL	0.3632 mL	0.7264 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

Waters S, et al. Preclinical Pharmacology of [2-(3-Fluoro-5-Methanesulfonyl-phenoxy)Ethyl](Propyl)amine (IRL790), a Novel Dopamine Transmission Modulator for the Treatment of Motor and Psychiatric Complications in Parkinson Disease. J Pharmacol Exp Ther. 2020;374(1):113-125.

Becanovic K, et al. Effects of a Novel Psychomotor Stabilizer, IRL790, on Biochemical Measures of Synaptic Markers and Neurotransmission. J Pharmacol Exp Ther. 2020;374(1):126-133.

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