Supplementary information 4

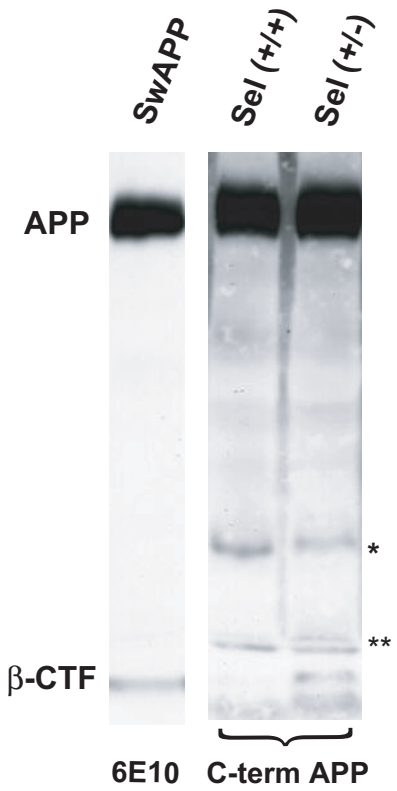
Finally, to visualize undoubtedly the murine APP-CTFs, brain homogenates from wildtype and seladin-1 deficient mice and a SwAPP control were run on a large scale (30cm) SDS-PAGE. After blotting the membrane was cut in half, the seladin-1 deficient and wildtype lanes were probed with the APP C-terminal antibody, whereas the SwAPP lane was stained with the 6E10. The 6E10 antibody recognizes only human β-CTF (amino acid 1-17 of the Aβ peptide) but not α-CTF and therefore serves as a positive control for the exact size of the β-CTF in seladin-1 heterozygous and wildtype mouse brain samples on the same gel (Suppl. Figure 4A).

Supplementary Figure legend 4

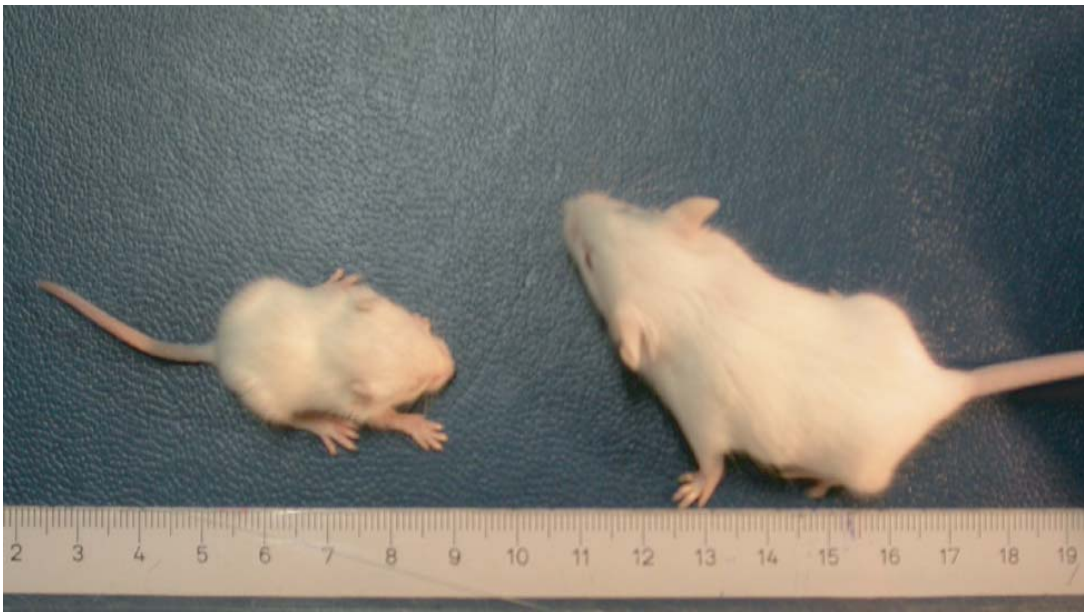
Western blot analysis of β-CTFs in mouse brains. 40µg of SwAPP brain sample and 150µg total brain extracts of seladin-1 heterozygous (+/-) and wildtype (+/+) were loaded on a 30cm 10% tricine gel. Probing lane 1 with the 6E10 antibody revealed β-CTF. Lanes 2 and 3 were stained with the anti APP C-terminal antibody to visualize α- and β-CTF (A). *,** represent unspecific staining normally observed with the anti APP C-terminal antibody.

Seladin-1 knock-out mice (15 days of age) exhibited a severe growth retardation and immature phenotype. They were about half of the size of their wildtype littermates (B).

A


SwAPP
Sel (+/+)
Sel (+/-)
APP
β-CTF
*
**
6E10
C-term APP

B


2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19