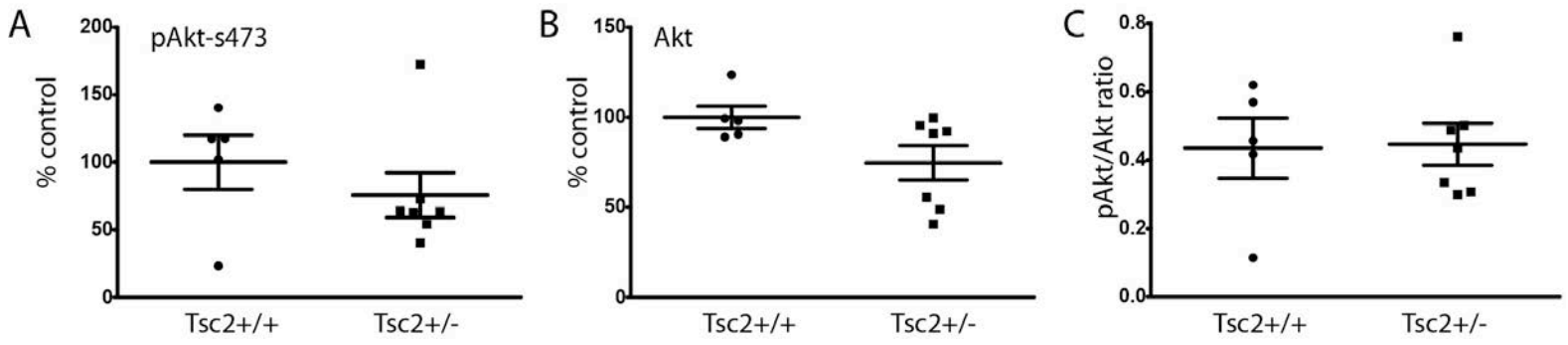


Supple Figure 1

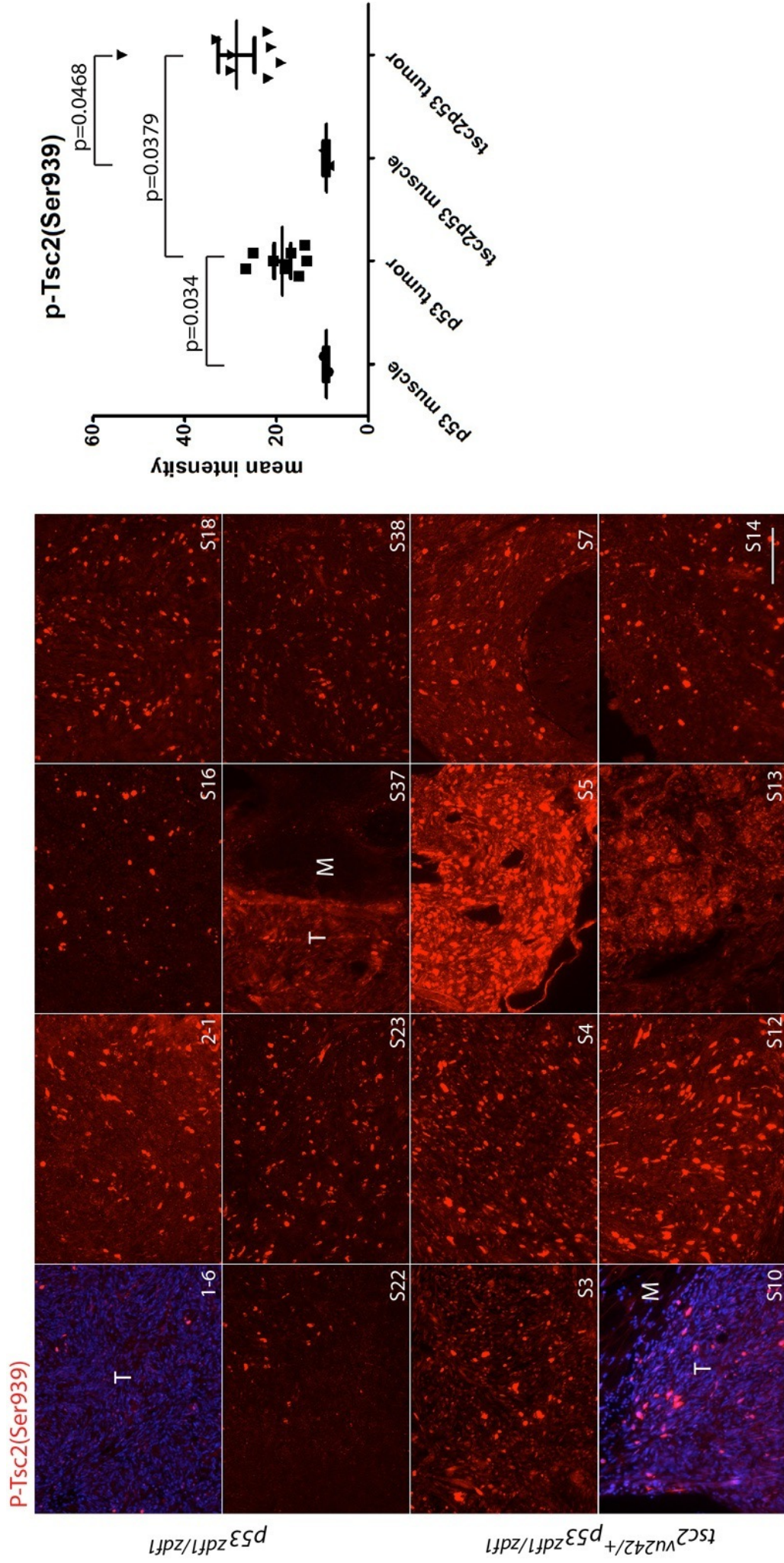
## SUPPLEMENTARY FIGURE LEGENDS

**Supplementary Fig. 1. Phospho-S6 staining (red) in a series of abdominal tumors from *p53<sup>zdf1/zdf1</sup>* and *tsc2;p53* compound mutant zebrafish tumors.