

Supplementary Information

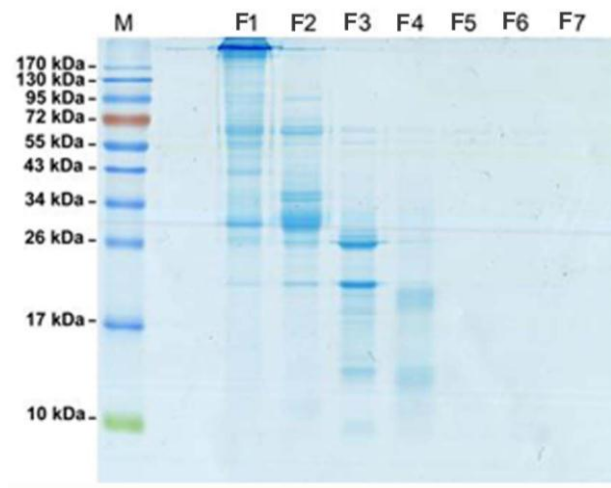


Figure S1. SDS-PAGE image of fractions F1–F7 from molecular sieve chromatography of the extract of black widow spider eggs (Adapted from [10] with minor modification). M, molecular mass marker.

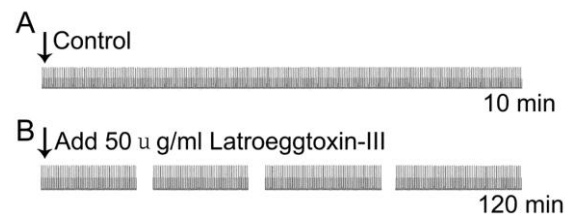


Figure S2. Effect of Latroeggtxin-III on the neuromuscular transmission in mouse isolated phrenic nerve-hemidiaphragm preparations. (A) In control experiment with the preparation immersed in Tyrode's solution without adding Latroeggtxin-III, there were no significant changes in the amplitude of diaphragm muscle contraction provoked by applying electrical stimulation at the phrenic nerve within at least 2 h. A shows a representative part of the contraction trace. (B) The contraction trace of diaphragm muscle after Latroeggtxin-III was added into the Tyrode's solution at a final concentration of 50 $\mu\text{g}/\text{mL}$. The arrows indicated the start points.

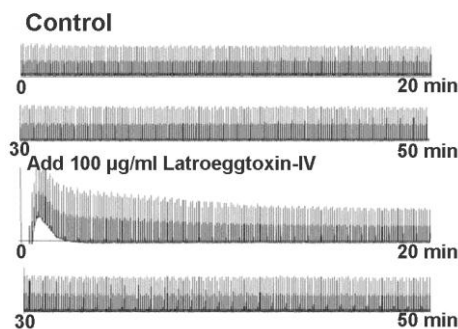


Figure S3. Effect of Latroeggtxin-IV on the neuromuscular transmission in mouse isolated phrenic nerve-hemidiaphragm preparations.

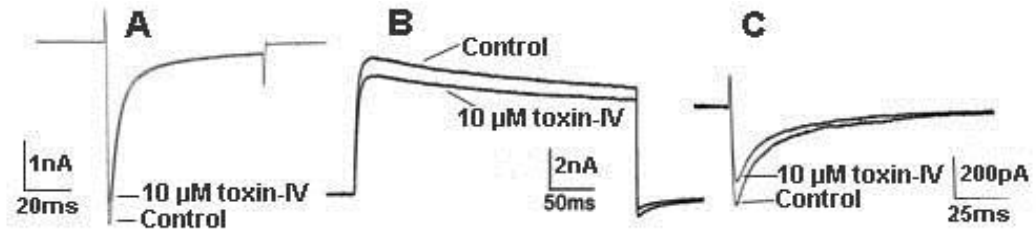


Figure S4. Effects of Latroeggtxin-IV on voltage-gated sodium (A); potassium (B) and calcium (C) ion channel currents in rat DRG neurons.

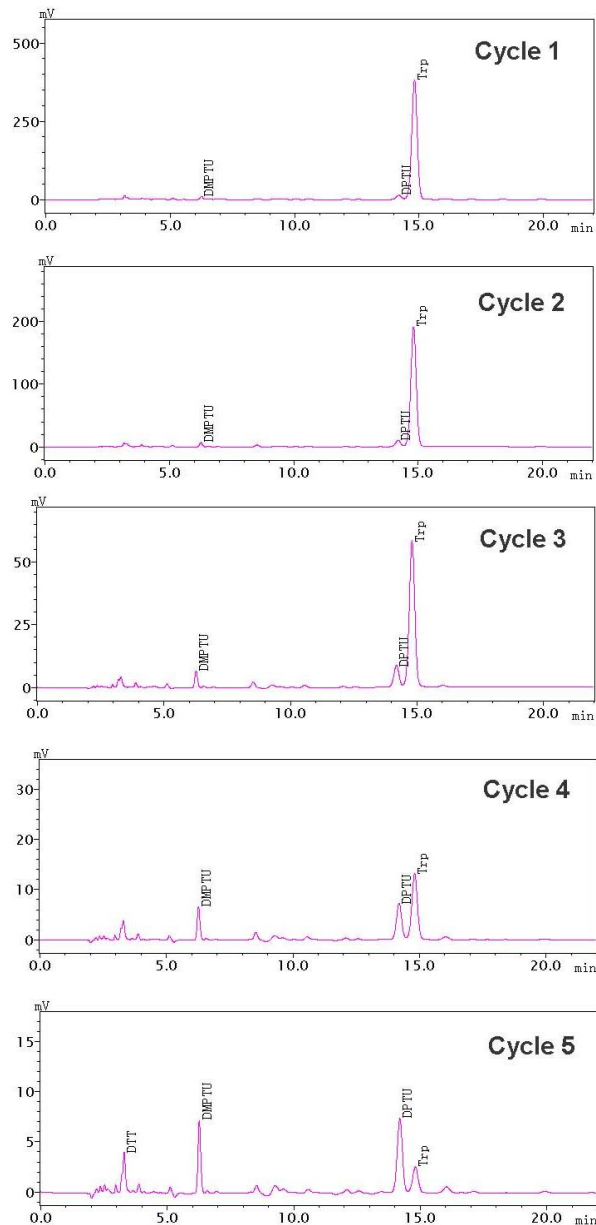


Figure S5. Chromatograms of PTH-AAs at cycles 1 to 5 on sequencing of Latroeggtxin-IV.