



Supplemental Figure 1. Phenylalanine substitution at tyrosine 124 does not alter Kv2.1 channel gating properties. Normalized conductance (G/Gmax) vs. voltage (mV) profiles of wild-type Kv2.1 (black squares) and Kv2.1(Y124F) (red squares) channels are plotted above. The voltage-dependent activation profiles for both wild-type and mutant channels were nearly identical, suggesting the single amino acid substitution did not alter activation kinetics. The half-maximal activation voltage was similar for both channels: 28.9 ± 2.75 mV for Kv2.1 (n=11); 33.85 ± 2.82 mV for Kv2.1(Y124F) (n=8).