

## μ-Conotoxin GIIIB

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|----------------------|--|
| Cat. No.:            | HY-P2700   |
| CAS No.:             | 140678-12-2  |
| Molecular Formula:   | C <sub>101</sub> H <sub>175</sub> N <sub>39</sub> O <sub>30</sub> S <sub>7</sub>   |
| Molecular Weight:    | 2640.17  |
| Sequence:            | Arg-Asp-Cys-Cys-Thr-{Hyp}-{Hyp}-Arg-Lys-Cys-Lys-Asp-Arg-Arg-Cys-Lys-{Hyp}-Met-Lys-Cys-Cys-Ala (Disulfide bridge:Cys3-Cys15,Cys4-Cys20,Cys10-Cys21) |
| Sequence Shortening: | RDCCT-{Hyp}-{Hyp}-RKCKDRRCK-{Hyp}-MKCCA (Disulfide bridge:Cys3-Cys15,Cys4-Cys20,Cys10-Cys21)   |
| Target:              | Sodium Channel   |
| Pathway:             | Membrane Transporter/Ion Channel   |
| Storage:             | Please store the product under the recommended conditions in the Certificate of Analysis.  |

### BIOLOGICAL ACTIVITY

|                           |   |
|---------------------------|---|
| Description               | μ-Conotoxin GIIIB is a 22-residue polypeptide that can be isolated from the venom of piscivorous cone snail <i>Conus geographus</i> . μ-Conotoxin GIIIB is a Na <sub>v</sub> 1.4 channel inhibitor. μ-Conotoxin GIIIB blocks muscle cell's contraction <sup>[1][2][3]</sup> . |
| IC <sub>50</sub> & Target | NaV1.4 Channel <sup>[2]</sup>   |

### REFERENCES

- [1]. orres NS. Activation of reverse Na<sup>+</sup>-Ca<sup>2+</sup> exchanger by skeletal Na<sup>+</sup> channel isoform increases excitation-contraction coupling efficiency in rabbit cardiomyocytes. *Am J Physiol Heart Circ Physiol*. 2021 Feb 1;320(2):H593-H603.
- [2]. Garcia N, et al. Involvement of the Voltage-Gated Calcium Channels L- P/Q- and N-Types in Synapse Elimination During Neuromuscular Junction Development. *Mol Neurobiol*. 2022 Jul;59(7):4044-4064.
- [3]. Hill JM, et al. Three-dimensional solution structure of mu-conotoxin GIIIB, a specific blocker of skeletal muscle sodium channels. *Biochemistry*. 1996 Jul 9;35(27):8824-35.

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

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