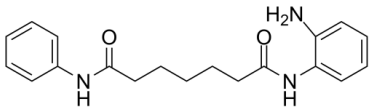
Data Sheet

Product Name:	NKL 22
Cat. No.:	CS-5542
CAS No.:	537034-15-4
Molecular Formula:	$C_{19}H_{23}N_3O_2$
Molecular Weight:	325.40
Target:	HDAC
Pathway:	Cell Cycle/DNA Damage; Epigenetics
Solubility:	DMSO : ≥ 29 mg/mL (89.12 mM)



BIOLOGICAL ACTIVITY:

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].

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.

CAIndexNames:

Heptanediamide, N1-(2-aminophenyl)-N7-phenyl-

SMILES:

O=C(NC1=CC=CC=C1N)CCCCCC(NC2=CC=CC=C2)=O

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

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