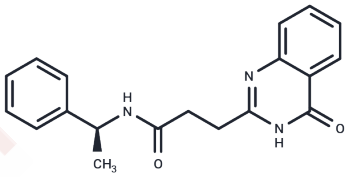
Data Sheet (Cat.No.T6578)

TargetMol

ME0328

Chemical Properties



CAS No. : 1445251-22-8

Formula: C19H19N3O2

Molecular Weight: 321.37

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	ME0328 is a potent, selective PARP inhibitor with an IC50 of 0.89 μM for PARP3, showing approximately 7-fold selectivity over PARP1.
Targets(IC50)	PARP
In vitro	ME0328 is soluble, cell permeable, and metabolically stable in human liver microsomes and rat hepatocytes. ME0328 (10 μM) results in a significant delay of γH2AX-foci resolution by affecting ARTD3 in A549 and MRC5 cells without significant toxicity. [1]
Kinase Assay	Enzymatic Assays: Protein ADP-ribosylation is measured using hexahistidine-tagged ARTD proteins and recombinant histone proteins captured on 96-well Ni2+-chelating plates (5-PRIME). ADP-ribosylation reactions are initiated by addition of NAD+ (2% biotinylated), and modified reaction products are detected by chemiluminescence. Km values are estimated using plots of initial rates vs. NAD+ concentrations and linear curve fitting with GraphPad Prism. All compounds are dissolved in dimethyl sulfoxide (DMSO) to a stock concentration of 50 mM. Experiments to determine IC50 values are conducted with compound concentrations in the range between 10 nM and 450 μM with a DMSO concentration of 1% (v/v). Measurements are carried out at an NAD+ concentration below Km for each transferase. IC50 values are estimated using curve fitting with GraphPad Prism. Reported values represent means ± SE of the fits of the curves based on duplicate or triplicate experiments, each determined based on three replicates.
Cell Research	Compound cytotoxicity in A549 and MRC5 cells is evaluated using WST-1 assays. A549 cells are cultured in Dulbecco's Modified Eagle's Medium supplemented with 10% fetal calf serum (FCS), penicillin, and streptomycin. MRC5 cells are cultured in Minimal Essential Medium supplemented with 10% FCS, penicillin, streptomycin, and l-glutamine. Both cell lines are maintained in a humidified incubator at 37°C and 5% CO2. (Only for Reference)

Solubility Information

Solubility	DMSO: 60 mg/mL (186.7 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)

In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (6.22 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	3.1117 mL	15.5584 mL	31.1168 mL
5 mM	0.6223 mL	3.1117 mL	6.2234 mL
10 mM	0.3112 mL	1.5558 mL	3.1117 mL
50 mM	0.0622 mL	0.3112 mL	0.6223 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

Lindgren AE, et al. ACS Chem Biol. 2013, 8(8), 1698-1703.