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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Huwentoxin-IV TFA

Cat. No.:	HY-P1220A	
Molecular Formula:	C ₁₇₄ H ₂₇₈ N ₅₂ O ₅₁ S ₆ ·xC ₂ HF ₃ O ₂	
Sequence:	Glu-Cys-Leu-Glu-Ile-Phe-Lys-Ala-Cys-Asn-Pro-Ser-Asn-Asp-Gln-Cys-Cys-Lys-Ser-Ser-Lys-Leu-Val-Cys-Ser-Arg-Lys-Thr-Arg-Trp-Cys-Lys-Tyr-Gln-Ile-NH ₂ (Disulfide bridge:Cys2-Cys17;Cys9-Cys24;Cys16-Cys31)	Glu-Cys-Leu-Glu-Ile-Phe-Lys-Ala-Cys-Asn-Pro-Ser-Asn-Asp-Gln-Cys-Cys-Lys-Ser-Ser-Lys-Leu-Val-Cys-Ser-Arg-Lys-Thr-Arg-Trp-Cys-Lys-Tyr-Gln-Ile-NH ₂ (Disulfide bridge:Cys ₂ -Cys ₁₇ ;Cys ₉ -Cys ₂₄ ;Cys ₁₆ -Cys ₃₁) (TFA salt)
Sequence Shortening:	ECLEIFKACNPSNDQCKSSKLVCSRKTRWCKYQI-NH ₂ (Disulfide bridge:Cys2-Cys17;Cys9-Cys24;Cys16-Cys31)	
Target:	Sodium Channel	
Pathway:	Membrane Transporter/Ion Channel	
Storage:	Sealed storage, away from moisture	
	Powder	-80°C 2 years -20°C 1 year
	* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)	

SOLVENT & SOLUBILITY

In Vitro	H ₂ O : ≥ 100 mg/mL * "≥" means soluble, but saturation unknown.
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BIOLOGICAL ACTIVITY

Description	Huwentoxin-IV TFA is a potent and selective sodium channel blocker, inhibits neuronal Nav1.7, Nav1.2, Nav1.3 and Nav1.4 with IC ₅₀ s of 26, 150, 338 and 400 nM, respectively. Huwentoxin-IV TFA preferentially blocks peripheral nerve subtype Nav1.7 by binding neurotoxin receptor site 4. Huwentoxin-IV TFA has analgesic effects on animal models of inflammatory and neuropathic pain ^{[1][2]} .			
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IC₅₀ & Target	Nav1.7 26 nM (IC ₅₀)	Nav1.3 338 nM (IC ₅₀)	Nav1.4 400 nM (IC ₅₀)	Nav1.2 150 nM (IC ₅₀)
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REFERENCES

[1]. Liu Y, et, al. Analgesic effects of Huwentoxin-IV on animal models of inflammatory and neuropathic pain. Protein Pept Lett. 2014; 21(2): 153-8.

[2]. Xiao Y, et, al. Tarantula huwentoxin-IV inhibits neuronal sodium channels by binding to receptor site 4 and trapping the domain ii voltage sensor in the closed configuration. J Biol Chem. 2008 Oct 3;283(40):27300-13.

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

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