

PRODUCT INFORMATION



SNX-482 (ammonium salt)

Item No. 30988

Formal Name: glycyl-L-valyl-L- α -aspartyl-L-lysyl-L-alanylglycyl-L-cysteinyl-L-arginyl-L-tyrosyl-L-methionyl-L-phenylalanylglycylglycyl-L-cysteinyl-L-seryl-L-valyl-L-asparaginyl-L- α -aspartyl-L- α -aspartyl-L-cysteinyl-L-cysteinyl-L-prolyl-L-arginyl-L-leucylglycyl-L-cysteinyl-L-histidyl-L-seryl-L-leucyl-L-phenylalanyl-L-seryl-L-tyrosyl-L-cysteinyl-L-alanyl-L-tryptophyl-L- α -aspartyl-L-leucyl-L-threonyl-L-phenylalanyl-L-seryl-L-aspartic acid, cyclic (7 \rightarrow 21),(14 \rightarrow 26),(20 \rightarrow 33)-tris(disulfide), ammonium salt

MF: $C_{192}H_{274}N_{52}O_{60}S_7 \cdot XNH_4$

FW: 4,495.0

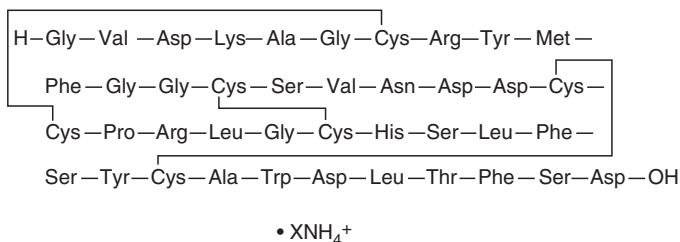
Purity: $\geq 95\%$

Supplied as: A solid

Storage: -20°C

Stability: ≥ 4 years

Item Origin: Synthetic



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

Laboratory Procedures

SNX-482 (ammonium salt) is supplied as a solid. A stock solution may be made by dissolving the SNX-482 (ammonium salt) in water. We do not recommend storing the aqueous solution for more than one day.

Description

SNX-482 is a peptide originally isolated from *H. gigas* venom that acts as a class E/R-type voltage-sensitive calcium channel blocker ($IC_{50} = 30$ nM in 192C cells expressing human class E channels).¹ It is selective for class E/R-type over class A and class B calcium channels (IC_{50} s = >280 and ~ 800 nM, respectively), as well as the voltage-gated potassium channels $K_v1.1$, $K_v1.2$, and $K_v1.4$ (IC_{50} s = >140 nM for all). SNX-482 inhibits class E/R-type calcium currents in isolated rat posterior pituitary ($IC_{50} = 4$ nM), however, it has no effect on class E/R-type calcium currents in isolated rat granule cells, retinal ganglion cells, or hippocampal pyramidal cells at concentrations up to 200 nM. Intrathecal administration of SNX-482 (0.5 $\mu\text{g}/\text{animal}$) inhibits formalin-induced neurokinin-1 (NK_1) receptor internalization and *cfos* expression in the ipsilateral dorsal horn and reduces formalin-induced paw flinching in rats.²

References

1. Newcomb, R., Chen, X., Dean, R., *et al.* SNX-482: A novel class E calcium channel antagonist from tarantula venom. *CNS Drug Rev.* **6**(2), 153-173 (2000).
2. Terashima, T., Xu, Q., Yamaguchi, S., *et al.* Intrathecal P/Q- and R-type calcium channel blockade of spinal substance P release and c-Fos expression. *Neuropharmacology* **75**, 1-8 (2013).

WARNING

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

SAFETY 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

Buyer 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, 04/01/2024

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