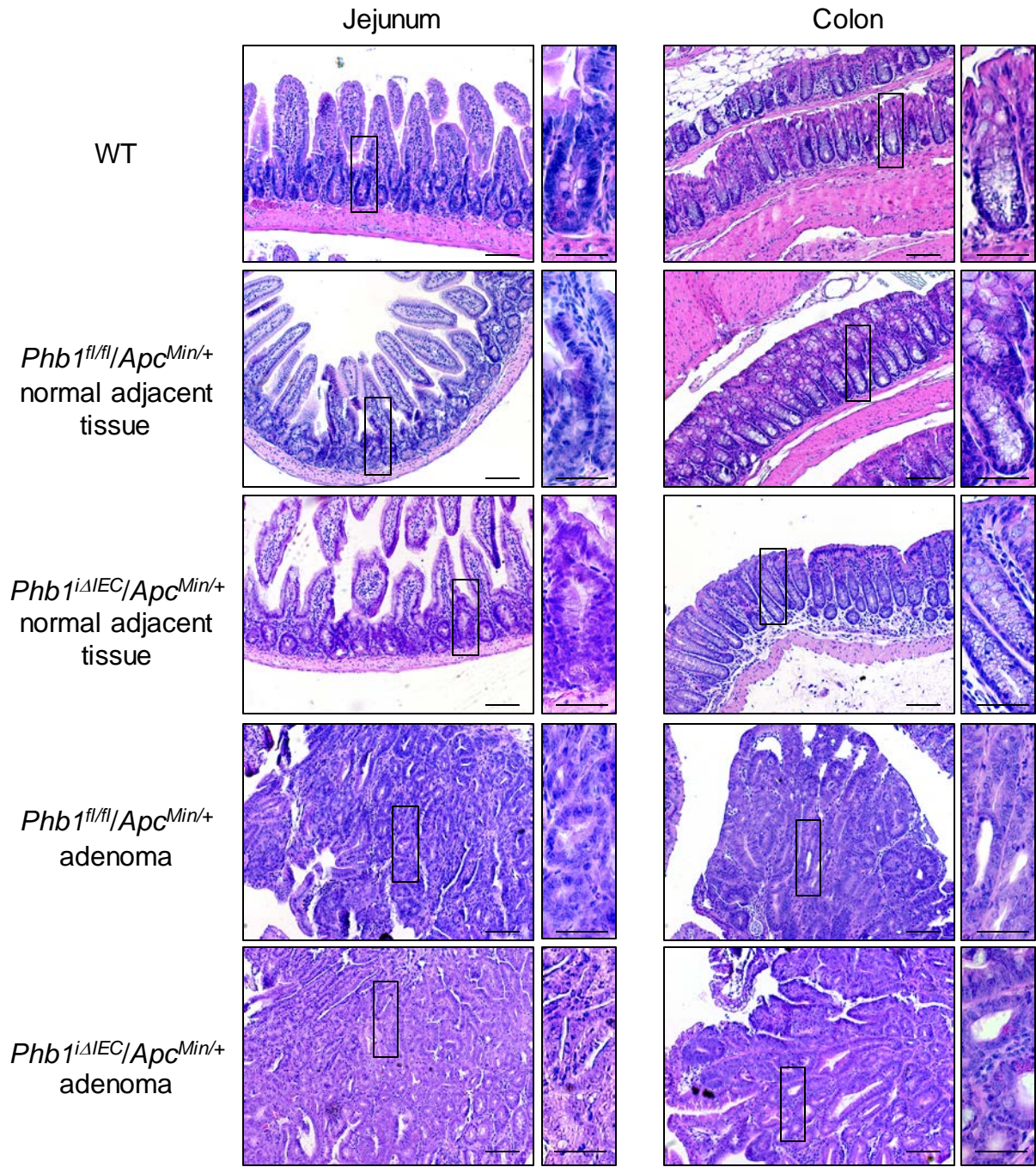
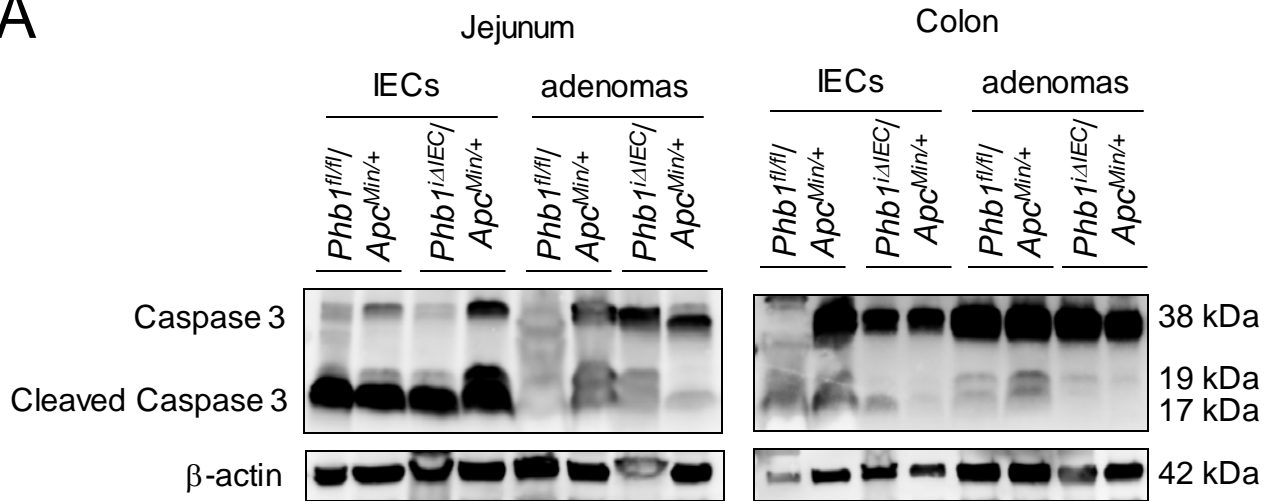


