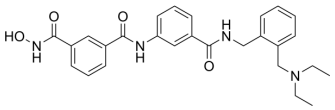
BChE/HDAC6-IN-2

Cat. No.:	HY-149418
CAS No.:	2925457-33-4
Molecular Formula:	$C_{27}H_{30}N_4O_4$
Molecular Weight:	474.55
Target:	HDAC; Cholinesterase (ChE); Tau Protein
Pathway:	Cell Cycle/DNA Damage; Epigenetics; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	BChE/HDAC6-IN-2 (compound 29a) is a dual inhibitor of BChE and HDAC6 with IC50s of 1.8 nM and 71.0 nM, respectively. BChE/HDAC6-IN-2 has prominently neuroprotective effects and reactive oxygen species (ROS) scavenging activity. BChE/HDAC6-IN-2 is also an effective chelator of metal ion (Fe2+ and Cu2+). BChE/HDAC6-IN-2 inhibits phosphorylation of tau, and exhibits moderate immunomodulatory effect.
IC_{50} & Target	IC50: 1.8 nM (BChE), 71.0 nM (HDAC6)
In Vitro	BChE/HDAC6-IN-2 (compound 29a) (0.1 μM, 1 μM; 24 h) increases the acetylation levels of Ac-α-tubulin, inhibits phosphorylation of tau, in 10 μM Aβ(1-42)-treated SH-SY5Y cells[1]. BChE/HDAC6-IN-2 (5 μM, 10 μM, 20 μM) inhibits glutamate-induced injury in SH-SY5Y cells, shows neuroprotective effects[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Wang L, Sun T, Wang Z, Liu H, Qiu W, Tang X, Guo H, Yang P, Chen Y, Sun H. Design, Synthesis, and Proof of Concept of Balanced Dual Inhibitors of Butyrylcholinesterase (BChE) and Histone Deacetylase 6 (HDAC6) for the Treatment of Alzheimer's Disease. ACS Chem Neurosci. 2023 Sep 6;14(17):3226-3248.

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