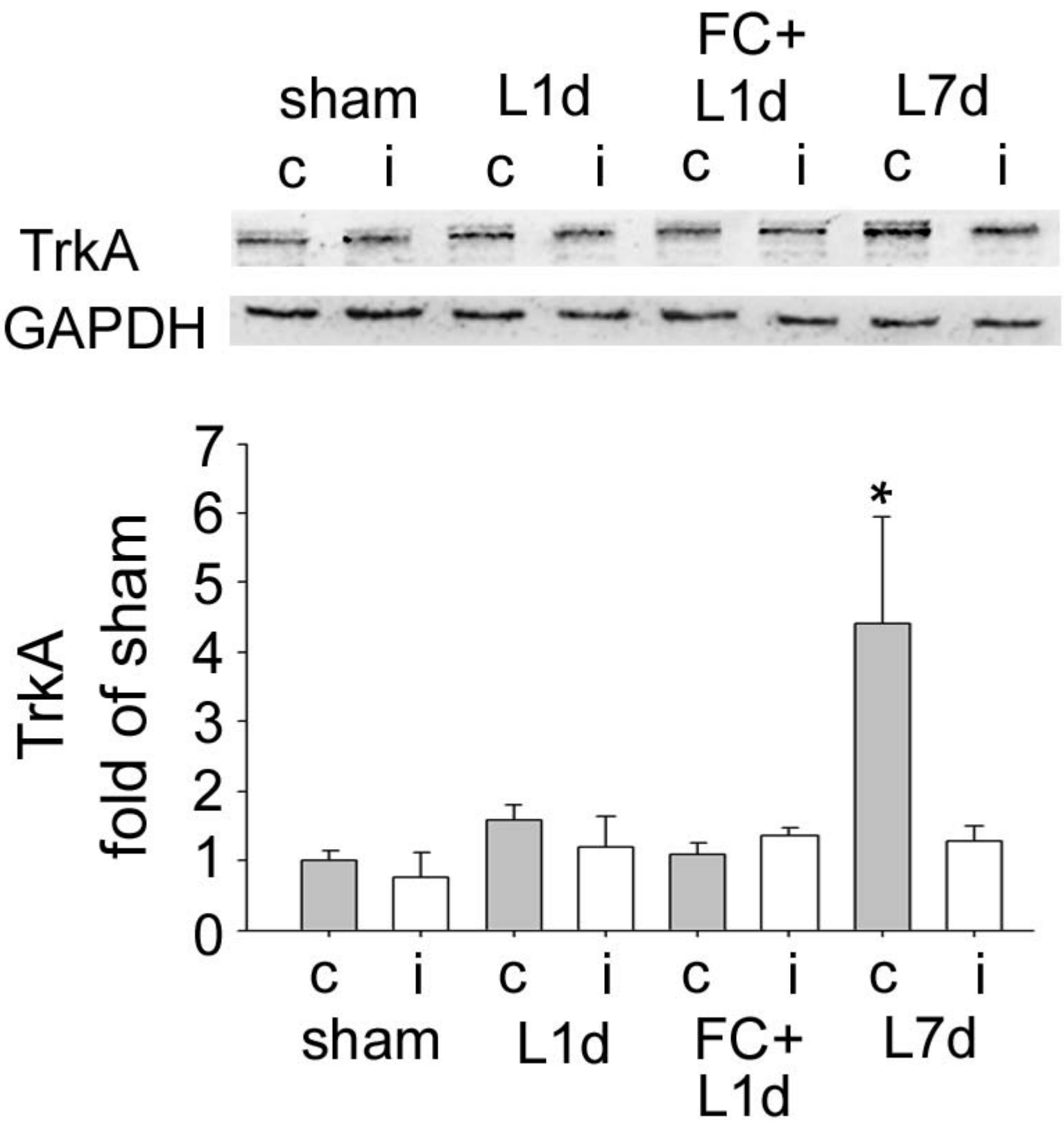
Supplementary data

SFig. 1. A delayed upregulation of TrkA in the contralateral DRG. Rats were sacrificed at 1 day (L1d) or 7 days (L7d) after spinal nerve ligation. "FC+L1d" indicates intrathecal injection of fluorocitrate 30 min before ligation. Using rabbit anti-TrkA (1:2000; Millipore), western blot was performed to analyze TrkA levels in the bilateral L5/6 DRG. Except a delayed increase of TrkA in the contralateral DRG of SNL rats at day 7, there was no significant difference between the sham and L1d groups. n = 3; *p < 0.05, compared with the contralateral side of sham group by Student's t-test.

