

(1R,2R)-MK-8189

Chemical Properties

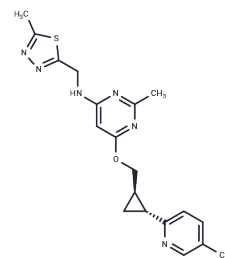
CAS No. : 1424378-99-3

Formula: C19H22N6OS

Molecular Weight: 382.48

Storage: Store at low temperature, Keep away from moisture
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	(1R,2R)-MK-8189 is an isomer of MK-8189 and can be used for biochemistry experiments. MK-8189 is a potent and selective pyrimidine PDE10A inhibitor.
Targets(IC50)	PDE
In vitro	MK-8189 is a highly selective PDE10A inhibitor with an IC ₅₀ of 1.6 nM and >500,000-fold selectivity over other PDE families. MK-8189 binds reversibly to human PDE10A with a dissociation half-life of 6.7 minutes at 25 °C[1].
In vivo	In rats, oral MK-8189 (0.25-0.75 mg/kg) reversed MK-801-induced hyperactivity and improved novel object recognition, indicating antipsychotic and pro-cognitive effects. Efficacy correlated with brain PDE10A occupancy[1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6145 mL	13.0726 mL	26.1452 mL
5 mM	0.5229 mL	2.6145 mL	5.229 mL
10 mM	0.2615 mL	1.3073 mL	2.6145 mL
50 mM	0.0523 mL	0.2615 mL	0.5229 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

Layton ME, et al. Discovery of MK-8189, a Highly Potent and Selective PDE10A Inhibitor for the Treatment of Schizophrenia. J Med Chem. 2023 Jan 26;66(2):1157-1171.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481