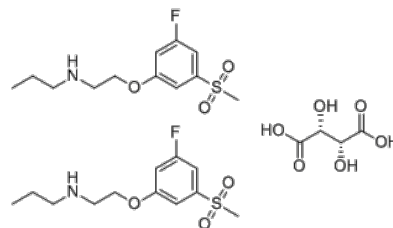


Product Name : Mesdopetam hemitartrate
Cat. No. : PC-47115
CAS No. : 2562346-14-7
Molecular Formula : $C_{12}H_{18}FNO_3S \cdot \frac{1}{2}C_4H_6O_6$
Molecular Weight : 700.77
Target : Dopamine Receptor
Solubility : 10 mM in DMSO



Biological Activity

Mesdopetam hemitartrate (IRL790) is a novel dopamine transmission modulator and **dopamine D3 receptor** antagonist with K_i/IC_{50} of 0.09/0.41 μ M.

IRL790 also shows sub-micromolar affinities at DA D2 and σ_1 receptors, and micromolar affinities at 5-HT1a, 5-HT2a, and 5-HT7 receptors, does not show any agonist-like properties at D2, D3, 5-HT2, or 5-HT7 receptors.

IRL790 displays balancing effects on aberrant motor phenotypes, reducing L-DOPA-induced dyskinesias in the rodent 6-hydroxydopamine lesion model and reducing psychostimulant-induced locomotor hyperactivity elicited by pretreatment with either d-amphetamine or dizocilpine, without negatively impacting normal motor performance.

IRL790 is active in models of perturbed dopaminergic and glutamatergic signaling, including rodent 6-hydroxydopamine L-DOPA-induced dyskinesias and psychostimulant-induced hyperactivity, in a dose range that does not impair normal behavior.

References

Waters S, et al. *J Pharmacol Exp Ther*. 2020 Jul;374(1):113-125.

Becanovic K, et al. *J Pharmacol Exp Ther*. 2020 Jul;374(1):126-133.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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