

TP-10

Chemical Properties

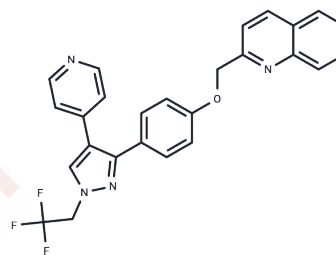
CAS No. : 898563-00-3

Formula: C₂₆H₁₉F₃N₄O

Molecular Weight: 460.45

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	TP-10 is a selective inhibitor of PDE10A against other PDEs with IC ₅₀ of 0.8 nM.
Targets(IC ₅₀)	PDE
In vivo	TP-10 is active in the mouse behavioral model for positive symptoms. TP-10 demonstrates good in vitro and in vivo activity with extremely high intrinsic clearance (CL _{int}) of t>1000 mL/min/kg in mouse liver microsomes (MLM) in assay[1].

Solubility Information

Solubility	DMSO: 95 mg/mL (206.32 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: 3.3 mg/mL (7.17 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	2.1718 mL	10.8589 mL	21.7179 mL
5 mM	0.4344 mL	2.1718 mL	4.3436 mL
10 mM	0.2172 mL	1.0859 mL	2.1718 mL
50 mM	0.0434 mL	0.2172 mL	0.4344 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

Hamaguchi W, et al. Synthesis and in vivo evaluation of novel quinoline derivatives as phosphodiesterase 10A inhibitors. *Chem Pharm Bull (Tokyo)*. 2014;62(12):1200-1213.

Verhoest PR, et al. Discovery of a novel class of phosphodiesterase 10A inhibitors and identification of clinical candidate 2-[4-(1-methyl-4-pyridin-4-yl-1H-pyrazol-3-yl)-phenoxyethyl]-quinoline (PF-2545920) for the treatment of schizophrenia. *J Med Chem*

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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