

MR-L2

Chemical Properties

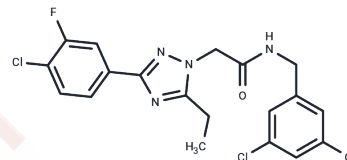
CAS No. : 2374703-19-0

Formula: C₁₉H₁₆Cl₃FN₄O

Molecular Weight: 441.71

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	MR-L2 is a reversible and noncompetitive allosteric activator of long-isoform phosphodiesterase-4 (PDE4).
Targets(IC50)	PDE

Solubility Information

Solubility	DMSO: 41.7 mg/mL (94.41 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2 mg/mL (4.53 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	2.2639 mL	11.3196 mL	22.6393 mL
5 mM	0.4528 mL	2.2639 mL	4.5279 mL
10 mM	0.2264 mL	1.132 mL	2.2639 mL
50 mM	0.0453 mL	0.2264 mL	0.4528 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

Omar F, et al. Small-molecule allosteric activators of PDE4 long form cyclic AMP phosphodiesterases. Proc Natl Acad Sci U S A. 2019 Jul 2;116(27):13320-13329.

Sharp B M, Jiang Q, Kim P, et al. Inactivation of phosphodiesterase-4B gene in rat nucleus accumbens shell by CRISPR/Cas9 modulates the motivation to chronically self-administer nicotine. bioRxiv. 2023: 2023.03. 07.531588.

Sharp B M, Jiang Q, Kim P, et al. Inactivation of phosphodiesterase-4B gene in rat nucleus accumbens shell by CRISPR/Cas9 or positive allosteric modulation of the protein affects the motivation to chronically self-administer nicotine. Scientific Reports. 2024, 14(1): 2562.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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