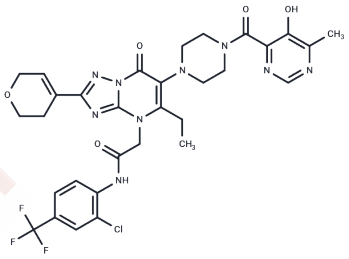
Data Sheet (Cat.No.T72107)

TargetMol

HRO761

Chemical Properties



CAS No. : 2869954-34-5

Formula: C31H31ClF3N9O5

Molecular Weight: 702.08

Storage: Store at low temperature,Keep away from direct sunlight,Keep away from moisture
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	HRO761 (Werner syndrome RecQ helicase-IN-1, Example 42) is a small molecule inhibitor, a potent WRN inhibitor with high efficacy, and can be used for research on cancers such as colon cancer and gastric cancer.
Targets(IC50)	DNA/RNA Synthesis
In vitro	**Methods**: HRO761 was administered to SW48 (MSI) and CAL33 (MSS) cells for 4 days. **Results**: CellTiter-Glo assay demonstrated selective inhibition of MSI cell proliferation with a GI50 of 40 nM, while showing no activity against MSS cells. Colony formation assays (10–14 days) confirmed GI50 ranges of 50–1000 nM in MSI cells. Western blot detected activation of DNA damage markers and WRN degradation. [1] **Methods**: An LC-MS/MS method was established for the determination of HRO761 concentration in rat plasma and applied to pharmacokinetic studies. **Results**: Following oral administration of HRO761 (5, 10, 20 mg/kg), rapid absorption was observed with time to peak concentration of 1.0–4.0 h, and absolute bioavailability ranged from 79.0% to 99.1%. [2]
In vivo	**Methods**: In the SW48 cell-derived xenograft tumor model (female nude mice), HRO761 was administered orally (20, 40, 60, 120 mg/kg, once daily, dissolved in 20% hydroxypropyl-β-cyclodextrin) for 92 consecutive days of treatment. **Results**: The 20 mg/kg dose achieved tumor stasis, while 60-120 mg/kg doses induced 75-90% tumor regression in a dose-dependent manner. [1]

Solubility Information

Solubility	DMSO: 99.7 mg/mL (142.01 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: 3.3 mg/mL (4.7 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	1.4243 mL	7.1217 mL	14.2434 mL
5 mM	0.2849 mL	1.4243 mL	2.8487 mL
10 mM	0.1424 mL	0.7122 mL	1.4243 mL
50 mM	0.0285 mL	0.1424 mL	0.2849 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

Ferretti, Stephane et al. Discovery of WRN inhibitor HRO761 with synthetic lethality in MSI cancers. Nature vol. 629,8011 (2024): 443-449.

Shen, Jie et al. Pharmacokinetic Study of HRO761 in Rats by Liquid Chromatography Combined With Electrospray Ionization Tandem Mass Spectrometry. Biomedical chromatography : BMC vol. 39,4 (2025): e70033.