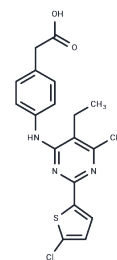


PDE4B-IN-2

Chemical Properties

CAS No. :	915082-52-9
Formula:	C ₁₉ H ₁₈ ClN ₃ O ₂ S
Molecular Weight:	387.88
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	PDE4B-IN-2 (A 33) is an orally active and selective PDE4B inhibitor with an IC ₅₀ of 15 nM. PDE4B-IN-2 inhibits PDE4D (IC ₅₀ =1.7 μM). PDE4B-IN-2 exhibits potent anti-inflammatory effects.
Targets(IC ₅₀)	PDE
In vitro	PDE4B-IN-2 (compound 33) does not inhibit CYP1A2, CYP3A4, CYP2C9, and CYP2D (IC ₅₀ >10 μM) but inhibits LPS-induced TNF-α production in vitro in mouse peripheral blood mononuclear cells (PBMC; IC ₅₀ =0.5 μM) [1].
In vivo	PDE4B-IN-2 (compound 33; 2 mg/kg; po) achieves a C _{max} of 8.7 μg/mL and an AUC of 52.3 μg·h/mL in mice[1].

Solubility Information

Solubility	DMSO: 22.5 mg/mL (58.01 mM), Sonication and heating to 60°C are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
------------	--

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5781 mL	12.8906 mL	25.7812 mL
5 mM	0.5156 mL	2.5781 mL	5.1562 mL
10 mM	0.2578 mL	1.2891 mL	2.5781 mL
50 mM	0.0516 mL	0.2578 mL	0.5156 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

- Kenji Naganuma, et al. Discovery of selective PDE4B inhibitors. *Bioorg Med Chem Lett*. 2009 Jun 15;19(12):3174-6.
- Sun R, Han M, Lin Y, et al. Inhibition of PDE4B ameliorates cognitive defects in the model of alcoholic dementia in 3x Tg-AD mice via PDE4B/cAMP/PKA signaling. *International Journal of Neuropsychopharmacology*. 2025: pyaf009.
- Zhang et al (2017) Comparison of the pharmacological profiles of selective PDE4B and PDE4D inhibitors in the central nervous system. *Sci.Rep.* 7 40115 PMID:28054669
- Wilson et al (2017) Therapeutic benefits of phosphodiesterase 4B inhibition after traumatic brain injury. *PLoS One* 12 e0178013 PMID:28542295

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