Bidirectional plasticity of calcium-permeable AMPA receptors in oligodendrocyte lineage cells

Marzieh Zonouzi, Massimiliano Renzi, Mark Farrant and Stuart G. Cull-Candy

Figures

1 Supplementary Fig. 1: Limited expression of TARPs in myelinating oligodendrocytes in cerebellar white matter.

2 Supplementary Fig. 2: Determination of rectification index (RI) for climbing fiber-evoked EPSCs in NG2+ OPCs.
Supplementary Fig. 1: Limited expression of TARPs in myelinating oligodendrocytes in cerebellar white matter.
Representative sagittal section of cerebellar cortex from a P7 rat showing white matter (wm) labeled with antibodies to MBP (red) and TARP \( \gamma \)-2 (green), and stained with DAPI (blue). Central panel indicates that TARP immunoreactivity is reduced in cells expressing myelin basic protein (two cells indicated by white rectangles) compared to NG2\(^+\)-OPCs (Fig. 5f). Scale bar 25 \( \mu \)m.
Supplementary Fig. 2: Determination of rectification index (RI) for climbing fiber-evoked EPSCs in NG2+ OPCs.

(a) Representative current-voltage (I-V) relationship for evoked EPSCs recorded from an untreated OPC. Currents were recorded at membrane potentials of −80, −60, −40, 0, +40 and +60 mV. The blue curve is a third-order polynomial fit to all data points. The red curve is a fit to the points at −80, 0 and +60 mV only, as used in all determinations of rectification index. For the two I-V relationships rectification index values were determined as the conductance (from the fitted current) at +60 mV divided by that at −80 mV, calculated using the reversal potentials from each respective I-V. (b) Corresponding data from a different cell, following 15 minutes treatment with 100 µM DHPG. In each case, note the similar rectification index values produced by the two forms of analysis.