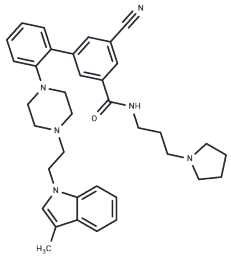
Data Sheet (Cat.No.T6879)

TargetMol

LLY-507

Chemical Properties



CAS No. : 1793053-37-8

Formula: C36H42N6O

Molecular Weight: 574.76

Storage: Store at low temperature
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	LLY-507 is an effective, cell-active, and specific inhibitor of protein-lysine Methyltransferase SMYD2.
Targets(IC50)	Histone Methyltransferase
In vitro	LLY-507 effectively inhibits the ability of SMYD2 to methylate p53 peptide (IC5015 nM). LLY-507 is able to potently inhibit the methylation of the H4 peptide by the SMYD2 enzyme (IC50: 31 nM). It has 100-fold selectivity for SMYD2 than 24 other protein or DNA methyltransferases including related family members SMYD3 and SUVH420H1/SUV420H2. LLY-507 inactive (>20 μM) against three cytochrome P450 enzymes, 14 nuclear hormone receptors, 35 G protein-coupled receptors, and 454 kinases. LLY-507 dose-dependently inhibits the proliferation of several liver, esophageal, and breast cancer cell lines.
Cell Research	To examine the methylation status of p53 in HEK293 cells treated with LLY-507 by Western blotting, 2 × 105 cells are seeded in 6-well plates in triplicate and co-transfected with FLAG-tagged p53 and FLAG-tagged SMYD2 using Lipofectamine? 2000. The day after transfection, cells are treated with 0-2.5 μM LLY-507 for 28 h, then collected, and lysed in RIPA buffer. Cell lysates are subject to 10% SDS-PAGE and transferred to a PVDF membrane.

Solubility Information

Solubility	DMSO: 16.67 mg/mL (29 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: 21 mg/mL (36.54 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 3.3 mg/mL (5.74 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	1.7399 mL	8.6993 mL	17.3986 mL
5 mM	0.348 mL	1.7399 mL	3.4797 mL
10 mM	0.174 mL	0.8699 mL	1.7399 mL
50 mM	0.0348 mL	0.174 mL	0.348 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

Nguyen H, et al. J Biol Chem. 2015, 290(22):13641-53.