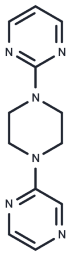
Data Sheet (Cat.No.T60342)

TargetMol

HIV-1 inhibitor-47

Chemical Properties



CAS No. : 137448-39-6

Formula: C12H14N6

Molecular Weight: 242.28

Storage: Keep away from direct sunlight
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	HIV-1 inhibitor-47 is a potent HIV-1 reverse transcriptase (RT) inhibitor. It suppresses viral replication by blocking RNA-to-DNA conversion, used for developing new therapies against drug-resistant HIV strains.
Targets(IC50)	HIV Protease
In vitro	In virology research, APOBEC3G acts as a critical host factor that induces hypermutation in the HIV-1 genome, thereby arresting replication. HIV-1 inhibitor-47 specifically disrupts the Vif-APOBEC3G interaction, preventing Vif from recruiting the E3 ubiquitin ligase complex to degrade A3G. By stabilizing A3G levels, the compound significantly enhances the antiviral state of the host cell. Furthermore, its chemical scaffold, characteristic of many psychotropic agents, suggests potential multi-target activity in modulating neurotransmitter pathways associated with mood disorders [1][2].

Solubility Information

Solubility	DMSO: 13 mg/mL (53.66 mM),Sonication is recommmended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.1275 mL	20.6373 mL	41.2746 mL
5 mM	0.8255 mL	4.1275 mL	8.2549 mL
10 mM	0.4127 mL	2.0637 mL	4.1275 mL
50 mM	0.0825 mL	0.4127 mL	0.8255 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

Fernández-Ferreiro A, Santiago-Varela M, Gil-Martínez M, González-Barcia M, Luaces-Rodríguez A, Díaz-Tome V, Pardo M, Méndez JB, Piñeiro-Ces A, Rodríguez-Ares MT, Lamas MJ, Otero-Espinar FJ. In Vitro Evaluation of the Ophthalmic Toxicity Profile of Chlorhexidine and Propamidine Isethionate Eye Drops. J Ocul Pharmacol Ther. 2017 Apr;33(3):202-209. doi: 10.1089/jop.2016.0053. PubMed PMID: 28384032.