Product Data Sheet

Product Name: TAK-915
Cat. No.: GC63209

Chemical Properties

Cas. No.	1476727-50-0		
Formula	$C_{19}H_{18}F_4N_4O_5$	M.Wt	458.36
Solubility	DMSO : 7.5 mg/mL (16.36 mM; ultrasonic and warming and heat to 60°C)	Storage	
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	TAK-915		

Background

TAK-915 is a potent, selective, brain-penetrant and orally active phosphodiesterase 2A (PDE2A) inhibitor with an IC50 of 0.61 nM. TAK-915 is >4100-fold more selectivity for PDE2A than PDE1A. TAK-915 has the potential for neuropsychiatric and neurodegenerative disorders treatment[1][2].

TAK-915 (3 mg/kg; oral administration; daily; for 4 days; male F344 rats) treatment significantly reduces escape latency in aged rats in the Morris water maze task[2].TAK-915 (1, 3, and 10mg/kg, p.o.) dose-dependently attenuates the non-selective muscarinic antagonist scopolamine-induced memory deficits in rats[2]. Oral dosing of TAK-915 (compound 36) (3 or 10 mg/kg) 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[1].

[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

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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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