

## BDS-I

<b>Cat. No.:</b>	HY-P5156
<b>CAS No.:</b>	207621-38-3
<b>Molecular Formula:</b>	C <sub>210</sub> H <sub>297</sub> N <sub>57</sub> O <sub>56</sub> S <sub>6</sub>
<b>Molecular Weight:</b>	4708.34
<b>Sequence:</b>	Ala-Ala-Pro-Cys-Phe-Cys-Ser-Gly-Lys-Pro-Gly-Arg-Gly-Asp-Leu-Trp-Ile-Leu-Arg-Gly-Thr-Cys-Pro-Gly-Gly-Tyr-Gly-Tyr-Thr-Ser-Asn-Cys-Tyr-Lys-Trp-Pro-Asn-Ile-Cys-Cys-Tyr-Pro-His (Disulfide bonds: Cys4-Cys39, Cys6-Cys32, Cys22-Cys40)
<b>Sequence Shortening:</b>	AAPCFCSGKPGRGDLWILRGTCPPGGYGYTSNICYKWPNICCYPH (Disulfide bonds: Cys4-Cys39, Cys6-Cys32, Cys22-Cys40)
<b>Target:</b>	Potassium Channel
<b>Pathway:</b>	Membrane Transporter/Ion Channel
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.

## BIOLOGICAL ACTIVITY

<b>Description</b>	BDS-I known as blood depressing substance, is a marine toxin which can be extracted from <i>Anemonia sulcata</i> . BDS-I is a specific inhibitor of Potassium Channel, targeting to Kv3.4. BDS-I inhibits Aβ1-42-induced enhancement of KV3.4 activity, caspase-3 activation, and abnormal nuclear morphology of NGF-differentiated PC-12 cells. BDS-I reverts the Aβ peptide-induced cell death <sup>[1]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	Kv3.4 <sup>[1]</sup>

## REFERENCES

[1]. Ciccone R, et al. Synthesis and Pharmacological Evaluation of a Novel Peptide Based on *Anemonia sulcata* BDS-I Toxin as a New KV3.4 Inhibitor Exerting a Neuroprotective Effect Against Amyloid-β Peptide. *Front Chem.* 2019 Jul 9;7:479.

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

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