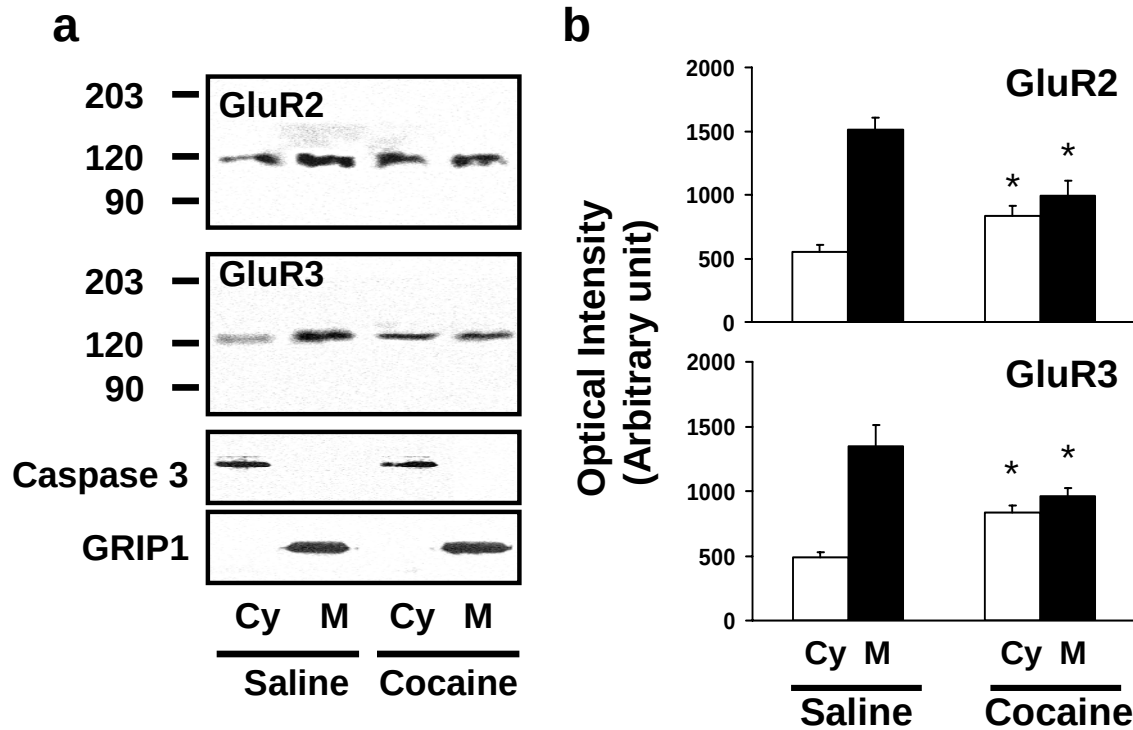
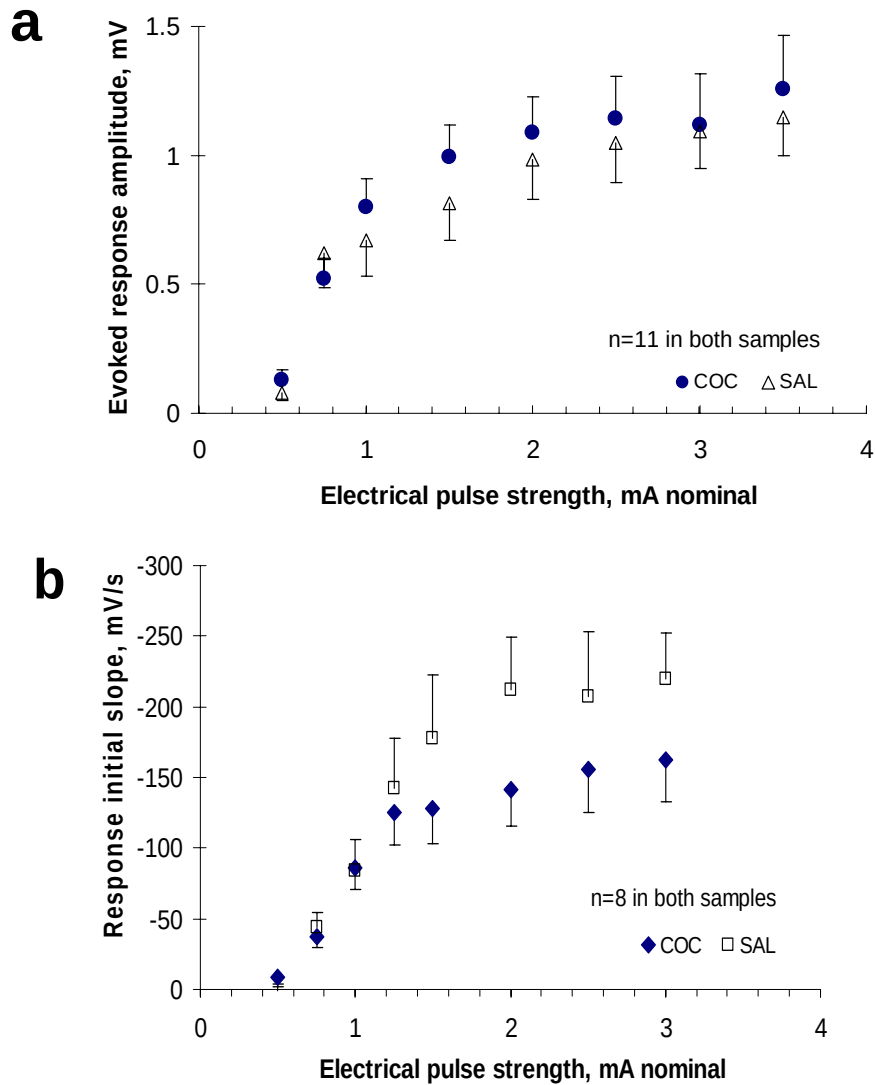


