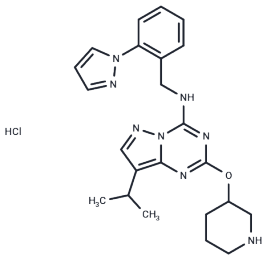
Data Sheet (Cat.No.T72385)

TargetMol

LDC4297 hydrochloride

Chemical Properties



CAS No. :	2319747-14-1
Formula:	C23H29ClN8O
Molecular Weight:	468.98
Storage:	Store at low temperature,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	LDC4297 hydrochloride is a selective and efficient CDK7 inhibitor with broad-spectrum antiviral activity. It inhibits herpesvirus, adenovirus, poxvirus, retrovirus, and positive-strand RNA viruses. It can be used for research on viral infections.
Targets(IC50)	HIV Protease,CDK,HSV
In vitro	LDC4297 hydrochloride is a highly selective CDK7 inhibitor with an IC50 value of 0.13 nM. LDC4297 hydrochloride (0-10 μM, 6 days treatment) dose-dependently inhibited HCMV replication with an EC50 value of 24.5 nM. LDC4297 hydrochloride (20 μM, 12-96 hours treatment) exhibited anti-HCMV activity by multiple mechanisms including blocking virus-induced Rb phosphorylation. LDC4297 hydrochloride (20 μM, 12-96 hrs) demonstrated anti-HCMV activity through multiple mechanisms, including blocking virus-induced Rb phosphorylation. [1] LDC4297 hydrochloride (0-10 μM, treated for 4 days) exhibited anti-proliferative effects on primary cultures of human-derived fibroblasts (HFF) with a GI50 value of 4.5 μM. [1] LDC4297 hydrochloride (concentration range 0-10 μM, treatment for 7 days) exhibited a broad spectrum of antiviral effects against a wide range of viruses, including HCMV, GPCMV, MCMV, HHV-6A, HSV-1, HSV-2, VZV, EBV, HAdV-2, poxvirus, HIV-1 (nl4-3), HIV-1 (4LIG7) and influenza A virus, with corresponding EC50 values of 0.02 μM, 0.05 μM, 0.07 μM, 0.04 μM, 0.02 μM, 0.27 μM, 0.06 μM, 1.21 μM, 0.25 μM, 0.77 μM, 1.04 μM, 1.13 μM, and 0.99 μM, respectively. [1]
In vivo	LDC4297 hydrochloride (100 mg/kg, single oral dose) showed promising pharmacokinetic properties. [1]

Solubility Information

Solubility	DMSO: 80 mg/mL (170.58 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1323 mL	10.6614 mL	21.3229 mL
5 mM	0.4265 mL	2.1323 mL	4.2646 mL
10 mM	0.2132 mL	1.0661 mL	2.1323 mL
50 mM	0.0426 mL	0.2132 mL	0.4265 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

Hutterer C, et al. A novel CDK7 inhibitor of the Pyrazolotriazine class exerts broad-spectrum antiviral activity at nanomolar concentrations. Antimicrob Agents Chemother. 2015 Apr;59(4):2062-71.