Kazmierczak et al., http://www.jgp.org/cgi/content/full/jgp.201210938/DC1

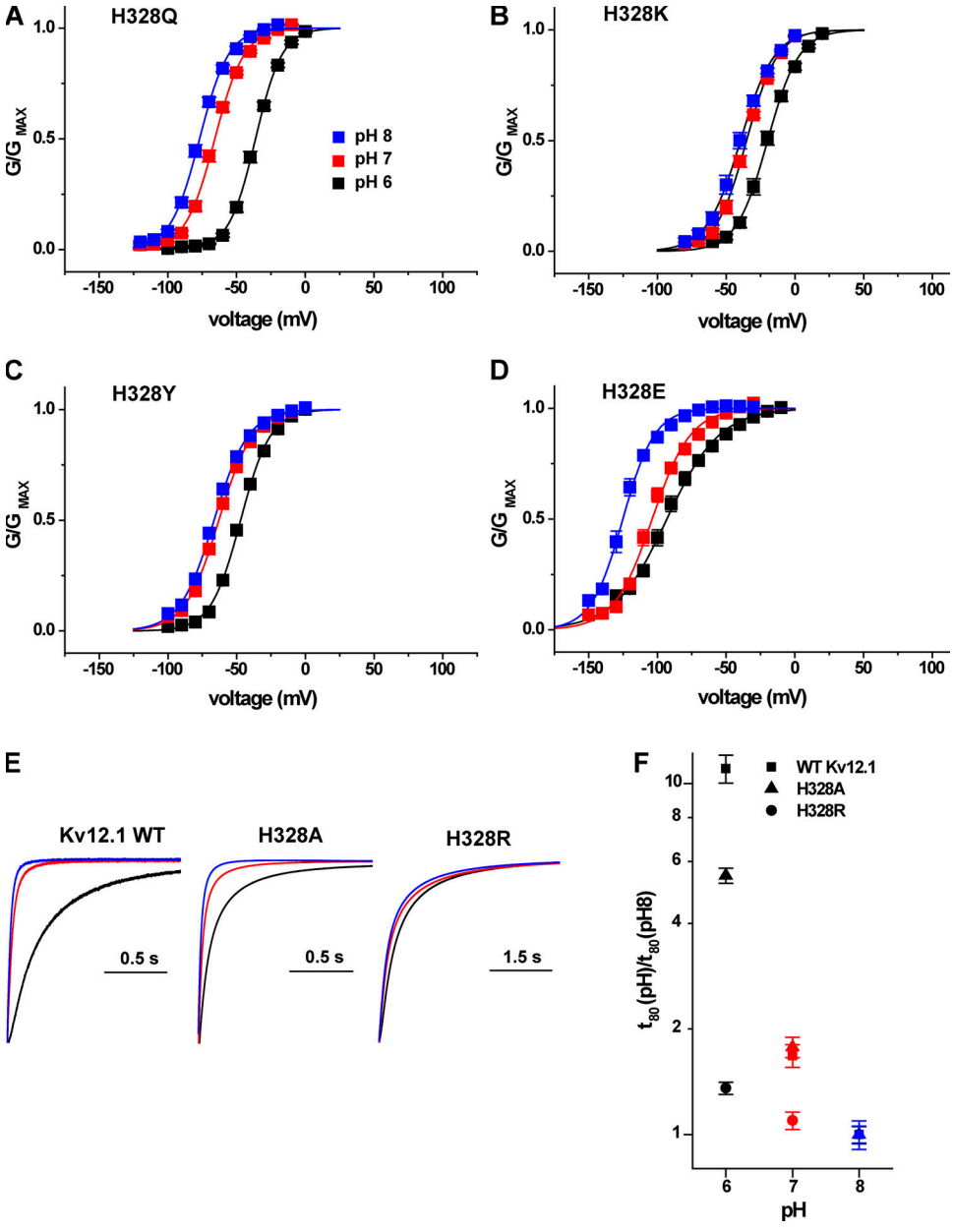

Figure S1. Altered pH sensitivity of additional Kv12.1 H328 substitutions. (A–D) Normalized GV relations for H328Q, H328K, H328Y, and H328E at bath pH 6, 7, and 8. Conductance was determined from isochronal tail currents recorded at −40 mV after 8-s steps to the indicated voltages. Values show means ± SEM (n = 4–8), and curves show single Boltzmann distribution fits. (E) Normalized currents recorded in pH 6 (black), 7 (red), and 8 (blue) are separately superimposed for WT, H328A, and H328R to compare the effects of bath pH on activation time course of these S4 mutants. WT and H328A currents were recorded in response to a 20-mV step, and H328R currents were recorded in response to a 40-mV step. Holding potential was −100 mV in all cases. (F) Fold change in the time required to reach 80% maximal activation (t_{80}) for WT, H328A, and H328R at pH 7 and 6 relative to t_{80} recorded at pH 8. Values show mean ± SEM of n = 4–8; activation time course was determined at 20 mV for WT and H328A and at 40 mV for H328R. Log_{10} scale was used for the ordinate for display purposes.