Wang et al., http://www.jgp.org/cgi/content/full/jgp.201210942/DC1

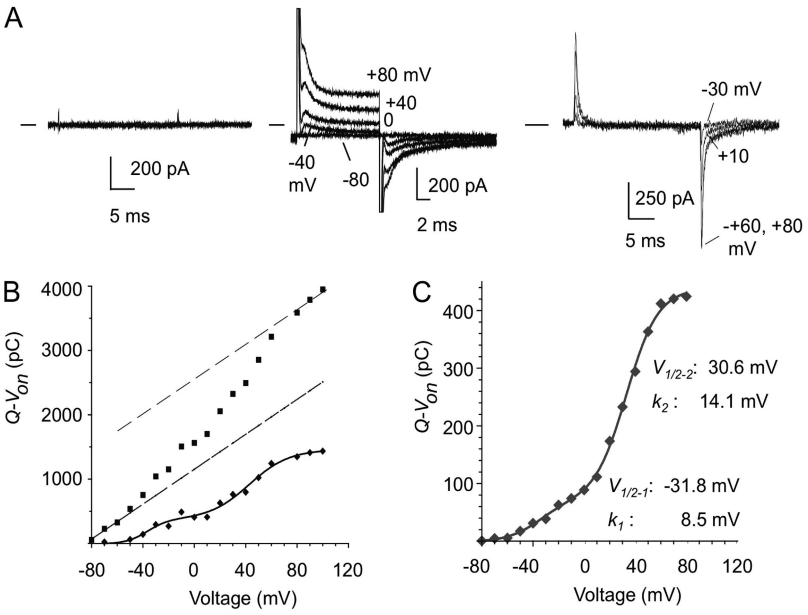

Figure S1. Gating currents recorded from hERG channels expressed in mammalian cells. (A; left) Representative traces showing that no current could be recorded from untransfected tsA201 cells using symmetrical 140 mM $NMDG^+$ solutions. (Middle) Family of gating currents for a series of pulses from −80 to +80 mV in steps of 10 mV from a holding potential of −80 mV and repolarized back to −80 mV. Neither leak subtraction nor capacitance compensation was used. (Right) Representative gating currents evoked using the same protocol as in the middle panel, except that membrane was repolarized back to −100 mV after leak-current subtraction (P/6) and membrane capacitance compensation. (B) Repolarization-induced currents with uncompensated capacitance (A, middle) were integrated over time and plotted as a function of depolarizing pulse potential. The linear components (dashed lines) represent the linear capacitance of the cell and electrode voltage-clamp system. The nonlinear component, which is related to gating charge movement, was subtracted from the bottom linear regression and fit with a double Boltzmann function ($V_{1/2-1}$ = −36.6 mV, k_1 = 8.3 mV, $V_{1/2-2}$ = 42.8 mV, k_2 = 15.5 mV, and r^2 = 0.99). (C) *Q-V* plot of repolarization-induced currents ($Q\text{-}V_{Off}$), using the same protocol as in A (right). The curve was fitted with a double Boltzmann function ($V_{1/2-1}$ = −31.8 mV, k_1 = 8.5 mV, $V_{1/2-2}$ = 30.6 mV, k_2 = 14.1 mV, and r^2 = 0.998).