

SUPPLEMENTARY FIGURE LENGD

Figure S1. Rac1 deficiency does not inhibit progenitor proliferation

(A-F) Immunohistochemistry analysis of phospho-histone3 (a marker of late G2/M-phase of the cell cycle) in forebrain sections of Rac1-CKO and controls embryos from E14.5 to E18.5. Mitotic cells are similarly located at the ventricular surface or the subventricular zone in both Rac1-CKO and control embryos. (G, H) The numbers of mitotic cells based on the phospho-histone 3 staining in the ventricular zone (VZ) or subventricular zone (SVZ) of the cortex and striatum were quantified at E16.5 (G) and at E18.5 (H). This analysis showed that Rac1-CKO embryos have increased mitotic cells in the SVZ of E16.5 striatum (G), E18.5 cortical SVZ, and striatal VZ and SVZ (H). Data were collected from 6 sets of embryos for each age, $p < 0.01$ by *t*-test.

Figure S2. Rac1 deficiency does not affect the distribution of S-phase neural progenitors in the embryonic telencephalon

E14.5 embryos were harvested at 30 minutes after BrdU injection to the mother, followed by immunohistochemistry detection of BrdU and Ki67. BrdU-positive cells were mainly located in the junction between SVZ and VZ in both control (A) and Rac1-CKO embryos (B). No significant difference in BrdU/Ki67 incorporation ratio between Rac1-CKO and control embryos was detected.