**Figure S1. Protein expression of PHB1 in utilized strains of mice.** (A) PHB1 protein expression in jejunum IECs. Mean  $\pm$  SEM of densitometric units by western blotting. (B) PHB1 protein expression in jejunum adenomas. Mean  $\pm$  SEM of densitometric units by western blotting.  $n = 4$  mice per group. \* $P < 0.05$  vs. WT by one-way ANOVA followed by Bonferroni's test.

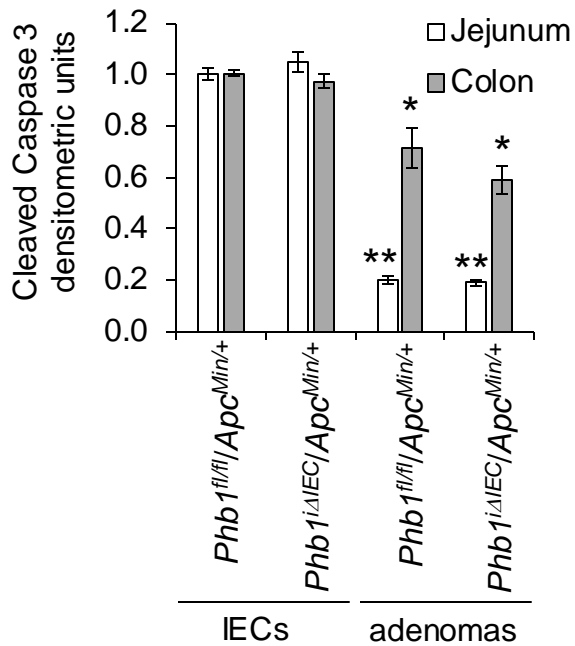


**Figure S2. H&E-stained serial sections to show histology of sections stained for Ki67.** Scale bars: 100  $\mu\text{m}$ ; boxed pullout scale bars: 50  $\mu\text{m}$ .

