

## ProTx II TFA

Cat. No.:	HY-P1221A
Molecular Formula:	$C_{168}H_{250}N_{46}O_{41}S_8 \cdot xC_2HF_3O_2$
Sequence:	Tyr-Cys-Gln-Lys-Trp-Met-Trp-Thr-Cys-Asp-Ser-Glu-Arg-Lys-Cys-Cys-Glu-Gly-Met-Val-Cys-Arg-Leu-Trp-Cys-Lys-Lys-Lys-Leu-Trp (Disulfide bridge:Cys2-Cys16;Cys9-Cys21;Cys15-Cys25) <small>YQKWMWTCDSERKCEGMVCRLLWCKKLLW (Disulfide bridge:Cys2-Cys16;Cys9-Cys21;Cys15-Cys25) (TFA salt)</small>
Sequence Shortening:	YQKWMWTCDSERKCEGMVCRLLWCKKLLW (Disulfide bridge:Cys2-Cys16;Cys9-Cys21;Cys15-Cys25)
Target:	Sodium Channel
Pathway:	Membrane Transporter/Ion Channel
Storage:	Sealed storage, away from moisture and light, under nitrogen Powder    -80°C    2 years -20°C    1 year  * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light, under nitrogen)

### SOLVENT & SOLUBILITY

In Vitro	H <sub>2</sub> O : 100 mg/mL (Need ultrasonic)
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### BIOLOGICAL ACTIVITY

Description	ProTx II TFA is a selective blocker of Nav1.7 sodium channels with an IC <sub>50</sub> of 0.3 nM, and is at least 100-fold selective for Nav1.7 over other sodium channel subtypes. ProTx-II inhibits sodium channels by decreasing channel conductance and shifting activation to more positive potentials and blocks action potential propagation in nociceptors <sup>[1][2]</sup> .
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### REFERENCES

- [1]. Tanaka K, et al. Antihyperalgesic effects of ProTx-II, a Nav1.7 antagonist, and A803467, a Nav1.8 antagonist, in diabetic mice. J Exp Pharmacol. 2015 Jun 24;7:11-6.
- [2]. Schmalhofer WA, et al. ProTx-II, a selective inhibitor of Nav1.7 sodium channels, blocks action potential propagation in nociceptors. Mol Pharmacol. 2008 Nov;74(5):1476-84.

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

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