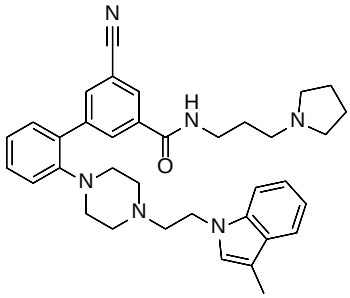
Product data sheet

MedKoo Cat#: 407330 Name: LLY-507 CAS: 1793053-37-8 Chemical Formula: $C_{36}H_{42}N_6O$ Exact Mass: 574.342 Molecular Weight: 574.773	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.
	In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:

LLY-507 is a Cell-active, Potent, and Selective Inhibitor of Protein-lysine Methyltransferase SMYD2. SMYD2 is a lysine methyltransferase that catalyzes the monomethylation of several protein substrates including p53. LLY-507 is >100-fold selective for SMYD2 over a broad range of methyltransferase and non-methyltransferase targets. LLY-507 is active in cells as measured by reduction of SMYD2-induced monomethylation of p53 Lys(370) at submicromolar concentrations. LLY-507 inhibited the proliferation of several esophageal, liver, and breast cancer cell lines in a dose-dependent manner.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	22.5	39.15
DMF	10.0	17.40
Ethanol	23.5	40.89

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	1.74 mL	8.70 mL	17.40 mL
5 mM	0.35 mL	1.74 mL	3.48 mL
10 mM	0.17 mL	0.87 mL	1.74 mL
50 mM	0.04 mL	0.17 mL	0.35 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

1. Kojima M, Sone K, Oda K, Hamamoto R, Kaneko S, Oki S, Kukita A, Kawata A, Honjoh H, Kawata Y, Kashiyama T, Sato M, Taguchi A, Miyamoto Y, Tanikawa M, Tsuruga T, Nagasaka K, Wada-Hiraike O, Osuga Y, Fujii T. The histone methyltransferase SMYD2 is a novel therapeutic target for the induction of apoptosis in ovarian clear cell carcinoma cells. Oncol Lett. 2020 Nov;20(5):153. doi: 10.3892/ol.2020.12014. Epub 2020 Aug 24. PMID: 32934721; PMCID: PMC7471656.
2. Nguyen H, Allali-Hassani A, Antonysamy S, Chang S, Chen LH, Curtis C, Emtage S, Fan L, Gheyi T, Li F, Liu S, Martin JR, Mendel D, Olsen JB, Pelletier L, Shatseva T, Wu S, Zhang FF, Arrowsmith CH, Brown PJ, Campbell RM, Garcia BA, Barsyte-Lovejoy D, Mader M, Vedadi M. LLY-507, a Cell-active, Potent, and Selective Inhibitor of Protein-lysine Methyltransferase SMYD2. J Biol Chem. 2015 May 29;290(22):13641-53. doi: 10.1074/jbc.M114.626861. Epub 2015 Mar 30. PMID: 25825497; PMCID: PMC4447944.

In vivo study

TBD

Product data sheet

7. Bioactivity

Biological target:

LLY-507 is a potent and selective inhibitor of protein-lysine methyltransferase SMYD2.

In vitro activity

LLY-507 inhibited the proliferation of several esophageal, liver, and breast cancer cell lines in a dose-dependent manner. These findings suggest that LLY-507 serves as a valuable chemical probe to aid in the dissection of SMYD2 function in cancer and other biological processes.

Reference: J Biol Chem. 2015 May 29;290(22):13641-53. https://pubmed.ncbi.nlm.nih.gov/25825497/

In vivo activity

TBD

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.