

Supplemental figure captions

Fig S1A. Representative current traces that were used to construct the normalized whole-cell conductance curves of Fig 1 for the zero Ca condition, illustrating recovery of wt-Kir1.1b channel activity following a 15min acidification in 1mM K, 0mM Ca, 0mM Mg +1mM EGTA.

Fig S1B. Steady state current voltage relations for the zero Ca condition, derived from the current traces of Fig S1A, prior to, during, and after a 15 min internal acidification to pH 6.3. Whole-cell conductances, internal pH (pH_i) and times are indicated for each current-voltage relation.

Fig S2A. Representative current traces that were used to construct the normalized whole-cell conductance curves of Fig 1 for the 2mM Ca condition, illustrating recovery of wt-Kir1.1b channel activity following a 15min acidification in 1mM K, 2mM Ca, 0 mM Mg.

Fig S2B. Steady state current voltage relations for the 2mM Ca condition, derived from the current traces of Fig S2A, prior to, during, and after a 15 min internal acidification to pH 6.3. Whole-cell conductances, internal pH (pH_i) and times are indicated for each current-voltage relation.

Fig S3. Initial recovery rates of N105E-Kir1.1b compared to wt-Kir1.1b as a function of external K in zero Ca and Mg conditions.

Fig S1A:

wt-Kir1.1b (1mM K, 0 mM Ca, 0 mM Mg)

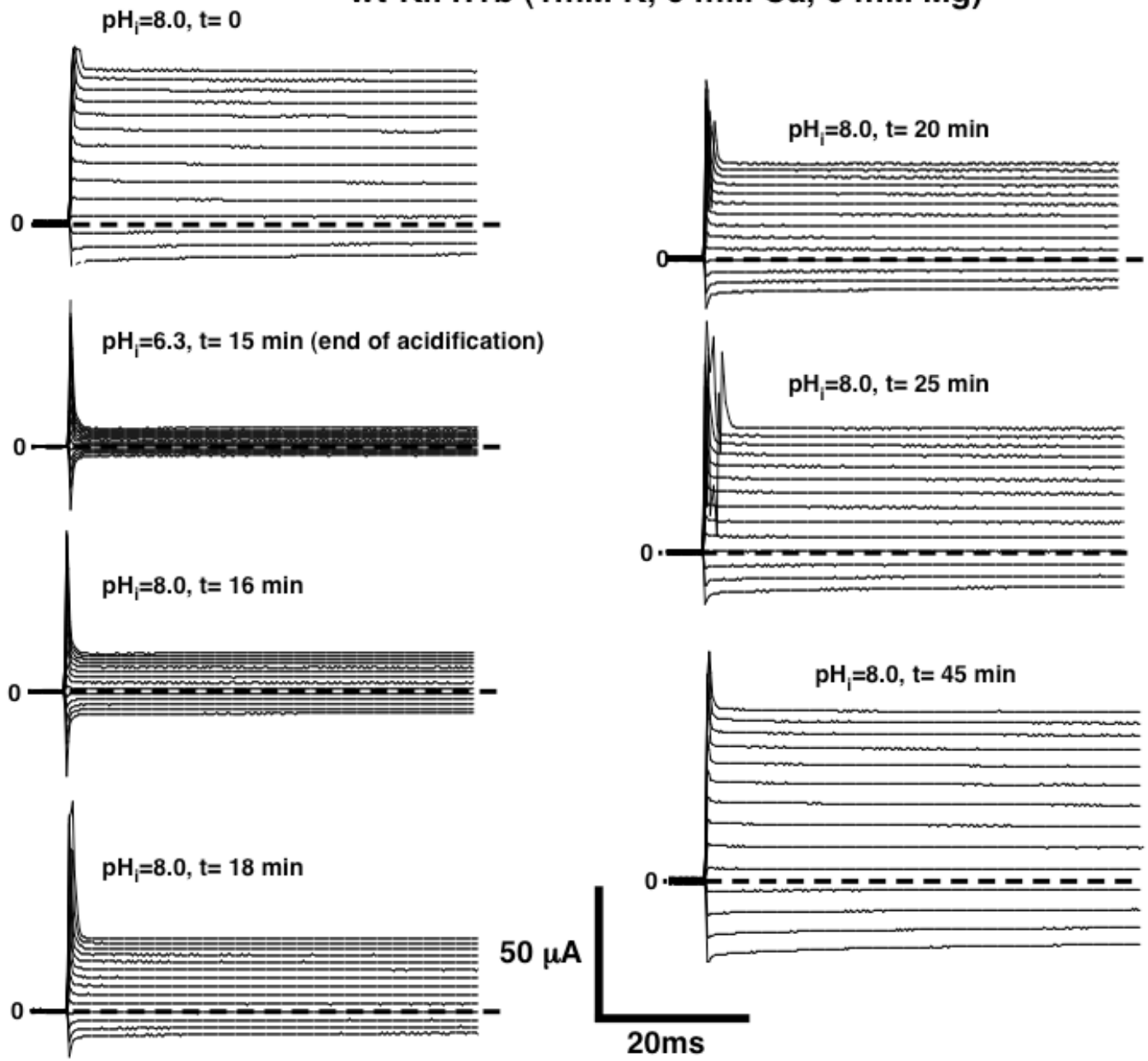


Fig S1B:

wt-Kir1.1b (1mM K, 0 mM Ca, 0 mM Mg)

