

**Fig. S1** p21 protein level (**A**) in hippocampus of 4- and 24-month-old IL-6-deficient (IL-6KO) and wild type control (WT) mice was comparable in all tested groups. Bars represent mean  $\pm$  SEM obtained from 6 animals in each group. (**B**) Representative immunoblot for p21 protein is shown together with  $\alpha$ -tubulin as a loading control. M - molecular weight marker

В



Fig. S2 Pro-apoptotic Bax protein (A) and anti-apoptotic Bcl-2 protein (B) in hippocampus of 4- and 24-month-old IL-6deficient (IL-6KO) and wild type control (WT) mice. Bars represent mean  $\pm$  SEM obtained from 6 animals in each group. There were no significant differences in the amount of Bax in tested groups of mice. Analysis of Bcl-2 protein expression revealed its lower levels in IL-6KO mice, which was statistically significant in young adult group (p < 0.05, ANOVA and Bonferroni post-hoc). Aging did not affect expression of Bcl-2 protein. (C, D) Representative immunoblots, for Bax and Bcl-2 proteins, respectively, are shown together with  $\alpha$ -tubulin as a loading control. M - molecular weight marker