

Unsupervised Heatmap

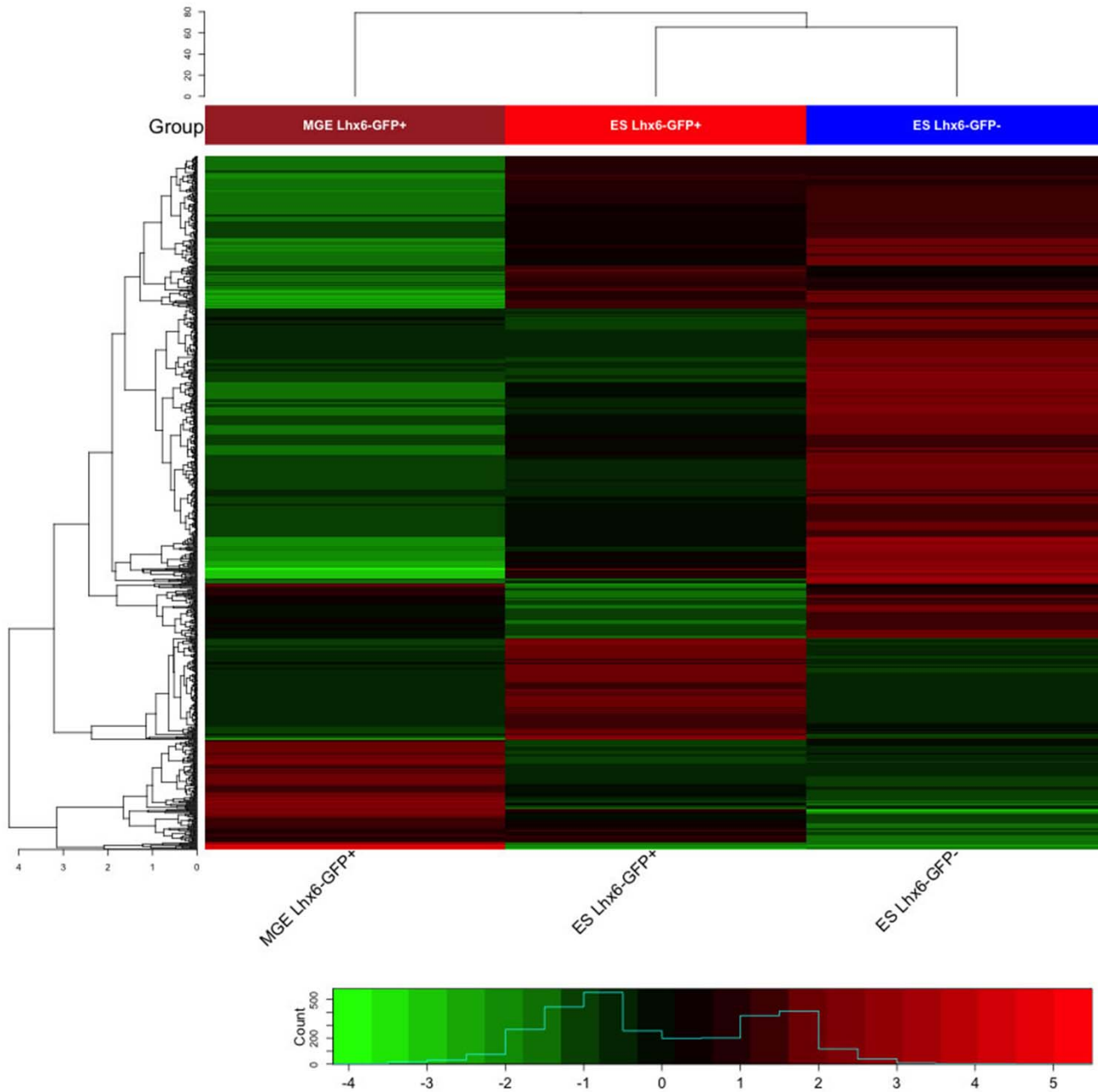
