

Additional file 1



Figure S1. Representative image of novel object exploration test with the different objects used and the position number for sequence analysis.

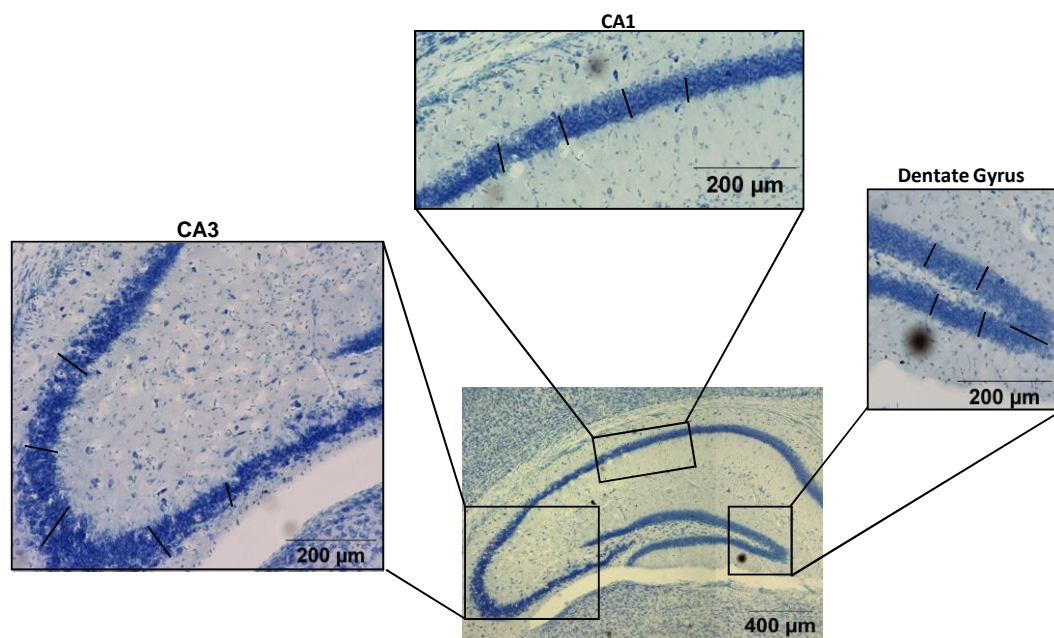


Figure S2. Representative image of mice hippocampus labelled with toluidine blue taken from the morphometric microscope (AX10, ZEISS, Germany). Detail images indicated the measures used to analyze thickness in each hippocampal sub-region - CA1, CA3 and DG.

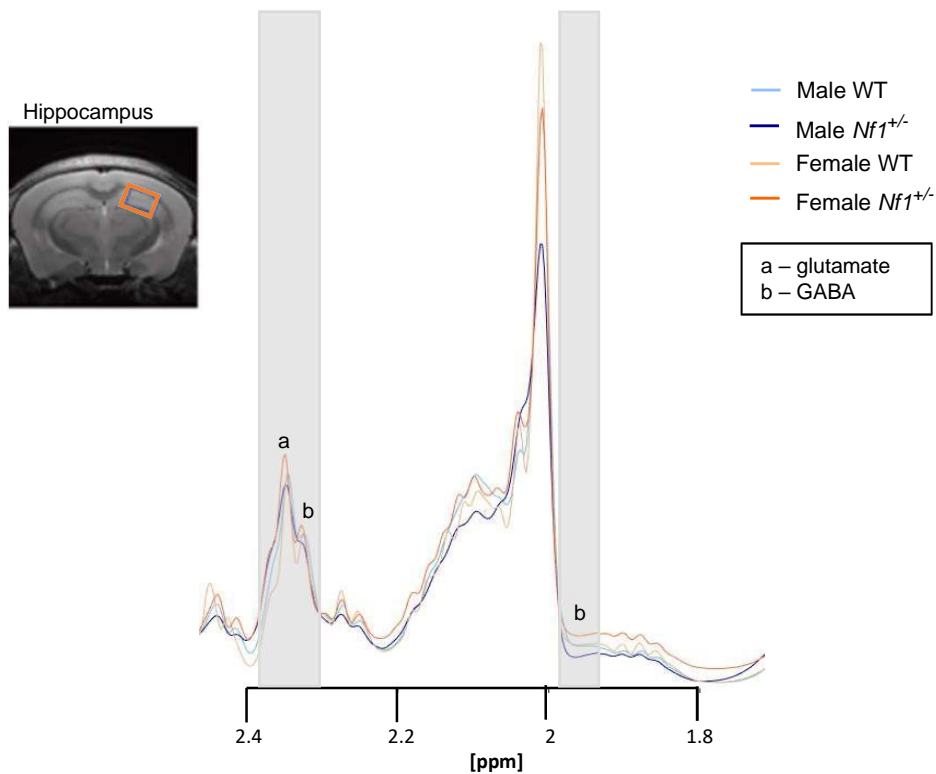


Figure S3. Localization of the magnetic resonance spectroscopy (MRS) voxel (orange square) in the hippocampus, as well as a MRS average plots of WT and *Nf1*^{+/-} mice, highlighting the peaks of GABA and glutamate.

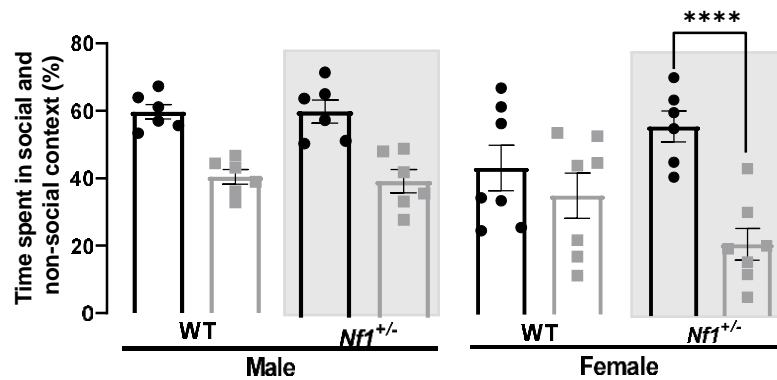


Figure S4. Female *Nf1*^{+/-} display an increase in social behavior. During a juvenile social play test, it was found that female *Nf1*^{+/-} mice spent more relative time performing social interactions. (*****p* < 0.001 by Mann-Whitney test, comparing with time spent in non-social context).