



### Supplementary Figure 1

**Repetition of laser light emission did not impair the firing ability of SC neurons. (a)**

Averaged activity of 23 neurons displaying a significant excitation evoked by optical stimulation in the ipsilateral condition. The activity is shown for first half trials and latter half trials.

**(b)** Averaged activity of 6 neurons displaying a significant inhibition evoked by the stimulation.

**(c)** In both the 23 excited neurons (left) and the 6 inhibited neurons (right), the magnitudes of the evoked responses were not significantly different

in the first and latter half trials (Wilcoxon signed-rank test,  $P > 0.10$ ). This suggests

that the firing ability of these neurons was not impaired by the repetition of laser light

emission.