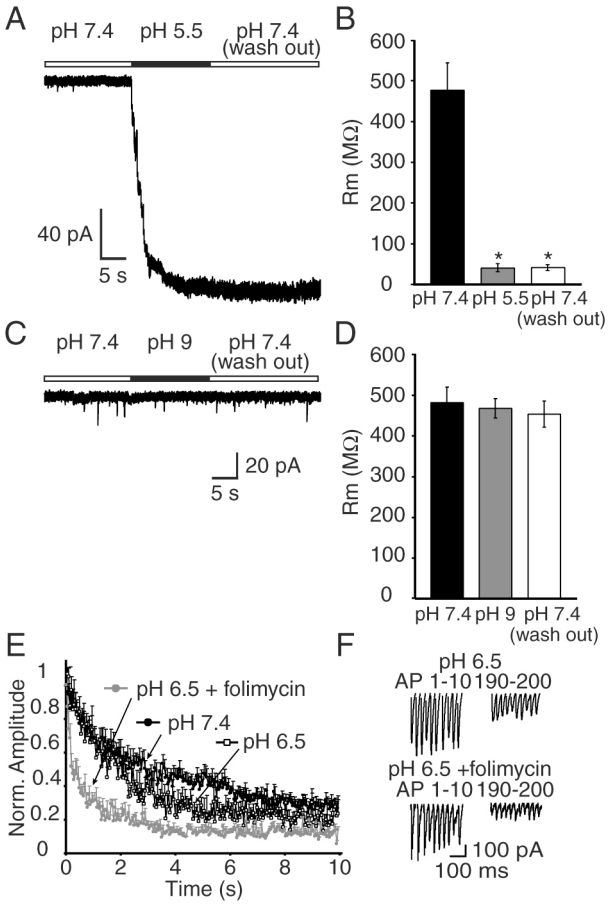

Supplementary Figure 4, A, Representative traces of whole-cell patch clamp recordings demonstrating the effect of exposition to acidic (pH 5.5) ACSF solution on CA1 pyramidal neurons of hippocampal slices. After neurons were clamped at –70 mV, membrane resistance (R_m) and baseline activity were recorded. Subsequently, slices were perfused with acidic ACSF for 15 seconds and then switched to regular ACSF, perfusion continued for 1 min before recording was ended. *B*, Bar graphs show the alteration in R_m after acidic ACSF perfusion on CA1 region pyramidal neurons. Acidic pH caused a remarkable decline in R_m and stayed low after switching to physiological pH (*$p<0.001$, n=8 cells). *C,* Representative trace showing the baseline activity during alkaline ACSF perfusion. *D,* Perfusion with alkaline pH ACSF did not alter R_m of CA1 neurons (n=6 cells). *E*,*F,* Plots showing the synaptic depression rate at CA1 excitatory synapses at extracellular pH 6.5 by 20 Hz stimulation. Switching to pH 6.5 ACSF perfusion did not alter the synaptic depression rate at 20 Hz stimulation significantly (n=7 cells for each group). In pH 6.5 ACSF, exposition of synapses to folimycin (67 nM) augments synaptic depression rate at 20 Hz stimulation, similar to its effect in control slices.