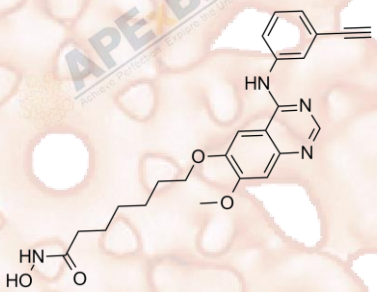
Product Data Sheet

CUDC-101



Cat. No.:	A4092
CAS No.:	1012054-59-9
Formula:	C24H26N4O4
M.Wt:	434.49
Synonyms:	CUDC101, CUDC 101
Target:	DNA Damage/DNA Repair
Pathway:	HDAC
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

≥21.7 mg/mL in DMSO; insoluble in EtOH; insoluble in H2O

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	2.3015 mL	11.5077 mL	23.0155 mL
5 mM	0.4603 mL	2.3015 mL	4.6031 mL
10 mM	0.2302 mL	1.1508 mL	2.3015 mL

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

Biological Activity

Shortsummary	Multitargeted HDAC inhibitor
IC_{50} & Target	2.4 nM (EGFR), 4.4 nM (HDAC), 4.5 nM (HDAC1), 5.1 nM (HDAC6), 9.1 nM (HDAC3), 11.4 nM (HDAC5)

In Vitro

Cell Viability Assay

Cell Line:	MDA-MB-231 cells
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:	1 μM, 16h.

	Applications:	MDA-MB-231 human breast carcinoma cells showed that HGF- and EGF-induced migration was significantly reduced by 1 μM CUDC-101. The inhibition of migration and invasion was not a secondary effect of cell death or growth inhibition, as no significant decrease in cell viability under all conditions tested has been detected.
In Vivo	**Animal experiment**	
	Animal models:	four-to 6-week-old female athymic mice (nude nu/nu CD-1) bearing human HepG2 liver cancer cell xenografts
	Dosage form:	After tumors reached an average of 281 mm3 in size, mice were orally treated with CUDC-101 at a daily dose of 120 mg/kg.
	Applications:	CUDC-101 induced 30% tumor regression. One of the treated mice displayed complete tumor regression at the end of the dosing cycle, an effect that lasted for at least 6 months after treatment.
	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.Bagnall NH, Hines BM, et al."Insecticidal activities of histone deacetylase inhibitors against a dipteranparasite of sheep, Lucilia cuprina." Int J Parasitol Drugs Drug Resist. 2017Apr;7(1):51-60.PMID:28110187

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References

[1] Wang J, Pursell N W, Samson M E S, et al. Potential advantages of CUDC-101, a multitargeted HDAC, EGFR, and HER2 inhibitor, in treating drug resistance and preventing cancer cell migration and invasion. Molecular cancer therapeutics, 2013, 12(6): 925-936.

[2] Lai C J, Bao R, Tao X U, et al. CUDC-101, a multitargeted inhibitor of histone deacetylase, epidermal growth factor receptor, and human epidermal growth factor receptor 2, exerts potent anticancer activity. Cancer research, 2010, 70(9): 3647-3656.

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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