Supplementary Figure 1

Characterization of primary human CNS progenitor cells differentiated into dopaminergic neurons.

Primary cultures of human CNS progenitor cells were isolated, cultured and differentiated into neurons by treating them with appropriate growth factors for three weeks. Cells were then seeded as described earlier and fixed before staining. (A) Immunocytochemistry showing the co-expression of tyrosine hydroxylase (TH), β-III-tubulin (Tuj1) in primary neurons derived from human CNS progenitor cells and the total cell number depicted by DAPI. Bar represents 100 μm. (B) Quantification of percentage of cells positive for TH and Tuj1 immunostaining per total number of cells is represented by DAPI count. (C) Immunocytochemistry showing the expression of Glial fibrillary acidic protein (GFAP) and β-III-tubulin (Tuj1) in primary neurons derived from human CNS progenitor cells and the total cell number depicted by DAPI. Bar represents 200 μm. (D) Quantification of percentage of cells positive for GFAP and Tuj1 immunostaining per total number of cells is represented by DAPI count. Data is represented as mean $\pm$ SD of 4 independent experiments. Asterisks indicate values significantly different from controls ($p < 0.05$). (E) Dose response for MPP^+ toxicity in primary neurons. Cells were treated with vehicle or MPP^+ at 1, 10 and 100 μM concentration for 24 hr and cell toxicity was verified by TUNEL assay. Bar represents 200 μm. Quantification of percentage of cells positive for TUNEL staining per total number of cells represented by DAPI count at different concentration of MPP^+. Data is represented as mean $\pm$ SD of 4 independent experiments. Asterisks indicate values significantly different from controls ($p < 0.05$).