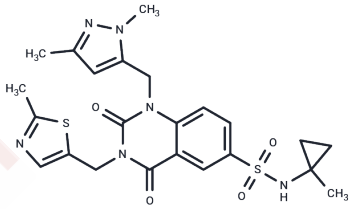
Data Sheet (Cat.No.T5700)

PDD00017273

Chemical Properties



CAS No. : 1945950-21-9

Formula: C23H26N6O4S2

Molecular Weight: 514.62

Storage: Keep away from moisture,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	PDD00017273 is a radiosensitizing PARG) inhibitor with antitumor or activity for the study of epithelial ovaries.
Targets(IC50)	Others,Poly(ADP-ribose) Glycohydrolase (PARG)
In vitro	PDD 00017273 is an effective inhibitor of PARG with an IC50 of 26 nM and a KD of 1.45 nM. At 10 μM, PDD 00017273 does not inhibit five common cytochrome P450 enzymes. At 30 μM, it moderately increases phosphorylated H2AX (γH2AX) intensity. Additionally, PDD 00017273 reduces NAD/H through PARG inhibition after DNA damage. The compound inhibits ZR-75-1 cells carrying wild-type BRCA1 and BRCA2 and exhibits weaker activity against MDA-MB-436 cells carrying the 5396 + 1G>A mutation in BRCA1 [2].At 0.3 μM, PDD 00017273 inhibits the degradation of PAR polymers in MCF7 cells. It also reduces the viability of BRCA1, BRCA2, PALB2, FAM175A, and BARD1-depleted cells. PDD 00017273 halts replication forks and induces DNA damage requiring homologous recombination (HR) for repair[1].

Solubility Information

Solubility	DMSO: 40.83 mg/mL (79.34 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: 2 mg/mL (3.89 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	1.9432 mL	9.7159 mL	19.4318 mL
5 mM	0.3886 mL	1.9432 mL	3.8864 mL
10 mM	0.1943 mL	0.9716 mL	1.9432 mL
50 mM	0.0389 mL	0.1943 mL	0.3886 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

Gravells P, et al. Specific killing of DNA damage-response deficient cells with inhibitors of poly(ADP-ribose) glycohydrolase. DNA Repair (Amst). 2017 Apr;52:81-91.
Sun Y, Chen J, Pommier Y.Real-time imaging of drug-induced trapping of cellular topoisomerases and poly (ADP-ribose) polymerase 1 at the single-molecule level.Nucleic Acids Research.2023: gkad735.
James DI, et al. First-in-Class Chemical Probes against Poly(ADP-ribose) Glycohydrolase (PARG) Inhibit DNA Repair with Differential Pharmacology to AZD2281. ACS Chem Biol. 2016 Nov 18;11(11):3179-3190. Epub 2016 Oct 12.