Jingzhaotoxin-III

Cat. No.:	HY-P1219
CAS No.:	925463-91-8
Molecular Formula:	$C_{174}H_{241}N_{47}O_{46}S_6$
Molecular Weight:	3919.45
Sequence:	Asp-Gly-Glu-Cys-Gly-Gly-Phe-Trp-Trp-Lys-Cys-Gly-Arg-Gly-Lys-Pro-Pro-Cys-Cys-Lys-Gly-Tyr-Ala-Cys-Ser-Lys-Thr-Trp-Gly-Trp-Cys-Ala-Val-Glu-Ala-Pro (Disulfide bridge: Cys4-Cys19; Cys11-Cys24; Cys18-Cys31)
Sequence Shortening:	DGECGGFWWKCGRGKPPCCKGYACSKTWGWCAVEAP (Disulfide bridge: Cys4-Cys19; Cys11-Cys24; Cys18-Cys31)
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	Jingzhaotoxin-III is a potent and selective blocker of Nav1.5 channels, with an IC_{50} of 348 nM, and shows no effect on other sodium channel isoforms. Jingzhaotoxin-III can selectively inhibit the activation of cardiac sodium channel but not neuronal subtypes, and hopefully represents an important ligand for discriminating cardiac VGSC subtype[1][2].
IC_{50} & Target	IC50: 348 nM (Nav1.5 Channels)[1]

REFERENCES

[1]. Rong M, et, al. Molecular basis of the tarantula toxin jingzhaotoxin-III (β-TRTX-Cj1α) interacting with voltage sensors in sodium channel subtype Nav1.5. FASEB J. 2011 Sep; 25(9): 3177-85.

[2]. Xiao Y, et, al. Jingzhaotoxin-III, a novel spider toxin inhibiting activation of voltage-gated sodium channel in rat cardiac myocytes. J Biol Chem. 2004 Jun 18; 279(25): 26220-6.

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