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Molecular Tools for the Life Science Community

Certificate of Analysis

ω -Conotoxin GVIA (SNX-124)

Cat. #: C-300

Origin: *Conus geographus* (Geography cone).

Source description: Synthetic peptide.

M.W.: 3037 daltons¹.

Purity: >99%.

Effective concentration: 20 nM - 1 μ M.

Sequence: CKSPGSSCSPTSYNCCRSCNXYTKRCY.

Modifications: Disulfide bonds between Cys¹-Cys¹⁶, Cys⁸-Cys¹⁹ and Cys¹⁵-Cys²⁶. X = Hydroxyproline. Tyr²⁷ - C-terminal amidation.

Molecular formula: C₁₂₀H₁₈₈N₃₈O₄₃S₆.

CAS No.: 106375-28-4.

Activity: ω -Conotoxin GVIA specifically and reversibly blocks N-type channels² and is reported to antagonize P2X receptors³.

Bioassay: ω -Conotoxin GVIA inhibits Cav2.2 heterologously expressed in *Xenopus* oocytes.

Sizes: 0.1 mg, 5 x 0.1 mg, 0.25 mg, 0.5 mg, or 1 mg lyophilized powder.

Storage before reconstitution: Lyophilized powder can be stored intact at room temperature for several weeks. For longer periods, it should be stored at -20°C.

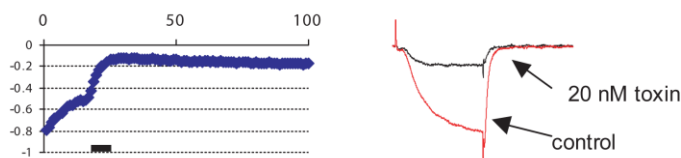
Reconstitution: Any aqueous buffer. Centrifuge all product preparations before use (10000 x g 5 min).

Concentration after reconstitution: Dissolving 0.1 mg in 0.4 ml gives a stock solution of 82 μ M.

Storage and stability after reconstitution: Up to two weeks at 4°C or three months at -20°C.

References:

1. Olivera, B.M. *et al.* (1984) *Biochemistry* **23**, 5087.
2. McCleskey, E.W. *et al.* (1987) *Proc. Natl. Acad. Sci. U.S.A.* **84**, 4327.
3. Lalo, U.V. *et al.* (2001) *Brain Res. Bull.* **54**, 507.



Left: Time course of ω -Conotoxin GVIA (#C-300) action. Current amplitudes were plotted as a function of the stimulus number. Oocyte membrane potential was held at -100 mV and 100 ms stimulating pulse to 0 mV was delivered every 10 seconds. 20 nM ω -Conotoxin GVIA were perfused in the period marked by the bar. Right: Example traces of N-type currents before and during ω -Conotoxin GVIA application.

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