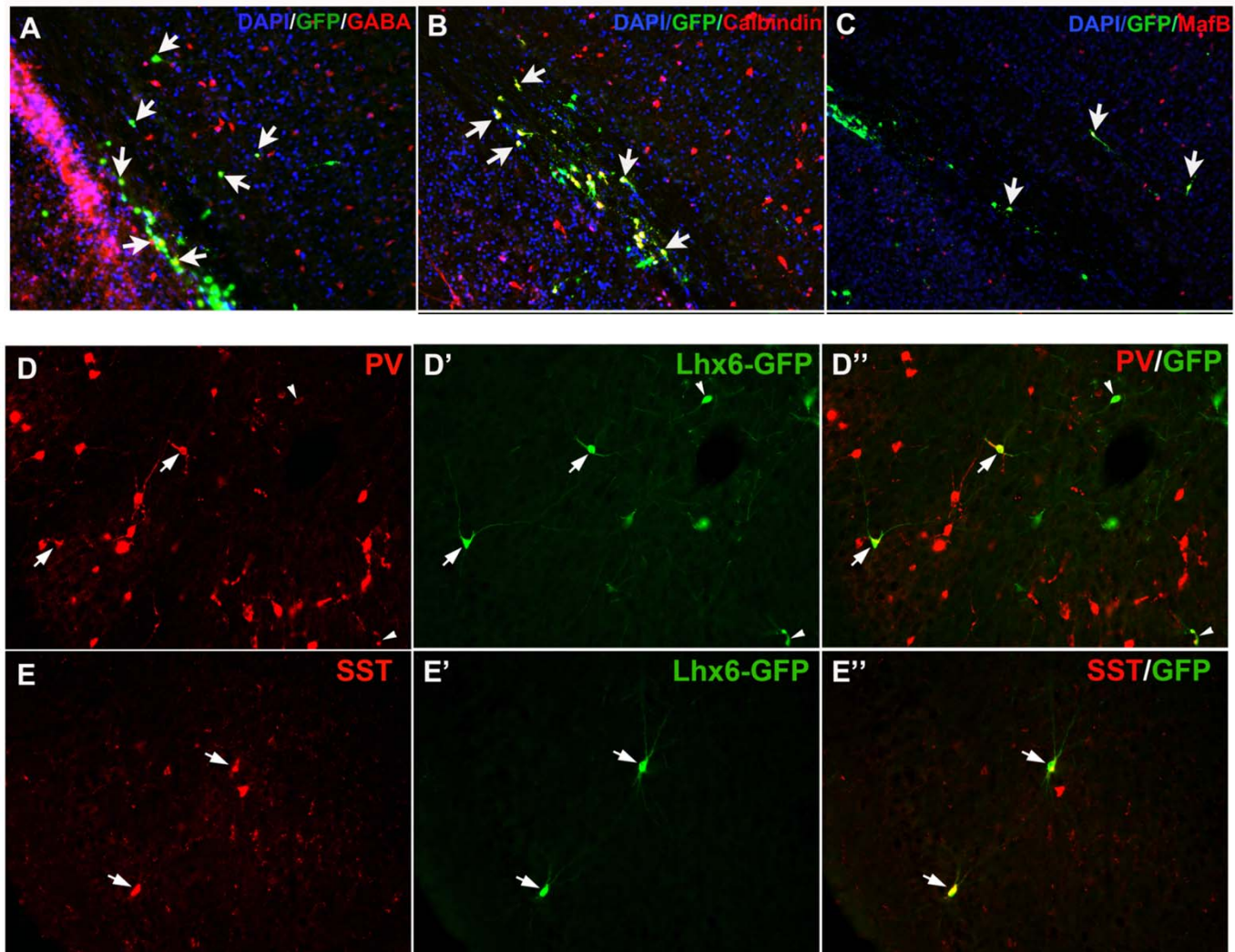


