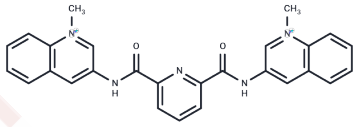
Data Sheet (Cat.No.T7409)

360A

Chemical Properties



CAS No. : 794458-56-3

Formula: C27H23N5O2

Molecular Weight: 449.5

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	360A is a stabilizing G-Quadruplex ligand, and also inhibits telomerase activity for telomerase in TRAP-G4 assay(IC50 : 300 nM).
Targets(IC50)	DNA/RNA Synthesis,Telomerase
In vitro	A549 lung carcinoma cell lines treatment with 5 μM of 360A led to an inhibition of cell proliferation within 11 days of treatmen. Treatment with the newly synthesized dimer (360A)2A led to a comparable antiproliferative effect[1]
Cell Research	Supplemented with 10% fetal calf serum (FCS) and 1% penicillin/streptomycin. A549 cells were maintained in humidified incubators at 37 °C in an atmosphere containing 5% CO2 and ambient oxygen of 20%. Cells were grown in 25 cm^2 flasks (150,000 cells/flask) and treated with 5 μM of 360A or (360A)2A every 3 or 4 days (i.e., at each reseeding) until cultures were terminated. Control cells were either non-treated or treated with 0.1% DMSO. At each reseeding the remaining cells were pelleted and snap frozen for further DNA extraction.Statistical analysis was performed using GraphPad Prism 5. A Chi-square test was used to compare TDEs frequencies[1].

Solubility Information

Solubility	DMSO: Slightly soluble, (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2247 mL	11.1235 mL	22.2469 mL
5 mM	0.4449 mL	2.2247 mL	4.4494 mL
10 mM	0.2225 mL	1.1123 mL	2.2247 mL
50 mM	0.0445 mL	0.2225 mL	0.4449 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

Hwang I , Mailliet P , Hossard V , et al. Investigating the Effect of Mono- and Dimeric 360A G-Quadruplex Ligands on Telomere Stability by Single Telomere Length Analysis (STELA)[J]. Molecules, 2019, 24(3).
Liu T, Wu Y, Qin L, et al.Nonselective Intercalation of G-Quadruplex-Targeting Ligands into Double-Stranded DNA Quantified by Single-Molecule Stretching.The Journal of Physical Chemistry B.2023
Zhang Y, Cheng Y, Luo Q, et al.Distinguishing G-Quadruplexes Stabilizer and Chaperone for c-MYC Promoter G-Quadruplexes through Single-Molecule Manipulation.Journal of the American Chemical Society.2024
Pennarun Gaëlle, Christine G , Hoffschir Françoise, et al. Role of ATM in the telomere response to the G-quadruplex ligand 360A[J]. Nucleic Acids Research(5):5.