** (Left) 8 tumor samples per each line were used for comparison. (Right) Mean values of intensity (arbitrary units) were graphed. M, muscle; T, tumor. Scale bar = 100  $\mu$ m. Student's *t*-test was used to assess statistical significance.



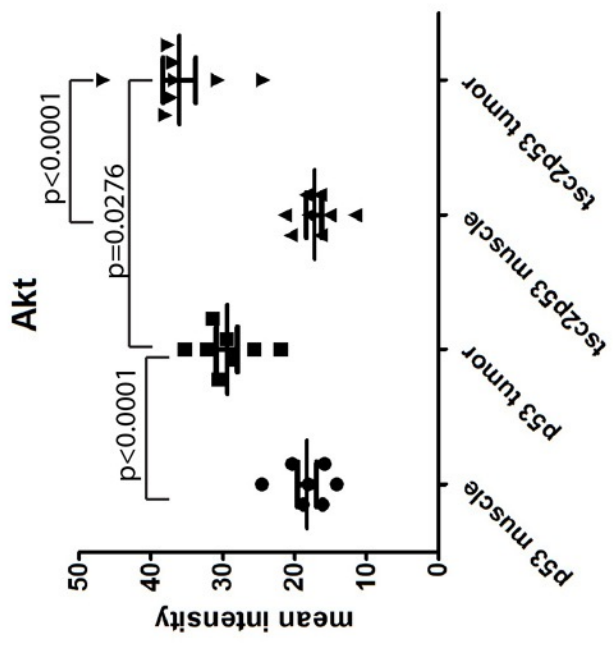
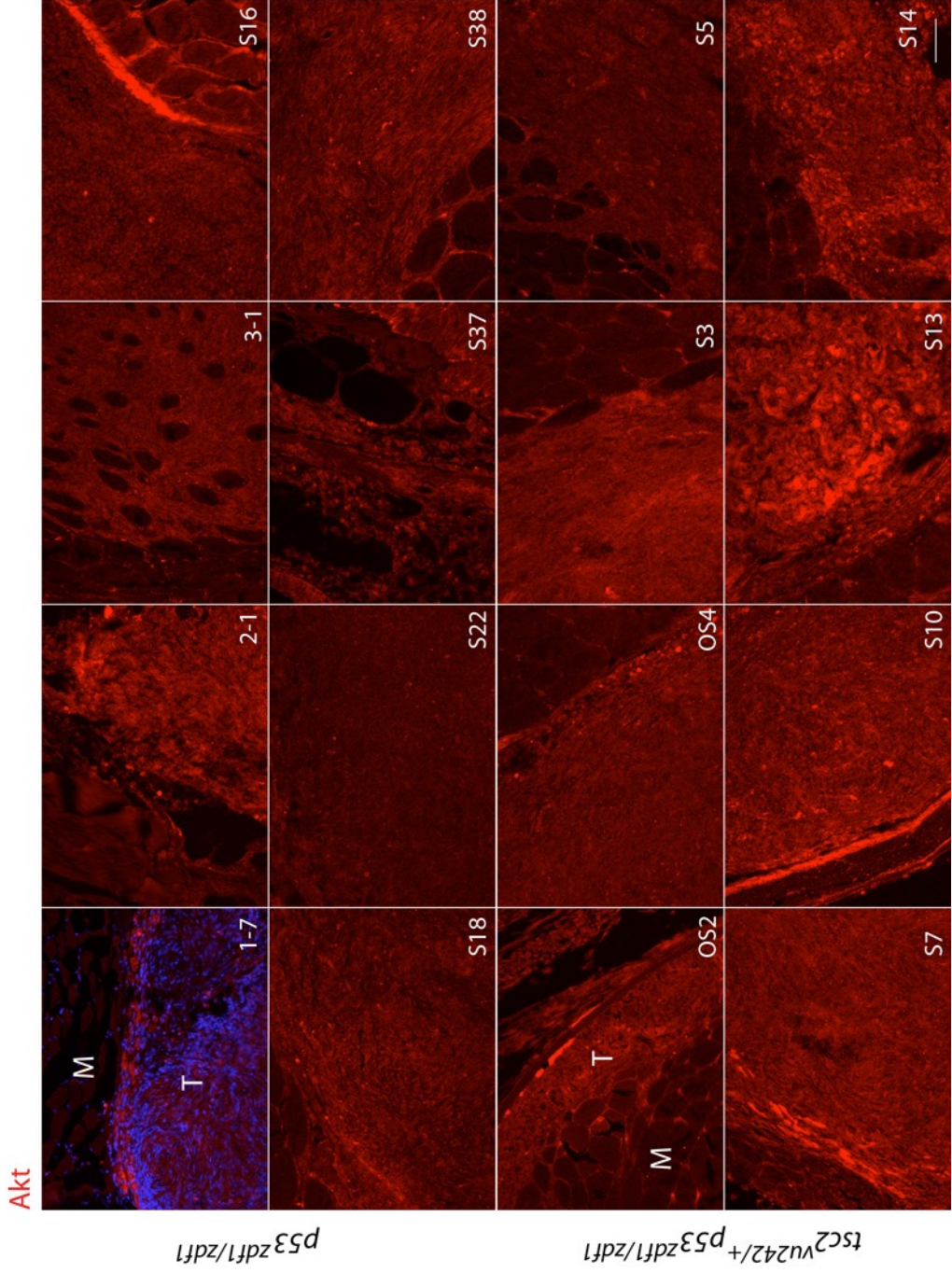
Supple Figure 2

