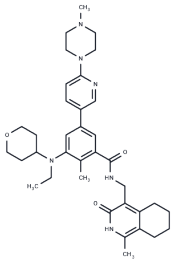
# Data Sheet (Cat.No.T29231)

TargetMol

ZLD1039

## Chemical Properties



CAS No. : 1826865-46-6

Formula: C36H48N6O3

Molecular Weight: 612.8

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

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|---|---|
| Description | ZLD1039 is a potent, orally bioavailable EZH2 (Enhancer of Zeste Homolog 2) inhibitor with high selectivity. It demonstrates strong, concentration-dependent inhibition of both wild-type and mutant (Y641F and A677G) PRC2 (Polycomb Repressive Complex 2) enzymatic activities, exhibiting IC50 values of 5.6, 15, and 4.0 nM, respectively. Additionally, ZLD1039 effectively suppresses breast tumor growth and metastasis. |
| Targets(IC50) | Histone Methyltransferase |
| In vitro | ZLD1039 inhibited the H3K27me3 and H3K27me2 levels in MCF-7 (0.25~2 μM, 4 days) and MDA-MB-231 (1~4 μM, 4 days) cells in a dose-dependent manner[1]. |

## Solubility Information

| | |
|---|---|
| Solubility | DMSO: 9 mg/mL (14.69 mM),when pH is adjusted to 3 with 1M HCl. Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween-80+45% Saline: 0.5 mg/mL (0.82 mM),Sonication is recommended.<br>*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 | 1.6319 mL | 8.1593 mL | 16.3185 mL |
| 5 mM | 0.3264 mL | 1.6319 mL | 3.2637 mL |
| 10 mM | 0.1632 mL | 0.8159 mL | 1.6319 mL |
| 50 mM | 0.0326 mL | 0.1632 mL | 0.3264 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

Xuejiao Song, et al. Selective inhibition of EZH2 by ZLD1039 blocks H3K27methylation and leads to potent anti-tumor activity in breast cancer. Sci Rep. 2016; 6: 20864.
Song X, Gao T, Wang N, Feng Q, You X, Ye T, Lei Q, Zhu Y, Xiong M, Xia Y, Yang F, Shi Y, Wei Y, Zhang L, Yu L. Selective inhibition of EZH2 by ZLD1039 blocks H3K27 methylation and leads to potent anti-tumor activity in breast cancer. Sci Rep. 2016 Feb 12;6:20864. doi: 10.1038/srep20864. PubMed PMID: 26868841; PubMed Central PMCID: PMC4751454.



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