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Certificate of Analysis

Catalog Number	BP13600
Product Name	ZYN57939

Physical and Chemical Properties

Synonyms	MTR-106
CAS No.	1639357-93-9
Chemical Formula	C29H28N6O2S
Molecular Weight	524.64
Solubility	DMSO: 5.25 mg/ml (10 mM), Need ultrasonic H2O: Insoluble
Storage	Powder: -20°C for 2 years In solvent: -80°C for 1 year
Chemical Structure OR Tested Image	

Product Information

Description	ZYN57939 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.

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	MTR-106 oral and i.v. administration significantly impaired tumor growth in BRCA-deficient xenograft mouse models.?However, MTR-106 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, MTR-106 as a novel G-quadruplex stabilizer with high tissue distribution, and it may serve as a potential anticancer agent.

Analytical Data

HPLC	Shows Min >99% purity
H-NMR	Consistent with structure
Stability and Solubility Advice	Information on product stability, especially in solution, has rarely been reported and in most cases we can only provide a general guideline. We recommend that once the stock solution has been prepared, it be stored in equal quantities in sealed vials and used within 1 month. Avoid repeated freezing and thawing cycles. Storage conditions for some special products should be referred to their storage details.

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