**Supplementary Fig. 2. Immunoblotting of whole abdominal tumor extracts do not show any changes in mTORC2 signaling in tumors from *tsc2;p53* compound mutant zebrafish compared to *p53<sup>zdf1/zdf1</sup>* zebrafish.** (A) Quantification of phospho-Akt (Serine 473) levels normalized to actin expression. (B) Quantification of total Akt levels normalized to actin expression. (C) Increased ratio of phospho-Akt to total Akt in *tsc2;p53* compound mutant compared to *p53<sup>zdf1/zdf1</sup>* zebrafish. Student's *t*-test was used to assess statistical significance.



Supple Figure 3

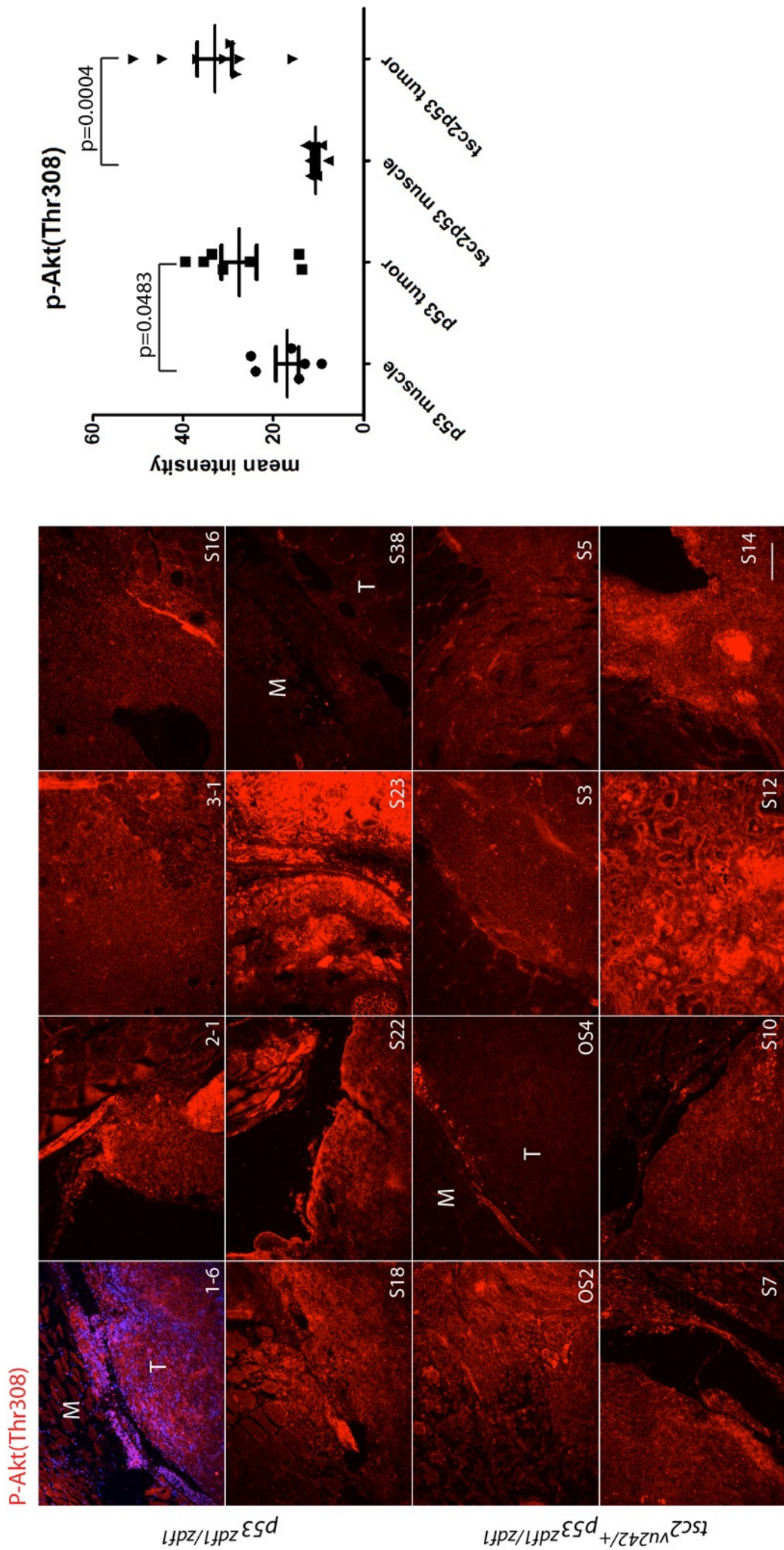
**Supplementary Fig. 3. Phospho-tuberin Ser939 staining (red) in a series of abdominal tumors from  $p53^{zdf1/zdf1}$  and  $tsc2;p53$  compound mutant zebrafish.** (Left) 8 tumor samples per each line were used for comparison. (Right) Mean values of intensity (arbitrary units) were graphed. M, muscle; T, tumor. Scale bar = 100  $\mu\text{m}$ . Student's *t*-test was used to assess statistical significance.