SFig. 2. Proteins can penetrate into DRG after intrathecal injection. Rats were sacrificed at 6 h or 1 day following intrathecal injection of 10 μl vehicle (PBS) alone or containing isolectin B4 (IB4, a 114 kDa protein) conjugated with Alexa Fluor 488 (Invitrogen). Sections of the L5 DRG and spinal cord were immunostained by goat anti-IB4 (1:1000; Vector). (A) Absence of IB4-IR in the L5 DRG of rats injected with vehicle for 1 day. (B-C) There were strong IB4-IR in many glial cells (white arrowheads) and weak IB4-IR in the somata of some DRG neurons (arrows) in rats receiving IB4 for 6 h or 1 day. (D-E) IB4-IR was detected only on the surface of L5 spinal cord at 6 h or 1 day later. Scale bar (in E): 50 μm (A-C); 1 mm (D,E).

SFig. 3. NGF induces transient thermal hypersensitivity. Compared with rats intrathecally injected with vehicle (A), thermal hypersensitivity was observed transiently (peak at 4 h) in rats injected with 10 μg NGF in PBS (B). n = 6; *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$, compared with the baseline on the corresponding side (L, left; R, right) by Tukey's *post hoc* test after one-way ANOVA.

SFig. 4. NGF did not activate glia in the spinal dorsal horn. Rats were sacrificed at day 7 after intrathecal injection of 10 μg NGF in PBS into the junction between the L5 and L6 spinous processes. Transverse sections of the L5 spinal cord were immunostained for GFAP or Iba1. There was no significant activation of astrocytes or microglia in the dorsal spinal cord. Scale bar: 30 μm.


sham
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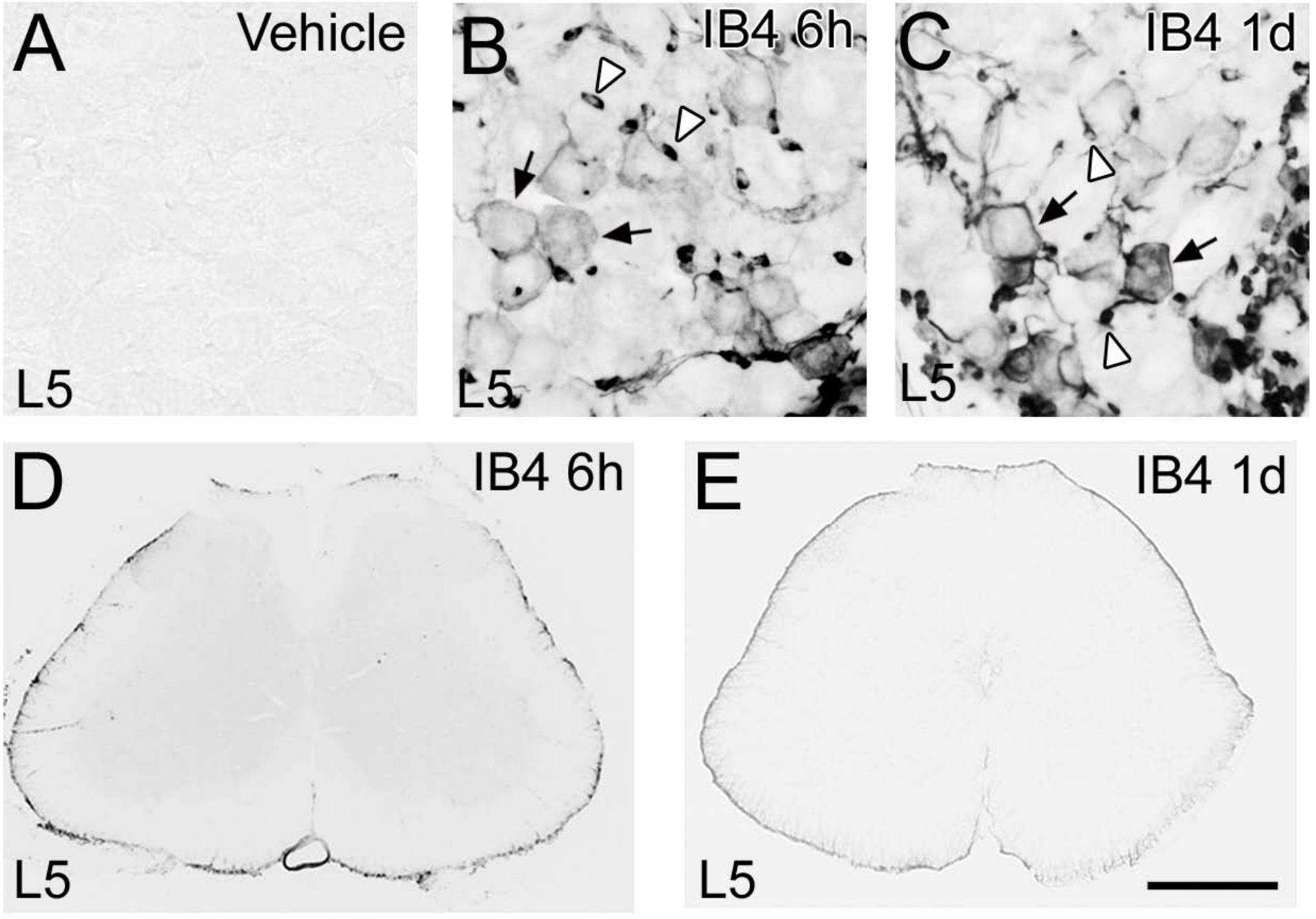
A
