Supplementary Material

Discovery, pharmacological characterisation and NMR structure of the novel μ-conotoxin SxIIIC, a potent and irreversible Nav channel inhibitor

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Figure S1: Activity of SxIIIC across Nav channel subtypes assessed by whole-cell patch-clamp electrophysiology. Time course (current amplitude vs time) of SxIIIC at each subtype tested. Arrows indicate peptide addition at increasing concentrations following a 5 min buffer incubation. Currents were normalized to the buffer (0–100 s).

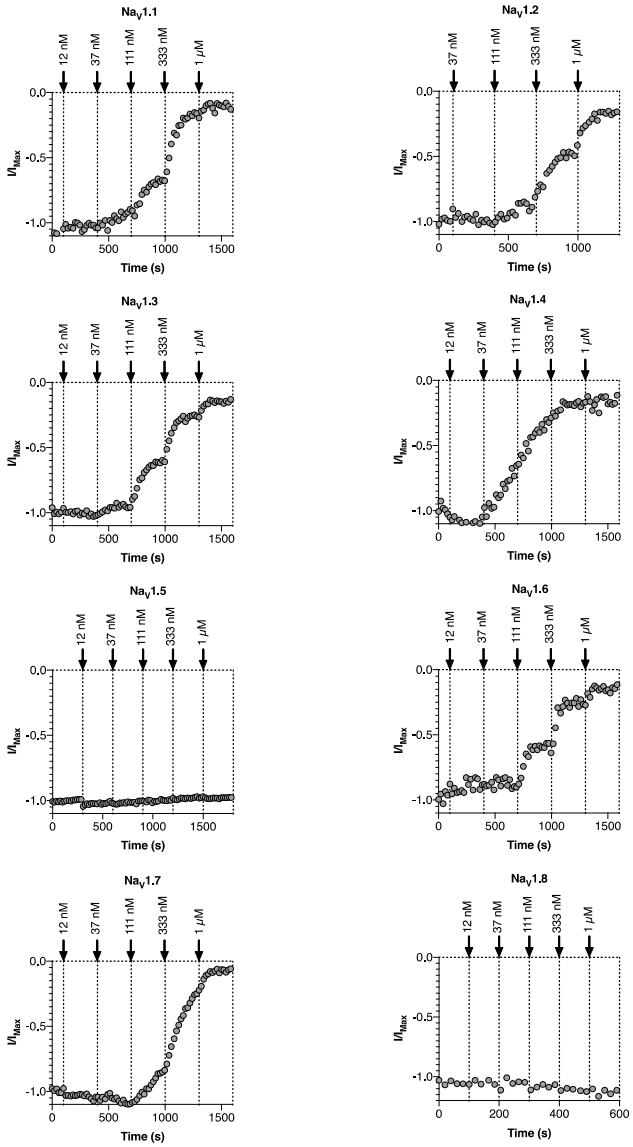

Figure S2: SxIIIC superimposed over the KIIIA/Na$_V$1.2 structure. SxIIIC is represented by grey/purple surface, while the Na$_V$1.2 channel is represented by ribbons with Domains I, II and III shown in blue, green and yellow, respectively. Insert shows a top view of this interaction in greater detail; residues from extracellular loop of Domain I (black labels) appear to clash with residues found on loop 1 of SxIIIC (white labels). The figure was generated in PyMol using the inbuilt function "super" to superimpose SxIIIC over KIIIA, in the KIIIA/Na$_V$1.2 structure (PDB ID: 6J8E).