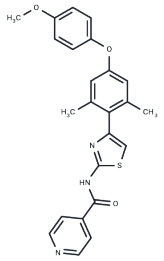
Data Sheet (Cat.No.T6691)

TargetMol

TAI-1

Chemical Properties



CAS No. : 1334921-03-7

Formula: C24H21N3O3S

Molecular Weight: 431.51

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	TAI-1 is a potent and specific Hec1 inhibitor, which disrupts Hec1-Nek2 protein interaction.
Targets(IC50)	Apoptosis,MAPK,Microtubule Associated
In vitro	TAI-1 disrupts the binding of Nek2 to Hec1, which leads to degradation of Nek2 and chromosomal misalignment. TAI-1 shows strong growth inhibitory potency at nM levels across a broad spectrum of tumor cells, and produces synergistic activity with doxorubicin, topotecan and paclitaxel in leukemia, breast and liver cancer cells. [1]
In vivo	TAI-1 (20 mg/kg i.v. or 150 mg/kg p.o.) causes significant tumor growth delay in Huh-7 model and modest tumor inhibition in Colo205 and MDA-MB-231 models. [1]
Cell Research	Cells are seeded in 96 well plates, incubated for 24 hours, compounds added and incubated for 96 hours. All testing points are tested in triplicate wells. Cell viability is determined by MTS assay using CellTiter 96? Aqueous Non-radioactive Cell Proliferation Assay system according to manufacturer's instructions with MTS and PMS. Data retrieved from spectrophotometer are processed in Excel and GraphPad Prism 5 to calculate the concentration exhibiting 50% growth inhibition (GI50). All data represent the results of triplicate experiments.(Only for Reference)

Solubility Information

Solubility	DMSO: 80 mg/mL (185.4 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+90% Corn Oil: 3.3 mg/mL (7.65 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	2.3174 mL	11.5872 mL	23.1744 mL
5 mM	0.4635 mL	2.3174 mL	4.6349 mL
10 mM	0.2317 mL	1.1587 mL	2.3174 mL
50 mM	0.0463 mL	0.2317 mL	0.4635 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

Huang LY, et al. J Exp Clin Cancer Res. 2014, 33, 6.