Kurtoxin

Cat. No.:	HY-P5869
Molecular Formula:	$C_{324}H_{478}N_{94}O_{90}S_8$
Molecular Weight:	7386.36
Sequence:	Lys-Ile-Asp-Gly-Tyr-Pro-Val-Asp-Tyr-Trp-Asn-Cys-Lys-Arg-Ile-Cys-Trp-Tyr-Asn-Asn-Lys-Tyr-Cys-Asn-Asp-Leu-Cys-Lys-Gly-Leu-Lys-Ala-Asp-Ser-Gly-Tyr-Cys-Trp-Gly-Trp-Thr-Leu-Ser-Cys-Tyr-Cys-Gln-Gly-Leu-Pro-Asp-Asn-Ala-Arg-Ile-Lys-Arg-Ser-Gly-Arg-Cys-Arg-Ala (Disulfide bridge: Cys12-Cys61,Cys16-Cys37,Cys23-Cys44,Cys27-Cys46)
Sequence Shortening:	KIDGYPVDYWNCKRICWYNNKYCNDLCKGLKADSGYCWGWTLSCYCQGLPDNARIKRSGRCRA (Disulfide bridge: Cys12-Cys61,Cys16-Cys37,Cys23-Cys44,Cys27-Cys46)
Target:	Calcium Channel; Sodium Channel
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Kurtoxin is a selective Cav3 (T-type) voltage-gated Ca^{2+} channel gating inhibitor with a K_d of 15 nM for Cav3.1 (α1G T-type) Ca^{2+} channel. Kurtoxin can interact with high affinity with native neuronal high-threshold L-type, N-type, and P-type Ca^{2+} channels in central and peripheral neurons. Kurtoxin also shows cross-reactivity with voltage-gated Na^+ channel[1].
IC_{50} & Target	Kd: 15 nM (Cav3.1 (α1G T-type) Ca^{2+} channel)[1]

REFERENCES

[1]. Lee CW, et al. Solution structure of kurtoxin: a gating modifier selective for Cav3 voltage-gated Ca(2+) channels. Biochemistry. 2012 Mar 6;51(9):1862-73.

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