Supple Figure 4

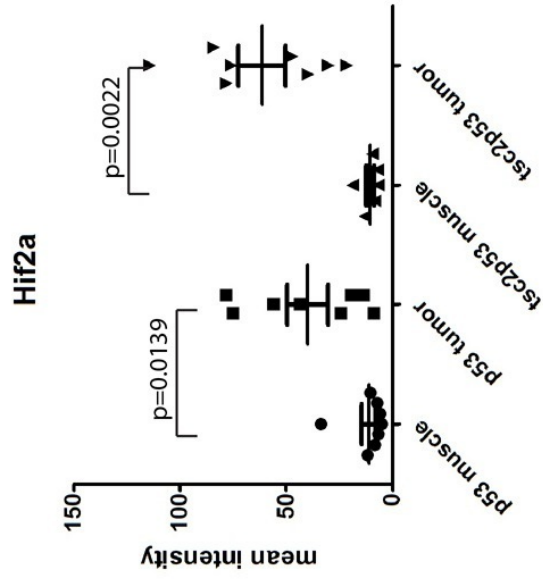
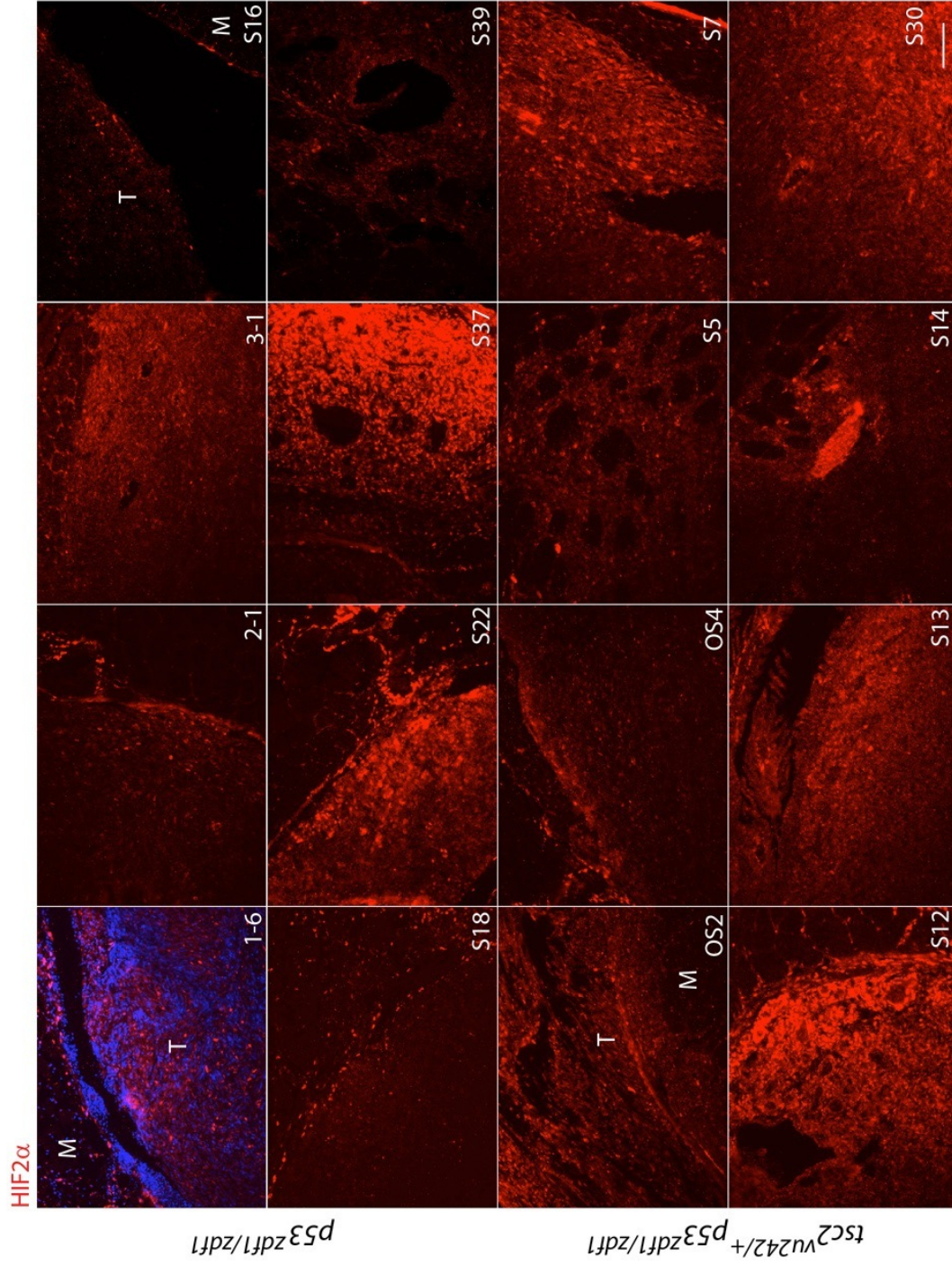
**Supplementary Fig. 4. Total Akt staining (red) in a series of abdominal tumors from  $p53^{zdf1/zdf1}$  and  $tsc2;p53$  compound mutant zebrafish.** (Left) 8 tumor samples per each line were used for comparison. (Right) Mean values of intensity (arbitrary units) were graphed. M, muscle; T, tumor. Scale bar = 100  $\mu$ m. Student's *t*-test was used to assess statistical significance.





