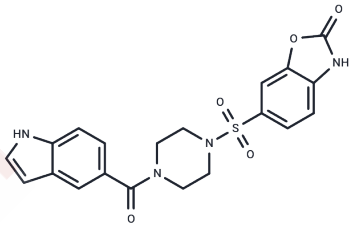
Data Sheet (Cat.No.T67864)

TargetMol

TH1760

Chemical Properties



CAS No. : 2567914-01-4

Formula: C20H18N4O5S

Molecular Weight: 426.45

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	TH1760 (MKB) is an inhibitor of NUDIX-type 15 (NUDT15, IC50= 25 nM). TH1760 can sensitize cells to 6-thioguanine by increasing the accumulation of 6-thio- (d) GTP in nucleic acids. TH1760 can enhance the anti-leukemia effect of thiopurine.
Targets(IC50)	Others,NUDIX hydrolase,DNA/RNA Synthesis
In vitro	TH1760 (0-100 μ M) maintained the thermal denaturation of NUDT15 in a dose-dependent manner. TH1760 (0, 5, 10, 20, and 50 μ M) increased the accumulation of thiopurine (6-TG) in a dose-dependent manner. TH1760 (10 μ M) increased the sensitivity of HCT116 and HCT116 3-6 cells to 6-TG. TH1760 has a higher sensitivity to BJ-RAS cells compared to BJ-hTERT cells. TH1760 (10 μ M; 16 h) promotes the accumulation and incorporation of 6-TG in HL-60 cells. TH1760 increased the expression of γ The expression of H2AX, caspase3, Cleared, and cPARP [1]. TH1760 (0.05, 0.17, 0.55, and 1.8 μ M; 4 d) enhanced the anti-leukemia effect of 6-TG in a dose-dependent manner [2].

Solubility Information

Solubility	DMSO: 1.8 mg/mL (4.22 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3449 mL	11.7247 mL	23.4494 mL
5 mM	0.469 mL	2.3449 mL	4.6899 mL
10 mM	0.2345 mL	1.1725 mL	2.3449 mL
50 mM	0.0469 mL	0.2345 mL	0.469 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

Zhang SM, et al. Development of a chemical probe against NUDT15. Nat Chem Biol. 2020 Oct;16(10):1120-1128.
Rehling D, et al. Crystal structures of NUDT15 variants enabled by a potent inhibitor reveal the structural basis for thiopurine sensitivity. J Biol Chem. 2021 Jan-Jun;296:100568.