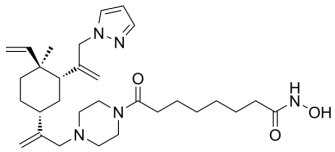
HDAC-IN-67

Cat. No.:	HY-157385
CAS No.:	2821923-75-3
Molecular Formula:	$C_{30}H_{47}N_5O_3$
Molecular Weight:	525.73
Target:	HDAC; Apoptosis
Pathway:	Cell Cycle/DNA Damage; Epigenetics; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

HDAC-IN-67 (compound 27f) is an HDAC inhibitor against HDAC1 and HDAC6, with IC_{50} values of 22 nM and 8 nM, respectively. HDAC-IN-67 inhibits cell proliferation and induces cell apoptosis. HDAC-IN-67 exhibits antitumor activity[1].

IC_{50} & Target

HDAC6	HDAC1
8 nM (IC_{50})	22 nM (IC_{50})

In Vitro

HDAC-IN-67 exhibits antiproliferative activity in tumour cells K562, MV4-11, HEL, SU-DHL-2 and WSU-DLCL-2, with IC_{50} values of 4.42 μM, 0.79 μM, 2.43 μM, 1.05 μM, 1.43 μM, respectively[1].

HDAC-IN-67 induces WSU-DLCL-2 cells apoptosis (10 μM: 91.57%; 5 μM: 77.05%)[1].

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

Cell Proliferation Assay[1]

Cell Line:	K562, MV4-11, HEL, SU-DHL-2 and WSU-DLCL-2
Concentration:	5 μM
Incubation Time:	72 h
Result:	Exhibited antiproliferative activity.

Apoptosis Analysis[1]

Cell Line:	WSU-DLCL-2
Concentration:	5 μM and 10 μM
Incubation Time:	72 h
Result:	Induced WSU-DLCL-2 cells apoptosis in a dose-dependent manner (10 μM: 91.57%; 5 μM: 77.05%).

In Vivo

HDAC-IN-67 (i.v.:50 mg/kg) reveals a clearance (CL) of 65.1 ml/(h·kg) and a half-life ($T_{1/2}$) of 0.361 h after i.v.[1].

HDAC-IN-67 (p.o.:10 mg/kg) exhibits low oral bioavailability(F=3.15%)[1].

HDAC-IN-67 (i.p.:50mg/kg once daily for 21 days) demonstrates a moderate in vivo antitumor potency with TGI of 31.5%[1].

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Animal Model:	Female ICR mice/antitumour potency[1]
Dosage:	i.p., 50 mg/kg once a day for 21 days
Administration:	Intraperitoneal injection (i.p.)
Result:	Exhibited in vivo antitumorpotency with TGI of 31.5%.

REFERENCES

[1]. Gao Y,et al., Design, synthesis and biological evaluation of novel histone deacetylase (HDAC) inhibitors derived from β-elemene scaffold. J Enzyme Inhib Med Chem. 2023 Dec;38(1):2195991.

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