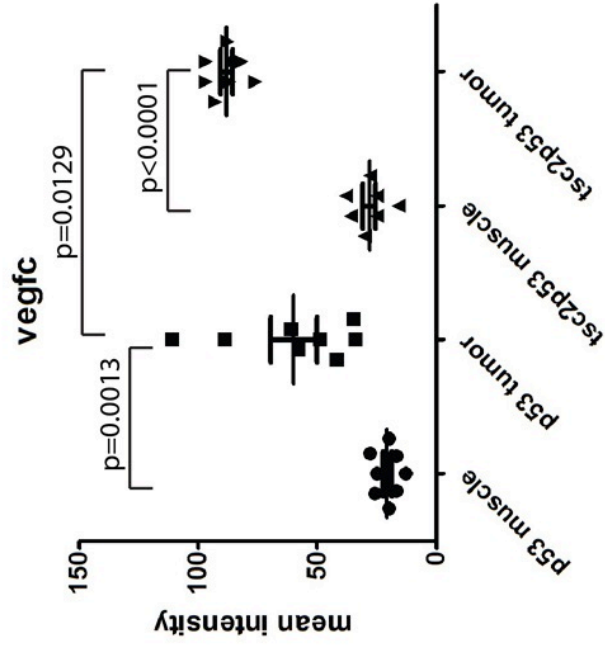
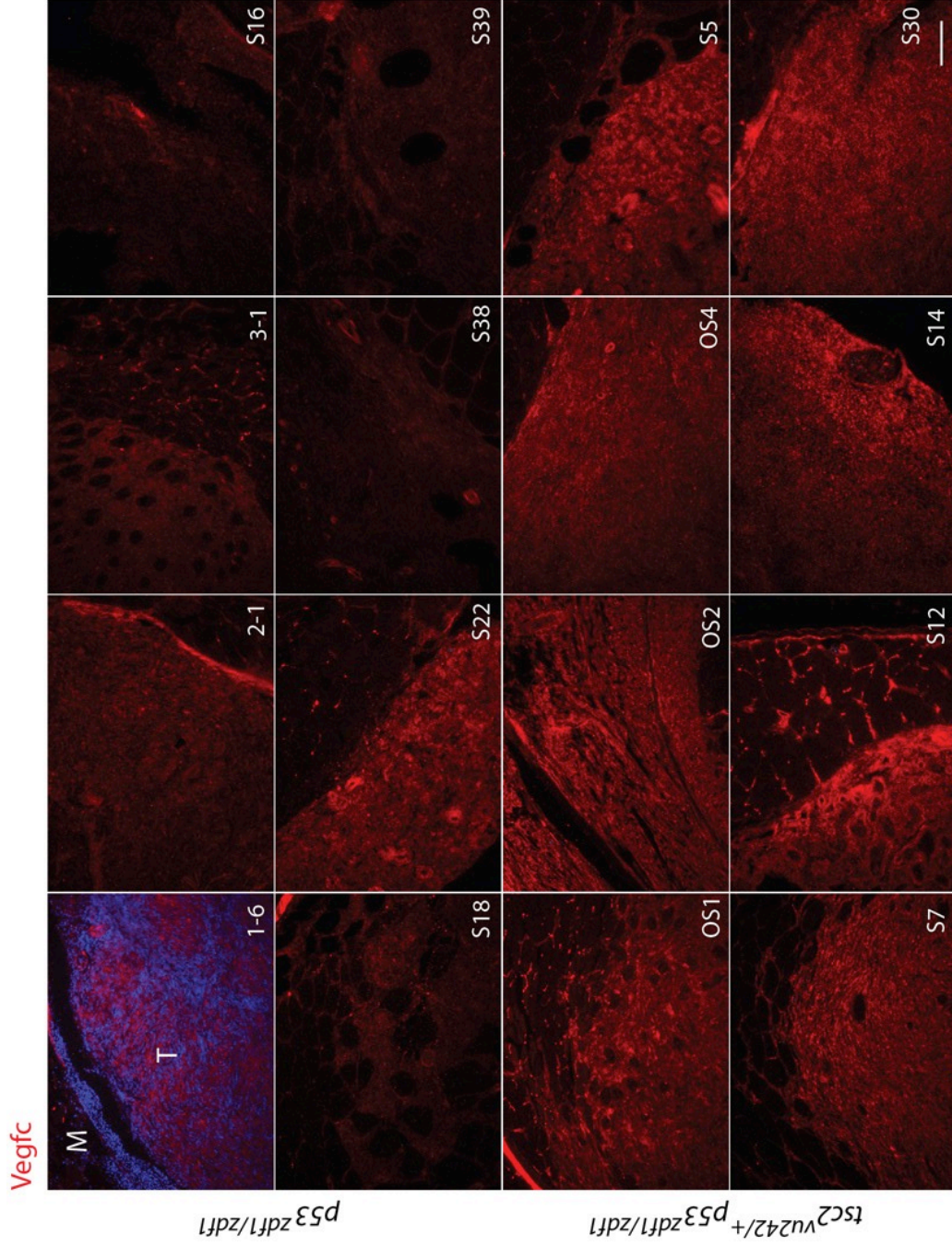
Supple Figure 5