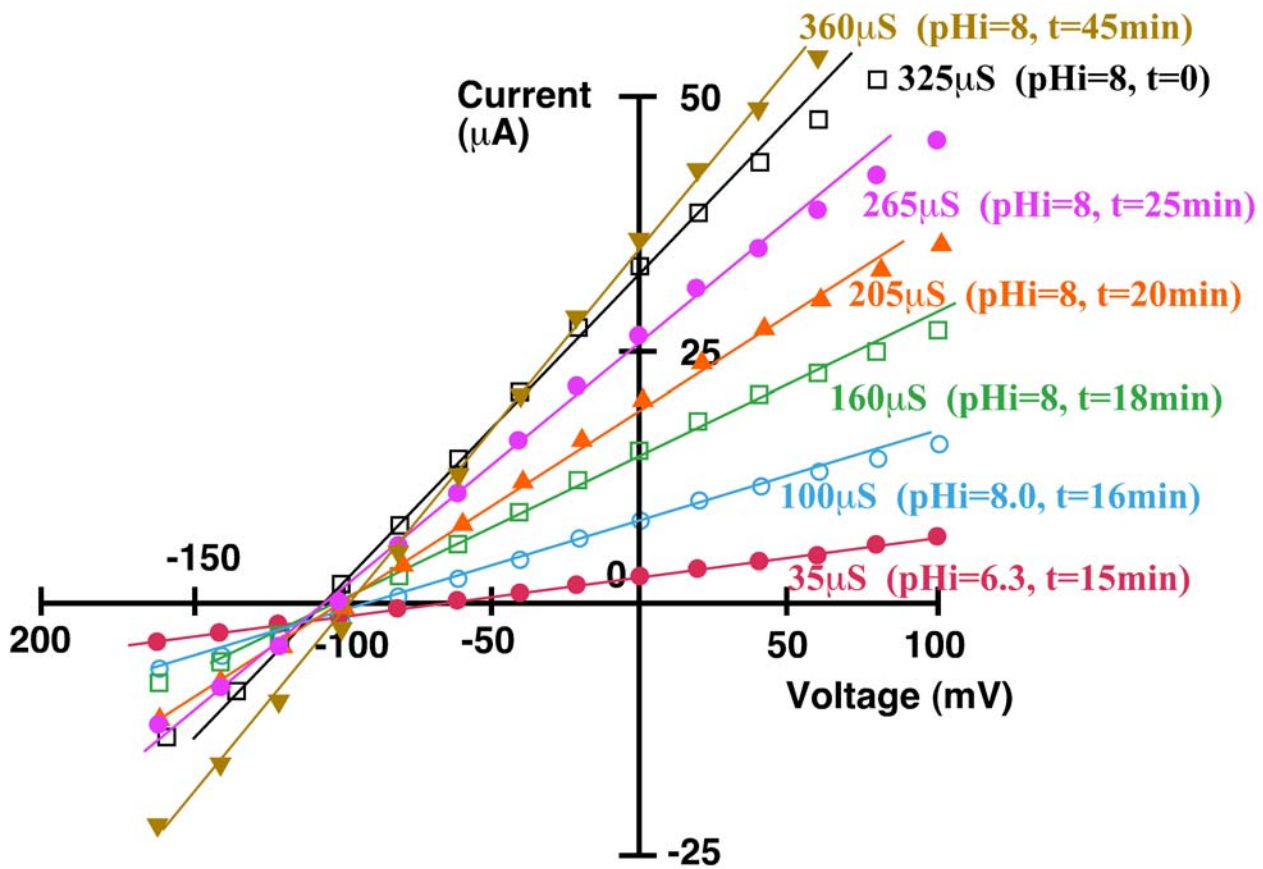


Fig S2A:

wt-Kir1.1b (1mM K, 2mM Ca, 0Mg)

