

Anthopleurin-A TFA

Cat. No.:	HY-P4898A	
Molecular Formula:	C ₂₂₀ H ₃₂₆ N ₆₄ O ₆₇ S ₆ ·xC ₂ HF ₃ O ₂	Gly-Val-Ser-Cys-Leu-Cys-Asp-Ser-Asp-Gly-Pro-Ser-Val-Arg-Gly-Asn-Thr-Leu-Ser-Gly-Thr-Leu-Trp-Leu-Tyr-Pro-Ser-Gly-Cys-Pro-Ser-Gly-Trp-His-Asn-Cys-Lys-Ala-His-Gly-Pro-Thr-Ile-Gly-Trp-Cys-Cys-Lys-Gln (Disulfide bridge: Cys4-Cys46, Cys6-Cys36, Cys29-Cys47)
Sequence:	Gly-Val-Ser-Cys-Leu-Cys-Asp-Ser-Asp-Gly-Pro-Ser-Val-Arg-Gly-Asn-Thr-Leu-Ser-Gly-Thr-Leu-Trp-Leu-Tyr-Pro-Ser-Gly-Cys-Pro-Ser-Gly-Trp-His-Asn-Cys-Lys-Ala-His-Gly-Pro-Thr-Ile-Gly-Trp-Cys-Cys-Lys-Gln (Disulfide bridge: Cys4-Cys46, Cys6-Cys36, Cys29-Cys47)	Gly-Val-Ser-Cys-Leu-Cys-Asp-Ser-Asp-Gly-Pro-Ser-Val-Arg-Gly-Asn-Thr-Leu-Ser-Gly-Thr-Leu-Trp-Leu-Tyr-Pro-Ser-Gly-Cys-Pro-Ser-Gly-Trp-His-Asn-Cys-Lys-Ala-His-Gly-Pro-Thr-Ile-Gly-Trp-Cys-Cys-Lys-Gln (Disulfide bridge: Cys4-Cys46, Cys6-Cys36, Cys29-Cys47) (TFA salt)
Sequence Shortening:	GVSLCDSGSPVRGNTLSGTLWLYPSPGCPGWHNCKAHGPTIGWCKQ (Disulfide bridge: Cys4-Cys46, Cys6-Cys36, Cys29-Cys47)	
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	Anthopleurin-A TFA is a sodium channel toxin. Anthopleurin-A TFA is selective for cardiac channels and has cardiotoxic effect. Anthopleurin-A TFA can be isolated from the sea anemone ^{[1][2]} .
In Vitro	Anthopleurin-A (2 nM-640 nM) TFA increases the force of contractions of isolated cat heart papillary muscles ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Anthopleurin-A (0.2 µg/kg/min i.v.) TFA increases myocardial contractile force in anesthetized dogs ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Honma T, Shiomi K. Peptide toxins in sea anemones: structural and functional aspects. *Mar Biotechnol* (NY). 2006 Jan-Feb;8(1):1-10.
- [2]. Scriabine A, et al. Cardiotoxic effects of anthopleurin-A, a polypeptide from a sea anemone. *J Cardiovasc Pharmacol*. 1979 Sep-Oct;1(5):571-83.

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

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