

VU0467154

Chemical Properties

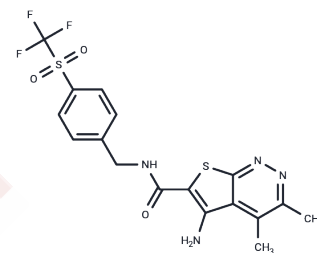
CAS No. : 1451993-15-9

Formula: C17H15F3N4O3S2

Molecular Weight: 444.45

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	VU0467154 is a positive allosteric modulator of the M4 muscarinic acetylcholine receptor (M4 mAChR).
Targets(IC50)	AChR
In vitro	VU0467154 potentiates the response to ACh with pEC50s of 7.75(rat), 6.2(human) and 6 (cynomolgus monkey) for M4 receptor, respectively. VU0467154 does not potentiate the ACh response at rat and human M1, M2, M3, or M5[1].
In vivo	VU0467154 produced a robust dose-dependent reversal of MK-801-induced hyperlocomotion and deficits in preclinical models of associative learning and memory functions, including the touchscreen pairwise visual discrimination task in wild-type mice, but failed to reverse these stimulant-induced deficits in M4 KO mice[1]. VU0467154 also enhanced the acquisition of both contextual and cue-mediated fear conditioning when administered alone in wild-type mice[1].

Solubility Information

Solubility	DMSO: 55 mg/mL (123.75 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.250 mL	11.2499 mL	22.4997 mL
5 mM	0.450 mL	2.250 mL	4.4999 mL
10 mM	0.225 mL	1.125 mL	2.250 mL
50 mM	0.045 mL	0.225 mL	0.450 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

Bubser M, et al. Selective activation of M4 muscarinic acetylcholine receptors reverses MK-801-induced behavioral impairments and enhances associative learning in rodents. ACS Chem Neurosci. 2014 Oct 15;5(10):920-42.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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