

Produktinformation



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

Weitere Information auf den folgenden Seiten! See the following pages for more information!



Lieferung & Zahlungsart siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien T. +43(0)1 489 3961-0 F. +43(0)1 489 3961-7 <u>mail@szabo-scandic.com</u> www.szabo-scandic.com

PRODUCT INFORMATION



NASPM (hydrochloride)

Item No. 18453

CAS Registry No.:	1049731-36-3			
Formal Name:	N-(3-((4-((3-aminopropyl)amino)			
	butyl)amino)propyl)-2-(naphthalen-			
	1-yl)acetamide, trihydrochloride			0
Synonym:	1-Naphthylacetyl spermine	\sim	\sim_{N}	
MF:	C ₂₂ H ₃₄ N ₄ O • 3HCl			
FW:	479.9	NH ₂		
Purity:	≥95%		• 3HCI	
UV/Vis.:	λ _{max} : 224, 280 nm			
Supplied as:	A crystalline solid			
Storage:	-20°C			
Stability:	≥2 years			
Information represents the product specifications. Patch specific analytical results are provided on each certificate of analysis				

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

NASPM (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the NASPM (hydrochloride) in the solvent of choice. NASPM (hydrochloride) is soluble in the organic solvent DMSO, which should be purged with an inert gas, at a concentration of approximately 1.7 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of NASPM (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of NASPM (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

NASPM is a synthetic analog of Joro spider toxin that blocks GluR2-lacking, Ca²⁺-permeable AMPA receptors. The blocking effect of NASPM on these receptors is use and voltage-dependent. At -60 mV, NASPM can suppress current responses in kainate-induced type II neurons (which are typified by strong inward rectification and high permeability to Ca²⁺) with an IC₅₀ value of 0.33 μ M.¹ However, at +40 mV, NASPM does not affect Ca²⁺-permeable AMPA receptors.¹ NASPM has been shown to protect against ischemia-induced neuronal cell death by preventing influx of toxic levels of Ca²⁺ into injured neurons.² This compound can be used to study the role of GluR2 subunits in calcium permeability of AMPA receptors.^{2,3}

References

- 1. Koike, M., Iino, M., and Ozawa, S. Blocking effect of 1-naphthyl acetyl spermine on Ca(2+)-permeable AMPA receptors in cultured rat hippocampal neurons. Neurosci. Res. 29(1), 27-36 (1997).
- 2. Oguro, K., Oguro, N., Kojima, T., et al. Knockdown of AMPA receptor GluR2 expression causes delayed neurodegeneration and increases damage by sublethal ischemia in hippocampal CA1 and CA3 neurons. J. Neurosci. 19(21), 9218-9227 (1999).
- 3. Dong, L.-D., Gao, F., Wang, X.-H., et al. GluA2 trafficking is involved in apoptosis of retinal ganglion cells induced by activation of EphB/EphrinB reverse signaling in a rat chronic ocular hypertension model. J. Neurosci. 35(13), 5409-5421 (2015).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFFTY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

uyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/23/2017

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD ANN ARBOR, MI 48108 · USA PHONE: [800] 364-9897 [734] 971-3335 FAX: [734] 971-3640 CUSTSERV@CAYMANCHEM.COM WWW.CAYMANCHEM.COM