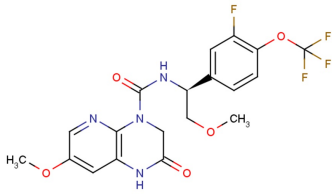
Data Sheet (Cat.No.T16976)

TargetMol
A DRUG SCREENING EXPERT

TAK-915

Chemical Properties



CAS No.:	1476727-50-0
Formula:	C19H18F4N4O5
Molecular Weight:	458.36
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	TAK-915 is a potent, selective, and brain-penetrant phosphodiesterase 2A (PDE2A) inhibitor (IC50: 0.61 nM). TAK-915 is >4100-fold more selectivity for PDE2A than PDE1A.
Targets(IC_{50})	PDE2A: 0.61 nM PDE1A: 2497 nM
In vivo	TAK-915 (1, 3, and 10 mg/kg, p.o.) dose-dependently attenuates the non-selective muscarinic antagonist scopolamine-induced memory deficits in rats. TAK-915 (3 or 10 mg/kg, p.o.) in mice produces a dose-dependent increase in 3',5'-cyclic guanosine monophosphate (cGMP) levels, with significant cGMP increases observed at a dose of 10 mg/kg. TAK-915 (3 mg/kg; p.o.; daily; for 4 days; male F344 rats) treatment significantly reduces escape latency in aged rats in the Morris water maze task [1][2].

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.182 mL	10.908 mL	21.817 mL
5 mM	0.436 mL	2.182 mL	4.363 mL
10 mM	0.218 mL	1.091 mL	2.182 mL
50 mM	0.044 mL	0.218 mL	0.436 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Mikami S, et al. Discovery of Clinical Candidate N-((1S)-1-(3-Fluoro-4-(trifluoromethoxy)phenyl)-2-methoxyethyl)-7-methoxy-2-oxo-2,3-dihydropyrido[2,3-b]pyrazine-4(1H)-carboxamide (TAK-915): A Highly Potent, Selective, and Brain-Penetrating Phosphodiesterase 2A Inhibitor for the Treatment of Cognitive Disorders. J Med Chem. 2017 Sep 28;60(18):7677-7702.
2. Nakashima M, et al. TAK-915, a phosphodiesterase 2A inhibitor, ameliorates the cognitive impairment associated with aging in rodent models. Behav Brain Res. 2019 Dec 30;376:112192.

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