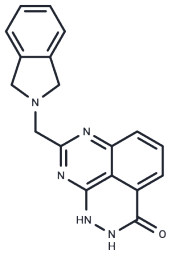
Data Sheet (Cat.No.T4471)

TargetMol

E7449

Chemical Properties



CAS No. : 1140964-99-3

Formula: C18H15N5O

Molecular Weight: 317.34

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	E7449 (UNII-9X5A2QIA7C) is a potent PARP1 and PARP2 inhibitor and also inhibits TNKS1 and TNKS2, with IC50s of 2.0, 1.0, ~50 and ~50 nM for PARP1, PARP2, TNKS1 and TNKS2, respectively, using 32P-NAD+ as substrate.
Targets(IC50)	PARP
In vitro	E7449 shows no obvious inhibiotry effects on PARP3 or PARPs 6-16. E7449 traps PARP1 onto damaged DNA, and affects DNA repair pathways beyond homologous recombination (HR). E7449 most potnetly suppresses cells deficient in components of the HR pathway (BRCA1 and 2, CtIP, Rad54). E7449 (10 μM) inhibits Wnt signaling in SW480 cells[1].
In vivo	E7449 moderately inhibits the growth of tumors at 100 mg/kg, and significantly ehhances the inhibition via 10, 30 and 100 mg/kg oral dosing in combination with temozolomide (TMZ) in the mouse melanoma B16-F10 isograft model[1].

Solubility Information

Solubility	DMSO: 6.4 mg/mL (20.17 mM),Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1512 mL	15.756 mL	31.5119 mL
5 mM	0.6302 mL	3.1512 mL	6.3024 mL
10 mM	0.3151 mL	1.5756 mL	3.1512 mL
50 mM	0.063 mL	0.3151 mL	0.6302 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

McGonigle S, Chen Z, Wu J, et al. E7449: A dual inhibitor of PARP1/2 and tankyrase1/2 inhibits growth of DNA repair deficient tumors and antagonizes Wnt signaling. Oncotarget. 2015;6(38):41307-41323. doi:10.18632/oncotarget.5846