

Supplemental Figure legends

Figure 1. Spontaneous firing activity emerges in cultured cortex.

Spontaneous firing activity was measured by multi-electrode dishes during culturing (Uesaka et al., 2005). The traces show spontaneous firing activity in the upper layers (at electrodes 1 and 2) of a cortical explant after two weeks in culture (control). Such activity emerged after one week in vitro and was persistent afterwards. In the presence of TTX, the firing activity was completely diminished.

Figure 2. Branch formation of CA-RhoA-expressing horizontal axons in the presence of TTX.

Note that the number of branches was substantially increased. Scale bars, 50 μ m.