## **Supplementary materials**

Telomerase increasing compound protects hippocampal neurons from amyloid beta toxicity by enhancing the expression of neurotrophins and plasticity related genes

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## Supl 1: Cells present in the primary hippocampal cell culture

We examined the major types of cells present in the Primary hippocampal cell culture from neonatal mice (1-2 days old) that was prepared as described in the "Materials and Methods" section. The cells in the culture were stained with anti-β tubulin 3 (Sigma, Rehovot) mouse antibody as the 1<sup>st</sup> antibody, to stain neuronal microtubules and with anti- glial fibrillary protein GFAP (Millipore) rabbit antibody as the 1<sup>st</sup> antibody, to stain the astrocytes and other non-neuronal cells in the culture. Cy3 anti mouse-immunoglobulin G (IgG; Jackson ImmunoResearch) and Cy2 anti-rabbit IgG (Jackson ImmunoResearch) were respectively used as the 2<sup>nd</sup> antibody. Nuclei were stained with 4', 6-diamidino-2-phenylindole (DAPI). The results presented in SUPI1 show that the primary hippocampal cell culture used in our experiments contained neurons stained by the beta3 tubulin and many astrocytes and astroglial cells stained by GFAP.



GFAP staining



 $\beta 3$  tubulin staining



Merge- GFAP, β3 tubulin and DAPI staining