SUPPLEMENTAL INFORMATION

Differentiation of Oligodendrocyte Precursor Cells from *Sox10*-Venus Mice to Oligodendrocytes and Astrocytes

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Supplementary Video 1: Time-lapse analysis of cell process formation of differentiating Venus (+) cells

Supplementary Video 2: Time-lapse analysis of cell division of Venus (+) cells

Supplementary Figure S1: PDGFRα and A2B5 staining in Venus (+) cells

Supplementary Figure S2: Staining for proliferation markers in Venus (+) cells before induction of differentiation

Supplementary Figure S3: Distribution of Venus (+) cells in the brain

Supplementary Video 1. Time-lapse analysis of cell process formation of differentiating Venus (+) cells. The 30 seconds-movie was created using Z-stack images collected every 20 minutes for 50 hours, as described in Methods.

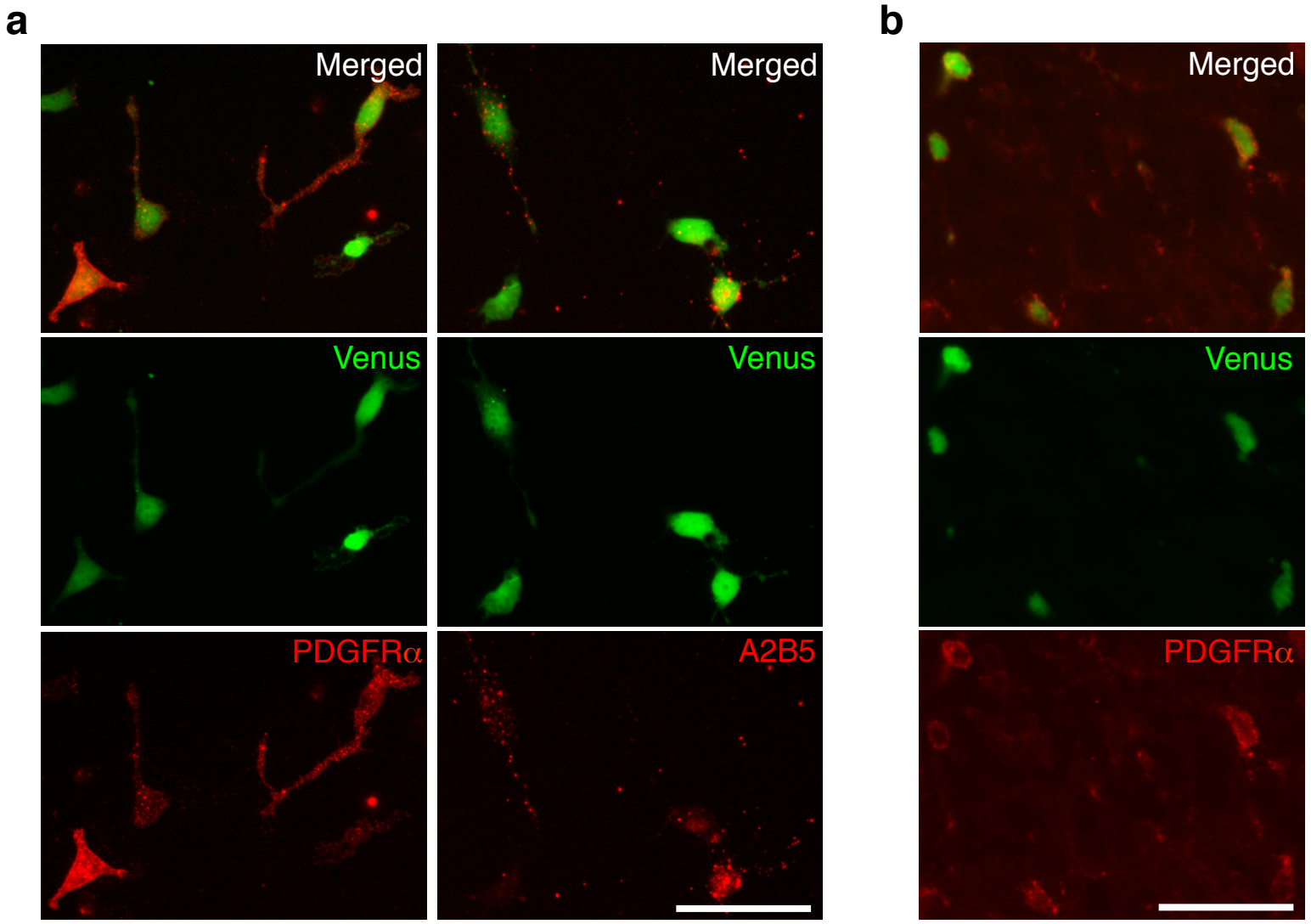
Supplementary Video 2. Time-lapse analysis of cell division of Venus (+) cells. The 30 seconds-movie was created using Z-stack images collected every 20 minutes for 100 minutes.

Supplementary Figure S1. PDGFRα and A2B5 staining in Venus (+) cells. (**a**) Immunocytochemical images of purified Venus (+) cells before induction of differentiation. Venus fluorescence is shown in green, and each glial marker is shown in red. Scale bar, 50 μm. (**b**) Immunohistochemistry in the corpus callosum of the P0 posterior forebrain, showing the distribution of Venus positive cells (green) with PDGFRα (red). Scale bar: 50 μm.