**Supplementary Fig. 5. Phospho-Akt Thr308 (red) staining in a series of abdominal tumors from  $p53^{zdf1/zdf1}$  and  $tsc2;p53$  compound mutant zebrafish.** (Left) 8 tumor samples per each line were used for comparison. (Right) Mean values of intensity (arbitrary units) were graphed. M, muscle; T, tumor. Scale bar = 100  $\mu\text{m}$ . Student's *t*-test was used to assess statistical significance.



Supple Figure 6

**Supplementary Fig. 6. Hif2a staining (red) in a series of abdominal tumors from  $p53^{zdf1/zdf1}$  and  $tsc2;p53$  compound mutant zebrafish.** (Left) 8 tumor samples per each line were used for comparison. (Right) Mean values of intensity (arbitrary units) were graphed. M, muscle; T, tumor. Scale bar = 100  $\mu$ m. Student's *t*-test was used to assess statistical significance.



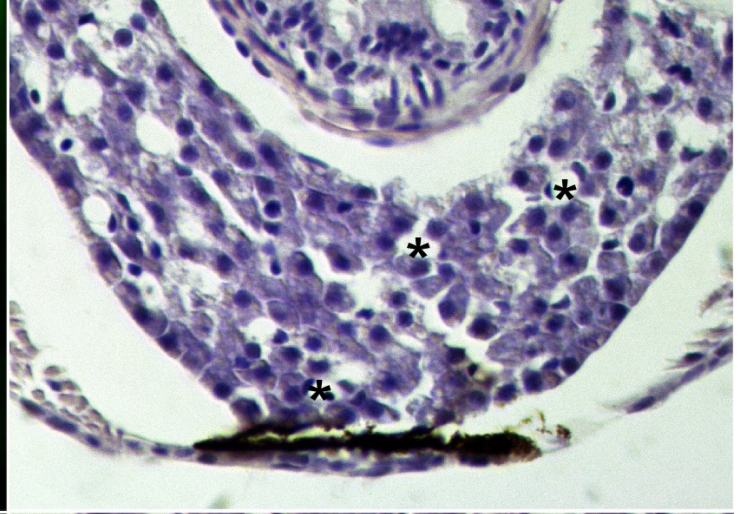
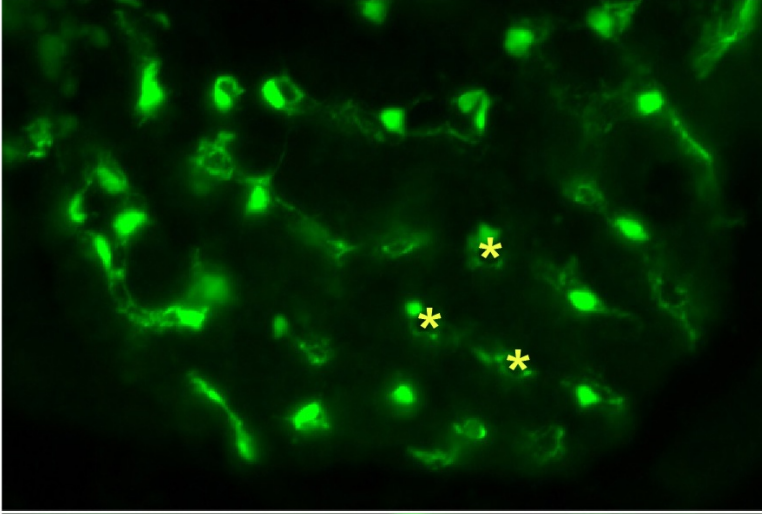
Supple Figure 7

**Supplementary Fig. 7. Vegf-c staining (red) in a series of abdominal tumors from  $p53^{zdf1/zdf1}$  and  $tsc2;p53$  compound mutant zebrafish.** (Left) 8 tumor samples per each line were used for comparison. (Right) Mean values of intensity (arbitrary units) were graphed. M, muscle; T, tumor. Scale bar = 100  $\mu$ m. Student's *t*-test was used to assess statistical significance.

