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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
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- Gefahrgutzuschlag
- Expressversand

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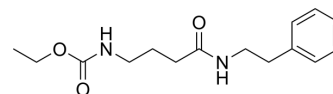
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Santacruzamate A

Cat. No.:	HY-N0931
CAS No.:	1477949-42-0
Molecular Formula:	C ₁₅ H ₂₂ N ₂ O ₃
Molecular Weight:	278.35
Target:	HDAC; Amyloid- β
Pathway:	Cell Cycle/DNA Damage; Epigenetics; Neuronal Signaling
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 : ≥ 100 mg/mL (359.26 mM)
 * "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		3.5926 mL	17.9630 mL	35.9260 mL
	5 mM		0.7185 mL	3.5926 mL	7.1852 mL
	10 mM		0.3593 mL	1.7963 mL	3.5926 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: ≥ 2.5 mg/mL (8.98 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE- β -CD in saline)
Solubility: ≥ 2.5 mg/mL (8.98 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (8.98 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Santacruzamate A (CAY-10683, STA) is a potent and selective HDAC2 inhibitor with an IC₅₀ of 119 pM. STA also exerts neuroprotective property against amyloid- β protein fragment 25–35. STA can be used for cancer and neurological disease research^{[1][2]}.

IC₅₀ & Target

HDAC2 119 pM (IC ₅₀)	HDAC6 434 nM (IC ₅₀)
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In Vitro

Santacruzamate A (0.016-50 μ M, 28 h) attenuates amyloid- β protein fragment 25–35-induced apoptosis and reverses A β 25–35-induced unfolded protein response and endoplasmic reticulum stress in PC12 and SH-SY5Y. 2 μ M STA shows the strongest protective effects^[2].

Santacruzamate A (0.016-50 μ M, 12 h) up-regulates KDEL receptor (KDELr) expression, reinforces ER luminal retention of chaperones, and enhances the binding of PERK to GRP78, inhibiting the amyloid- β protein fragment 25–35-induced mitochondrial fission and apoptosis pathways in PC12^[2].

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

CUSTOMER VALIDATION

- Cell Metab. 2021 Nov 20;S1550-4131(21)00532-5.
- Clin Transl Med. 15 September 2021.
- Metab Eng. 2023 Sep 17:80:94-106.
- Int J Mol Sci. 2022 Apr 2;23(7):3980.
- J Mol Med (Berl). 2019 Aug;97(8):1183-1193.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Pavlik CM, et al. Santacruzamate A, a potent and selective histone deacetylase inhibitor from the Panamanian marine cyanobacterium cf. *Symploca* sp. J Nat Prod. 2013 Nov 22;76(11):2026-33.

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

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