Supplementary Figure 1. ChR2 photoexcitation in L2/3 neurons.

(a), Recovery of ChR2 desensitization. ChR2-positive L2/3 cells were photostimulated with pairs of pulses with different interstimulus intervals (ISI) in voltage clamp. (b), ChR2 current vs laser power of three different cells in the same slice. Photostimulation was on the soma of the recorded cells. (c), Cell attached recordings of the photostimulation-evoked spiking response of a ChR2 positive cell in L2/3 to 10 light stimuli delivered over the axon in L5 at different frequencies. (d), Number of action potentials elicited by 10 stimuli over the axon at different frequencies in 4 different cells. (e), The distribution of spike onsets for one cell that was stimulated in the soma (blue) or on axons in L5 (red).