



Figure 5: - Supplement 1: Adolescence acute social isolation induces synaptic scaling in VTA pDA-mPFC projecting neurons.

(A,B,G) Experimental paradigm. WT mice were injected with 488-CTB in the mPFC (B) or NAc (G) at P21 and isolated between P28 and P35. Then mice were subjected at whole-cell patch clamp recording. (C) Example traces of isolated AMPA and NMDA currents recorded at +40mV. (D) AMPA-NMDA ratio of VTA-pDA:mPFC projecting neurons (Mann-Whitney test, $U=56$, $p=0.0945$, Grouped $n=13$, Isolated $n=14$ from 3 mice each group). (E) Example traces of Isolated AMPA current recorded at +40, 0 and -60 mV. (F) Rectification index of VTA-pDA:mPFC projecting neurons (Unpaired samples t-test, $t_{(20)}=3.964$, $p<0.001$, Grouped $n=8$, Isolated $n=14$ from 3 mice each group). (H) Example traces of isolated AMPA and NMDA currents recorded at +40mV. (I) AMPA-NMDA ratio of VTA-pDA:NAc projecting neurons (Mann-Whitney test, $U=29$, $p=0.4252$, Grouped $n=7$, Isolated $n=11$ from 3 mice each group). (J) Example traces of Isolated AMPA current recorded at +40, 0 and -60 mV. (K) Rectification index of VTA-pDA:NAc projecting neurons (Unpaired samples t-test, $t_{(12)}=0.1811$, $p=0.0953$, Grouped $n=6$, Isolated $n=8$ from 3 mice each group). (L) Example traces of sIPSCs recorded from VTA-pDA neurons after juvenile social isolation. (M) sIPSCs frequency (Mann-Whitney test, $U=29$, $p=0.5414$, Grouped $n=9$, Isolated $n=8$ from 2 mice each group). (M) sIPSCs amplitude (Mann-Whitney test, $U=33$, $p=0.8148$, Grouped $n=9$, Isolated $n=8$ from 2 mice each group). (M) sIPSCs rise (Mann-Whitney test, $U=34$, $p=0.8884$, Grouped $n=9$, Isolated $n=8$ from 2 mice each group). (M) sIPSCs decay (Unpaired samples t-test, $t_{(15)}=1.994$ $p=0.0647$, Grouped $n=9$, Isolated $n=8$ from 2 mice each group). Data are represented as mean \pm SEM.