

Calciseptin

Cat. No.:	HY-P3269
CAS No.:	178805-91-9
Molecular Formula:	C ₂₉₉ H ₄₆₈ N ₉₀ O ₈₇ S ₁₀
Molecular Weight:	7036.12
Sequence:	Arg-Ile-Cys-Tyr-Ile-His-Lys-Ala-Ser-Leu-Pro-Arg-Ala-Thr-Lys-Thr-Cys-Val-Glu-Asn-Thr-Cys-Tyr-Lys-Met-Phe-Ile-Arg-Thr-Gln-Arg-Glu-Tyr-Ile-Ser-Glu-Arg-Gly-Cys-Gly-Cys-Pro-Thr-Ala-Met-Trp-Pro-Tyr-Gln-Thr-Glu-Cys-Cys-Lys-Gly-Asp-Arg-Cys-Asn-Lys (Disulfide bridge:Cys3-Cys22;Cys17-Cys39;Cys41-Cys52; Cys53-Cys58)
Sequence Shortening:	RICYIHKASLPRAKTKCVENTCYKMFIRTQREYISERGGCGPTAMWPYQTECCKGDRCNK (Disulfide bridge:Cys3-Cys22;Cys17-Cys39;Cys41-Cys52; Cys53-Cys58)
Target:	Calcium 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	Calciseptine, a natural neurotoxin isolated from the black mamba <i>Dendroaspis p. polylepis</i> venom. Calciseptine consists of 60 amino acids with four disulfide bonds. Calciseptine specifically blocks L-type calcium channel ^[1] .
IC ₅₀ & Target	L-type calcium channel 15 nM (IC ₅₀)

REFERENCES

[1]. H Schweitz, et al. Calcicludeine, a venom peptide of the Kunitz-type protease inhibitor family, is a potent blocker of high-threshold Ca²⁺ channels with a high affinity for L-type channels in cerebellar granule neurons. *Proc Natl Acad Sci U S A*. 1994 Feb 1; 91(3): 878-882.

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

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