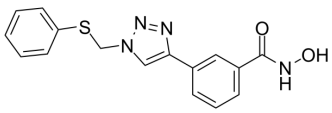
NCC-149

Cat. No.:	HY-117348
CAS No.:	1316652-41-1
Molecular Formula:	$C_{16}H_{14}N_4O_2S$
Molecular Weight:	326.37
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 : 125 mg/mL (383.00 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.0640 mL	15.3200 mL	30.6401 mL
	5 mM	0.6128 mL	3.0640 mL	6.1280 mL
	10 mM	0.3064 mL	1.5320 mL	3.0640 mL

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

BIOLOGICAL ACTIVITY

Description

NCC-149 is a selective HDAC8 inhibitor and can be used for neural differentiation research[1].

IC_{50} & Target

HDAC8

In Vitro

NCC-149 (5 μM; 3 days) remarkably reduces NeuN expression levels in P19 cells[1].
NCC-149 (0-40 μM; 4 days) reduces embryoid body size in a dose-dependent manner[1].
NCC-149 (5 and 20 μM; 24 h) downregulates P19 cell proliferation[1].
NCC-149 (2.5 and 5 μM; 24 h) leads to cell growth retardation by G2/M phase arrest[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	P19 cells
Concentration:	5 μM

Incubation Time:	3 days
Result:	Remarkably reduced NeuN expression levels.

Cell Proliferation Assay[1]

Cell Line:	P19 cells
Concentration:	5 and 20 μM
Incubation Time:	24 h
Result:	Downregulated cell proliferation.

Cell Cycle Analysis[1]

Cell Line:	P19 cells
Concentration:	2.5 and 5 μM
Incubation Time:	24 h
Result:	Led to a significant increase in G2/M phase cells, with a slight decrease in S phase cells.

RT-PCR[1]

Cell Line:	P19 cells
Concentration:	25 μM or 2.5 and 5 μM
Incubation Time:	4 days (25 μM) or 48 h (2.5 and 5 μM)
Result:	Did not reduce the HDAC8 expression at the mRNA level. Significantly and partially reduced cyclin B1 and cyclin A2 gene expression, respectively.

REFERENCES

[1]. Katayama S, et al. HDAC8 regulates neural differentiation through embryoid body formation in P19 cells. Biochem Biophys Res Commun. 2018 Mar 25;498(1):45-51.

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