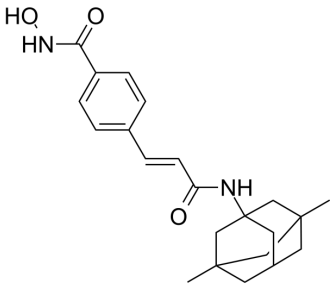
NMDAR/HDAC-IN-1

Cat. No.:	HY-147873
Molecular Formula:	$C_{22}H_{28}N_2O_3$
Molecular Weight:	368.47
Target:	iGluR; HDAC
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling; Cell Cycle/DNA Damage; Epigenetics
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	NMDAR/HDAC-IN-1 (Compound 9d) is a dual NMDAR and HDAC inhibitor with a K_i of 0.59 μM for NMDAR and IC_{50} values of 2.67, 8.00, 2.21, 0.18 and 0.62 μM for HDAC1, HDAC2, HDAC3, HDAC6 and HDAC8, respectively. NMDAR/HDAC-IN-1 efficiently penetrates the blood brain barrier[1].

IC_{50} & Target				
	NMDA Receptor 0.59 μM (Ki)	HDAC6 0.18 μM (IC_{50})	HDAC8 0.62 μM (IC_{50})	HDAC3 2.21 μM (IC_{50})
	HDAC1 2.67 μM (IC_{50})	HDAC2 8.00 μM (IC_{50})		

In Vitro	NMDAR/HDAC-IN-1 (Compound 9d) increases the level of AcTubulin in MV4-11 cells and rescues PC-12 cells from H_2O_2-induced cytotoxicity with EC_{50} of 0.94 μM[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. He F, et al. Design, synthesis and biological evaluation of dual-function inhibitors targeting NMDAR and HDAC for Alzheimer's disease. Bioorg Chem. 2020 Oct;103:104109.

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

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