

Supplementary Table 1

Overview of Phenotypes Produced by Different Genetic Manipulations of *Nrxn3α/β* in Hippocampal and Olfactory Bulb Neurons

Parameter	<i>Nrxn3α/β</i> KO	<i>Nrxn3α</i> KO	<i>Nrxn3α/β</i> SS#4 KI	
1. Hippocampal Neurons				
mEPSC Frequency	↔	↔	↔	
mEPSC Amplitude	↓↓	↔	↓↓	
mIPSC Frequency	↔	n.d.	↔	
mIPSC Amplitude	↔	n.d.	↔	
AMPA-EPSCs	↓↓	↔	↓↓	
NMDAR-EPSCs	↔	↔	↔	
PPR of NMDAR-EPSCs	↔	↔	↔	
IPSCs	↔		n.d.	↔
2. Olfactory Bulb Neurons				
mEPSC Frequency	↔	n.d.	↔	
mEPSC Amplitude	↔	n.d.	↔	
mIPSC Frequency	↓↓	↓↓	↔	
mIPSC Amplitude	↔	↔	↔	
AMPA-EPSCs	↔	n.d.	↔	
NMDAR-EPSCs	↔	n.d.	↔	
IPSCs		↓↓	↓↓	↔
PPR of IPSCs		↑↑	↑↑	↔

Summary of synaptic findings cross-compared between three genotypes: *Nrxn3α/β* cKO, *Nrxn3α* KO and *Nrxn3^{SS#4+}* KI. Arrows indicate changes in synaptic properties measured in the three genotypes from two brain regions.