m3-Huwentoxin IV

Cat. No.:	HY-P5900
Molecular Formula:	$C_{170}H_{271}N_{53}O_{46}S_6$
Molecular Weight:	3985.69
Sequence:	Gly-Cys-Leu-Gly-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-Trp-Gln-Ile-NH2 (Disulfide bridge: Cys2-Cys17,Cys9-Cys24,Cys16-Cys31)
Sequence Shortening:	GCLGIFKACNPSNDQCCKSSKLVCSRKTRWCKWQI-NH2 (Disulfide bridge: Cys2-Cys17,Cys9-Cys24,Cys16-Cys31)
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	m3-Huwentoxin IV (m3-HwTx-IV) is a potent Na_V inhibitor with IC_{50}s of 3.3, 6.8, 7.2, 8.4, 11.9 and 369 nM against $hNa_V1.7$, $hNa_V1.6$, $hNa_V1.3$, $hNa_V1.1$, $hNa_V1.2$ and $hNa_V1.4$, respectively in QPatch assay. m3-Huwentoxin IV dose-dependently suppresses spontaneous pain induced by the $Na_V1.7$ activator OD1 in a rodent pain model[1].
IC_{50} & Target	IC50: 3.3 nM ($hNa_V1.7$), 6.8 nM ($hNa_V1.6$), 7.2 nM ($hNa_V1.3$), 8.4 nM ($hNa_V1.1$), 11.9 nM ($hNa_V1.2$), 369 nM ($hNa_V1.4$), > 1000 nM ($hNa_V1.5$), > 1000 nM ($hNa_V1.8$)[1]

REFERENCES

[1]. Rahnama S, et al. The structure, dynamics and selectivity profile of a NaV1.7 potency-optimised huwentoxin-IV variant. PLoS One. 2017 Mar 16;12(3):e0173551.

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

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