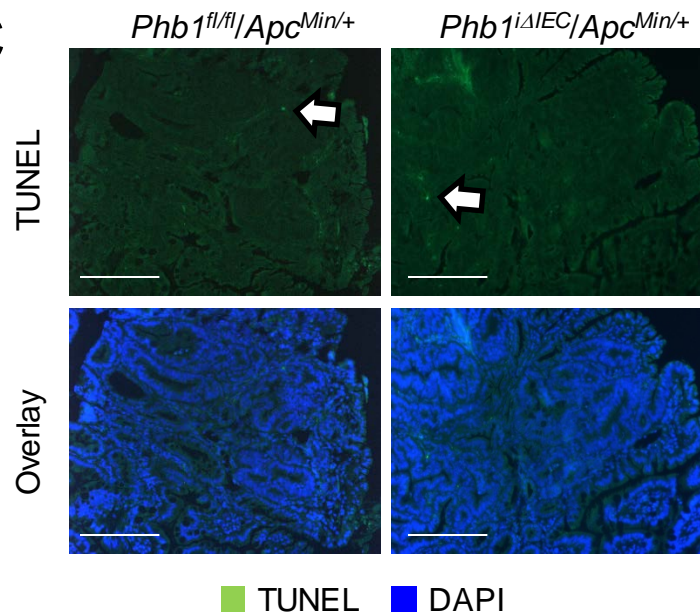
A



B

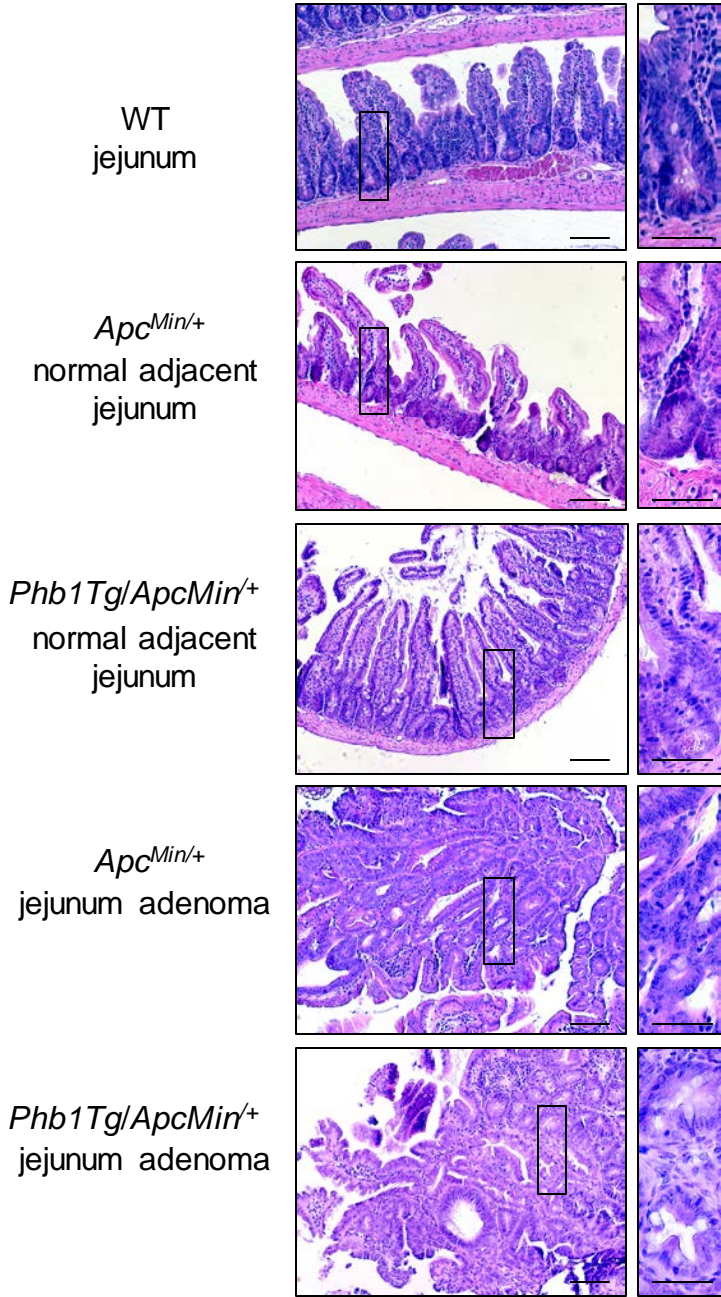


C

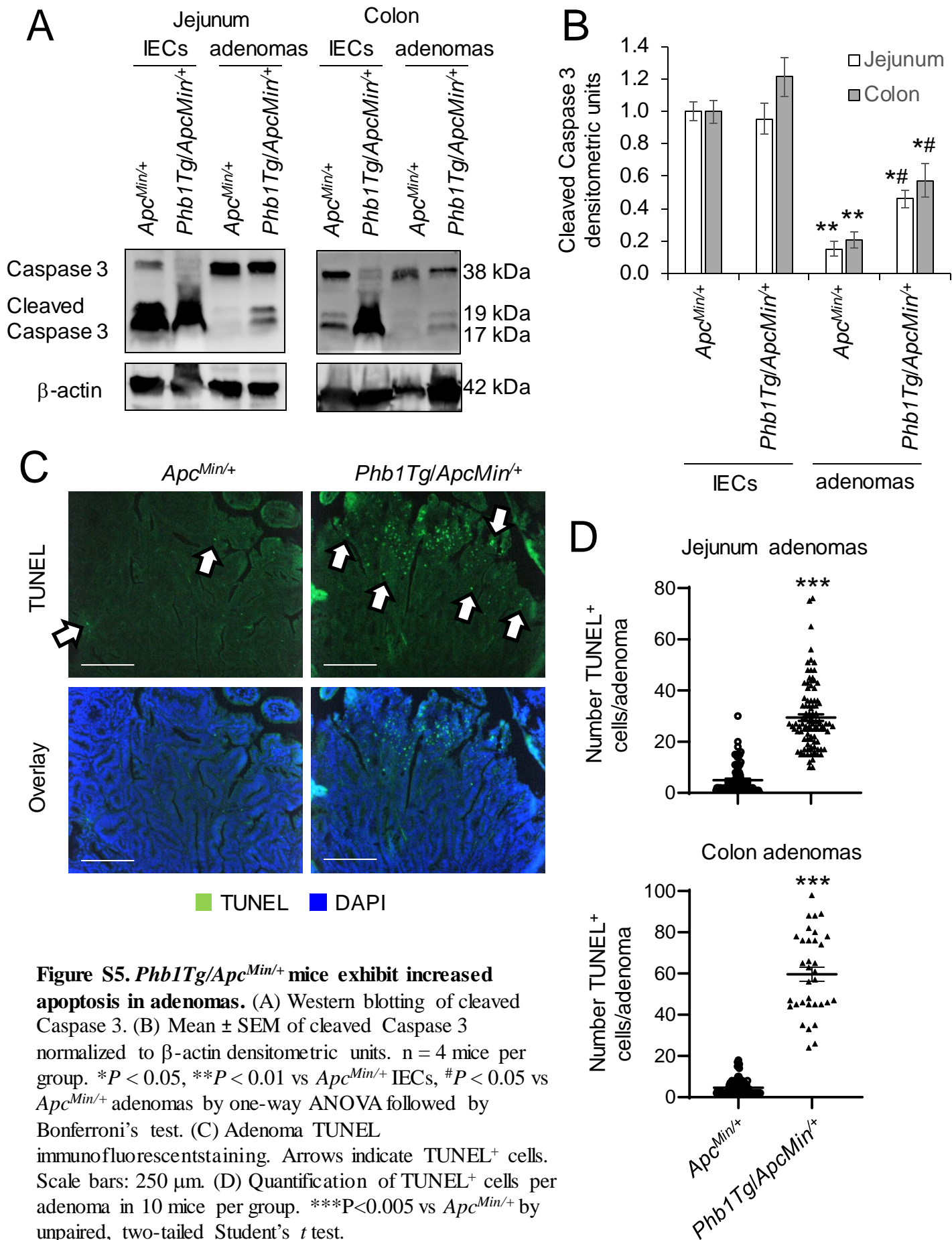


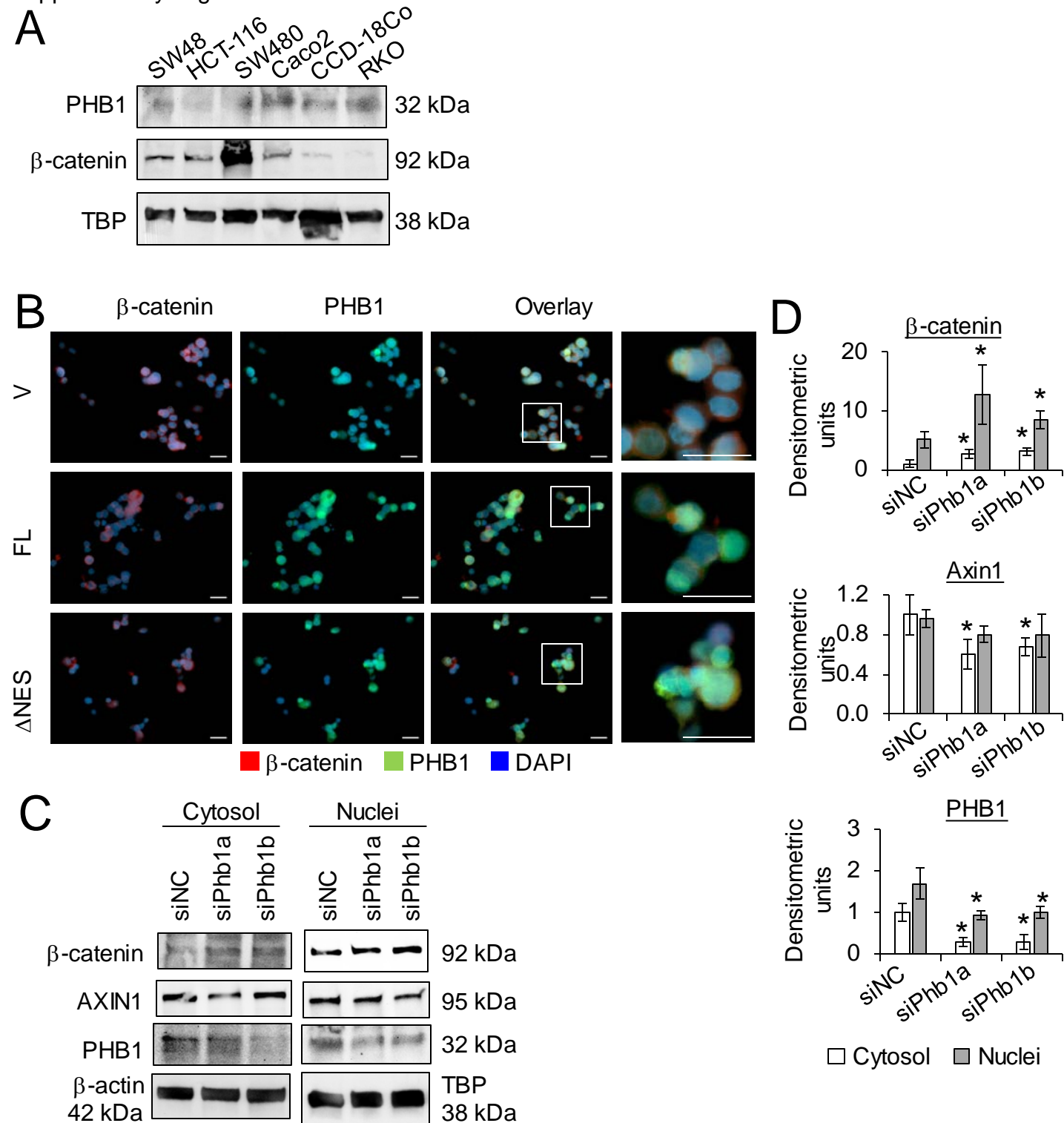
**Figure S3. *Phb1* deficiency in IECs does not alter apoptosis in *Phb<sup>fl/fl</sup>/Apc<sup>Min/+</sup>* or *Phb<sup>ΔIEC</sup>/Apc<sup>Min/+</sup>* mice.** (A) Western blotting of cleaved Caspase 3, a marker of apoptosis. (B) Mean  $\pm$  SEM of cleaved Caspase 3 normalized to  $\beta$ -actin densitometric units.  $n = 6$  mice per group. \* $P < 0.05$ , \*\* $P < 0.01$  vs *Phb<sup>fl/fl</sup>/Apc<sup>Min/+</sup>* IECs by one-way ANOVA followed by Bonferroni's test. (C) TUNEL immunofluorescent staining. Arrows indicate TUNEL<sup>+</sup> cells. Scale bars: 250  $\mu$ m.





**Figure S4.** H&E-stained serial sections to show histology of sections stained for Ki67. Scale bars: 100  $\mu$ m; boxed pullout scale bars: 50  $\mu$ m.





**Figure S6. Relative expression of PHB1 regulates β-catenin activation and cell viability in SW48 cells**  
 (A) Representative western blots of nuclear extracts across CRC cell lines compared to untransformed CCD-18Co cells. (B) Immunofluorescent staining of SW48 cells transfected with pCDNA4 (vector; V), full-length pCDNA4-PHB1 (FL), or pCDNA4-PHB1<sup>ΔNES</sup> (ΔNES) for 72 hr. Scale bars: 20 μm. (C-D) SW48 cells were transfected with 2 unique siRNAs against *PHB1* or siNegative Control (siNC) for 48 hr. (C) Representative western blot of β-catenin, AXIN1, and PHB1 (to demonstrate efficiency of siRNA knockdown). (D) Mean ± SEM of densitometric units by western blotting. n = 3 biological replicates per group. \**P* < 0.05 vs siNC by one-way ANOVA followed by Bonferroni's test.

