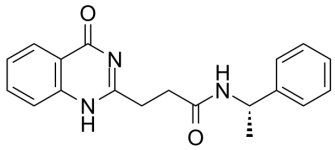
ME0328

Cat. No.:	HY-100225
CAS No.:	1445251-22-8
Molecular Formula:	$C_{19}H_{19}N_3O_2$
Molecular Weight:	321.37
Target:	PARP
Pathway:	Cell Cycle/DNA Damage; Epigenetics
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 75 mg/mL (233.38 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
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

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (7.78 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

ME0328 is a potent and selective ARTD3/PARP3 inhibitor with an IC_{50} of 0.89±0.28 μM.

IC_{50} & Target

ARTD3/PARP3 0.89 μM (IC_{50})	ARTD1/PARP1 6.3 μM (IC_{50})	ARTD2/PARP2 10.8 μM (IC_{50})	ARTD6/TNKS2 34.3 μM (IC_{50})
ARTD5/TNKS1 47.3 μM (IC_{50})	ARTD10/PARP10 71.3 μM (IC_{50})		

In Vitro

ME0328 is a potent and selective inhibitor of ARTD3/PARP3 that is active in cells. In in vitro histone H1 modification assay, ME0328 inhibits the transferase activity of ARTD3 with an IC_{50} of 0.89±0.28 μM. In human A549 cells, ME0328 and ME0355 (at 10 μM) delay the resolution of γH2AX-containing foci that serve as markers for DNA double strand break repair following γ-irradiation (2 Gy). In silico and in vitro physicochemical and metabolic profiling indicated that ME0328 is soluble, cell

permeable, and metabolically stable in human liver microsomes and rat hepatocytes[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Lindgren AE, et al. PARP inhibitor with selectivity toward ADP-ribosyltransferase ARTD3/PARP3. ACS Chem Biol. 2013 Aug 16;8(8):1698-703.

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