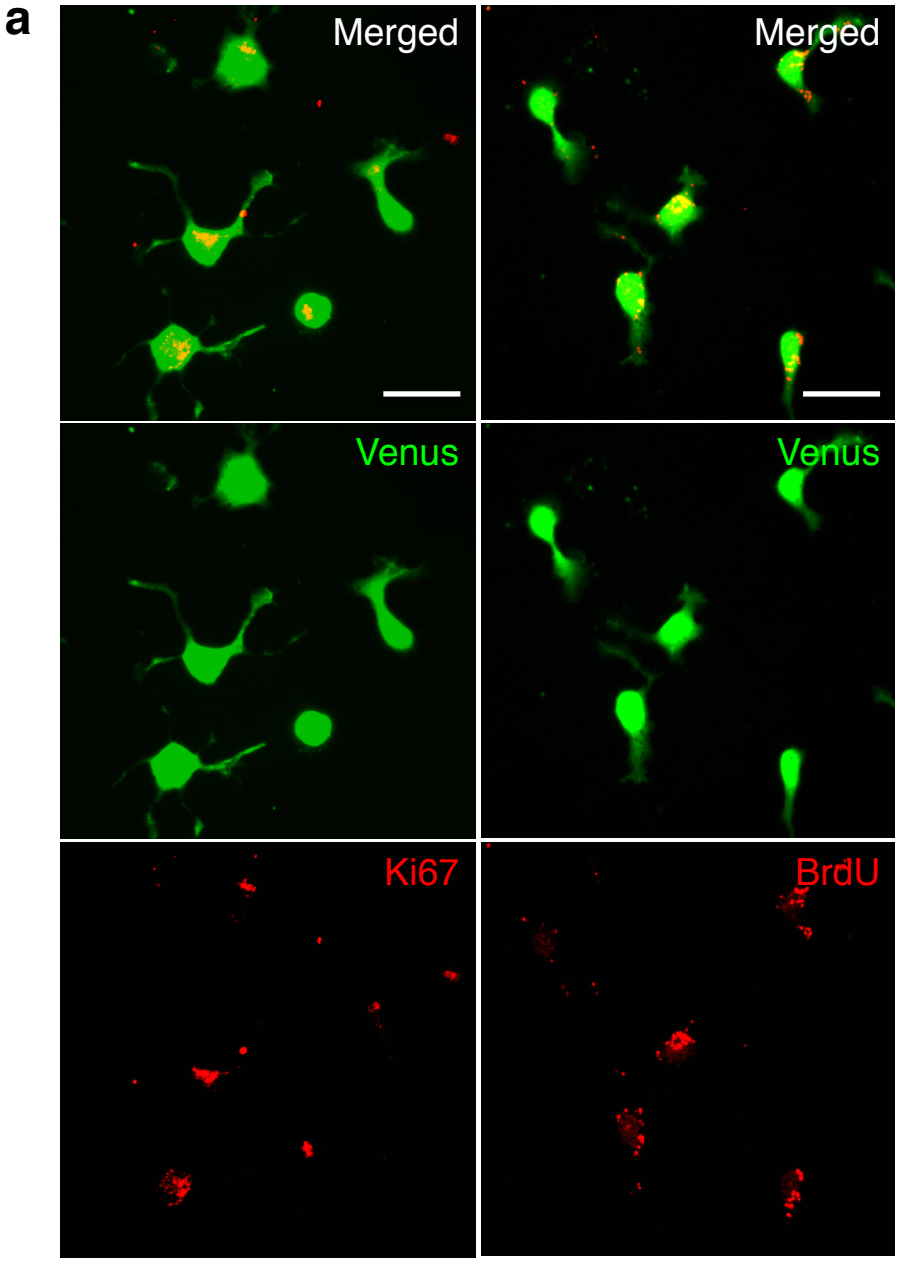
Supplementary Figure S2. Staining for proliferation markers in Venus (+) cells before induction of differentiation. (**a**) Immunocytochemistry of Ki67 and BrdU before induction of differentiation. Venus fluorescence is shown in green, and each marker is shown in red. Scale bar, 25 μm. (**b**) Cell count analysis showing percentage of proliferative Venus (+) cells. Error bars, s.e.m.

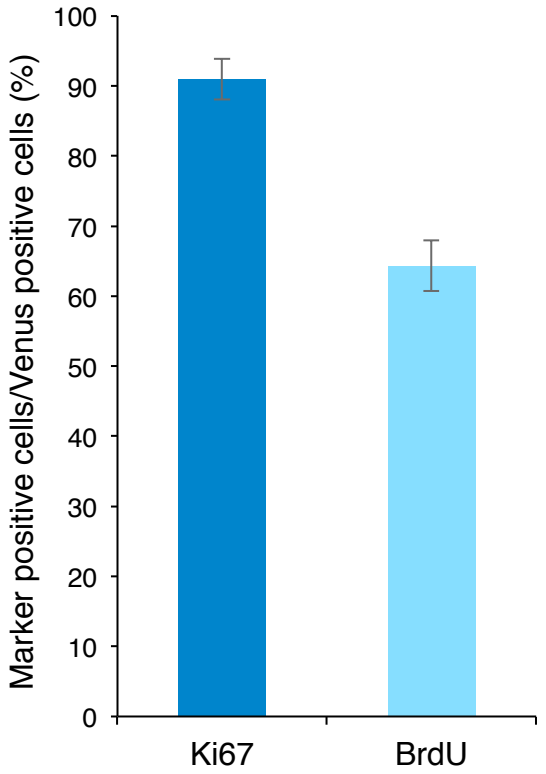
Supplementary Figure S3. Distribution of Venus (+) cells in the brain. Fluorescence images of Venus (green) and DAPI (blue) on coronal sections of posterior brains at P0 and P20. CC: corpus callosum; ST: striatum; Scale bars: 1 mm.

Supplementary Figure S1



Supplementary Figure S2





Supplementary Figure S3