

PDE9-IN-1

Chemical Properties

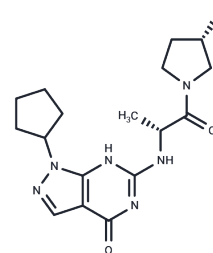
CAS No. : 2305087-92-5

Formula: C₁₇H₂₃FN₆O₂

Molecular Weight: 362.4

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	PDE9-IN-1 is a selective and orally bioavailable inhibitor of PDE9A (IC ₅₀ of 8.7 nM).
Targets (IC ₅₀)	PDE
In vivo	In the Unilateral common carotid artery occlusion (UCCAO) mouse model, PDE9-IN-1 (2.5-5.0 mg/kg; orally) significantly reduces the day 6 escape latency time, increases the frequency of platform area crossings, and recovers learning and memory function. High dose group possibly improved the escape latency time of mice[1].

Solubility Information

Solubility	DMSO: 45 mg/mL (124.17 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 (5.52 mM), Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7594 mL	13.7969 mL	27.5938 mL
5 mM	0.5519 mL	2.7594 mL	5.5188 mL
10 mM	0.2759 mL	1.3797 mL	2.7594 mL
50 mM	0.0552 mL	0.2759 mL	0.5519 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

Wu Y, et al. Discovery of Potent, Selective, and Orally Bioavailable Inhibitors against Phosphodiesterase-9, a Novel Target for the Treatment of Vascular Dementia. *J Med Chem.* 2019 Apr 25;62(8):4218-4224.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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