Neuronal influences are necessary to produce mitochondrial co-localization with glutamate transporters in astrocytes

Christopher I Ugbode^{*‡}, Warren D. Hirst[†], Marcus Rattray^{‡1}

Supporting Information 1

Astrocyte stellation under rho kinase inhibition.

Phase contrast time lapse video (24 h) showing astrocyte stellation under rho kinase inhibition using Y27632 (100 μ M). The video starts roughly 40 minutes after the application of the drug due to setting up the microscope; indicating that the morphological change happens rapidly; without affecting cell number (over time).

Supporting information 2.

Peripheral astrocyte processes emanating from filpodia express V5-GLT-1.

Confocal z-stack showing double transfected astrocytes (V5-GLT-1 and pDs-Red 1 mito; green and red respectively) treated with Y27632 for 24 h. The filpodia are decorated with GLT-1 however there is lack of mitochondrial distribution in the finer processes.