Figure S12: Unsupervised clustering showing 1000 most variable probes .

Microarray comparison of RNA expression from primary E12.5 MGE Lhx6-GFP+ cells, ES-Lhx6-GFP+ and ES-Lhx6-GFP- cells. Show here are 1000 most variable probes.



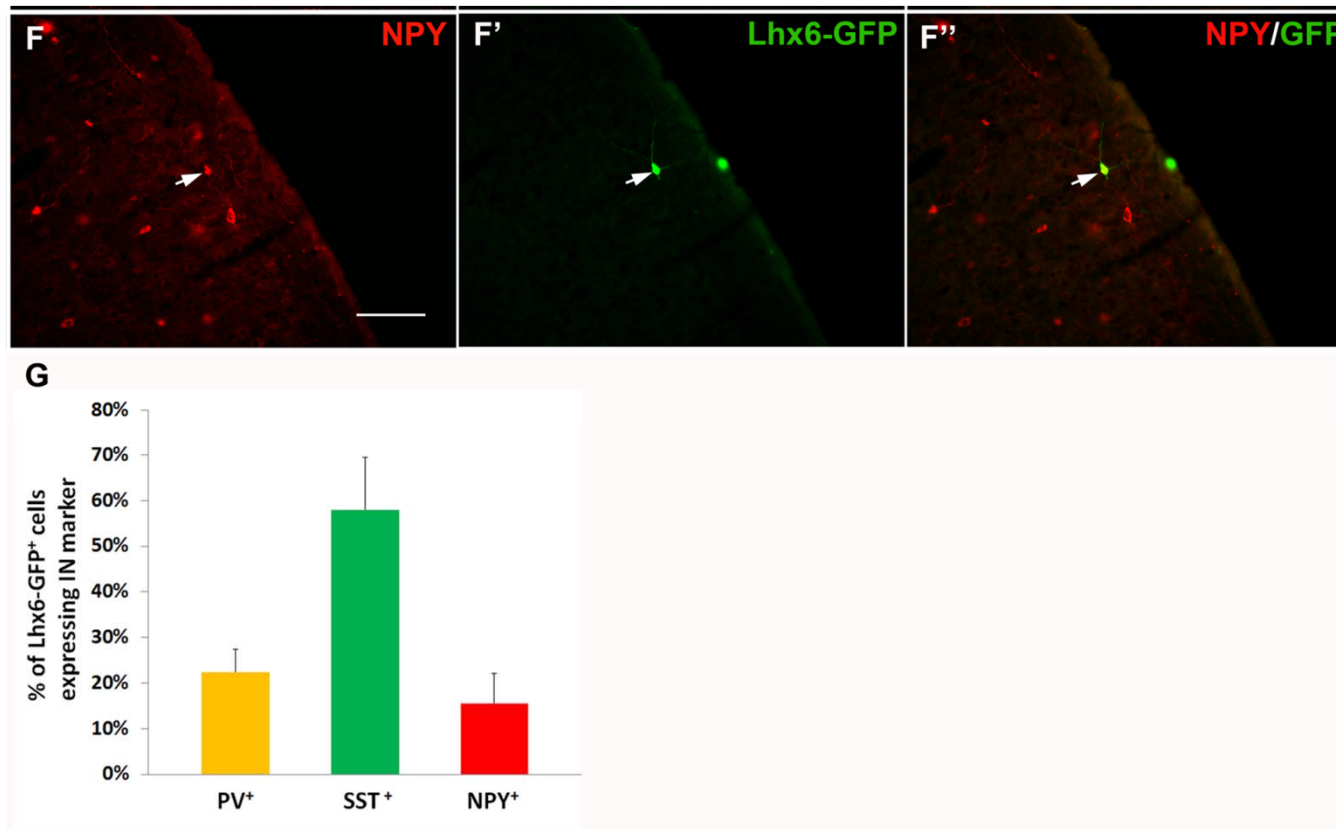


Figure S13: Transplanted Lhx6-GFP⁺ cells express cortical interneuron markers in the cortex.

(A-C) Four days after transplantation, some of the Lhx6-GFP⁺ cells were also GABA⁺ (A), Calbindin⁺ (B), or MafB⁺ (C). White arrows indicate double positive cells. (D-F'') Sixty-nine days after transplantation, Lhx6-GFP⁺ cells expressed parvalbumin (PV) (D, D', D''), somatostatin (SST) (E, E', E'') and neuropeptide Y (NPY) (F, F', F''). Arrows indicate markers co-labeling. In PV/GFP co-staining, there were some GFP⁺ cells that have weak PV expression (white arrowheads). Scale bar, 100μm. (G) Average (data are mean ± SEM) percentages of parvalbumin⁺ (PV⁺/GFP⁺), somatostatin⁺ (SST⁺/GFP⁺), neuropeptide Y⁺ (NPY⁺/GFP⁺) cells among all Lhx6-GFP⁺ cells (n=3-4).

