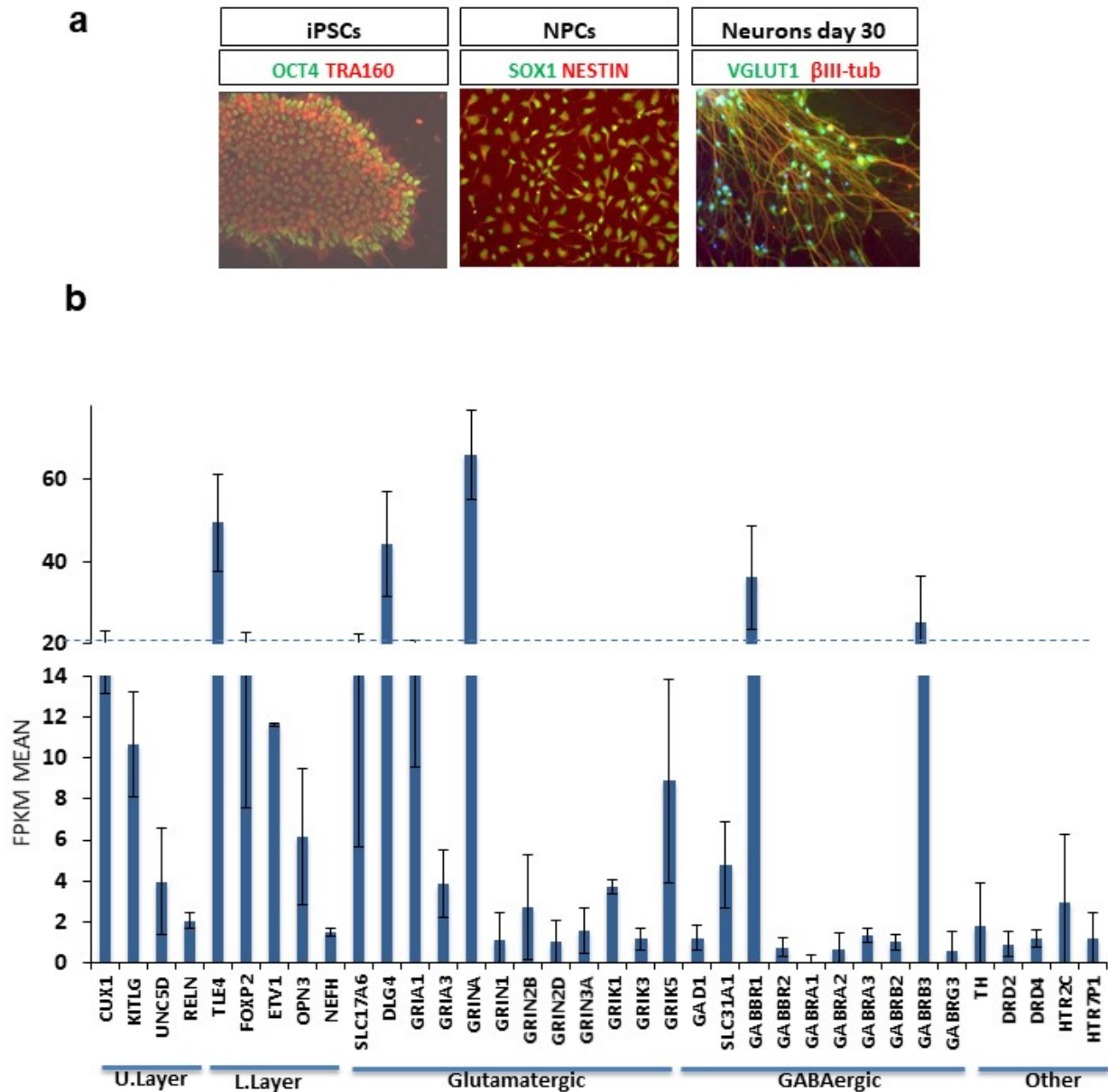**Supplementary Figure 1: Characterization of NPCs and neurons. A)** Immunofluorescence analysis with specific markers allowed us to confirm that iPSCs (left panel) differentiate into telencephalic precursors expressing SOX1 and Nestin (central panel) and, if allowed to further differentiate, give rise at day 30 to TuJ1+ neurons, mainly of Glutamatergic fate (right panel). Images are at 20X magnification.

B) RNAseq expression of neuronal markers in control neurons at day 30 of terminal differentiation. Cells express markers of upper (U. Layer) as well as lower (L. Layer) cortical layers in addition to glutamatergic markers; GABAergic markers are also present, while other neuronal subtypes are scarcely represented.
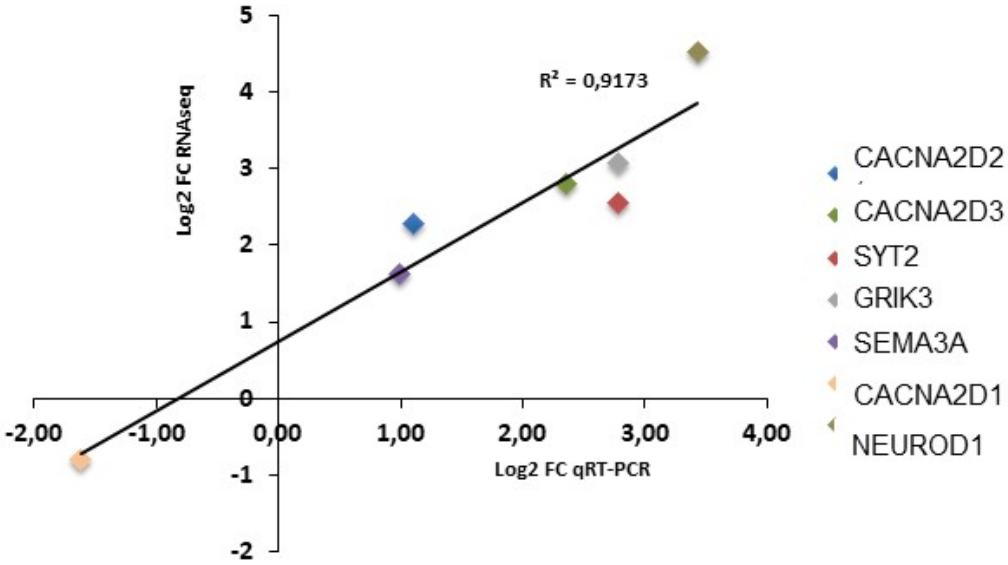
Supplementary Figure 2: Correlation of RNAseq and real time qRT_PCR data. The Log2 values of Fold Changes (FC) from RNAseq data plotted against the Log2 values of FC derived from qRT-PCR are shown.