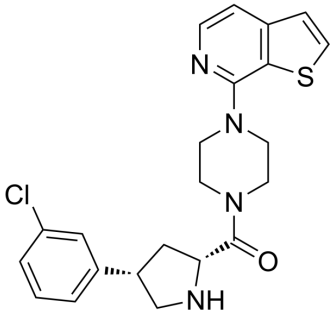
HDAC2-IN-1

Cat. No.:	HY-151248
CAS No.:	2919691-32-8
Molecular Formula:	$C_{22}H_{23}ClN_4OS$
Molecular Weight:	426.96
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	HDAC2-IN-1 (Compound 17) is a brain penetrant, orally active, competitive HDAC2 inhibitor with an IC_{50} of 0.5 μM[1]. HDAC2-IN-1 also inhibits HDAC1 and HDAC8 with IC_{50}s of 1.61 μM and 0.98 μM, respectively[1].

IC_{50} & Target	HDAC2	HDAC8	HDAC1
	0.5 μM (IC_{50})	0.98 μM (IC_{50})	1.61 μM (IC_{50})

In Vitro

HDAC2-IN-1 (Compound 17) (3 and 10 μM; 48 h) increases histone H4K12 and H3K9 acetylation levels in SKNSH cells in a dose-dependent manner[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

HDAC2-IN-1 (Compound 17) (30 or 100 mg/kg; p.o.; once) shows good plasma and brain exposure, and shows promising brain penetration[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male C57BL/6 mice[1]
Dosage:	30 or 100 mg/kg
Administration:	Oral administration (Pharmacokinetic Analysis)
Result:	Showed good plasma and brain exposure, also showed promising brain penetration, $K_{p,uu}$ = 0.36. Significantly increased histone H4K12 acetylation in mouse brain 4 h after oral dosing at 100 mg/kg.

REFERENCES

[1]. Tamanini E, et al. Fragment-Based Discovery of a Novel, Brain Penetrant, Orally Active HDAC2 Inhibitor. ACS Medicinal Chemistry Letters, 2022.

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

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