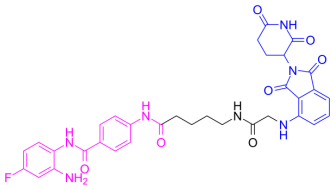
HD-TAC7

Cat. No.:	HY-146346
CAS No.:	2978763-95-8
Molecular Formula:	$C_{33}H_{32}FN_7O_7$
Molecular Weight:	657.65
Target:	PROTACs; HDAC
Pathway:	PROTAC; Cell Cycle/DNA Damage; Epigenetics
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (152.06 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	1.5206 mL	7.6028 mL	15.2057 mL
5 mM	0.3041 mL	1.5206 mL	3.0411 mL
10 mM	0.1521 mL	0.7603 mL	1.5206 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.63 mg/mL (4.00 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

HD-TAC7 is a potent PROTAC HDAC degrader with IC_{50} values of 3.6 μM, 4.2 μM and 1.1 μM for HDAC1, HDAC2 and HDAC3, respectively. HD-TAC7 can decreases NF-κB p65 in RAW 264.7 macrophages. HD-TAC7 can be used for the research of inflammatory diseases like asthma and chronic obstructive pulmonary disease (COPD)[1].

IC_{50} & Target

HDAC1	HDAC2	HDAC3
3.6 μM (IC_{50})	4.2 μM (IC_{50})	1.1 μM (IC_{50})

In Vitro

HD-TAC7 (10 μM; 24 hours) induces an increase of H3K27 acetylation in RAW 264.7 macrophages[1].
HD-TAC7 (10 μM; 2-48 hours) induces HDAC3 degradation reaching the maximal effect at 6h and lasted at least 48h[1].
HD-TAC7 (1 and 10 μM; 24 hours) downregulates NF-κB p65 in LPS-treated RAW 264.7 macrophages[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Fangyuan Cao, et al. Induced protein degradation of histone deacetylases 3 (HDAC3) by proteolysis targeting chimera (PROTAC). Eur J Med Chem. 2020 Dec 15;208:112800.

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