

SUPPLEMENTARY FIGURE LEGENDS

Supplementary Figure 1. p73 deficiency results in Noggin aberrant expression in the ependymal layer. Coronal sections of P15 WT and p73KO mice were immunostained with the indicated antibodies and the LW of the lateral ventricle was analyzed by confocal microscopy. Noggin (green) and S100 β expression (red) co-localized within the ependymal layer in WT mice, whereas it was detected throughout the SVZ and did not completely match the S100 β + expressing cells in p73KO mice. The ependymal barrier in p73KO mice showed gaps, invaginations, and “bumps” indicated by yellow arrowheads. Z-stacks (20 μ m) from at least 6 dorso-ventral regions were acquired, but a single plane is depicted in the images. Scale bars: 20 μ m.

Supplementary Figure 2. GFAP⁺ cells lining the ventricle in DKO mice express NCadherin, despite GFAP expression. Confocal images and magnifications of brain coronal section from P15 DKO and p53KO mice immunostained for N-Cadherin (red), and GFAP (blue). Z-stacks (20 μ m) from at least 6 dorsoventral regions were acquired, but a single plane is depicted in the images. Scale bars: 20 μ m.

Supplementary Figure 3. p73 deficiency affects ependymal cells cilia. (A, B) SEM analysis of WT and p73KO lateral ventricle wall whole mounts at P7. WT mice showed monociliated cells (black arrows), and abundant numerous multiciliated cells while p73KO mice had less multiciliated cells. Scale bar: 10 and 5 μ m.

Supplementary Figure 4. p73 deficient mice had a less organized network of supra-ependymal axons. Confocal micrographs of whole-mounts immunostained for γ -tubulin (red), β -catenin (blue) and Actubulin (green) from P7 (A) and P15 (B) WT and p73KO mice. Actubulin stain supraependymal axons. AV: anteriorventral; PD: posterior-dorsal. PD to AD: anterior-posterior axis. PD to PV: dorso-ventral axis. Scale bar: 20 μ m.