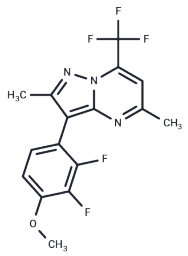
Data Sheet (Cat.No.T13321)

TargetMol

VU6005649

Chemical Properties



CAS No. : 2137047-43-7

Formula: C16H12F5N3O

Molecular Weight: 357.28

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	VU6005649 is an agonist of CNS penetrant mGlu7/8 receptor (EC50s: 0.65 μM and 2.6 μM for mGlu7 receptor and mGlu8 receptor, respectively).
Targets(IC50)	GluR
In vitro	VU6005649 is an agonist of CNS penetrant mGlu7/8 receptor(EC50s of 0.65 μM and 2.6 μM for mGlu7 receptor and mGlu8 receptor, respectively). VU6005649 displays a terminal Kp of 2.43 with total brain levels ~9× above the mGlu7 positive allosteric modulator (PAM) in vitro EC50.
In vivo	In wild-type mice VU6005649 shows modest but significant pro-cognitive effects on associative learning and the first example of efficacy of an mGlu7/8 positive allosteric modulator (PAM) in this model.

Solubility Information

Solubility	DMSO: 60 mg/mL (167.94 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (5.6 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7989 mL	13.9946 mL	27.9893 mL
5 mM	0.5598 mL	2.7989 mL	5.5979 mL
10 mM	0.2799 mL	1.3995 mL	2.7989 mL
50 mM	0.056 mL	0.2799 mL	0.5598 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

Abe M, et al. Discovery of VU6005649, a CNS Penetrant mGlu7/8 Receptor PAM Derived from a Series of Pyrazolo [1,5-a]pyrimidines. ACS Med Chem Lett. 2017 Sep 1;8(10):1110-1115.