Gamal El-Din et al., http://www.jgp.org/cgi/content/full/jgp.201411210/DC1

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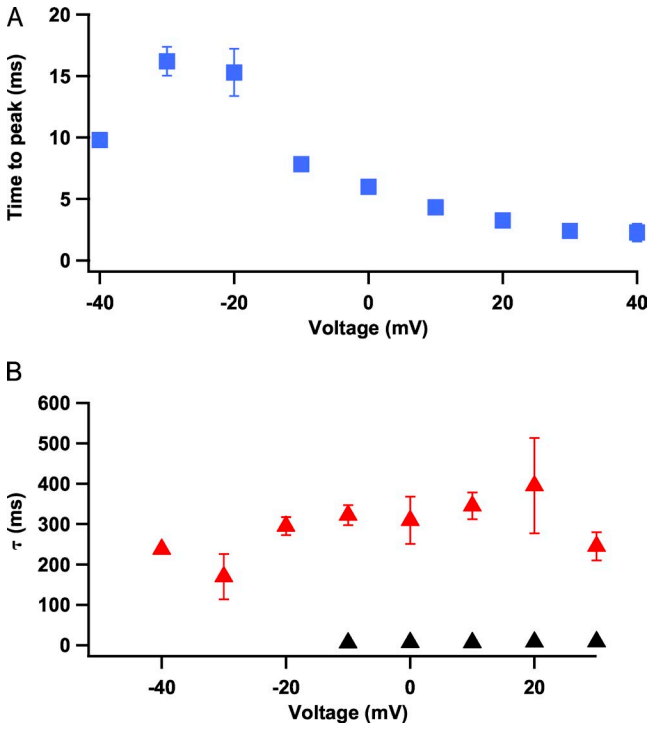

Figure S1. Time course of activation and inactivation of NaChBac currents expressed in *T. ni* cells. (A) Time to peak current as a function of membrane potential. (B) Time constants of inactivation during 300-ms depolarization to the indicated potentials (red). For potentials positive to −10 mV, a second time constant (black) was required to fit the inactivation time course. Error bars represent SEM.

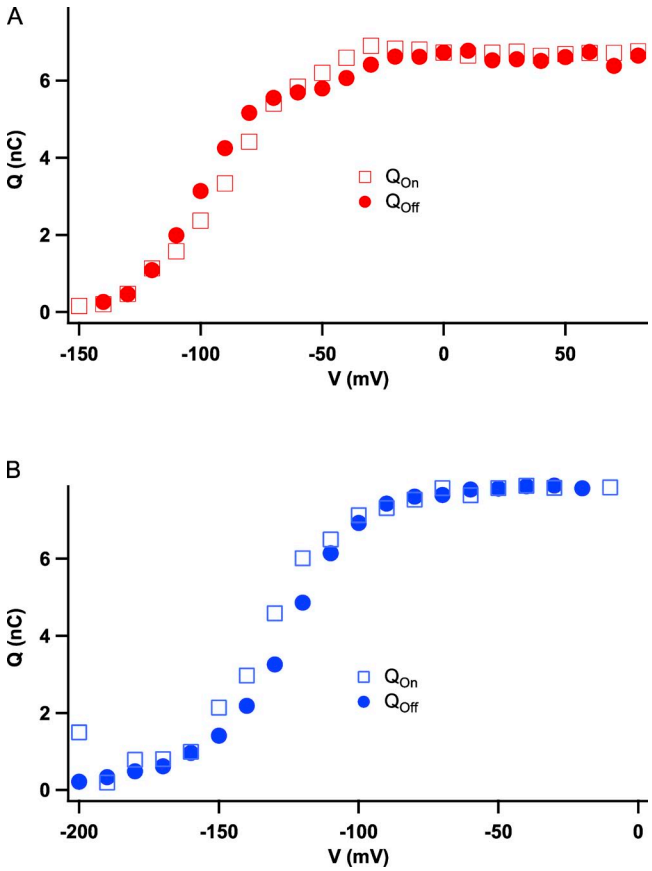

Figure S2. ON versus OFF charge equality. (A) Integrated charge for ON and OFF gating currents from a representative cell recorded from a holding potential of −80 mV. (B) Integrated charge for ON and OFF gating currents recorded during hyperpolarization from a holding potential of 0 mV.

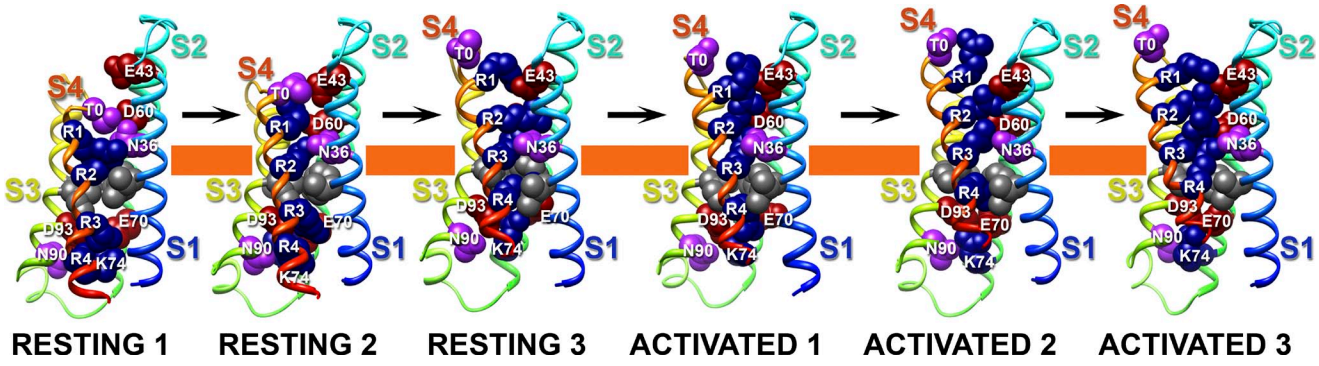

Figure S3. Rosetta models of conformational changes during NaChBac gating. Rosetta models of three resting and three activated states of the voltage-sensing domain of NaChBac. Segments S1–S4 are colored individually and labeled. Side chains of the S4 arginines (dark blue) and negatively charged residues in S1, S2, and S3 (gray) are shown as spheres. The hydrophobic constriction sites are highlighted orange bars. Reprinted from Yarov-Yarovoy et al. (2012).

REFERENCE

Yarov-Yarovoy, V., P.G. DeCaen, R.E. Westenbroek, C.Y. Pan, T. Scheuer, D. Baker, and W.A. Catterall. 2012. Structural basis for gating charge movement in the voltage sensor of a sodium channel. *Proc. Natl. Acad. Sci. USA.* 109:E93–E102. http://dx.doi.org/10.1073/pnas.1118434109