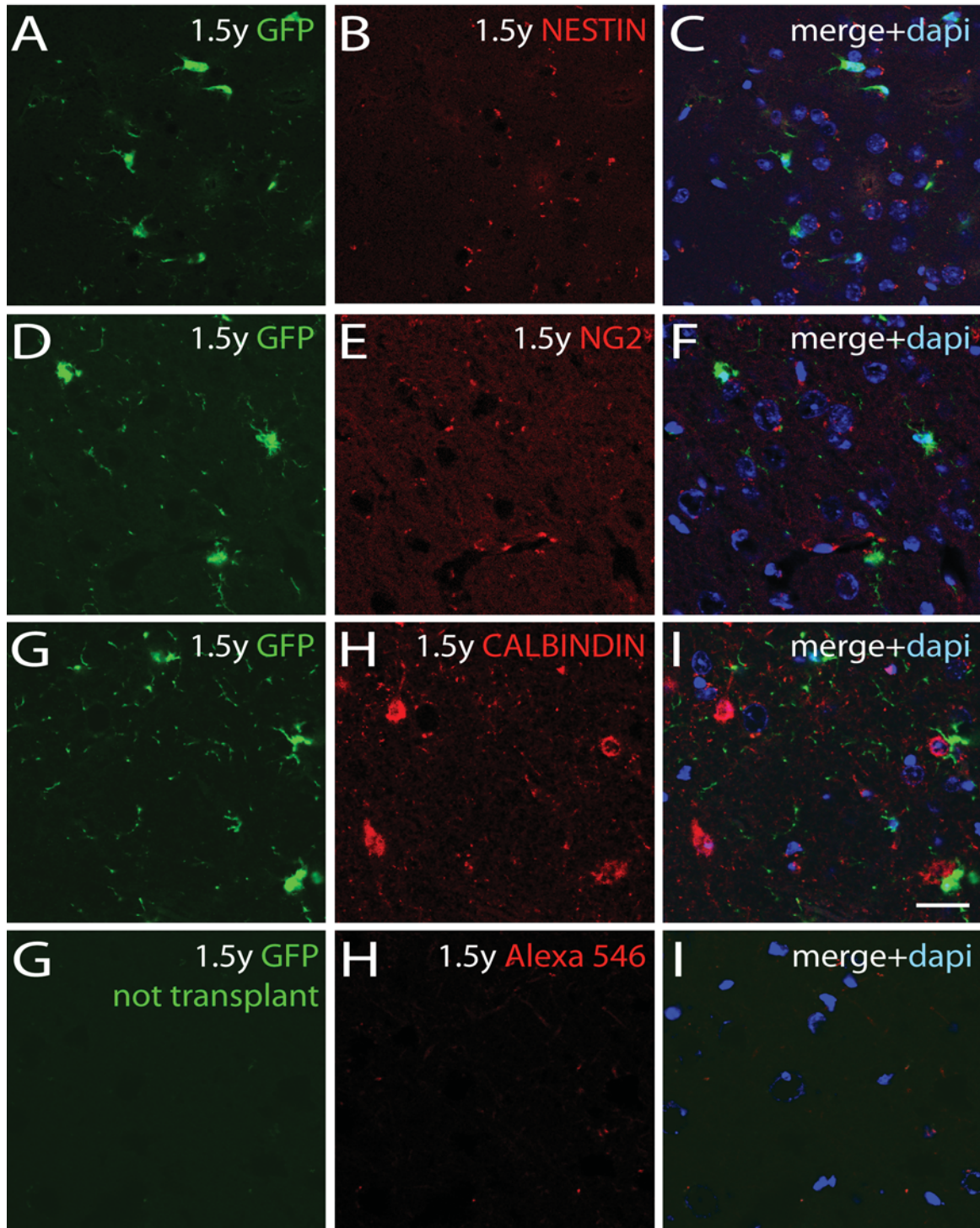
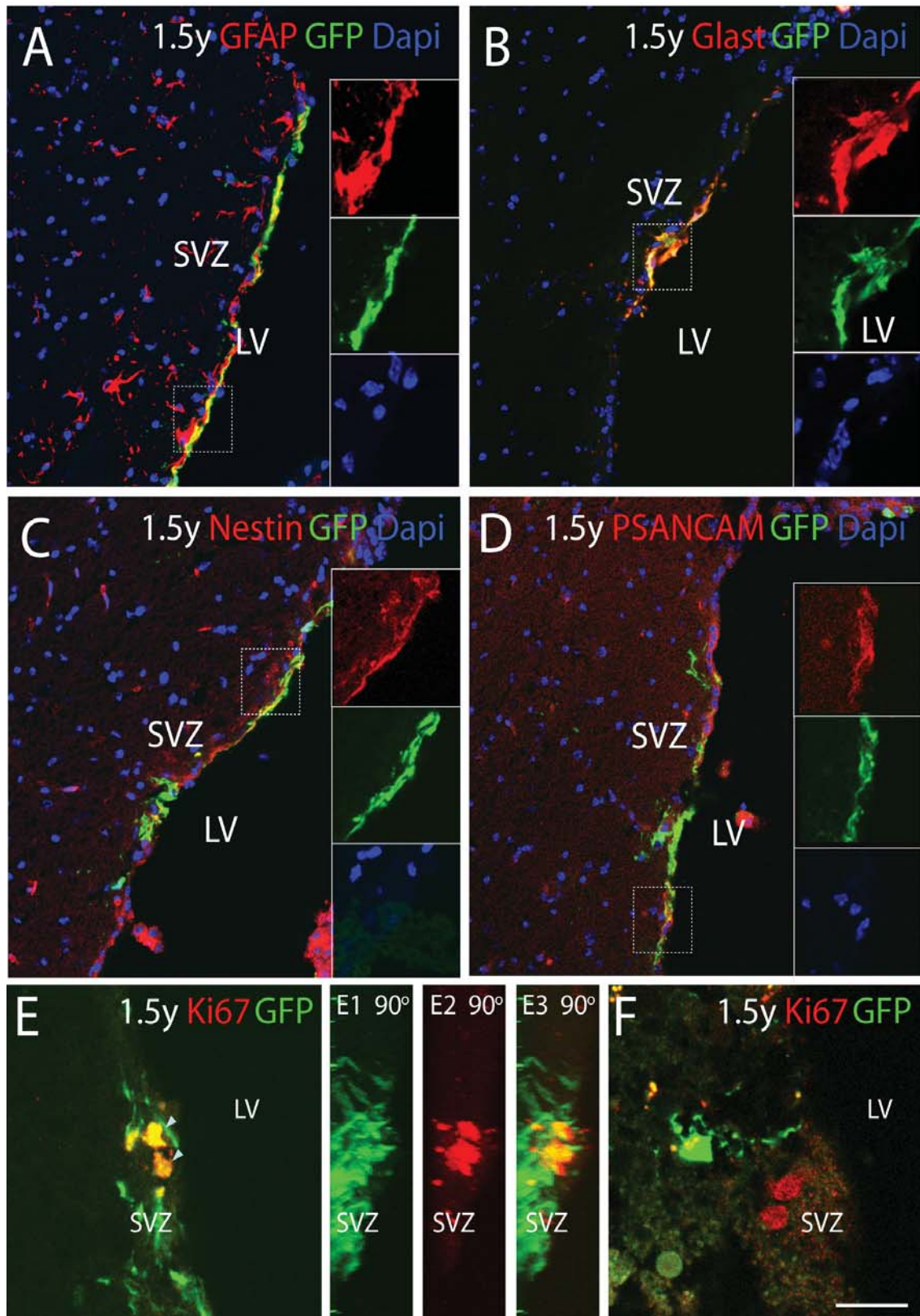


