



**S12 Fig: Flow cytometry gating strategy to assess cell type markers in differentiating neural stem and progenitor cells**

(A,B) Flow cytometry scatter plots of representative *Phf6*<sup>+/Y</sup>;*Nes-cre*<sup>Tg/+</sup> (A) and *Phf6*<sup>lox/Y</sup>;*Nes-cre*<sup>Tg/+</sup> (B) neural stem and progenitor cells (NSPCs) grown in differentiation medium (without FGF2 or EGF and with 1% FCS) for 5 days. Side scatter (SSC) and forward scatter (FSC) width (W) and height (H) were used to exclude cell doublets; SSC and FSC areas (A) were used to exclude cell debris; a fixable live/cell death marker was used to select live cells; fluorescently labelled antibodies (see methods) were used to detect astrocytes [glial fibrillary acidic protein positive cells (GFAP<sup>+</sup>) and S100 protein, beta polypeptide, neural positive (S100B<sup>+</sup>)], oligodendrocytes (monoclonal antibody O4<sup>+</sup>) and neurons (βIII-tubulin<sup>+</sup>).