

Fig. S1

Schematic illustration of time-course of the present study. The number of rats used in the present study is also stated in each experiment.

Fig. S2

pERK-LI neurons in the Vc after noxious mechanical stimulation (75.8 g) of the whisker pad. Double immunofluorescence reveals that pERK is colocalized with NeuN (neural marker, column A), but not with Iba1 (microglial marker, column B) and GFAP (astroglial marker, column C). Arrows indicate pERK-immunoreactive cells. Scale bar: 50  $\mu\text{m}$ .

Fig. S3

Recovery of Vc neuronal responses following washout of FA with isotonic saline in IANX rats. Pinch responses were recorded from Vc in IANX rats after vehicle administration. After that FA was administrated and neuronal activities were recorded for 30-60 min and then FA was washed out. The neuronal activities were kept recording for 30-60 min after FA washout. A: typical PSTHs of the Vc WDR neuron. B: Mean

peak spikes of WDR neurons after vehicle administration, and that during or after washout of FA. \*\*:  $p < 0.01$  (vs. Vehicle).

Fig. S1

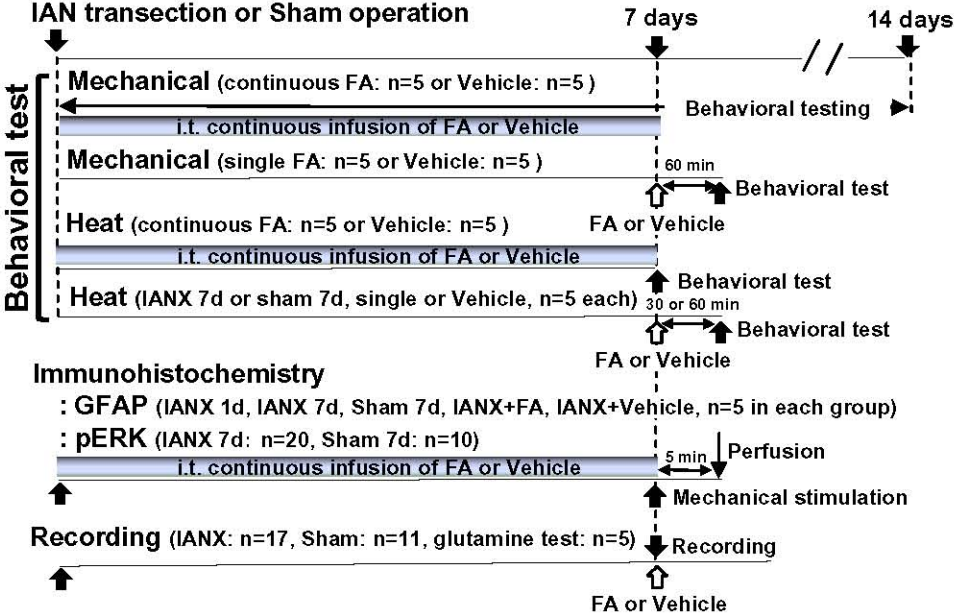


Fig. S2

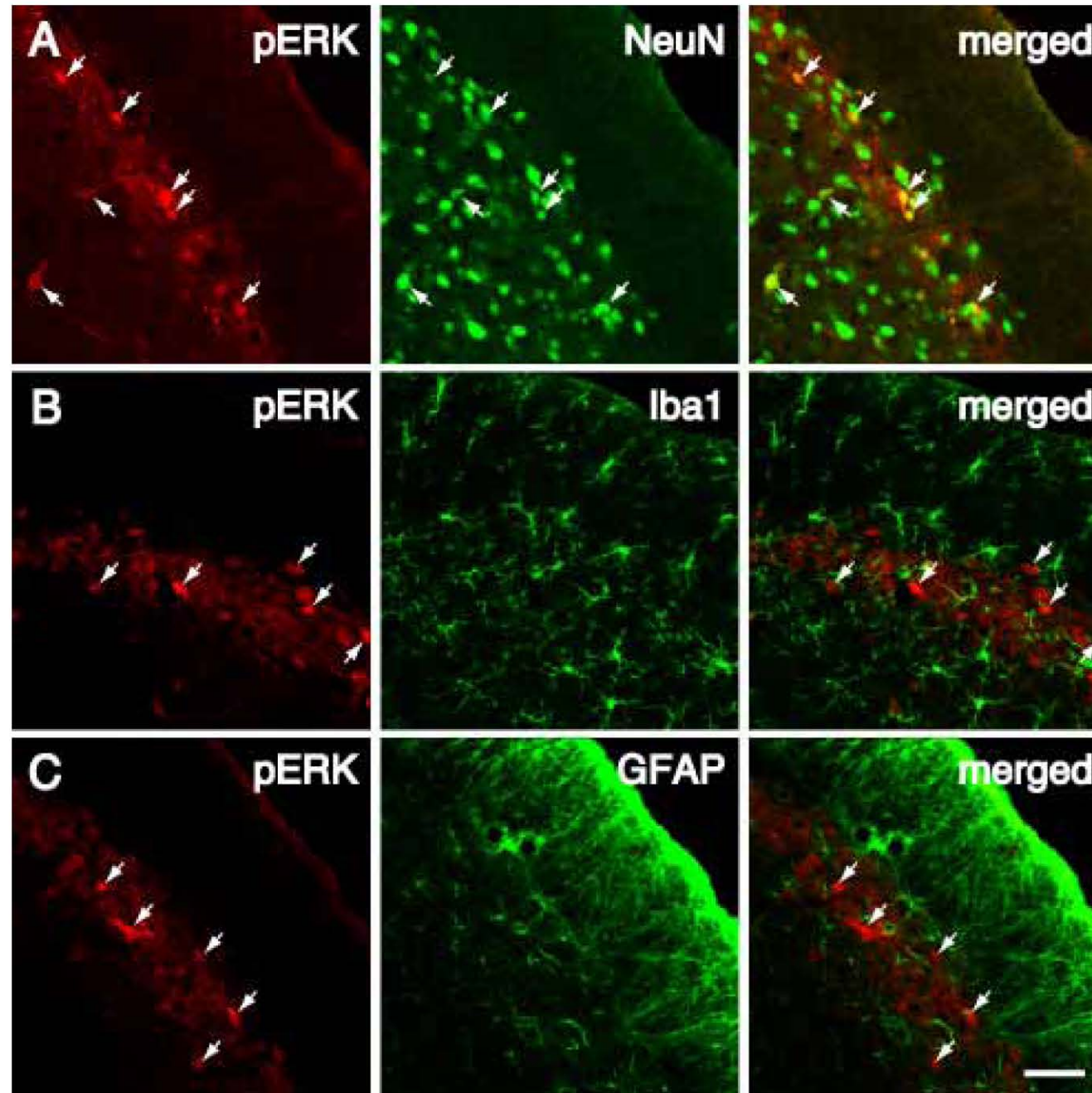


Fig. S3

