

Jingzhaotoxin III

Product name : Jingzhaotoxin III	Synonyms : Jzh III, Jingzhaotoxin 3, Jzh 3, β -TRTX-Cj1 α
Catalog # : 12JZH003	
Product description	
<p>Jingzhaotoxin-III (β-TRTX-Cj1α) has been isolated initially from the Chinese Tarantula spider <i>Chilobrachys Jingzhao</i> venom. Jingzhaotoxin-III selectively inhibits the voltage-dependent sodium channel Na_v1.5 channel with an IC₅₀ value close to 350 nM. It is inactive on Na_v1.2, Na_v1.4, Na_v1.6 and Na_v1.7 and should therefore be considered as an interesting research tool to discriminate between sodium channel subtypes. Jingzhaotoxin-III binds onto receptor site 4 presumably located on DIIS3-S4 linker of Na_v1.5 and supposedly blocks Na_v1.5 through a different mechanism than ProTx-II and Huwentoxin IV. β-TRTX-Cj1α is composed of 36 amino acid residues including 6 cysteines cross-linked according to a C1-C4, C2-C5 and C3-C6 pattern.</p>	
Product specifications	
<p>AA sequence: Asp-Gly-Glu-Cys⁴-Gly-Gly-Phe-Trp-Trp-Lys-Cys¹¹-Gly-Arg-Gly-Lys-Pro-Pro-Cys¹⁸-Cys¹⁹-Lys-Gly-Tyr-Ala-Cys²⁴-Ser-Lys-Thr-Trp-Gly-Trp-Cys³¹-Ala-Val-Glu-Ala-Pro-OH</p> <p>Disulfide bonds: Cys⁴-Cys¹⁹, Cys¹¹-Cys²⁴, and Cys¹⁸-Cys³¹</p> <p>Length (aa): 36</p> <p>Formula: C₁₇₄H₂₄₁N₄₇O₄₆S₆</p> <p>Appearance: White lyophilized solid</p> <p>Molecular Weight: 3919.53 Da</p> <p>CAS number:</p> <p>Source: Synthetic</p> <p>Counterion: TFA salts</p> <p>Solubility: Water or saline buffer, 5 mg/mL maximum (recommendation)</p>	
Formulation	
<p>Storage/Stability: Shipped at ambient temperature under lyophilized powder. Store at -20°C (-4°F). Do not freeze-thaw. Aliquot sample if required and store at -80°C (-112°F).</p> <p>Expiry date: One year</p> <p>Use restrictions: For laboratory use only. Not for drug, household or other uses. Not for use in diagnostic or therapeutic procedures.</p>	
Related products	
<ul style="list-style-type: none"> • Biotinyl-ProTx-II - #12PTB002: Na_v1.7 selective inhibitor • ProTx-II - #07PTX002: selective blocker of Na_v1.7 blocker • ProTx-I - #12PTX001: voltage-gated sodium channel inhibitor • Huwentoxin I - #07HWT001: N-type Ca²⁺ channel and TTX-S inhibitor • Huwentoxin-IV - #08HWT002: voltage-gated sodium channel inhibitor • Hainantoxin IV - #12HTX001: selective blocker of TTX-S channels • Jingzhaotoxin III - #12JZH003: selective blocker of Na_v1.5 channel • GsAF-I - #12GSF001: voltage-gated sodium channel inhibitor • GsAF-II - #12GSF002: voltage-gated sodium channel inhibitor • Phrixotoxin-3 - #13PHX003: Na_v1.2 selective blocker • μ-conotoxin PIIIA - #08CON006: Na1.2, Nav1.4 and Nav1.7 blocker 	
References	
<ul style="list-style-type: none"> • Xiao Y., <i>et al.</i> (2004) Jingzhaotoxin-III, a novel spider toxin inhibiting activation of voltage-gated sodium channel in rat cardiac myocytes. <i>JBC</i> • Rong M., <i>et al.</i> (2011) Molecular basis of the tarantula toxin jingzhaotoxin-III (β-TRTX-Cj1α) interacting with voltage sensors in sodium channel subtype Nav1.5. <i>The FASEB Journal</i> 	

For laboratory research use only