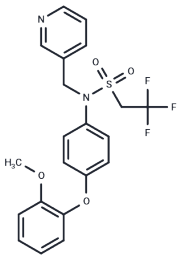
Data Sheet (Cat.No.T62756)

LY487379

Chemical Properties



CAS No. : 353231-17-1

Formula: C21H19F3N2O4S

Molecular Weight: 452.45

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	LY487379 is a selective mGluR2 positive allosteric modulator (PAM). It potently enhances glutamate-stimulated signaling, with EC50 values of 1.7 μM for mGlu2 and >10 μM for mGlu3 receptors, demonstrating high subtype selectivity. In behavioral models, LY487379 has been shown to promote cognitive flexibility and facilitate behavioral inhibition. It serves as a valuable tool for researching the therapeutic potential of mGluR2 modulation in schizophrenia and related cognitive impairments.
Targets(IC50)	GluR
In vitro	LY487379 is a selective mGluR2 PAM that potentiates glutamate signaling by reducing agonist dissociation, with no direct agonism. It enhances [^{35}S]GTPγS binding in mGlu2-expressing cells (EC_{50} = 1.7 μM) and exhibits >6-fold selectivity over mGlu3, serving as a standard tool for dissecting Group II mGluR subtype functions [2].
In vivo	LY487379 (30 mg/kg, i.p.) improves cognitive flexibility in rats, reducing trials in the extra-dimensional shift of the ASST. Microdialysis reveals a bell-shaped increase in mPFC norepinephrine and serotonin, a neurochemical mechanism that may underlie enhanced executive function [1].

Solubility Information

Solubility	DMSO: 80 mg/mL (176.82 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2102 mL	11.0509 mL	22.1019 mL
5 mM	0.442 mL	2.2102 mL	4.4204 mL
10 mM	0.221 mL	1.1051 mL	2.2102 mL
50 mM	0.0442 mL	0.221 mL	0.442 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

Nikiforuk A, et al. Effects of a positive allosteric modulator of group II metabotropic glutamate receptors, LY487379, on cognitive flexibility and impulsive-like responding in rats. J Pharmacol Exp Ther. 2010;335(3):665-673.

Schaffhauser H, et al. Pharmacological characterization and identification of amino acids involved in the positive modulation of metabotropic glutamate receptor subtype 2. Mol Pharmacol. 2003;64(4):798-810.