

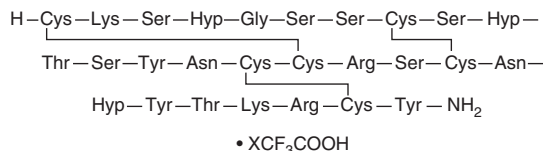
PRODUCT INFORMATION



ω -Conotoxin GVIA (trifluoroacetate salt)

Item No. 24114

Formal Name: L-cysteinyl-L-lysyl-L-seryl-(4R)-4-hydroxy-L-prolylglycyl-L-seryl-L-seryl-L-cysteinyl-L-seryl-(4R)-4-hydroxy-L-prolyl-L-threonyl-L-seryl-L-tyrosyl-L-asparaginyl-L-cysteinyl-L-cysteinyl-L-arginyl-L-seryl-L-cysteinyl-L-asparaginyl-(4R)-4-hydroxy-L-prolyl-L-tyrosyl-L-threonyl-L-lysyl-L-arginyl-L-cysteinyl-L-tyrosinamide, cyclic (1→16),(8→19),(15→26)-tris(disulfide), trifluoroacetate salt



Synonym: SNX-124

MF: C₁₂₀H₁₈₂N₃₈O₄₃S₆ • XCF₃COOH

FW: 3,037.4

Purity: ≥95%

Supplied as: A lyophilized powder

Storage: -20°C

Stability: ≥4 years

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

Laboratory Procedures

ω -Conotoxin GVIA (trifluoroacetate salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the ω -conotoxin GVIA (trifluoroacetate salt) in water. The solubility of ω -conotoxin GVIA (trifluoroacetate salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

ω -Conotoxin GVIA is a peptide originally isolated from the marine mollusk *C. geographus* that acts as an N-type calcium channel blocker.^{1,2} It binds to human neocortical, rat hippocampal, and chick brain synaptic plasma membranes (IC₅₀s = 4.6, 60, and 150 pM, respectively, in radioligand binding assays).³⁻⁵ ω -Conotoxin GVIA inhibits norepinephrine (Item No. 16673) and acetylcholine (Item No. 23829) release from human neocortical slices (IC₅₀s = 14 and 3 nM, respectively) and calcium influx into chick synaptosomes by 92% when used at a concentration of 0.1 μ M.^{3,4} It blocks electrically-evoked twitch responses of rat vas deferens and guinea pig ileum (IC₅₀s = 9.8 and 55 nM, respectively) but does not affect the postjunctional contractile responses induced by norepinephrine on vas deferens or by carbamoylcholine (carbachol; Item No. 14486) on ileum.⁶ ω -Conotoxin GVIA does not affect potassium-induced contraction of rat aorta at concentrations up to 1 μ M.

References

1. Kerr, L.M. and Yoshikami, D. *Nature* **308**(5956), 282-284 (1984).
2. McCleskey, E.W., Fox, A.P., Feldman, D.H., et al. *Proc. Natl. Acad. Sci. U.S.A.* **84**(12), 4327-4331 (1987).
3. Feuerstein, T.J., Dooley, D.J., and Seeger, W. *J. Pharmacol. Exp. Ther.* **252**(2), 778-785 (1990).
4. Lampe, R.A., Lo, M.M., Keith, R.A., et al. *Biochemistry* **32**(13), 3255-3260 (1993).
5. Sato, K., Park, N.G., Kohno, T., et al. *Biochem. Biophys. Res. Commun.* **194**(3), 1292-1296 (1993).
6. Keith, R.A., Mangano, T.J., Pacheco, M.A., et al. *J. Auton. Pharmacol.* **9**(4), 243-252 (1989).

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.

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