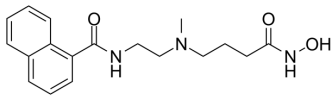
DKFZ-748

Cat. No.:	HY-151590
CAS No.:	2490709-68-5
Molecular Formula:	$C_{18}H_{23}N_3O_3$
Molecular Weight:	329.39
Target:	HDAC
Pathway:	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 (303.59 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.0359 mL	15.1796 mL	30.3591 mL
	5 mM	0.6072 mL	3.0359 mL	6.0718 mL
	10 mM	0.3036 mL	1.5180 mL	3.0359 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: 2.5 mg/mL (7.59 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.5 mg/mL (7.59 mM); Clear solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: 2.5 mg/mL (7.59 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

DKFZ-748 is a selective HDAC10 inhibitor (pIC_{50}=7.66), and shows anti-tumor activity[1].

In Vitro

DKFZ-748 shows dose-dependent growth inhibition of HeLa cells in a polyamine-limiting in vitro tumor model[1].
DKFZ-748 (1-100 μM; 72 h) induces HDAC acetylation of BE(2)-C cells[1].
DKFZ 748 shows significant accumulation of N8 acetyl- and N1,8-diacetylspermidine in a dose-dependent manner[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	BE(2)-C cells
Concentration:	1, 10, 100 μM
Incubation Time:	72 h
Result:	Induced significant HDAC acetylation only at the highest tested concentration (100 μM).

REFERENCES

[1]. Steimbach RR, et al. Aza-SAHA Derivatives Are Selective Histone Deacetylase 10 Chemical Probes That Inhibit Polyamine Deacetylation and Phenocopy HDAC10 Knockout. J Am Chem Soc. 2022 Oct 19;144(41):18861-18875.

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