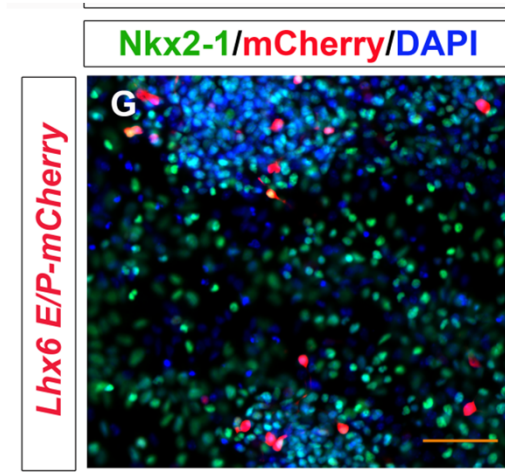
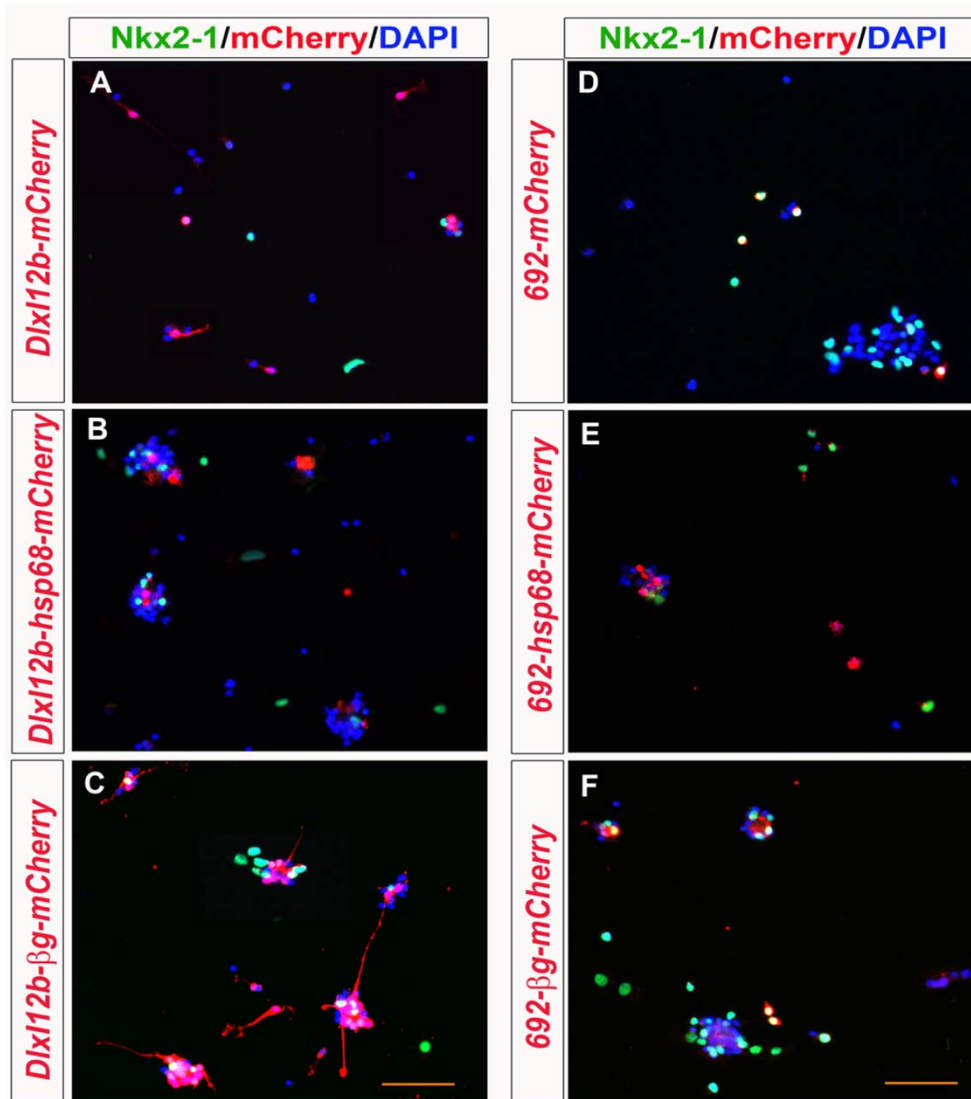


Figure S14: Test of lentiviral constructs in dissociated primary MGE cells.

Dissociated primary MGE cells (E13.5) were infected with each of the lentiviruses indicated (A: *Dlx12b-mCherry*, B: *Dlx12b-hsp68-mCherry*, C: *Dlx12b-βg-mCherry*, D: *692-mCherry*, E: *692-hsp68-mCherry*, F: *692-βg-mCherry*, G: *Lhx6-E/P-mCherry*) for three days before being fixed for immunostaining. Pictures are composites from several different fields (A-F) or from one single field (G). Shown here are Nkx2-1 staining in green, mCherry in red, and DAPI nuclear stain in blue. Scale bar, 50μm.