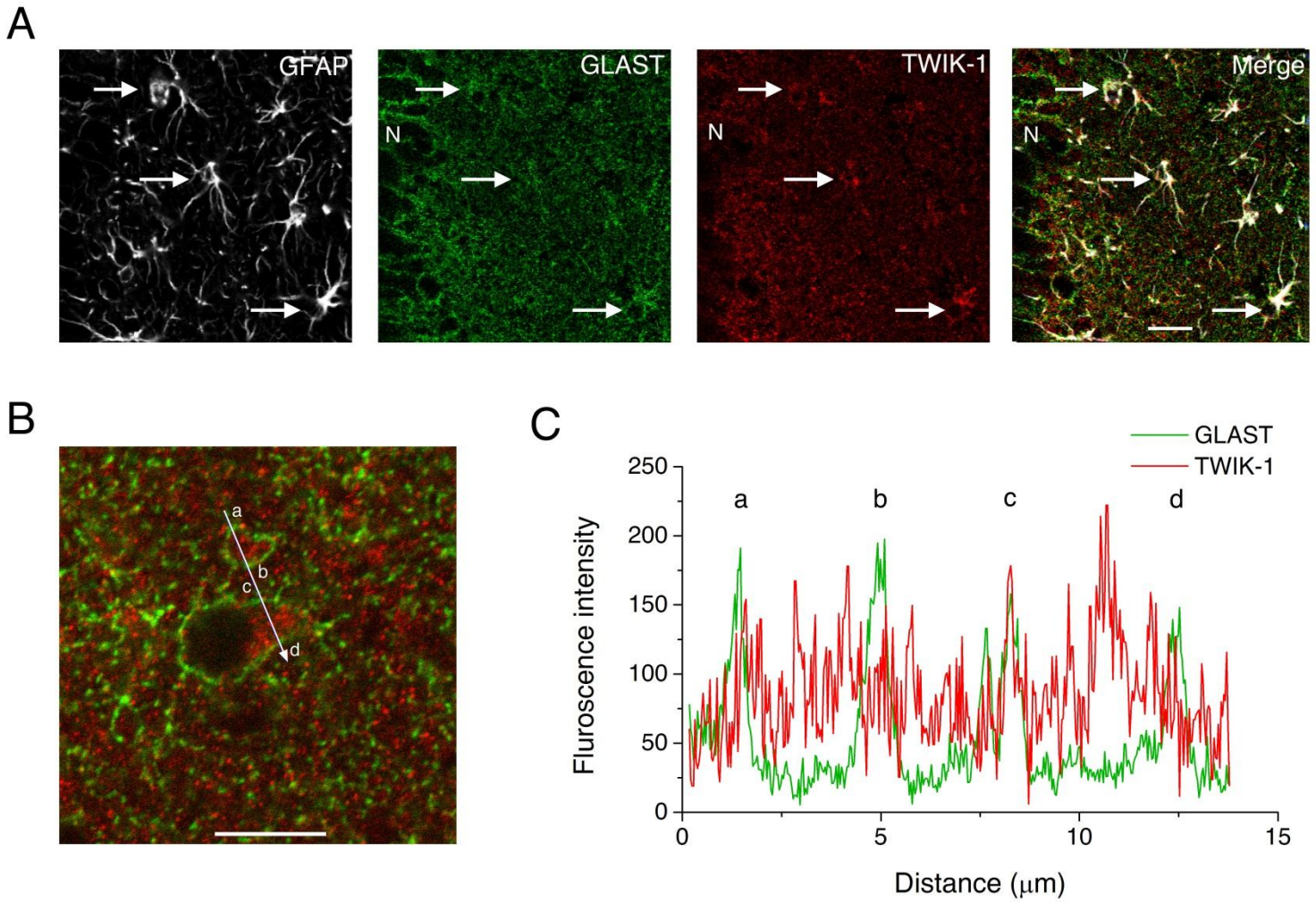

Supplementary material (A): Immunofluorescent labeling of GFAP, GLAST and TWIK-1 in rat hippocampal sections. The arrows denote GFAP and GLAST(+) astrocyte cell bodies. The scale bar in the merged image is 20 μm. (B) A high magnification confocal optical section from CA1 *stratum radiatum* region. The bar is 10 μm. Two cross-section profiles of astrocytic soma can be readily recognized from the dense and circular GLAST staining from astrocyte membrane (green). Inside the cross-section profiles, large amount of TWIK-1 staining signals are noticeable (red). The white arrow marks the line scanning area to obtain the fluorescence intensity shown in (C). The plasma membrane was marked as "a" and "b" for the up profile, "c" and "d" for the bottom profile. (C) Plot of the fluorescence intensity of GLAST (green line) and TWIK-1 (red line) along the line shown in B. The distinct rises in the green trace mark the walls of the plasma membrane. From 6 cross-section profiles analyzed the average TWIK-1 intensity in cytoplasm was 1.45 fold higher than that of the plasma membrane.