**Supplementary Methods**

**Construction of the pBI-EGFP-TetO-ΔGR vector.**

To construct the pBI-EGFP-TetO-ΔGR vector, a three-step strategy was used. First, in order to homogenize both polyA signals, we replaced the fragment containing the SV40 poly A signal in the pBI Tet vector (# 6152-1, Clontech, USA) with the β-Globin poly A signal that was amplified by PCR using Pfu DNA polymerase (Stratagene, USA). The β-Globin polyA signal was amplified by PCR using the following oligonucleotides:

Forward primer: ACGCGTCGACGACTGAGAACTTCAGGGTGAGTTTGG/
reverse primer: CTTTGACCAGCGTCATGCAGTCGAGTTCTTCATAAGAGAAGAGG.

Respectively, a Sal I restriction site in 5' (underlined) in the forward primer and a PshAI restriction site in 3' (underlined) were added. Since Pfu DNA polymerase generates blunt ends, the PCR product was digested only by SalI and cloned SalI/Blunt into the pBI Tet vector previously digested by SalI and NaeI (Blunt). The second step consisted of amplifying by PCR the EGFP from the vector pEGFP-N1 (Clontech, USA) using the following primers:

forward primers ATAAGAATGGGCGGCACGTCGGCCACCACCGGTCGCGCCACCATGGTG/
reverse primer GCGCCGCACGACTGACCTTTACTTGTACAGCTCGTCC. In the forward primer, a NotI site (underlined) was added upstream the start codon (bold) while in the reverse primer, a SalI site (underlined) was added downstream the stop codon (bold). The PCR fragment previously digested by SalI/NotI was cloned into the pBI-Tet vector from the first step previously digested by SalI/NotI. Finally, the third step consisted to clone the ΔGR gene in the previous vector. The ΔGR gene was amplified by PCR from the plasmid pSV40-ΔGR previously generated. The forward primer was

CTACTAGCTAGCGGATGACTCCAAAGAACATCTTTAGC and the reverse primer was
TGCGCTGATATCTTTAAGCTGCAATAACAGTTTCAG. The forward primer contains a NheI site (underlined) upstream the start codon (bold) and the reverse primer contains an EcoRV site (underlined) downstream the stop codon (bold). The PCR product was digested by NheI/EcoRV and cloned into the EGFP-pBI Tet vector from the second step previously
digested by the same enzymes. The resulting construct, named pBI-EGFP-TetO-\(\Delta\)GR vector, expresses two genes (EGFP and \(\Delta\)GR) from one bidirectional tet-responsive promoter.

**RT-PCR analysis**

The following primers were used for PCR amplification:


**Behavioral experiments**

Experiments were performed using C57/Bl6 JI Co (IFFA Credo, Arbresle, France) male mice housed individually 7 days before the experiment and maintained in an animal room under standard conditions as described in the methods. All experimental procedures took place during the light portion of the dark/light cycle. Mice were handled daily for 5 min three days before the start of the contextual conditioning procedure. Fear conditioning took place in a plexiglass box (30 x 24 x 22 cm high). The floor of this conditioning chamber consisted of 60 stainless steel rods (2 mm diameter), spaced 5 mm apart and connected to a shock generator (Imetronic, Talence, France). The four sides of the chamber and the rods of the floor were cleaned with 70 % ethanol before each trial. Each animal was placed in the conditioning chamber for 4 min during which it received 2 footshocks which never co-
occurred with 2 tones (63 db, 1 KHz, 15 s) delivery. Each animal was then replaced in its home cage. Twenty-four hours later, mice were re-exposed to the conditioning chamber and the behavior of the subjects was continuously recorded on video tape for off-line scoring of freezing. After completion of the behavioural study, animals were given an overdose of ketamin (24ml/kg) and transcardially perfused with physiological saline, followed by 10% buffered formalin. Brains were post-fixed in formalin-saccharose 30% solution for 1 week, frozen, cut coronally on a sliding microtome into 50 µm sections that were mounted on a gelatin-coated slide, and stained with thionine in order to evaluate the cannulae placements.