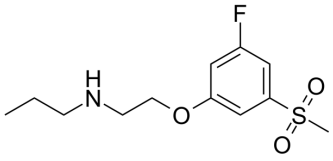
Mesdopetam

Cat. No.:	HY-109150
CAS No.:	1403894-72-3
Molecular Formula:	$C_{12}H_{18}FNO_3S$
Molecular Weight:	275.34
Target:	Dopamine Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Mesdopetam (IRL790) is a dopamine D3 receptor antagonist (K_i=90 nM; IC_{50}=9.8 μM for human recombinant D3 receptor) with psychomotor stabilizing properties. Mesdopetam is used for the research of motor and psychiatric complications in Parkinson disease[1][2].
IC_{50} & Target	D_3 Receptor
In Vivo	Mesdopetam (IRL790) (3.7, 11, 33, or 100 μmol/kg) dose-dependently inhibits the behavioral activation following pretreatment with D-amphetamine or MK-80[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male Sprague-Dawley rats[1]
Dosage:	3.7, 11, 33, or 100 μmol/kg (synthesized in-house as HCl salt, was dissolved in physiologic saline (0.9% w/v NaCl)
Administration:	s.c. was administered subcutaneously 4 min before the start of recording
Result:	Dose-dependently inhibited the behavioral activation following pretreatment with D-amphetamine or MK-801.

REFERENCES

[1]. 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.

[2]. 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.

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

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