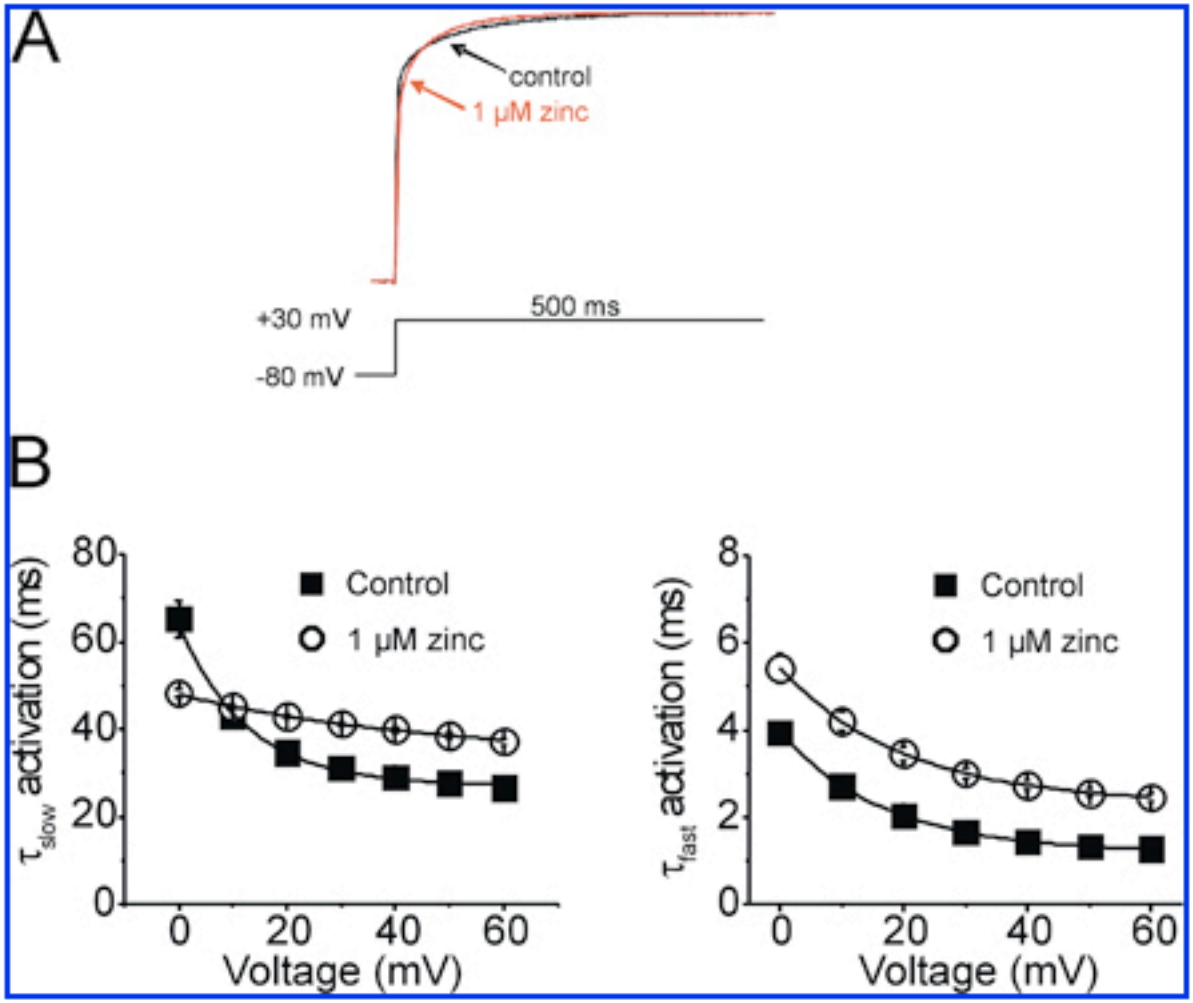

Figure S1. Modest slowing of channel activation suggests metal bridge formation does not destabilize the closed channel conformation. (A) Normalized exemplar current traces showing expanded view of activation at +30 mV from an oocyte expressing Kv1.2-R294H-A351H-(D352G-E353S) channels recorded in the absence (black) and presence (red) of 1 μM Zn^{2+}. (B) Plots show the voltage dependence of time constants for the fast and slow components of activation recorded in the absence (solid squares) or presence (open circles) of 1 μM Zn^{2+} (n = 9 each). Activating currents were fitted best with a double exponential function. The relative amplitude of the fast component of activation showed very little voltage dependency and did not differ markedly in the presence and absence of 1 μM Zn^{2+} (control $a_f/(a_f + a_s)$ = 0.81 ± 0.01 versus 0.75 ± 0.01 in presence of 1 μM Zn^{2+} at +60 mV).