**Figure e-3:** Kv4.3 WT/V473A current and inactivation curves. A) Representative peak normalized and superimposed traces of Kv4.3 WT:V374A 1:0 (black) and 0.5:0.5 (blue). B) The normalized current-voltage relationships demonstrated similar half-maximal currents for WT:V374A 1:0 and 0.5:0.5 at +10 mV. Slopes (between -30 to +60 mV) for WT:V374A 1:0 (0.0067 ± 0.0001/mV) and 0.5:0.5 (0.0066 ± 0.0001/mV; F, 0.205, p = 0.6510, F-test) showed no difference. C) Prepulse-activation relationships demonstrated no differences in half-maximal inhibition for WT:V374A 1:0 (-61.5 ± 0.3 mV) and 0.5:0.5 (-62.2 ± 0.3 mV; F, 2.58, p = 0.1099, F-test). The prepulse duration was 730 ms. For B) a linear approximation was fit between -40 to +60 mV and for C) an unconstrained sigmoidal curve was fit between -90 to -40 mV. p<0.05 was considered significant.