

Fig. S1

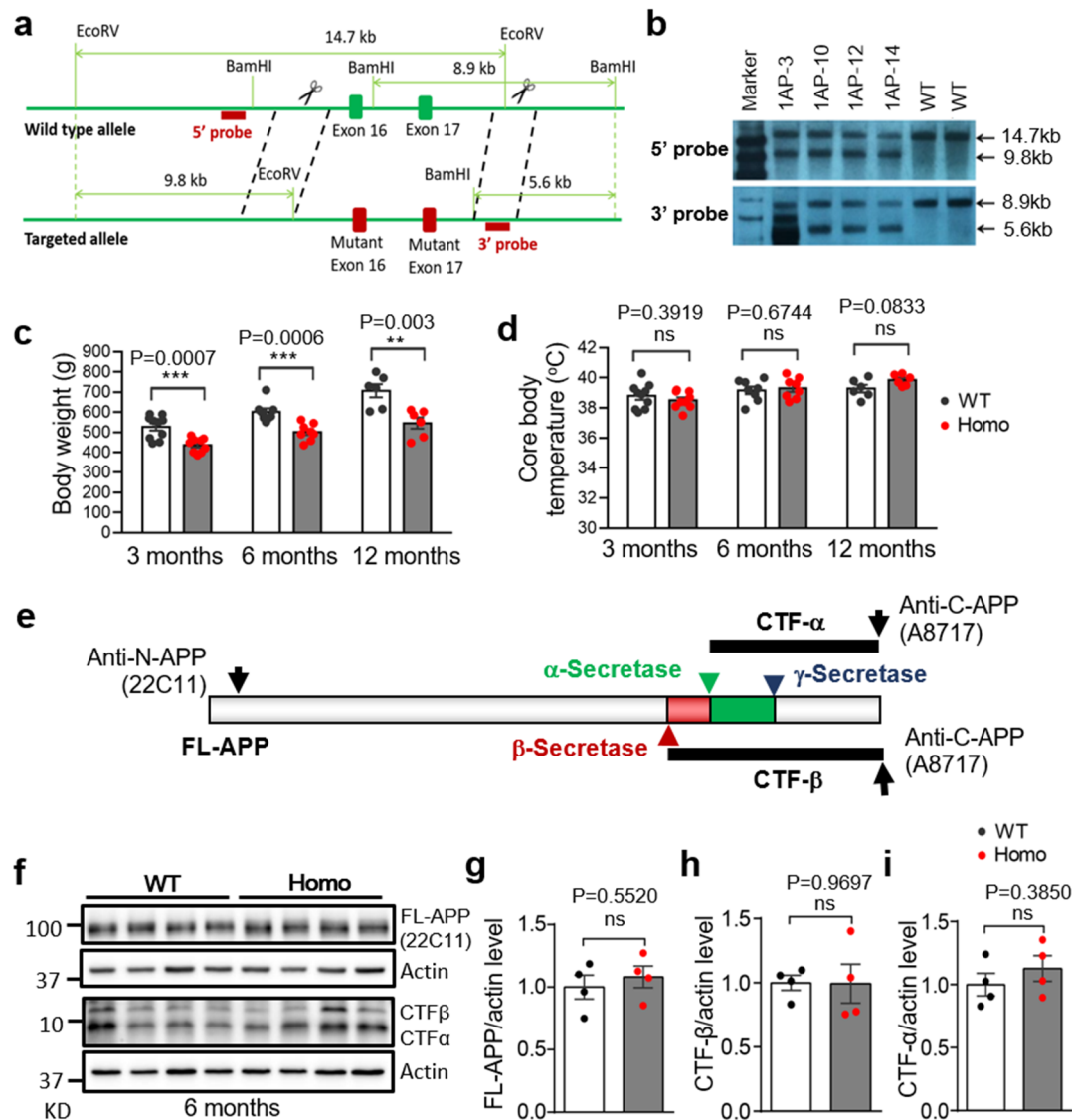


Fig. S1. The generation of *App*^{NL-G-F} rats and A β pathology in *App*^{NL-G-F} rat brains.

a, b, Southern blot analysis verifying the correct homologous recombination in F1 *App*^{NL-G-F} rats. Diagram of cleavage sites by the restriction enzymes EcoRV and BamH1, as well as the locations of 5' Probe and 3' Probe, on the genomic DNA of WT and mutant alleles (**a**). Southern blot showing homologous recombination in F1 rats (**b**). Genomic DNA prepared from F1 rats were digested with EcoRV or BamH1, separated on agarose gel, and blotted with the 5' Probe and 3' Probe. The numbers shown on top of each lane are the ID numbers of F1 pups. For the WT allele, the 5' probe detected only one 14.7-kb band whereas the 3' probe detected one 8.9-kb band. For the heterozygous rats containing the targeted allele, the 5' probe 14.7 and 9.8-kb bands, whereas the 3' probe detected 8.9 and 5.6-kb bands, because one more EcoRV and BamH1 sites were inserted into the targeted allele. **c, d,** Body weight and core body temperature of *App*^{NL-G-F} rats. Body weights (**c**) and core body temperatures (**d**) of 3-month-old, 6-month-old and 12-month-old wildtype (WT) and homozygous (Homo) *App*^{NL-G-F} rats were examined and quantified as shown. **e-i,** Expression of full-length APP and its cleaved products. A schematic diagram showing the full-length APP and its cleaved products (**e**). Equal amounts of proteins from brain tissues of the homozygous *App*^{NL-G-F} rats and their WT littermates (6 months of age) were separated on SDS-PAGE, and processed for Western blot, using specific antibodies as indicated. Densitometry was performed on each blot. A representative blot (**f**) is shown on the left and the quantifications (**g-i**) are shown on the right. n = 4 rats for each genotype. Data in this and bar graphs in all other figures are presented as mean $\pm$ s.e.m. Statistical analyses were carried out using t-test, P values are shown on top of the bar graphs.