**Supplementary Figure 1**

**a.** Monosynaptic excitatory connection between two layer 2/3 pyramidal cells. A train of action potentials evoked in the presynaptic pyramidal cell (black trace) elicits depressing unitary EPSCs or EPSPs in the postsynaptic pyramidal cell (gray traces) recorded in the voltage ($V_{H}$: -40 mV) or current clamp ($V_{m}$: -76 mV) mode, respectively. Inset: Spiking response of the postsynaptic pyramidal cell to a 2 s long square current pulse. **b.** Monosynaptic excitatory and disynaptic inhibitory connections between two layer 2/3 pyramidal cells. A train of action potentials evoked in the presynaptic pyramidal cell (black trace) elicits unitary EPSCs (black arrows) and disynaptic IPSCs (open arrows) in the postsynaptic pyramidal cell (gray traces) recorded in the voltage clamp mode ($V_{H}$: -40 mV). Inset: Spiking response of the postsynaptic pyramidal cell to a 2 s long square current pulse.