Supplementary Materials: Structural and Functional Elucidation of Peptide Ts11 Shows Evidence of a Novel Subfamily of Scorpion Venom Toxins

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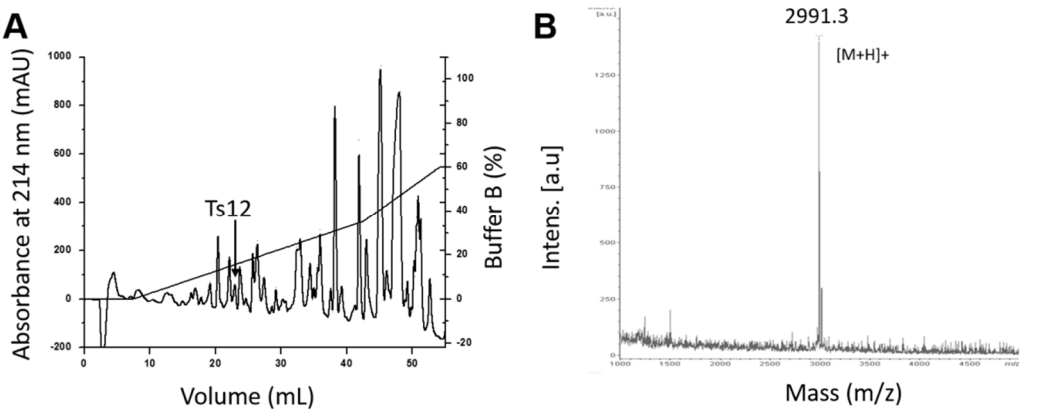

Figure S1. Ts12 isolation procedure and molecular mass determination. (**A**) Ts11 isolation. RP-HPLC profile of *Tityus serrulatus* venom (50 mg) on a C18 column (4.6 mm × 150 mm) equilibrated with 0.1% (*v*/*v*) of trifluoroacetic acid (TFA). Adsorbed proteins were eluted using acetonitrile concentration gradient from 0% to 60% of solution B (0.1% TFA in acetonitrile). Flow: 1 mL/min. Absorbance was monitored at 214 nm, at 25 °C; (**B**) Mass spectra of Ts12 was obtained through MALDI-TOF mass spectrometry using HCCA matrix and reflectron positive ion mode.

Ts12 at 3 μM showed blocking effect on Kv1.2 (5%), Kv1.3 (10%), Kv1.4 (20%), hERG (24%) and *Shaker* IR (27%). (Supplmentary Materials Figure S2).

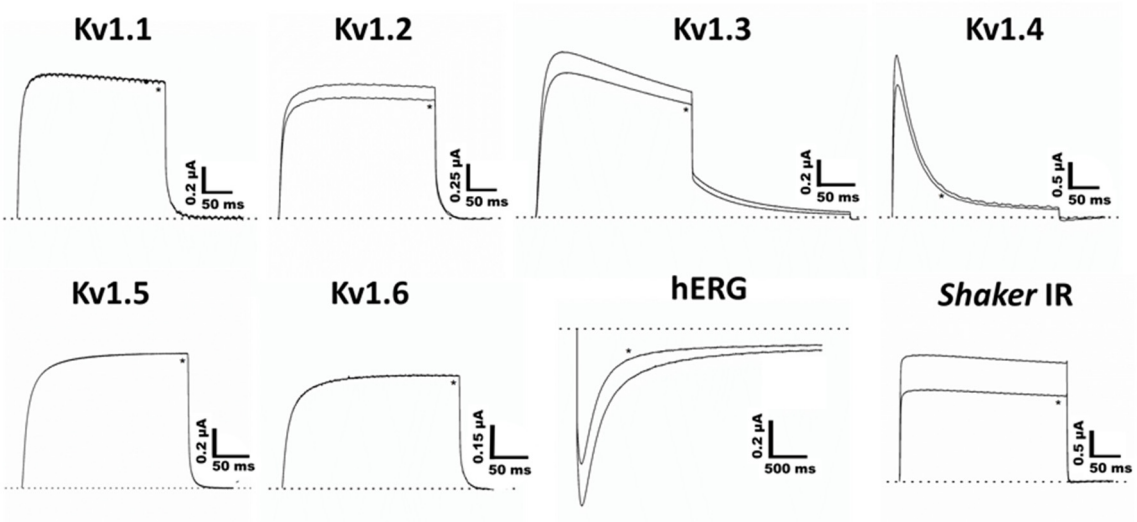

Figure S2. Electrophysiological study of Ts12 on Kv channels. Representative whole cell current traces in the absence (control) and in the presence (*) of 3 μM native Ts12 on 8 different cloned voltage-gated potassium channels. For each tested channel $n \geq 3$.