

BBDDL2059

Chemical Properties

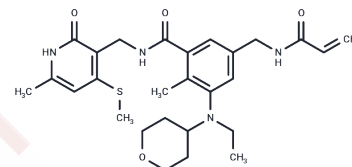
CAS No. : 2691174-27-1

Formula: C₂₇H₃₆N₄O₄S

Molecular Weight: 512.66

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	BBDDL2059 is a selective covalent inhibitor of EZH2 with an IC ₅₀ of 1.5 nM against the EZH2-Y641F mutant, demonstrating nanomolar potency in inhibiting lymphoma cell proliferation, thereby proving its utility in anticancer research [1].
Targets(IC ₅₀)	Histone Methyltransferase
In vitro	BBDDL2059 (Compound 16) at concentrations ranging from 0-65 nM over 6 days inhibits the growth of KARPAS-422 and Pfeiffer cells [1]. Moreover, BBDDL2059 at doses between 0-1 μM for 48-96 hours suppresses EZH2 enzymatic activity and sustains long-term inhibition of EZH2 following washout [1].
In vivo	BBDDL2059 (Compound 16) demonstrated a pharmacokinetic profile in rats, with a half-life (T _{1/2}) of 0.28 hours following an intravenous dose of 3 mg/kg and an oral bioavailability (F%) of 0.05% at a 10 mg/kg oral dose [1]. The respective pharmacokinetic parameters for intravenous administration were a maximum concentration (C _{max}) of 4886 ng/mL, an area under the curve (AUC _{0-last}) of 11.1 h•ng/mL, a clearance (CL) of 161 mL•min ⁻¹ /kg ⁻¹ , and a steady-state volume of distribution (V _{ss}) of 11.1 L/kg. The oral dose resulted in a C _{max} of 29.5 ng/mL and an AUC _{0-last} of 8.16 h•ng/mL [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9506 mL	9.7531 mL	19.5061 mL
5 mM	0.3901 mL	1.9506 mL	3.9012 mL
10 mM	0.1951 mL	0.9753 mL	1.9506 mL
50 mM	0.039 mL	0.1951 mL	0.3901 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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