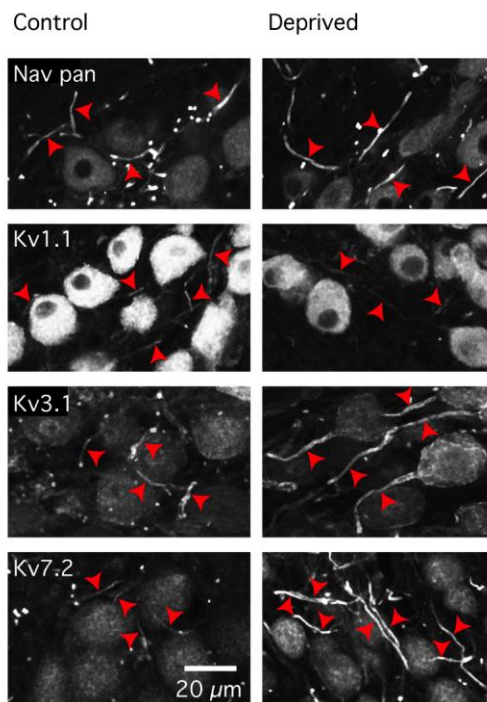
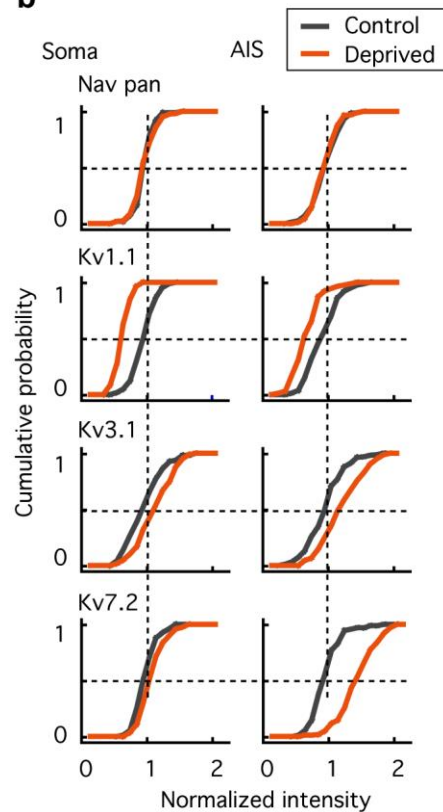


a Deprivation of auditory inputs (7days)

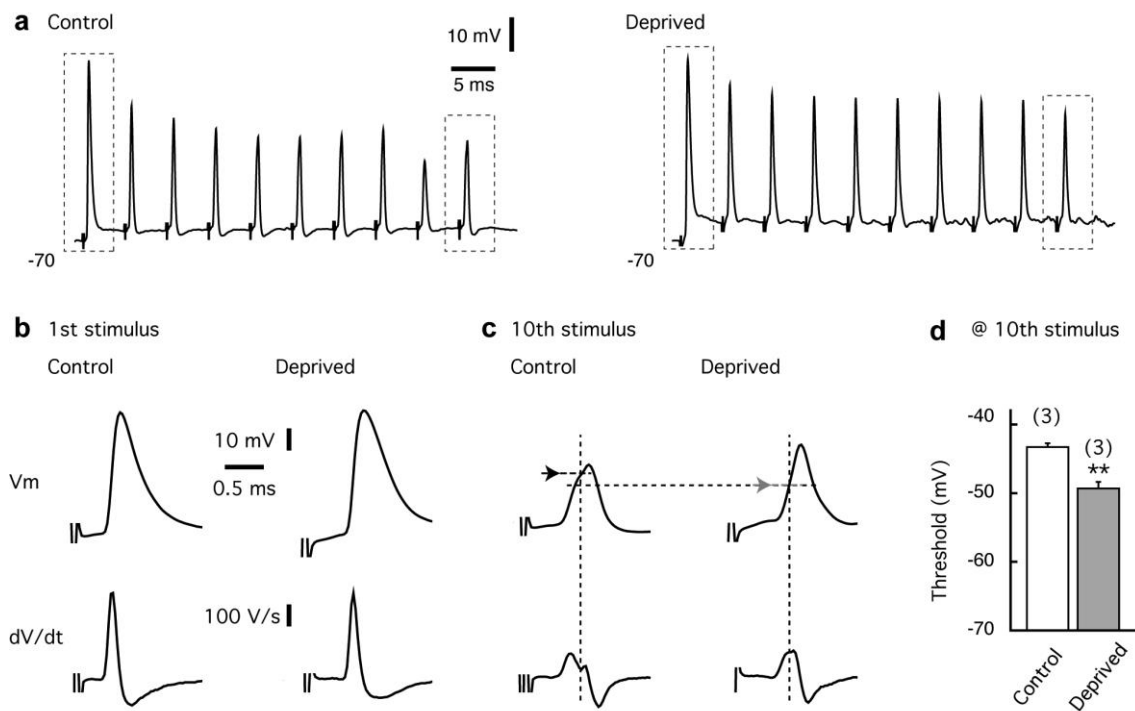


b



Supplementary Figure 1 Effects of auditory deprivation on Nav and Kv expressions at NM. (a) Immunofluorescence images at control (left) and deprived (right) sides of NM within a slice at 7 days after auditory deprivation. Nav pan (top), Kv1.1 (upper middle), Kv3.1 (lower middle), and Kv7.2 (bottom). (b) Cumulative probability of signal intensity at the soma (left) and the AIS (right) in (a). Quantification was made in more than 100 cells from 5 animals (Methods).

10 stimuli @ 200 Hz



Supplementary Figure 2 APs in response to synaptic inputs. (a) APs were induced by electrically stimulating the auditory nerve at 200 Hz with a bipolar tungsten electrode. Control (left) and deprived (right). (b, c) Membrane potential (top) and its time derivative (bottom) at 1st (b) and 10th (c) stimuli in (a). Arrows indicate AP threshold. (d) AP threshold at 10th stimulus.