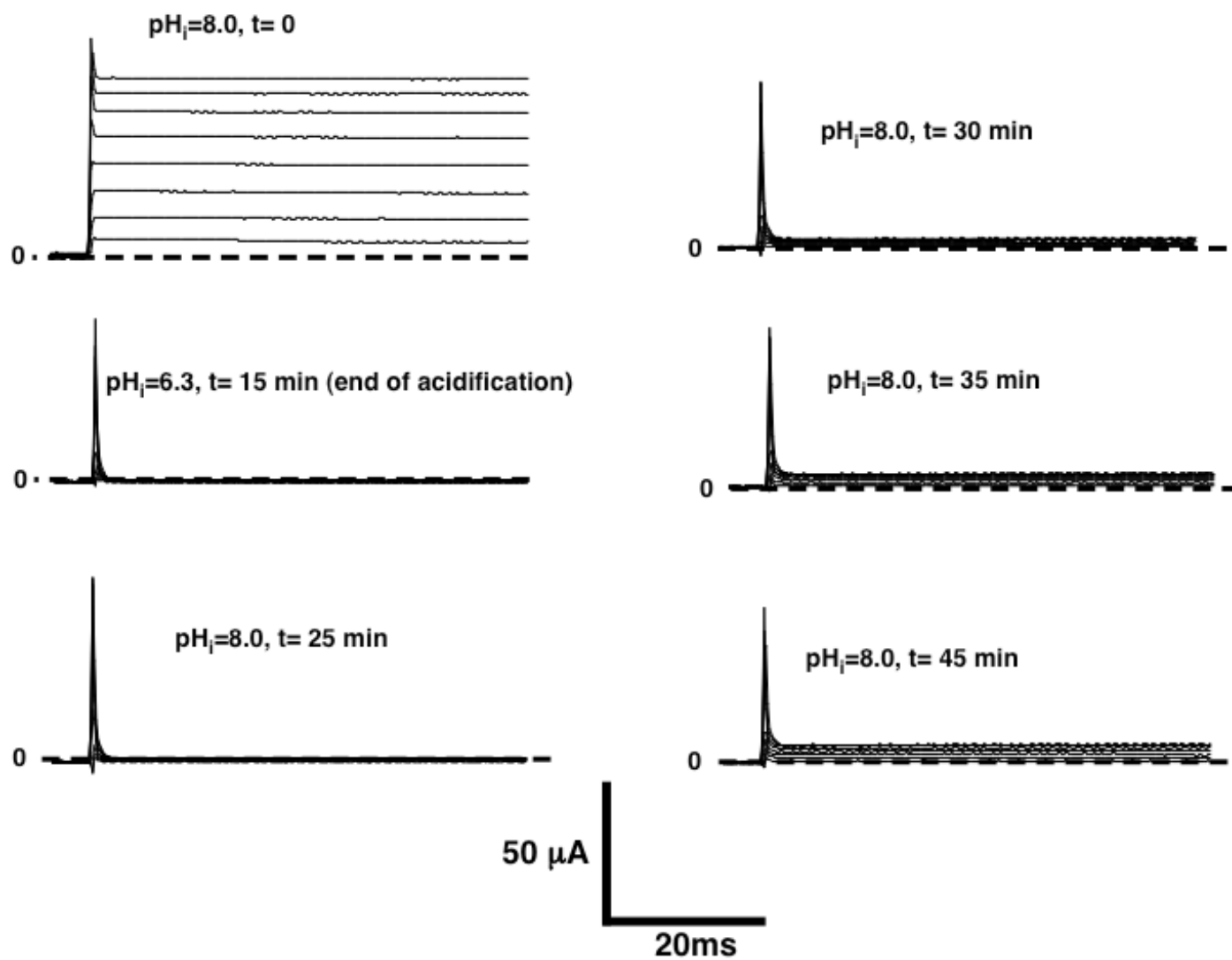


Fig S2B:
wt-Kir1.1b (1mM K, 2 mM Ca, 0 Mg)

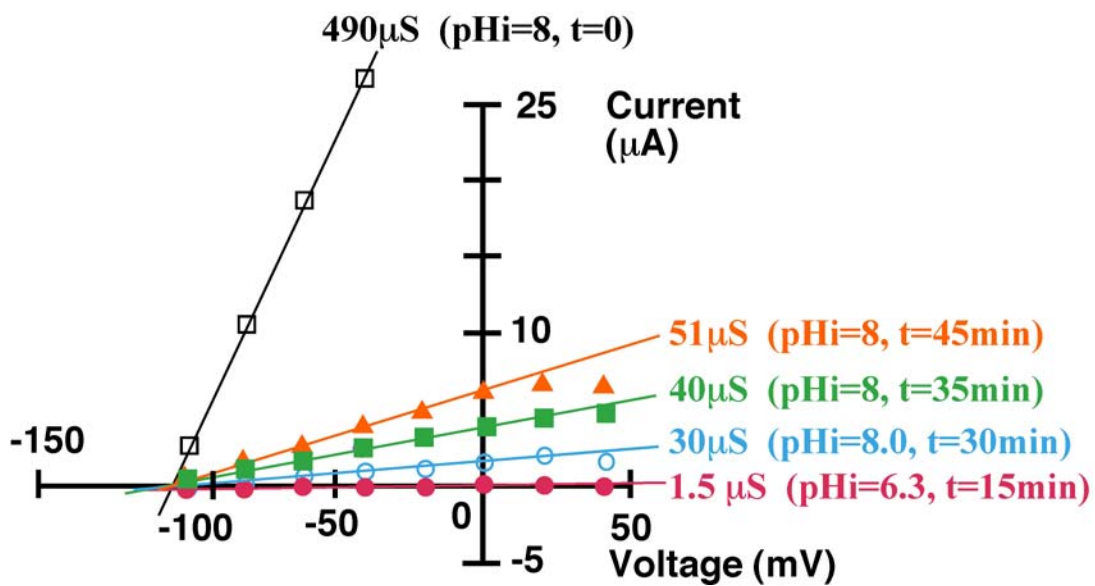


Fig S3:

Initial Recovery rates in zero divalent media