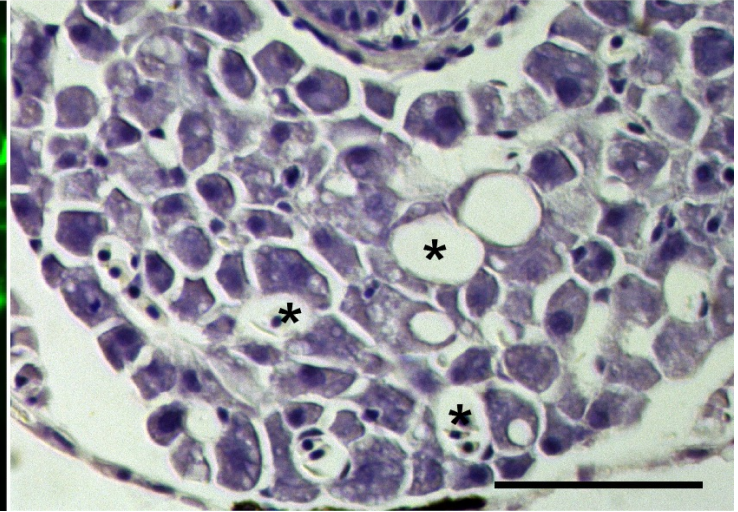
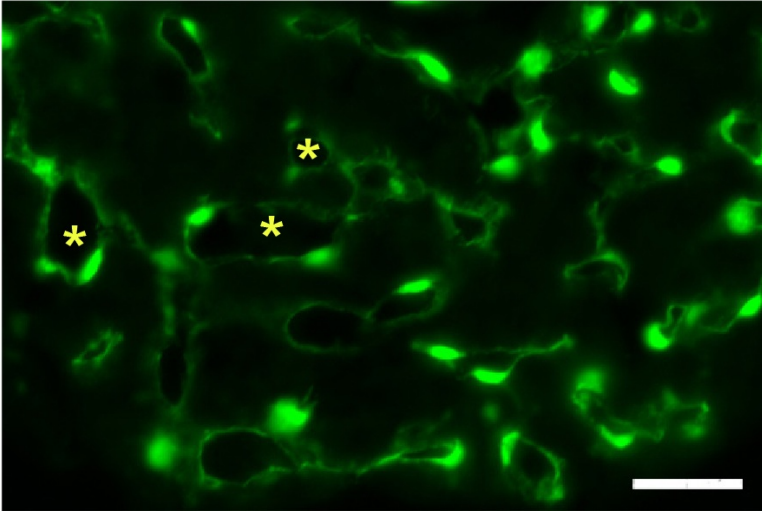
**fli1:EGFP**

