KH-259

Cat. No.: HY-150503

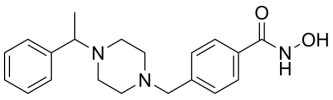
Molecular Formula: $C_{20}H_{25}N_3O_2$

Molecular Weight: 339.43

Target: HDAC

Pathway: Cell Cycle/DNA Damage; Epigenetics

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	KH-259 (compound 1) is a potent, selective and CNS-penetrant HDAC6 inhibitor, with an IC_{50} of 0.26 μM. KH-259 has antidepressant effects in mice through the inhibition of HDAC6 in the brain. KH-259 can be used for neurodegenerative diseases research[1].		
IC_{50} & Target	HDAC6 0.26 ± 0.2 μM (IC_{50})	HDAC1 6.7 ± 0.14 μM (IC_{50})	HDAC4 12.3 ± 0.4 μM (IC_{50})
In Vitro	KH-259 (compound 1) exhibits acceptable metabolic stability in both mouse and human liver microsomes[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.		
In Vivo	KH-259 (compound 1) (10 mg/kg, IP, once) in mice significantly increases acetylated α-tubulin levels without increasing acetylated histone H3K9 levels in the brain, indicating that KH-259 has antidepressant effects in mice through the inhibition of HDAC6 in the brain[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.		

REFERENCES

[1]. Kosuke Hashimoto, et al. Discovery of Benzylpiperazine Derivatives as CNS-Penetrant and Selective Histone Deacetylase 6 Inhibitors. ACS Med. Chem. Lett. 2022 June 28.

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