

Margatoxin

Cat. No.:	HY-P1280
CAS No.:	145808-47-5
Molecular Formula:	C ₁₇₈ H ₂₈₆ N ₅₂ O ₅₀ S ₇
Molecular Weight:	4178.95
Sequence:	Thr-Ile-Ile-Asn-Val-Lys-Cys-Thr-Ser-Pro-Lys-Gln-Cys-Leu-Pro-Pro-Cys-Lys-Ala-Gln-Phe-Gly-Gln-Ser-Ala-Gly-Ala-Lys-Cys-Met-Asn-Gly-Lys-Cys-Lys-Cys-Tyr-Pro-His (Disulfide bridge:Cys7-Cys29;Cys13-Cys34;Cys17-Cys36)
Sequence Shortening:	TIINVKCTSPKQCLPPCKAQFGQSAGAKCMNGKCKCYPH(Disulfide bridge:Cys7-Cys29;Cys13-Cys34;Cys17-Cys36)
Target:	Potassium 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)

BIOLOGICAL ACTIVITY

Description	Margatoxin, an alpha-KTx scorpion toxin, is a high affinity inhibitor of Kv1.3 (K _d =11.7 pM). Margatoxin inhibits the Kv1.2 (K _d =6.4 pM) and Kv1.1 (K _d =4.2 nM). Margatoxin, a 39 amino-acid-long peptide, is isolated from the venom of the scorpion <i>Centruroides margaritatus</i> and widely used in ion channel research ^{[1][2]} .
IC ₅₀ & Target	Kd: 11.7 pM (Kv1.3), 6.4 pM (Kv1.2) and 4.2 nM (Kv1.1) ^[1]
In Vivo	Margatoxin (i.p.; 1 pmol/g) significantly decreases thioglycollate-induced leukocyte transmigration in the peritoneal cavity in 12-week-old C57BL6/J mice ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Bartok A, et al. Margatoxin is a non-selective inhibitor of human Kv1.3 K⁺ channels. *Toxicon*. 2014 Sep;87:6-16.
- [2]. Chen YC, et al. Preimplantation factor prevents atherosclerosis via its immunomodulatory effects without affecting serum lipids. *Thromb Haemost*. 2016 May 2;115(5):1010-24.

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

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