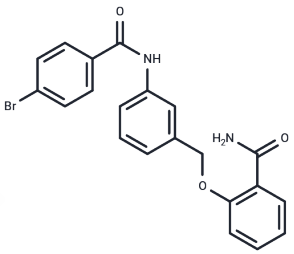
Data Sheet (Cat.No.T78157)

PARP-1-IN-3

Chemical Properties



CAS No. : 2976342-33-1

Formula: C21H17BrN2O3

Molecular Weight: 425.28

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	PARP-1-IN-3 is a potent PARP-1 inhibitor that inhibits PARP-1 and PARP-2 with IC50 values of 0.25 nM and 2.34 nM, respectively.PARP-1-IN-3 has potential anti-inflammatory activity, induces apoptosis, and arrests the cell cycle in the G2/M phase. PARP-1-IN-3 may be useful for the study of cancer-related diseases. cancer-related diseases.
Targets(IC50)	Apoptosis,Caspase,PARP
In vitro	PARP-1-IN-3 (compound 13f) demonstrates effective anticancer activity with IC50 values of 0.30 μM, 2.83 μM, 33.69 μM, and 486.87 μM against HCT116, DLD-1, SW480, and NCM460 cells, respectively, following a 48-hour treatment[1]. In HCT116 cells, PARP-1-IN-3 (0.3-3 μM) inhibits colony formation and migration over 24-48 hours[1]. A 48-hour treatment with PARP-1-IN-3 (0.3-3 μM) induces the accumulation of DNA double-strand breaks in HCT116 cells[1]. Treatment with PARP-1-IN-3 (0.3-7.5 μM) for 48-72 hours results in cell cycle arrest at the G2/M phase, reduced mitochondrial membrane potential, and apoptosis in HCT116 cells[1].

Solubility Information

Solubility	DMSO: 100 mg/mL (235.14 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3514 mL	11.757 mL	23.5139 mL
5 mM	0.4703 mL	2.3514 mL	4.7028 mL
10 mM	0.2351 mL	1.1757 mL	2.3514 mL
50 mM	0.047 mL	0.2351 mL	0.4703 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

Lu G, et, al. Discovery of novel benzamide derivatives bearing benzamidophenyl and phenylacetamidophenyl scaffolds as potential antitumor agents via targeting PARP-Eur J Med Chem. 2023 May 5;251:115243.