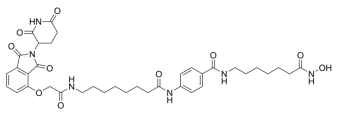
PROTAC HDAC6 degrader 1

Cat. No.:	HY-152133
CAS No.:	2785404-76-2
Molecular Formula:	$C_{37}H_{46}N_6O_{10}$
Molecular Weight:	734.8
Target:	PROTACs; HDAC; Apoptosis
Pathway:	PROTAC; Cell Cycle/DNA Damage; Epigenetics; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

PROTAC HDAC6 degrader (Compound A6) is a potent and selective PROTAC HDAC6 degrader with a DC_{50} of 3.5 nM. PROTAC HDAC6 degrader shows promising antiproliferative activity via inducing apoptosis in myeloid leukemia cell lines[1].

IC_{50} & Target

HDAC6	HDAC6	HDAC1
3.5 nM (DC50)	4.86 nM (IC_{50})	0.1 μM (IC_{50})

In Vitro

PROTAC HDAC6 degrader (Compound A6) (0.1-10 μM; 6 h) does not degrade HDAC1 but displays inhibitory activity toward HDAC1. PROTAC HDAC6 degrader demonstrates potent HDAC6 degradation as well as hyperacetylation of α-tubulin in U266 and HL-60 cells, confirming that the activity is not restricted to leukemia cell lines[1].

PROTAC HDAC6 degrader (0.5-50 μM) inhibits leukemia cells viability with log IC_{50} values of 1.2-1.7 μM[1].

PROTAC HDAC6 degrader (8-24 μM; 48 h) induces MOLM13 cell apoptosis and arrests cell cycle at sub-G1 phase[1].

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

Western Blot Analysis[1]

Cell Line:	HL-60 cells
Concentration:	100 nM, 1 μM, 10 μM
Incubation Time:	6 h
Result:	Degraded HDAC6 but not HDAC1. Induced hyperacetylation of α-tubulin and caused hyperacetylation of histone H3.

Cell Viability Assay[1]

Cell Line:	Acute myeloid leukemia or AML (HL-60, Kasumi, THP-1, HL-60, SKNO1, and MOLM13) and B-cell acute lymphoblastic leukemia or B-ALL (REH and 697)
Concentration:	0.5-50 μM
Incubation Time:	72 h
Result:	Inhibited cell viability with log IC_{50} values of 1.2-1.7 μM.

Apoptosis Analysis[1]

Cell Line:	MOLM13
Concentration:	8, 16 and 24 μM
Incubation Time:	48 h
Result:	Induced caspase 3/7-dependent apoptosis in dose-dependent fashion.

Cell Cycle Analysis[1]

Cell Line:	MOLM13
Concentration:	8, 16 and 24 μM
Incubation Time:	48 h
Result:	Induced a dose-dependent increase in the sub-G1 fraction with a concomitant reduction of cell population in G2/M phase.

REFERENCES

[1]. Sinatra L, et al. Solid-Phase Synthesis of Cereblon-Recruiting Selective Histone Deacetylase 6 Degraders (HDAC6 PROTACs) with Antileukemic Activity. J Med Chem. 2022 Dec 22;65(24):16860-16878.

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