Vehicle
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B
IB4 6h
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C
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D
IB4 6h
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E
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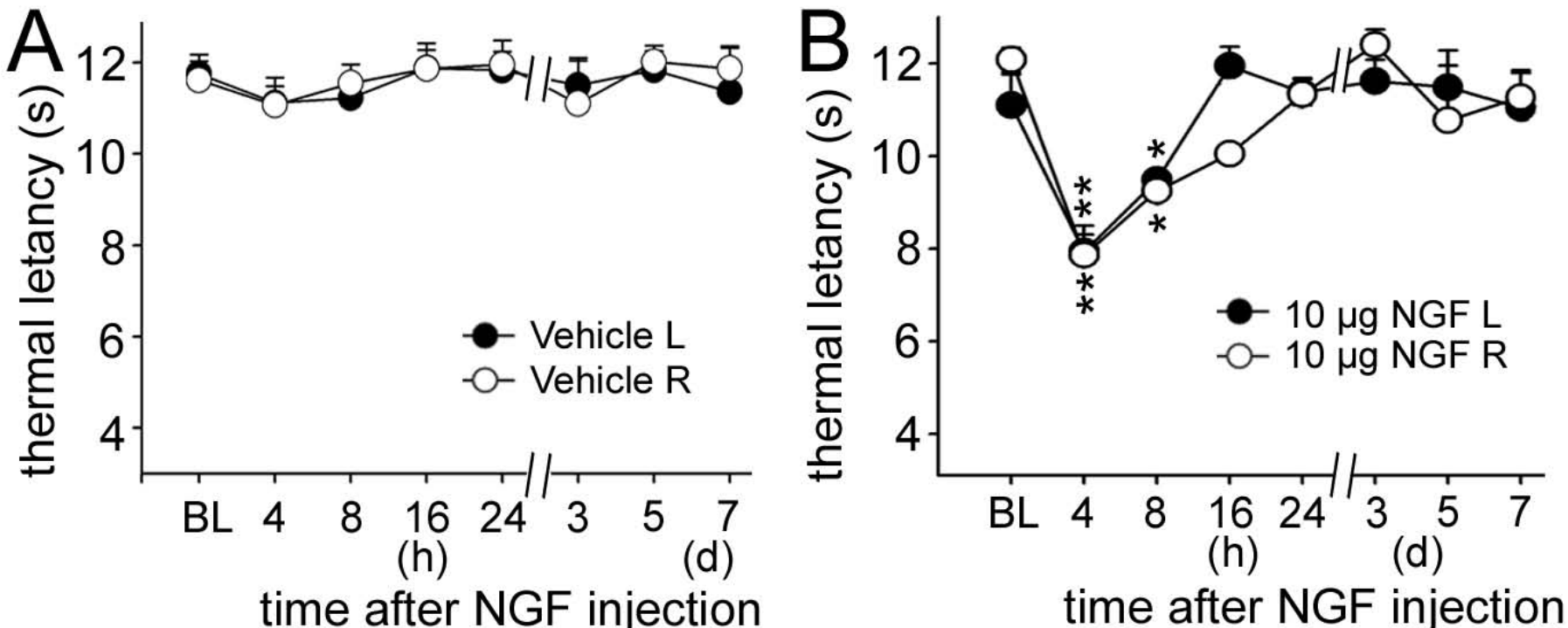
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Vehicle L
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(h)
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time after NGF injection
B
thermal letancy (s)
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10
8
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10 µg NGF L
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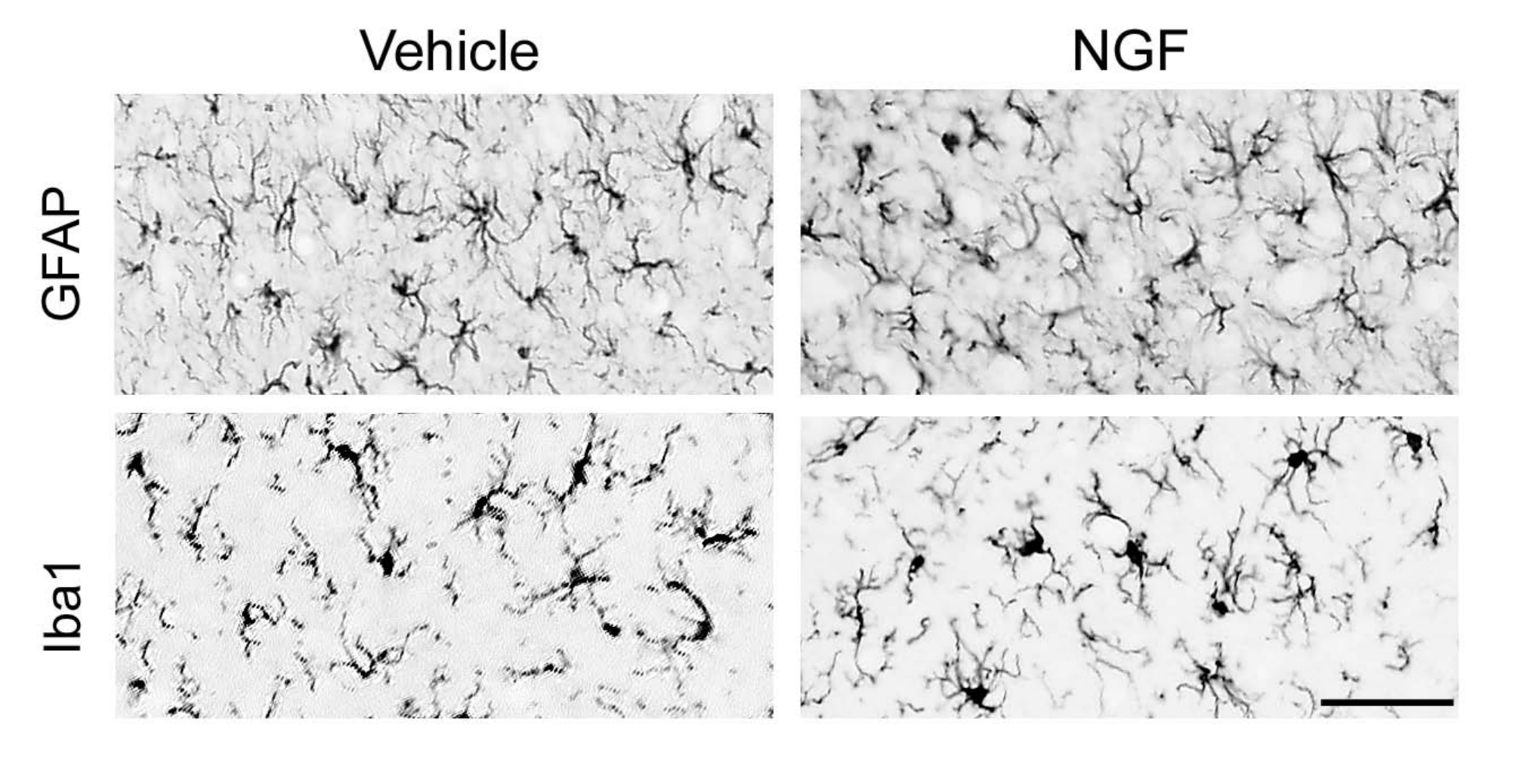
time after NGF injection


Vehicle
NGF
GFAP
Iba1