Supplementary Fig. 1



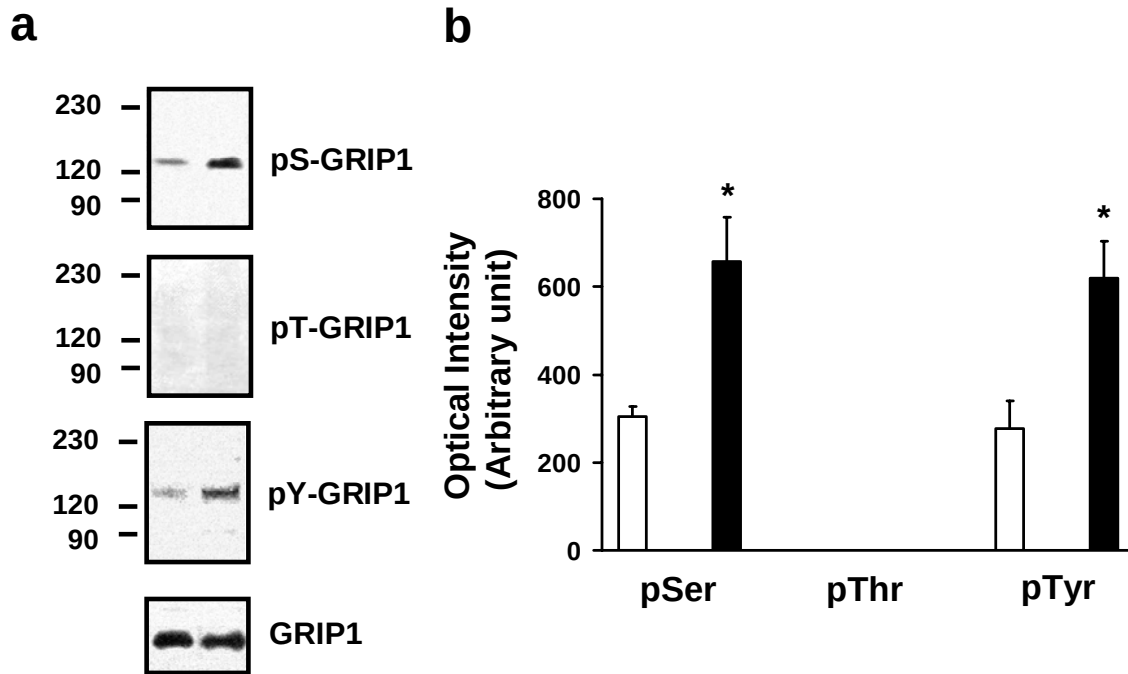
Synaptic expression of GluR2 and GluR3 is markedly reduced in the frontal cortex (FCX) of P21 rats that have had exposed to cocaine during gestation days 8-20. **(a)** Western blot analysis of the GluR2 and GluR3 distribution in cytosol (Cy) and membrane (M) fractions of the synaptosomes prepared from FCX of P21 rats exposed to saline or cocaine during gestation. The blots were stripped and sequentially re-probed with anti-caspase-3 (1096 ± 121 and 1127 ± 130 optical intensity in saline and cocaine, respectively) and GRIP1 (1759 ± 157 and 1669 ± 146 optical intensity in saline and cocaine, respectively) to validate equal loading in cytosolic and membranous extracts. **(b)** The GluR2 or GluR3 bands were quantified individually. Data are presented as means $\pm$ s.e.m. of the optical intensity. $n = 4$ for each group. $*p < 0.01$ comparing the level of receptor in respective cytosol and membrane fractions.

Supplementary Fig. 2



Absence of effect of prenatal cocaine exposure on baseline electrically evoked field potential responses in Layer 3 of rat medial prefrontal cortex. Magnitude of evoked responses measured as amplitude of the first negativity (**a**) and as initial slope of the evoked responses (**b**) both plotted against stimulus current strengths showed no significant difference ($p > 0.1$, Two-way ANOVA) between slices from prenatal cocaine (COC)- and saline (SAL)-exposed male 21-25 day old rats at all stimulus strengths. Error bars show sem; n = number of slices from 6-8 rats in each prenatal treatment group.

Supplementary Fig. 3



Enhanced serine and tyrosine phosphorylation of GRIP1 in frontal cortices of P21 rats that have had exposed to cocaine during gestation days 8-20. **(a)** Levels of Serine (**Ser**), Threonine (**Thr**) and tyrosine (**Tyr**) phosphorylation on purified native GRIP1 from saline- and cocaine-exposed P21 rats were determined by Western blot using specific antibodies directed against each phospho-epitope. **(b)** Densitometric quantification of blots. Data are represented as means $\pm$ s.e.m. of the optical intensity. $n = 4$ for each group. $*p < 0.01$ comparing the levels of phosphorylated GRIP1 isolated from prenatal saline-treated rats by two-tailed Student's t test. No between-group differences in the levels of GRIP1 immunoprecipitated were detected.