



Supplementary Fig 1. Electrophysiological comparison of DAergic and non-DAergic neurons acutely dissociated from rat VTA. A DAergic neuron exhibited H-currents in voltage-clamp and current-clamp modes (**Aa,b**), whereas a non-DAergic neuron did not (**Ba,b**). DAergic neurons exhibited spontaneous action potential firing at low frequency (1-3 Hz) with a long action potential duration (>3 msec for decay to 50% of peak amplitude) and showing sensitivity to DA (**Ac**), whereas a non-DAergic neuron exhibited spontaneous action potential firing at high frequency (> 7 Hz) with shorter action potential duration (<2.5 ms to 50% decay) and showing insensitivity to DA (**Bc**). These results show how we distinguished VTA DAergic and non-DAergic neurons based on a constellation of different electrophysiological properties.