ShK toxin

Cat. No.:	HY-P3071
CAS No.:	172450-46-3
Molecular Formula:	$C_{169}H_{274}N_{54}O_{48}S_7$
Molecular Weight:	4054.8
Sequence:	Arg-Ser-Cys-Ile-Asp-Thr-Ile-Pro-Lys-Ser-Arg-Cys-Thr-Ala-Phe-Gln-Cys-Lys-His-Ser-Met-Lys-Tyr-Arg-Leu-Ser-Phe-Cys-Arg-Lys-Thr-Cys-Gly-Thr-Cys (Disulfide bridge: Cys3-Cys35; Cys12-Cys28; Cys17-Cys32)
Sequence Shortening:	RSCIDTIPKSRCTAFQCKHSMKYRLSFCRKTCGTC (Disulfide bridge: Cys3-Cys35; Cys12-Cys28; Cys17-Cys32)
Target:	Potassium Channel
Pathway:	Membrane Transporter/Ion Channel
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	ShK toxin blocks voltage-dependent potassium channel (K_v1.3 channel). ShK toxin can be isolated from the whole body extract of the Caribbean sea anemone (Stichodactylu helianthus). ShK toxin competes with dendrotoxin I and α-dendrotoxin for binding to synaptosomal membranes of rat brain, facilitates acetylcholine release. ShK toxin suppresses K+ currents in cultured rat dorsal root ganglion neurons. ShK toxin also inhibits T lymphocyte proliferation[1][2].
IC_{50} & Target	Kv1.3 Channel[2]

REFERENCES

[1]. Castañeda O, et al. Characterization of a potassium channel toxin from the Caribbean Sea anemone Stichodactyla helianthus. Toxicon. 1995 May;33(5):603-13.

[2]. Beeton C, et al. The D-diastereomer of ShK toxin selectively blocks voltage-gated K+ channels and inhibits T lymphocyte proliferation. J Biol Chem. 2008 Jan 11;283(2):988-97.

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