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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Veratridine

Cat. No.: HY-N6691

CAS No.: 71-62-5

Molecular Formula: $C_{36}H_{51}NO_{11}$

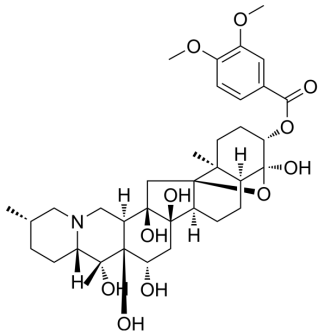
Molecular Weight: 673.79

Target: Sodium Channel

Pathway: Membrane Transporter/Ion Channel

Storage:

Powder	-20°C	3 years
In solvent	-80°C	1 year
	-20°C	6 months



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (148.41 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	1.4841 mL	7.4207 mL	14.8414 mL
	5 mM	0.2968 mL	1.4841 mL	2.9683 mL
	10 mM	0.1484 mL	0.7421 mL	1.4841 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 (3.71 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (3.71 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (3.71 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Veratridine (3-Veratroylveracevine) is a plant neurotoxin, a voltage-gated sodium channels (VGSCs) agonist. Veratridine inhibits the peak current of Nav1.7, with an IC_{50} of 18.39 μM. Veratridine regulates sodium ion channels mainly by activating sodium ion channels, preventing channel inactivation and increasing sodium ion flow[1][2].

IC_{50} & Target

$Na_V1.7$
18.39 μM (IC_{50})

In Vitro

Veratridine (0.25 mM and 1 mM; 24 h) treatment results in all cells death[2].

?Veratridine (0.001-100 μM) produces tetrodotoxin-sensitive responses[3].

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

Cell Cytotoxicity Assay[2]

Cell Line:	Neuro-2a cells
Concentration:	0.25 mM and 1 mM
Incubation Time:	24 hours
Result:	Caused around 100% cell mortality (0% cell viability).

Cell Viability Assay[3]

Cell Line:	Cultured mouse DRG neurons
Concentration:	0.001, 0.1, 1, 10, 30, and 100 μM
Incubation Time:	
Result:	Increased responding neurons number from a threshold of 1 μM in a concentration-dependent manner.

CUSTOMER VALIDATION

- Proteome Sci. 2023 Oct 12;21(1):17.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Laura A Uribe, et al. Supramolecular Complexes of Plant Neurotoxin Veratridine with Cyclodextrins and Their Antidote-like Effect on Neuro-2a Cell Viability. Pharmaceutics. 2022 Mar 9;14(3):598.

[2]. Zainab A Mohammed, et al. Veratridine produces distinct calcium response profiles in mouse Dorsal Root Ganglia neurons. Sci Rep. 2017 Mar 24;7:45221.

[3]. Zhang XY, et al. Veratridine modifies the gating of human voltage-gated sodium channel Nav1.7. Acta Pharmacol Sin. 2018 Nov;39(11):1716-1724.

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