

Table S1. Electrophysiological properties of glycine evoked currents in nAc.

Area	Neurons	Glycine sensitive	insensitive	EC <sub>50</sub> (μM)	Current Density (pA/pF)	I <sub>max</sub> (pA)	10 mM EtOH Potentiation (%)	100 mM EtOH Potentiation (%)	GTP-γ-S potentiation (%)
nAc	WT	81 % (42)	19 % (10)	47 ± 6 (15)	7.5 ± 2 (11)	314 ± 46 (15)	24 ± 9 (8)	56 ± 7 (18)	85 ± 21 (5)
	KI	88 % (57)	12 % (8)	54 ± 1 (12)	7 ± 2 (8)	407 ± 110 (12)	-17 ± 8 (19) (*)	1 ± 6 (24) (***)	8 ± 19 (9)(*)

Values are given as mean ± SEM. Values were fitted to the equation  $I_{\text{glycine}} = I_{\text{max}} [\text{glycine}]^{nH} / ([\text{glycine}]^{nH} + [EC_{50}]^{nH})$  using Origin 8.0 software .

Glycine sensitivity was evaluated with 1000 μM of glycine.

The EC<sub>10</sub> calculated for both genotypes was used for ethanol and GTP-γ-S sensitivity experiments. “% Potentiation” corresponds to the change between the control with glycine EC<sub>10</sub> and presence of 10 and 100 mM ethanol. The “% potentiation at 15 min” corresponds to the change after 15 minutes of dialysis of non-hydrolyzed analog, GTP-γ-S, 200 μM.

\*p<0.05, \*\*\*p<0.001, Unpaired student t test

n=(number of neurons)