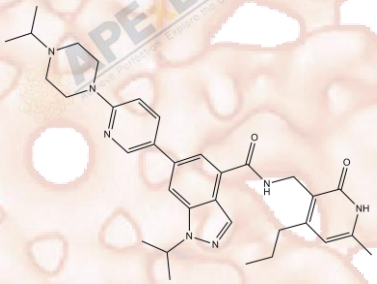
Product Data Sheet

UNC1999



Cat. No.:	B1583
CAS No.:	1431612-23-5
Formula:	C33H43N7O2
M.Wt:	569.74
Synonyms:	
Target:	Chromatin/Epigenetics
Pathway:	Histone Methyltransferase
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

insoluble in H2O; insoluble in EtOH; ⩾28.5 mg/mL in DMSO

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	1.7552 mL	8.7759 mL	17.5519 mL
5 mM	0.3510 mL	1.7552 mL	3.5104 mL
10 mM	0.1755 mL	0.8776 mL	1.7552 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	EZH2 inhibitor
IC_{50} & Target	2 nM (EZH2), 45 nM (EZH1)

In Vitro

Cell Viability Assay

Cell Line:	MCF10A cells, Diffused large B cell lymphoma cell lines
Preparation method:	The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	100 nM-5 μM for 2-8 days

	Applications:	UNC1999 concentration-dependently reduced H3K27me3 levels in MCF10A cells and selectively killed diffused large B cell lymphoma cell lines harboring the EZH2Y641N mutant.
In Vivo	**Animal experiment**	
	Animal models:	Male Swiss albino mice model
	Dosage form:	15, 50, or 150 mg/kg, intraperitoneal injection or oral administration for 24 h
	Applications:	UNC1999 is orally bioavailable and is an useful tool for the biomedical research community to assess long-term therapeutic benefit(s) and potential toxicity in mice. Moreover, UNC1999 (150 mg/kg, intraperitoneal injection) was well tolerated by all test mice.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Li N, Yang L, et al. "BET bromodomain inhibitor JQ1 preferentially suppresses EBV-positive nasopharyngeal carcinoma cells partially through repressing c-Myc." Cell Death Dis. 2018 Jul 9;9(7):761.PMID:29988031

2. Lin B, Coleman JH, et al."Injury Induces Endogenous Reprogramming and Dedifferentiation of NeuronalProgenitors to Multipotency." Cell Stem Cell. 2017 Nov 20. pii:S1934-5909(17)30375-2.PMID:29174332

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References

1Konze, K. D., Ma, A., Li, F., Barsyte-Lovejoy, D., Parton, T., Macnevin, C. J., Liu, F., Gao, C., Huang, X. P., Kuznetsova, E., Rougie, M., Jiang, A., Pattenden, S. G., Norris, J. L., James, L. I., Roth, B. L., Brown, P. J., Frye, S. V., Arrowsmith, C. H., Hahn, K. M., Wang, G. G., Vedadi, M. and Jin, J. (2013) An orally bioavailable chemical probe of the Lysine Methyltransferases EZH2 and EZH1. ACS Chem Biol. 8, 1324-1334

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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