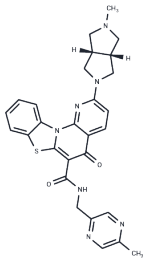
Data Sheet (Cat.No.T9051)

TargetMol

ZYN57939

Chemical Properties



CAS No. : 1639357-93-9

Formula: C28H27N7O2S

Molecular Weight: 525.62

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	ZYN57939 (MTR-106) is RNA polymerase I inhibitor for treating RNA polymerase I-mediated diseases. ZYN57939 showed inhibitory activity with IC50 of 0.855 μM against human HT- 29 cancer cell lines.
Targets(IC50)	Apoptosis,DNA/RNA Synthesis
In vitro	MTR-106, stabilizes DNA G-quadruplexes in vitro.?MTR-106 displayed significant antiproliferative activity in homologous recombination repair (HR)-deficient and PARP inhibitor (PARPi)-resistant cancer cells.?Moreover, MTR-106 increased DNA damage and promoted cell cycle arrest and apoptosis to inhibit cell growth.
In vivo	ZYN57939 oral and i.v. administration significantly impaired tumor growth in BRCA-deficient xenograft mouse models.However, ZYN57939 showed modest activity against talazoparib-resistant xenograft models.In rats, the drug rapidly distributes to tissues within 5 min, and its average concentrations were 12-fold higher in the tissues than in the plasma.Overall, ZYN57939 as a novel G-quadruplex stabilizer with high tissue distribution, and it may serve as a potential anticancer agent.

Solubility Information

Solubility	DMSO: 5.26 mg/mL (10.01 mM),Sonication is recommended. H2O: Insoluble, (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9025 mL	9.5126 mL	19.0252 mL
5 mM	0.3805 mL	1.9025 mL	3.805 mL
10 mM	0.1903 mL	0.9513 mL	1.9025 mL
50 mM	0.0381 mL	0.1903 mL	0.3805 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

Discovery of MTR-106 as a highly potent G-quadruplex stabilizer for treating BRCA-deficient cancers[J]. Investigational New Drugs, 2021:1-9.