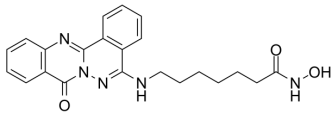
HDAC-IN-30

Cat. No.:	HY-144292
CAS No.:	2756809-34-2
Molecular Formula:	$C_{22}H_{23}N_5O_3$
Molecular Weight:	405.45
Target:	HDAC
Pathway:	Cell Cycle/DNA Damage; Epigenetics
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

HDAC-IN-30 is a novel multi-target HDAC inhibitor, including HDAC1 (IC_{50}=13.4 nM),HDAC2 (IC_{50}=28.0 nM), HDAC3 (IC_{50}=9.18 nM), HDAC6 (IC_{50}=42.7 nM), HDAC8 (IC_{50}=131 nM). HDAC-IN-30 exhibits potent antitumor efficacy[1].

IC_{50} & Target

HDAC1	HDAC2	HDAC3	HDAC6
13.4 nM (IC_{50})	28.0 nM (IC_{50})	9.18 nM (IC_{50})	42.7 nM (IC_{50})

HDAC8
131 nM (IC_{50})

In Vitro

HDAC-IN-30 (compound 8 h; 0.5, 1, 2 μM; 48 hours) can effectively activate the p53 pathway by promoting the phosphorylation of p53[1].HDAC-IN-30 (0, 1, 2.5, 5 mM; 48 hours; HepG2 cells) induces cell cycle arrest at the G2 phase in a concentration-dependent manner[1].HDAC-IN-30 (0, 1, 2.5, 5 mM; 48 hours) possesses prominent anticancer activity in HepG2 cells[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	HepG2 cells
Concentration:	0.5, 1, 2 μM
Incubation Time:	24 hours
Result:	Could effectively activate the p53 pathway by promoting the phosphorylation of p53

Cell Cycle Analysis[1]

Cell Line:	HepG2 cells
Concentration:	0, 1, 2.5, 5 μM
Incubation Time:	48 hours
Result:	Cells were arrested at the G2 phase in a dose-dependent manner.

Apoptosis Analysis[1]

Cell Line:	HepG2 cells
Concentration:	0, 1, 2.5, 5 μM
Incubation Time:	24 hours
Result:	Possessed prominent anticancer activity in HepG2 cells.

In Vivo

HDAC-IN-30 (12, 24 mg/kg; intraperitoneal injection, every two days for 4 weeks) exhibits potent anticancer activity and no side effects even at high dose (24 mg/kg)[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	HepG2 xenograft mouse model[1]
Dosage:	12, 24 mg/kg
Administration:	Intraperitoneal injection, every 2 days, 4 weeks
Result:	Exhibited potent anticancer activity

REFERENCES

[1]. Liu Q, et al. Discovery of phthalazino [1, 2-b]-quinazolinone derivatives as multi-target HDAC inhibitors for the treatment of hepatocellular carcinoma via activating the p53 signal pathway. Eur J Med Chem. 2022, 229:114058.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA