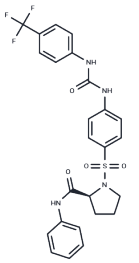
Data Sheet (Cat.No.T13974)

TargetMol

ZL0580

Chemical Properties



CAS No. : 2377151-10-3

Formula: C25H23F3N4O4S

Molecular Weight: 532.53

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	ZL0580 induces HIV suppression by inhibiting Tat transactivation and transcription elongation as well as by inducing repressive chromatin structure at the HIV promoter.
Targets(IC50)	Epigenetic Reader Domain,HIV Protease
In vitro	In PBMCs of viremic HIV-infected individuals,ZL0580 (8 μM, 2 days) induces HIV transcriptional suppression with low toxicity[1]. ZL0580 treatment (10 μM) suppresses both PMA-stimulated and basal HIV transcription[1].

Solubility Information

Solubility	DMSO: 250 mg/mL (469.46 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: 5 mg/mL (9.39 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	1.8778 mL	9.3891 mL	18.7783 mL
5 mM	0.3756 mL	1.8778 mL	3.7557 mL
10 mM	0.1878 mL	0.9389 mL	1.8778 mL
50 mM	0.0376 mL	0.1878 mL	0.3756 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

Niu Q, et al. Structure-guided drug design identifies a BRD4-selective small molecule that suppresses HIV. J Clin Invest. 2019 Jul 22;129(8):3361-3373.
Andre M, Kolishetti N, Yndart A, et al.Magnetoelectric Extracellular Vesicle Latency-Targeting (MELT) Nanotherapeutic for the Block-Lock-and-Kill HIV Eradication Strategy.Biomedicines.2025, 13(1): 147.
Vansant G, et al. Block-And-Lock Strategies to Cure HIV Infection. Viruses. 2020 Jan 10;12(1). pii: E84.
Brasier AR, et al. Validation of the epigenetic reader bromodomain-containing protein 4 (BRD4) as a therapeutic target for treatment of airway remodeling. Drug Discov Today. 2020 Jan;25(1):126-132.