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Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
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Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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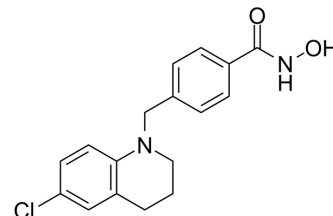
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SW-100

Cat. No.:	HY-115475
CAS No.:	2126744-35-0
Molecular Formula:	C ₁₇ H ₁₇ ClN ₂ O ₂
Molecular Weight:	316.78
Target:	HDAC
Pathway:	Cell Cycle/DNA Damage; Epigenetics
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 125 mg/mL (394.60 mM)
 * "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		3.1568 mL	15.7838 mL	31.5676 mL
	5 mM		0.6314 mL	3.1568 mL	6.3135 mL
	10 mM		0.3157 mL	1.5784 mL	3.1568 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.08 mg/mL (6.57 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.08 mg/mL (6.57 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.08 mg/mL (6.57 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

SW-100, a selective histone deacetylase 6 (HDAC6) inhibitor with an IC₅₀ of 2.3 nM, shows at least 1000-fold selectivity for HDAC6 relative to all other HDAC isozymes. SW-100 displays a significantly improved ability to cross the blood-brain-barrier [1].

IC₅₀ & Target

HDAC1 5.23 μM (IC ₅₀)	HDAC2 32.8 μM (IC ₅₀)	HDAC3 29.5 μM (IC ₅₀)	HDAC4 10.9 μM (IC ₅₀)
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	HDAC5 4.07 μM (IC ₅₀)	HDAC6 2.3 nM (IC ₅₀)	HDAC7 4.55 μM (IC ₅₀)	HDAC8 3.72 μM (IC ₅₀)
	HDAC9 3.46 μM (IC ₅₀)	HDAC10 26.2 μM (IC ₅₀)	HDAC11 5.72 μM (IC ₅₀)	
In Vitro	SW-100 (0.01-10 μM; 48 hours) shows obvious increase in the acetylated α-tubulin levels in a dose-dependent manner ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.			
	Western Blot Analysis ^[1]			
	Cell Line:	HEK293 cells		
	Concentration:	0.01, 0.1, 1, 10 μM		
	Incubation Time:	48 hours		
	Result:	Showed obvious increase in the acetylated α-tubulin levels in a dose-dependent manner.		
In Vivo	SW-100 (20 mg/kg; i.p.; twice a day for two days) ameliorates several memory and learning impairments including novel object recognition, temporal ordering, and coordinate and categorical spatial processing in mouse model of Fragile X syndrome ^[1] .			
	MCE has not independently confirmed the accuracy of these methods. They are for reference only.			
	Animal Model:	8-10 weeks old C57BL/6 mice (Fmr1 ^{-/-} mice) ^[1]		
	Dosage:	20 mg/kg		
	Administration:	Intraperitoneal injection; twice a day for two days		
	Result:	Ameliorated several memory and learning impairments including novel object recognition, temporal ordering, and coordinate and categorical spatial processing in Fmr1 ^{-/-} mice		

CUSTOMER VALIDATION

- Nat Commun. 2023 Oct 17;14(1):6547.
- Research Square Print. 2023 Jan 27;rs.3.rs-2440581.
- Patent. US20210290612A1.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Kozikowski AP, et al. Brain Penetrable Histone Deacetylase 6 Inhibitor SW-100 Ameliorates Memory and Learning Impairments in a Mouse Model of Fragile X Syndrome. ACS Chem Neurosci. 2019 Mar 20;10(3):1679-1695.

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

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