

## Figure S1. The mAHP amplitude is independent on action potential number at hyperpolarized potential (-80mV)

A, Whole cell recording. Typical example showing the cell membrane potential was held at -80mV by steady current injection. 200ms -0.2nA current pulses were injected to monitor the cell input resistance. Following the negative test pulses, another 200ms positive current pulse was injected to induce subthreshold voltage plateau A(1), or plateau with one action potential (1AP) A(2), two APs A(3), three APs A(4) and nine APs A(5). B, Overlaid traces from A(1)-(5) showing the mAHP amplitude remained unchanged in spite of the different number of spikes. Similar results were found in all the 5 cells tested. C, Sharp electrode intracellular recording showing mAHP evoked by a 200ms train of action potentials at -80mV. Application of 1  $\mu$ M TTX eliminated the spikes, but had no effect on the mAHP amplitude. The amplitude of the depolarized plateau was kept similar to the amplitude before TTX by increasing the current pulse. Each trace is an average of 5 consecutive trials. D, Average time course of the mAHP amplitude showing that application of TTX had no effect (holding level - 80mV; n=4, p>0.05).