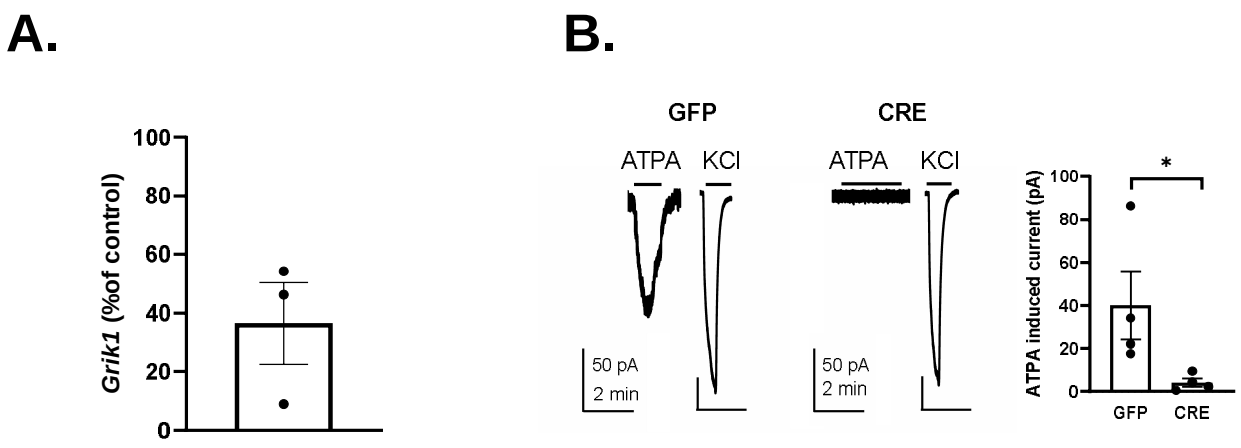
Figure 6 – figure supplement 1



Validation of the GluK1 cKO mouse model

A. RT-qPCR results showing loss of Grik1 mRNA expression in the hippocampus (HC) of Grik1$^{tm1c/tm1c}$ mice 23 days after injection of AAV virus encoding for eGFP-Cre. Injection was done in 9 week old mice. The data represents the level of Grik1 mRNA expression in eGFP-Cre – injected HC as a percentage of the control (eGFP injected HC, n=3 for both groups) . * $p < 0.05$, unpaired t-test.

B. Loss of GluK1 function in the LA neurons following eGFP-Cre injection in the Grik1$^{tm1c/tm1c}$ mice. Example traces and pooled data illustrating ATPA (1 µM) induced currents in LA neurons in slices obtained from control (eGFP injected) but not in eGFP-Cre injected Grik1$^{tm1c/tm1c}$ mice (eGFP-Cre: n=4, eGFP: n=4; ANOVA; $p < 0.05$). eGFP or eGFP-Cre encoding AAV viruses were injected to the BLA of adult GriK1$^{tm1c/tm1c}$ mice, acute slices were cut for electrophysiological analysis 21 days after injection. Agonist induced currents were recorded as described in the main article.

Methods for the RTqPCR. The whole hippocampi were dissected form the GriK1 tm1c mice, and stored in RNALater stabilization solution. RNA extraction and purification was done using the RNeasy Mini Kit (Qiagen), any remaining DNA was removed using DNA-free DNA Removal Kit (Thermo Fisher Scientific), and cDNA synthesis was carried out using RevertAid First Strand cDNA Synthesis Kit (Thermo Fisher Scientific) with oligo(dT)18 primers. Real-time quantitative PCR was done using forward primer AAACTGGTTCCTGACGGCAA and reverse primer CTGCTAGGTCAGCTCTGTGG. All samples were analysed in triplicate, and relative quantification of gene expression was analysed using the 2-ddCt method.