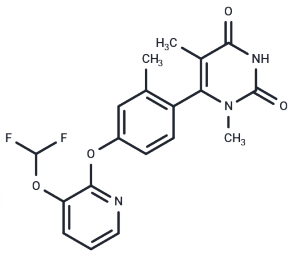
Data Sheet (Cat.No.T36946)

PW0464

Chemical Properties



CAS No. : 1643462-93-4

Formula: C19H17F2N3O4

Molecular Weight: 389.35

Storage: Store at low temperature
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	PW0464 ((Rac)-Razpipadon) is a non-catechol D1R agonist and potent omplete G protein biased ligand with an EC50 (Gs-cAMP)=5.8 nM for the study of neurological disorders.
Targets(IC50)	Dopamine Receptor
In vitro	PW0464 is a non-catechol selective dopamine D1/D5 receptor agonist. In HEK293T cells overexpressing D1R or D5R, PW0464 activates G-protein signaling (cAMP production) with an EC_{50} of 5.8 nM, indicating high potency[1].

Solubility Information

Solubility	DMSO: 18 mg/mL (46.23 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 1.5 mg/mL (3.85 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5684 mL	12.8419 mL	25.6838 mL
5 mM	0.5137 mL	2.5684 mL	5.1368 mL
10 mM	0.2568 mL	1.2842 mL	2.5684 mL
50 mM	0.0514 mL	0.2568 mL	0.5137 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

Kumar S, et al. Discovery and structure - activity relationships of 2,4,5-trimethoxyphenyl pyrimidine derivatives as selective D5 receptor partial agonists. Bioorg Chem. 2024 Dec;153:107809.

David R Sibley, et al. Novel Cryo-EM structures of the D1 dopamine receptor unlock its therapeutic potential. Signal Transduct Target Ther. 2021 May 22;6(1):205.