**H & E**

WT



*tsc2*  
*vu242/vu242*

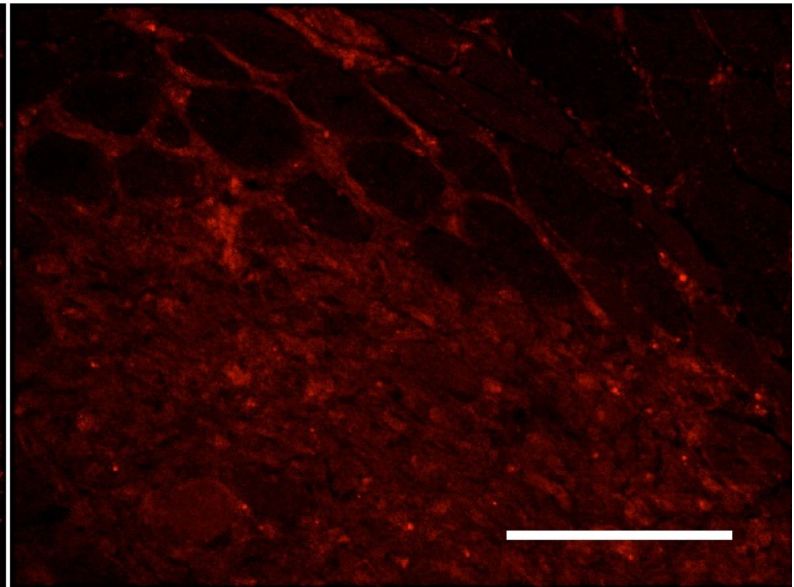
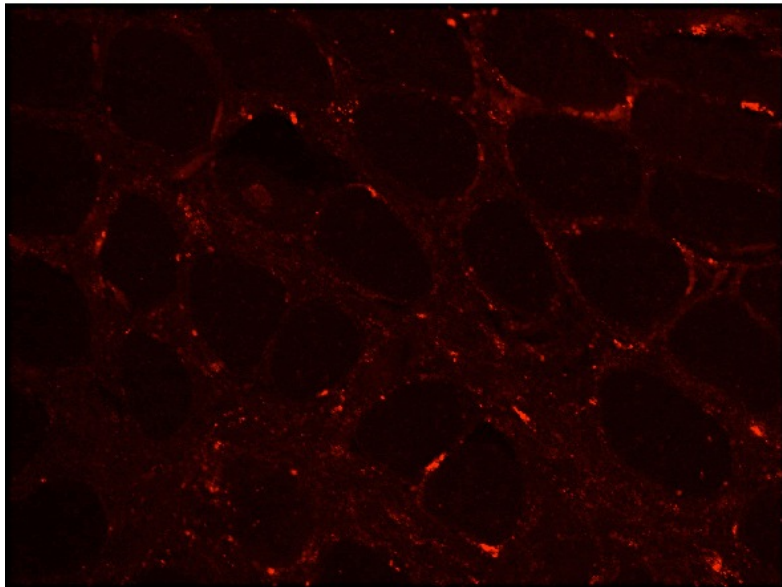
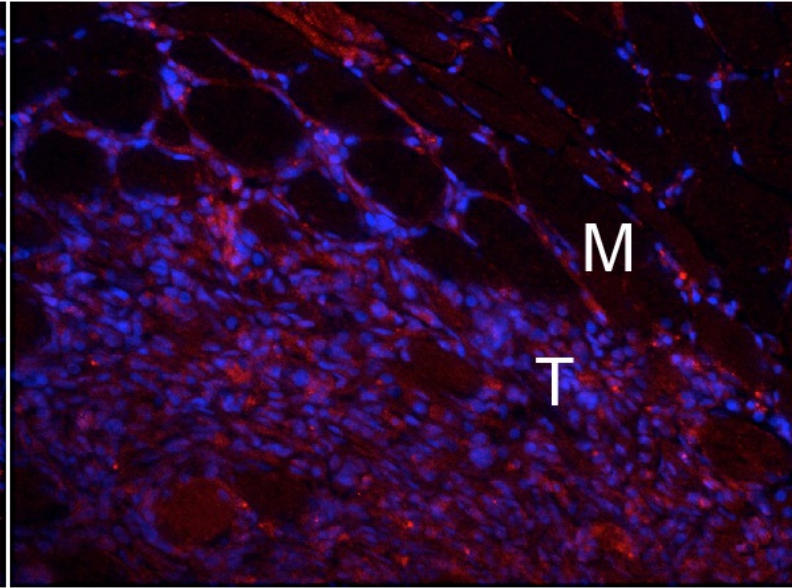
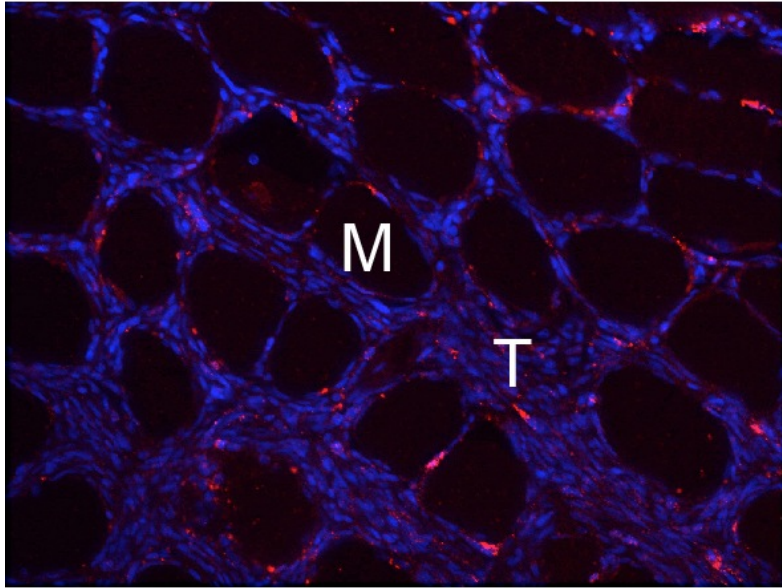


**Supplementary Fig. 8. Increased size of blood vessels in the liver of *tsc2* homozygous mutant zebrafish.** The *tsc2* mutant allele was crossed to transgenic fish expressing EGFP under the *Fli1* promoter that directs expression in endothelial cells. Examples shown are liver from 7 day old larvae. Above images are wildtype (wt) control, below are *tsc2* homozygous mutant sections. Left images are *Fli1:EGFP*, and right images hematoxylin and eosin staining. Asterisks (yellow in *Fli1:EGFP*, black in hematoxylin and eosin stain) denote the blood vessel lumen. Scale bar = 100  $\mu\text{m}$ .



*p53<sup>zdf1/zdf1</sup>*

*tsc2<sup>vu242/+</sup> p53<sup>zdf1/zdf1</sup>*



AMPK (Thr172), DAPI

**Supplementary Fig. 9. AMPK Thr172 staining (red) and DAPI (blue) in abdominal tumors from *p53<sup>zdf1/zdf1</sup>* and *tsc2;p53* compound mutant zebrafish. Merged colors above and AMPK Thr172 alone shown below. M, muscle; T, tumor. Scale bar = 100  $\mu$ m.**