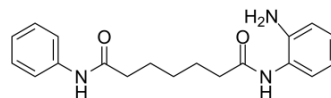


NKL 22

Cat. No.:	HY-100384		
CAS No.:	537034-15-4		
Molecular Formula:	C ₁₉ H ₂₃ N ₃ O 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	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 29 mg/mL (89.12 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
	Concentration				
	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 IC₅₀ of 199 and 69 nM for HDAC1 and HDAC3, respectively. NKL 22 exhibits selectivity over HDAC2/4/5/7/8 (IC₅₀ ≥ 1.59 μM). NKL 22 ameliorates the disease phenotype and transcriptional abnormalities in Huntington's disease transgenic mice^{[1][2][3]}.

IC₅₀ & Target

HDAC1	HDAC2	HDAC3	HDAC8
0.199 μM (IC ₅₀)	1.59 μM (IC ₅₀)	0.069 μM (IC ₅₀)	5 μM (IC ₅₀)

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.

Caution: Product has not been fully validated for medical applications. For research use only.

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