Supplemental Figure 1. In vitro characterization of neural precursors. Neural precursors grew as neurospheres (NS) after GFP-lentiviral (LV) transduction and FACS enrichment to >95% GFP+ cells (A-B). Inset in B shows not-transduced (n/t) neurospheres. Transduction did not change growth rate (C). In vitro differentiation demonstrated the multipotential capacity of neural precursors to form O4+ OLs, Tuj1+ neurons and GFAP+ astrocytes (D). Lentiviral transduction did not change ARSA activity in neurospheres (E). n=3. Bar in panel D= 50 μ m.



Supplemental Figure 2. Characterization of transplanted cells 1.5 year after transplantation. The phenotype of transplanted cells was studied in the brain of MLD animals by immunofluorescence and confocal microscopy 1.5 year after grafting. GFP+ donor cells did not show co-expression with Nestin (A-C), NG2 (D-F) or calbindin (G-I) in non neurogenic areas in the MLD cortex. Bar in panel I= 50 μ m.



Supplemental Figure 3. Transplanted cells homed in the SVZ and continued to proliferate. Transplanted GFP+cells homed in the subventricular zone (SVZ) and expressed GFAP (A), GLAST (B), Nestin (C) or PSA-NCAM (D). We found that many GFP+cells in the SVZ (E) were still cycling in the adult MLD brain identified by their expression of Ki67 (in red). Panels E1 to E3 are 90 degree confocal reconstructions of E. F shows endogenous Ki67+ GFP-precursors in the MLD SVZ. Bar in A-B (except insets) = 50 μm and E-F=20 μm.