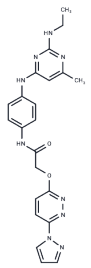
Data Sheet (Cat.No.T211418)

TargetMol

CIDD-8633

Chemical Properties



CAS No. : 1428356-95-9

Formula: C22H23N9O2

Molecular Weight: 445.48

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	CIDD-8633 is a potent inhibitor of DDR2 with an IC50 of 6.105 μM. It significantly suppresses the proliferation of MIA-PaCa-2 and AsPC-1 cells, with IC25 values of 4.0 and 5.5 μM, respectively. Additionally, CIDD-8633 hinders cell migration, arrests the cell cycle, induces apoptosis (apoptosis), and substantially reduces the growth of pancreatic ductal adenocarcinoma (PDAC) tumors. This compound is applicable in pancreatic cancer research, including studies on PDAC.
Targets(IC50)	Apoptosis,Discoidin Domain Receptor (DDR),Caspase,Interleukin
In vitro	CIDD-8633 enhances the stability of DDR2 protein in AsPC-1, MIA PaCa-2, and KPC cells at a temperature range of 40°C-64°C. It inhibits the long-term clonogenic capacity of AsPC1 and MIA-PaCa-2 cells at a concentration of 4-5.5 μM over 7-10 days. CIDD-8633, at 4-6 μM for 72 hours, significantly reduces phosphorylated DDR2 and downstream effector phosphorylated ERK levels in AsPC1 and MIA-PaCa-2 cells. At 1.5 μM over 48 hours, it suppresses nuclear translocation of the DDR2-ERK signaling pathway and blocks proliferation signals in AsPC1 and MIA-PaCa-2 cells. When used in concentrations of 0.1-10 μM for 72 hours, CIDD-8633 decreases pancreatic ductal adenocarcinoma (PDAC) cell proliferation in a dose-dependent manner. At 4 μM for 16 hours, it reduces MIA PaCa-2 cell migration by inhibiting DDR2. Cell cycle progression is inhibited at the G1/S phase in AsPC1 and MIA-PaCa-2 cells at 4-6 μM over 72 hours. The compound also induces apoptosis in these cells through caspase-3 activation. Additionally, CIDD-8633 at 6 μM for 48 hours upregulates genes such as CDKN1A, DDIT3, IL-1β, PMAIP1, and CASP4 in AsPC1 and MIA-PaCa-2 cells. At concentrations of 4-10 μM over 72 hours, it significantly decreases levels of p-DDR2 and p-ERK in AsPC1 and MIA-PaCa-2 cells.
In vivo	CIDD-8633 (40 mg/kg, i.p., administered twice weekly for 28 days) exerts antitumor effects by targeting DDR2 in mouse models induced with MIA PaCa-2 and Pan02 cells.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2448 mL	11.2238 mL	22.4477 mL
5 mM	0.449 mL	2.2448 mL	4.4895 mL
10 mM	0.2245 mL	1.1224 mL	2.2448 mL
50 mM	0.0449 mL	0.2245 mL	0.449 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.