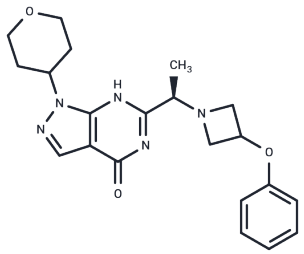
Data Sheet (Cat.No.T37800)

TargetMol
YOUR TARGET MOLECULES

PF-04449613

Chemical Properties



CAS No. : 1236858-52-8

Formula: C21H25N5O3

Molecular Weight: 395.45

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	PF-04449613 is a phosphodiesterase 9A (PDE9A) inhibitor (IC50= 22 nM).1It is selective for PDE9A over PDE1C (IC50= >1,000 nM), as well as over a variety of other PDEs, inhibiting PDE2-8, -10, and -11 activity by less than 30% in a panel of enzymes, ion channels, and transporters at 1 μM but does inhibit the human dopamine transporter (DAT; Ki= 293 nM).
In vivo	PF-04449613 (0.1-100 mg/kg, s.c.) increases cerebrospinal fluid (CSF) levels of cyclic GMP (cGMP) in rats. Subcutaneous administration of PF-04449613 (10 mg/kg) increases the rate of dendritic spine formation and elimination in mouse primary motor cortex pyramidal neuronsin vivo.2It increases the average running speed of mice in an accelerating rotarod task, indicating improved motor learning, at the same dose.

Solubility Information

Solubility	DMSO: 10 mg/mL (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5288 mL	12.6438 mL	25.2876 mL
5 mM	0.5058 mL	2.5288 mL	5.0575 mL
10 mM	0.2529 mL	1.2644 mL	2.5288 mL
50 mM	0.0506 mL	0.2529 mL	0.5058 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.

Reference

Claffey, M.M., Helal, C.J., Verhoest, P.R., et al.Application of structure-based drug design and parallel chemistry to identify selective, brain penetrant, in vivo active phosphodiesterase 9A inhibitorsJ. Med. Chem.55(21)9055-9068

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