

Product Data Sheet

Inhibitors

Screening Libraries

Proteins

Hainantoxin-III

Molecular Weight:

Cat. No.: HY-P5180 CAS No.: 1809149-40-3

Molecular Formula: $\mathsf{C_{_{154}H_{_{228}}N_{_{44}}O_{_{45}}S_{_{6}}}$

Sequence: Gly-Cys-Lys-Gly-Phe-Gly-Asp-Ser-Cys-Thr-Pro-Gly-Lys-Asn-Glu-Cys-Cys-Pro-Asn-Tyr-Al

a-Cys-Ser-Ser-Lys-His-Lys-Trp-Cys-Lys-Val-Tyr-Leu-NH2 (Disulfide bonds: Cys2-Cys17,

Cys9-Cys22, Cys16-Cys29)

Sequence Shortening: GCKGFGDSCTPGKNECCPNYACSSKHKWCKVYL-NH2 (Disulfide bonds: Cys2-Cys17, Cys9

-Cys22, Cys16-Cys29)

Target: Sodium Channel

Pathway: Membrane Transporter/Ion Channel

3608.12

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

BIOLOGICAL ACTIVITY

Description Jingzhaotoxin-V is a peptide that inhibits potassium currents in Xenopus laevis oocytes with an IC50 value of 604.2 nM.

Jingzhaotoxin-V also inhibits tetrodotoxin-resistant and tetrodotoxin-sensitive sodium currents in rat dorsal root ganglion

neurons with IC₅₀ values of 27.6 and 30.2 nM, respectively^[1].

IC₅₀ & Target Nav1.2 Nav1.3 Nav1.7

REFERENCES

[1]. Yucheng Xiao, et al. Inhibition of neuronal tetrodotoxin-sensitive Na+ channels by twospider toxins: hainantoxin-III and hainantoxin-IV. Eur J Pharmacol. 2003 Sep

[2]. Yunxiao Zhang, et al. Engineering of highly potent and selective HNTX-III mutant against hNav1.7 sodium channel for treatment of pain. J Biol Chem. 2021 Jan-Jun:296:100326.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA

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