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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Nexturastat A

Cat. No.: HY-16699

CAS No.: 1403783-31-2

Molecular Formula: $C_{19}H_{23}N_3O_3$

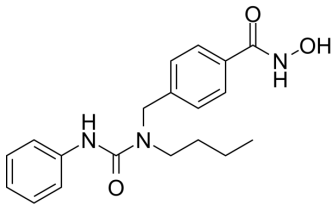
Molecular Weight: 341.4

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 : ≥ 56 mg/mL (164.03 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.9291 mL	14.6456 mL	29.2912 mL
5 mM	0.5858 mL	2.9291 mL	5.8582 mL
10 mM	0.2929 mL	1.4646 mL	2.9291 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (7.32 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (7.32 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (7.32 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Nexturastat A is a potent, selective HDAC6 inhibitor. Nexturastat A has inhibitory for HDAC6 with an IC_{50} of 5 nM. Nexturastat A can be used for the research of multiple myeloma (MM)[1][2].

IC_{50} & Target

HDAC6 5.02 nM (IC_{50})	HDAC8 0.954 μM (IC_{50})	HDAC1 3.02 μM (IC_{50})	HDAC7 4.46 μM (IC_{50})
HDAC11	HDAC3	HDAC9	HDAC2

	5.14 μM (IC_{50})	6.68 μM (IC_{50})	6.72 μM (IC_{50})	6.92 μM (IC_{50})
	HDAC10 7.57 μM (IC_{50})	HDAC4 9.39 μM (IC_{50})	HDAC5 11.7 μM (IC_{50})	

In Vitro

Nexturastat A (5 g) has inhibitory for HDAC6 with IC_{50} values of 0.005 μM[1].
Nexturastat A (0-10 μM; 24 h) has substrate selectivity for HDAC62[1].
Nexturastat A has antiproliferative activity against B16 murine melanoma cells with IC_{50} values of 14.3 μM[1].
Nexturastat A (NexA) (0-40 μM; 48 h) suppresses viability and induced G1 phase arrest of human MM cells[2].
Nexturastat A (0, 30, 40 μM; 48 h) promotes apoptosis of MM cells via transcriptional activation of the p21 promoter[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	B16 murine melanoma cells
Concentration:	0-10 μM
Incubation Time:	24 h
Result:	Increased the level of acetyl α-tubulin levels in a dose-dependent.

Cell Viability Assay[2]

Cell Line:	RPMI-8226 and U266 cells
Concentration:	0-40 μM
Incubation Time:	48 h
Result:	Impaired multiple myeloma (MM) cells viability in a dose- and time-dependent manner.

Apoptosis Analysis[2]

Cell Line:	RPMI-8226 and U266 cells
Concentration:	0, 30, 40 μM
Incubation Time:	48 h
Result:	Induced cell apoptosis in human MM cells.

RT-PCR[2]

Cell Line:	RPMI-8226 and U266 cells
Concentration:	30 μM
Incubation Time:	48 h
Result:	Increased the levels of p21 mRNA in RPMI-8226 and U266 cells.

In Vivo

Nexturastat A (NexA) (every two days, 20 days) inhibits tumor growth in murine xenograft models of MM[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Cell Death Dis. 2022 Aug 17;13(8):717.
- Patent. US20180263995A1.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Xiaoyang Sun, et al. The selective HDAC6 inhibitor Nexturastat A induces apoptosis, overcomes drug resistance and inhibits tumor growth in multiple myeloma. Biosci Rep. 2019 Mar 22;39(3):BSR20181916.

[2]. Bergman JA, et al. Selective histone deacetylase 6 inhibitors bearing substituted urea linkers inhibit melanoma cell growth. J Med Chem. 2012 Nov 26;55(22):9891-9.

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