

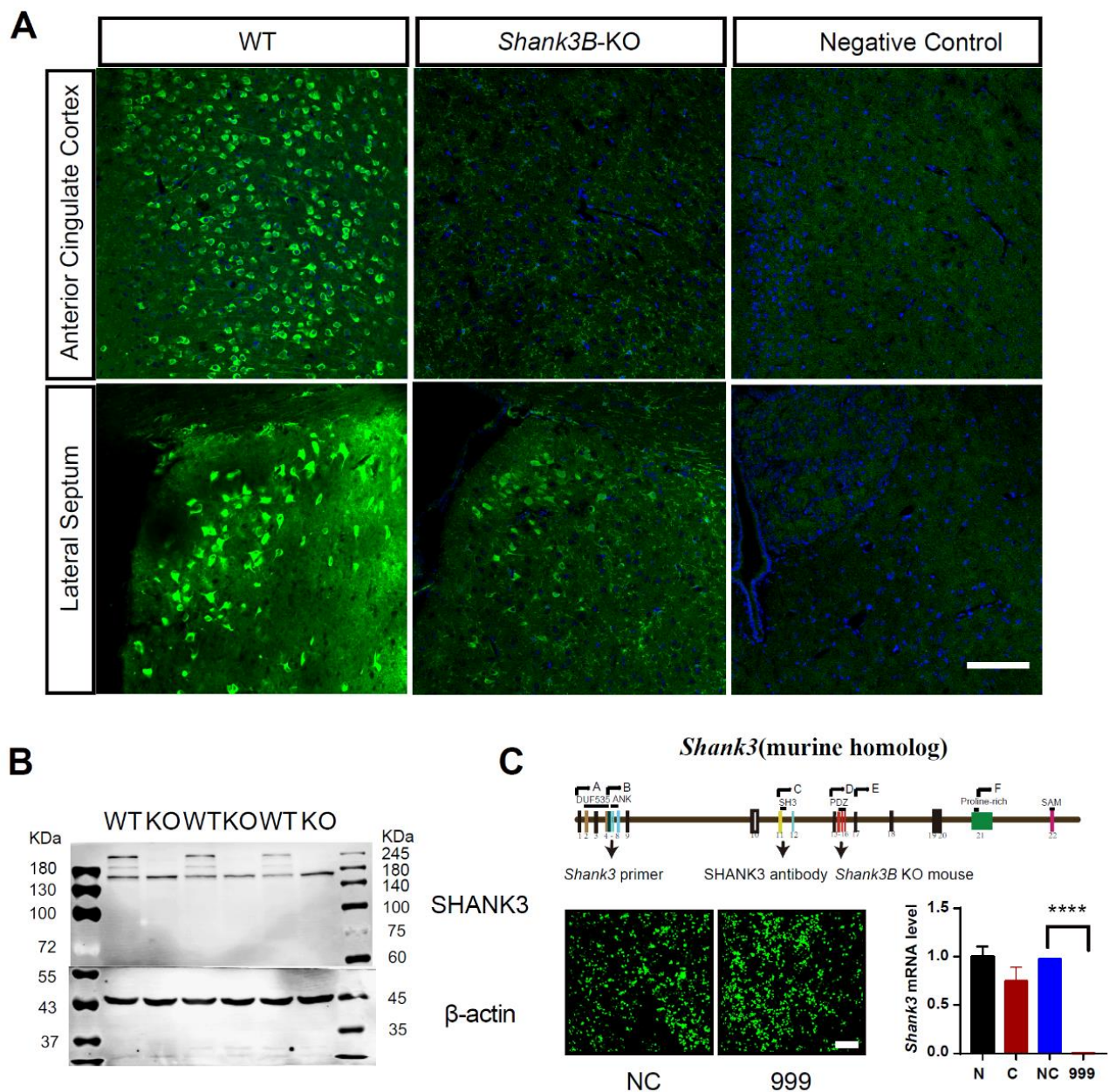


Fig. S1 Validation of SHANK3 antibody specificity.

A Validation of SHANK3 antibody specificity with immunofluorescence in the ACC (upper) and lateral septum (lower). Negative Control: only the fluorescent secondary antibody is applied without the primary antibody. Scale bar, 100 μ m. **B** Validation of SHANK3 antibody specificity with Western blot. **C** Diagram of the *Shank3* mRNA structure in mice (upper); arrowheads pinpoint the target sequences for the *Shank3* primer, SHANK3 antibody, and the *Shank3B* KO mouse model. The accompanying image (left) displays the plasmid expression in Neuro2a cell lines, followed by a statistical analysis charting the relative *Shank3* mRNA expression levels across various experimental groups (right). The groups are defined as follows: N, the normal cell line without transfection reagents; C, cells with transfection reagents but no plasmid; NC, cells containing the control shRNA plasmid; and 999, cells with the *Shank3* shRNA plasmid. Scale bar, 100 μ m.