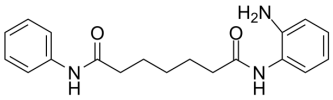
NKL 22

Cat. No.:	HY-100384
CAS No.:	537034-15-4
Molecular Formula:	$C_{19}H_{23}N_3O_2$
Molecular Weight:	325.4
Target:	HDAC
Pathway:	Cell Cycle/DNA Damage; Epigenetics
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (307.31 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.0731 mL	15.3657 mL	30.7314 mL
	5 mM	0.6146 mL	3.0731 mL	6.1463 mL
	10 mM	0.3073 mL	1.5366 mL	3.0731 mL

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

BIOLOGICAL ACTIVITY

Description

NKL 22 (compound 4b) is a potent and selective inhibitor of histone deacetylases (HDAC), with an IC_{50} of 199 and 69 nM for HDAC1 and HDAC3, respectively. NKL 22 exhibits selectivity over HDAC2/4/5/7/8 (IC_{50}≥1.59 μM). NKL 22 ameliorates the disease phenotype and transcriptional abnormalities in Huntington's disease transgenic mice[1][2][3].

IC_{50} & Target				
	HDAC1 0.199 μM (IC_{50})	HDAC2 1.59 μM (IC_{50})	HDAC3 0.069 μM (IC_{50})	HDAC8 5 μM (IC_{50})

CUSTOMER VALIDATION

- J Mol Med (Berl). 2019 Aug;97(8):1183-1193.

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REFERENCES

[1]. D Herman et al. Histone deacetylase inhibitors reverse gene silencing in Friedreich's ataxia. Nat Chem Biol, 2006 Oct, 2(10):551-8.

[2]. Jia H, et, al. Histone deacetylase (HDAC) inhibitors targeting HDAC3 and HDAC1 ameliorate polyglutamine-elicited phenotypes in model systems of Huntington's disease. Neurobiol Dis. 2012 May;46(2):351-61.

[3]. Thomas EA, et, al. The HDAC inhibitor 4b ameliorates the disease phenotype and transcriptional abnormalities in Huntington's disease transgenic mice. Proc Natl Acad Sci U S A. 2008 Oct 7;105(40):15564-9.

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