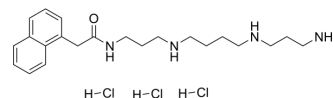


Naspm trihydrochloride

Cat. No.:	HY-12506A
CAS No.:	1049731-36-3
Molecular Formula:	C ₂₂ H ₃₇ Cl ₃ N ₄ O
Molecular Weight:	479.91
Target:	iGluR
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 50 mg/mL (104.19 mM; Need ultrasonic)					
	DMSO : 6.4 mg/mL (13.34 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
		Concentration				
		1 mM		2.0837 mL	10.4186 mL	20.8372 mL
5 mM			0.4167 mL	2.0837 mL	4.1674 mL	
10 mM		0.2084 mL	1.0419 mL	2.0837 mL		
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: PBS Solubility: 100 mg/mL (208.37 mM); Clear solution; Need ultrasonic					

BIOLOGICAL ACTIVITY

Description	Naspm trihydrochloride (1-Naphthylacetyl spermine trihydrochloride), a synthetic analogue of Joro spider toxin, is a calcium permeable AMPA (CP-AMPA) receptors antagonist.
IC ₅₀ & Target	AMPA Receptor
In Vitro	NASPM selectively suppresses the inwardly rectifying and Ca ²⁺ -permeable AMPA receptors expressed in type II neurons. It has no effect on AMPA receptors in type I neurons. At -60 mV, NASPM suppresses AMPA receptors in type II neurons with an IC ₅₀ value of 0.33 μM. The blocking effect of NASPM on the Ca ²⁺ -permeable AMPA receptors is use and voltage-dependent ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

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- Cell Rep. 2020 Nov 10;33(6):108369.
 - J Headache Pain. 2022 Aug 10;23(1):98.
 - Neuroscience. 2021 Sep 9;S0306-4522(21)00454-1.
 - Toxicol In Vitro. 2017 Oct;44:57-65.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Koike M, et al. Blocking effect of 1-naphthyl acetyl spermine on Ca²⁺-permeable AMPA receptors in cultured rat hippocampal neurons. Neurosci Res. 1997 Sep;29(1):27-36.

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

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