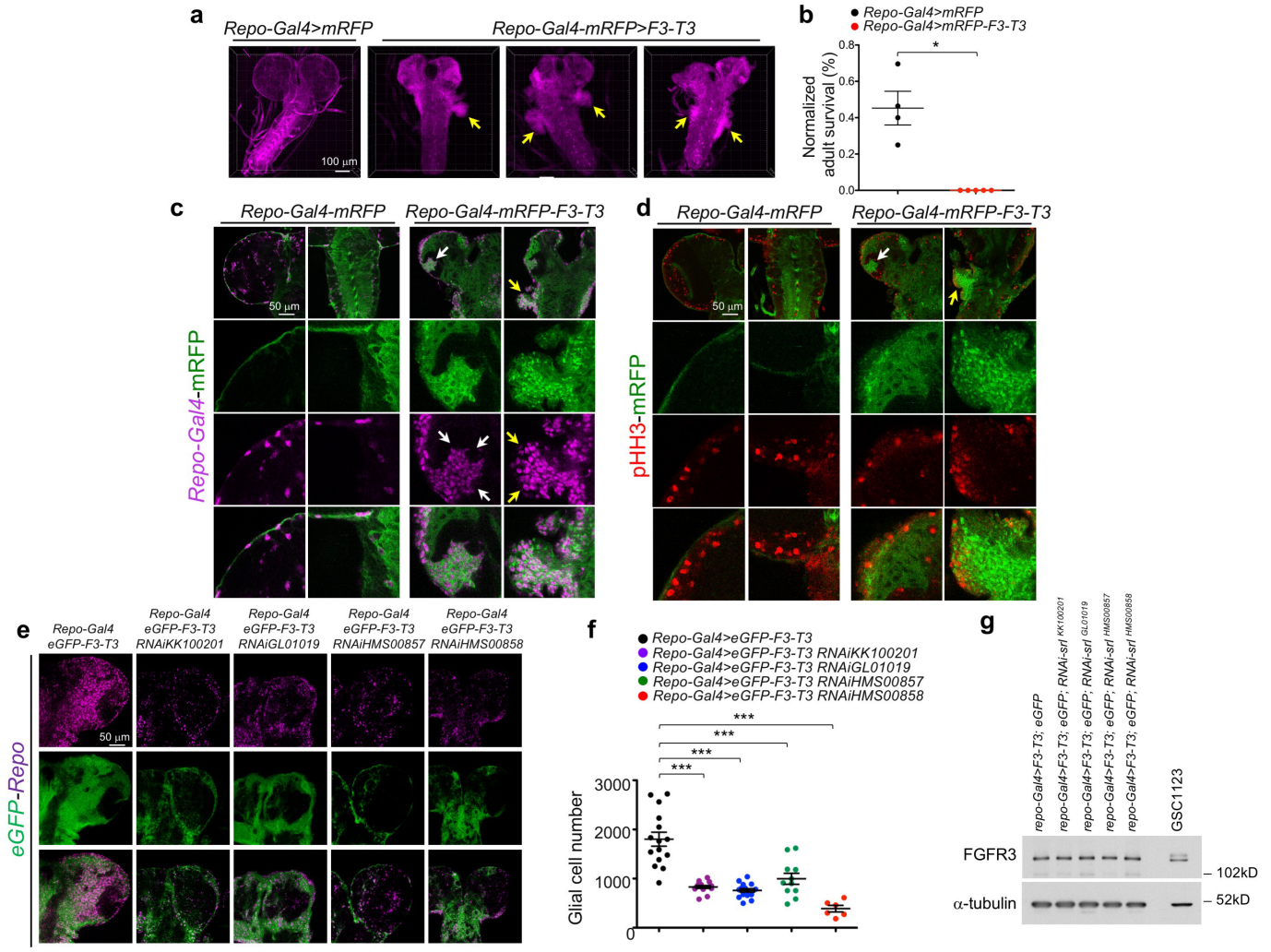

Extended Data Figure 8 | *Drosophila* PGC1α-homologue *spargel* (*srl*) mediates F3–T3-induced tumour growth. a, Optical projections of whole brain–ventral nerve cord complexes from *Drosophila* larvae. Expression of the F3–T3 fusion oncogene using the *repo-Gal4* (*repo-Gal4*>F3–T3) pan-glial driver induced pathological changes in brain and ventral nerve cord with ectopic tissue protrusions (yellow arrows) due to excessive glial cell proliferation and accumulation. **b**, Survival of larvae bearing F3–T3-driven glial tumours. Larvae bearing F3–T3-driven glial tumours die before developing into adulthood (biologically independent samples: $n = 87$, *Repo-Gal4* > mRFP; $n = 77$, *Repo-Gal4* > mRFP-F3-T3). Data are shown as mean ± s.e.m. $^*P < 0.05$; two-tailed *t*-test with unequal variance. Individual dots represent the fraction of surviving animals. **c**, Glial expression of F3–T3 resulted in increased total glial cell number ($Repo^+mRFP^+$ cells) compared to controls. Note the excessive accumulation of glial cells in the brain lobe (white arrows) and ventral nerve cord (yellow arrows). **d**, Glial expression of F3–T3 increases glial cell proliferation ($mRFP^+$ phosphorylated histone $H3^+$ (phospho-$HH3^+$) cells) compared to control. Note the excessive accumulation of glial cells in the brain lobe (white arrows) and ventral nerve cord (yellow arrows). **e**, Glia-specific *srl* knockdown in F3–T3-induced glial tumours resulted in decreased total glial number ($Repo^+eGFP^+$ cells) compared to controls. **f**, Quantification of glia number in control and *srl*-deficient tumours. $n = 15$ for *repo-Gal4*>F3–T3; $n = 15$ for *repo-Gal4*>F3–T3 *RNAi-KK100201*; $n = 16$ for *repo-Gal4*>F3–T3;*RNAi-GL01019*; $n = 11$, for *repo-Gal4*>F3–T3;*RNAi-HMS00857*; $n = 6$ for *repo-Gal4*>F3–T3;*RNAi-HMS00858*. Data are shown as mean ± s.e.m. $^{***}P < 0.001$; two-tailed *t*-test with unequal variance. **g**, Western blot analysis of the F3–T3 protein in *repo-Gal4>F3–T3* and *repo-Gal4>F3–T3;RNAi-srl Drosophila* brains. The expression of F3–T3 in human GSC1123 cells is shown as a positive control for F3–T3 and α-tubulin is shown as a loading control. Experiments in **c**–**e**, **g** were performed twice.