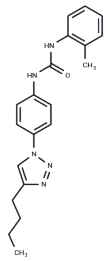
Data Sheet (Cat.No.T61193)

TargetMol

DDX3-IN-2

Chemical Properties



CAS No. : 1919828-81-1

Formula: C20H23N5O

Molecular Weight: 349.43

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	DDX3-IN-2 is an ATP-dependent RNA deconjugase (DDX3) inhibitor with broad-spectrum antiviral activity and is used in the study of HIV infection and dengue virus infection.
Targets(IC50)	Antiviral,HIV Protease,COX
In vitro	DDX3-IN-2 is a competitive inhibitor of RNA substrates, and its inhibitory potency decreases with increasing RNA substrate concentration. DDX3-IN-2 was shown to be a potent inhibitor of DEADbox polypeptide 3 (DDX3) with an IC50 of 0.3 μM, and DDX3-IN-2 was inactive against the ATPase activity of DDX3, DDX1 deconjugating enzyme and DENV NS3 deconjugating enzyme. [1]
In vivo	In animal studies, DDX3-IN-2 was administered via tail vein injection at a dose of 20 mg/kg, which showed good biocompatibility and was well tolerated by Wistar rats. DDX3-IN-2 rapidly shortens the half-life and decreases plasma clearance in an intravenous push (0-25 hours) at a dose of 10 mg/kg. [1]

Solubility Information

Solubility	DMSO: 80 mg/mL (228.94 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 3.3 mg/mL (9.44 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	2.8618 mL	14.309 mL	28.618 mL
5 mM	0.5724 mL	2.8618 mL	5.7236 mL
10 mM	0.2862 mL	1.4309 mL	2.8618 mL
50 mM	0.0572 mL	0.2862 mL	0.5724 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

Brai A, et al. Human DDX3 protein is a valuable target to develop broad spectrum antiviral agents. Proc Natl Acad Sci U S A. 2016 May 10;113(19):5388-93.