Supplementary Figure S7

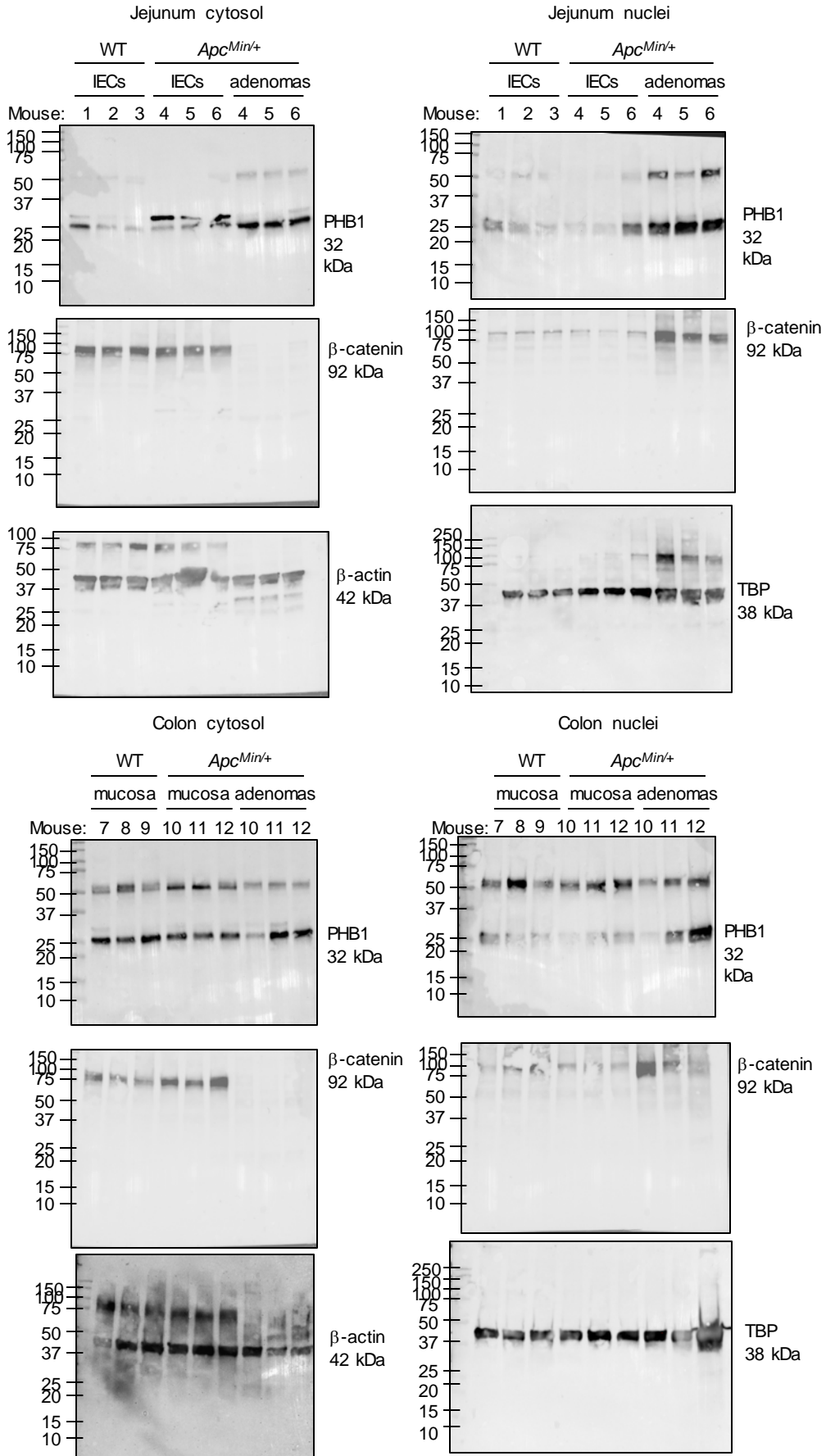


Figure S7. Whole membrane scans for western blots shown in Figure 1.

Supplementary Figure S8

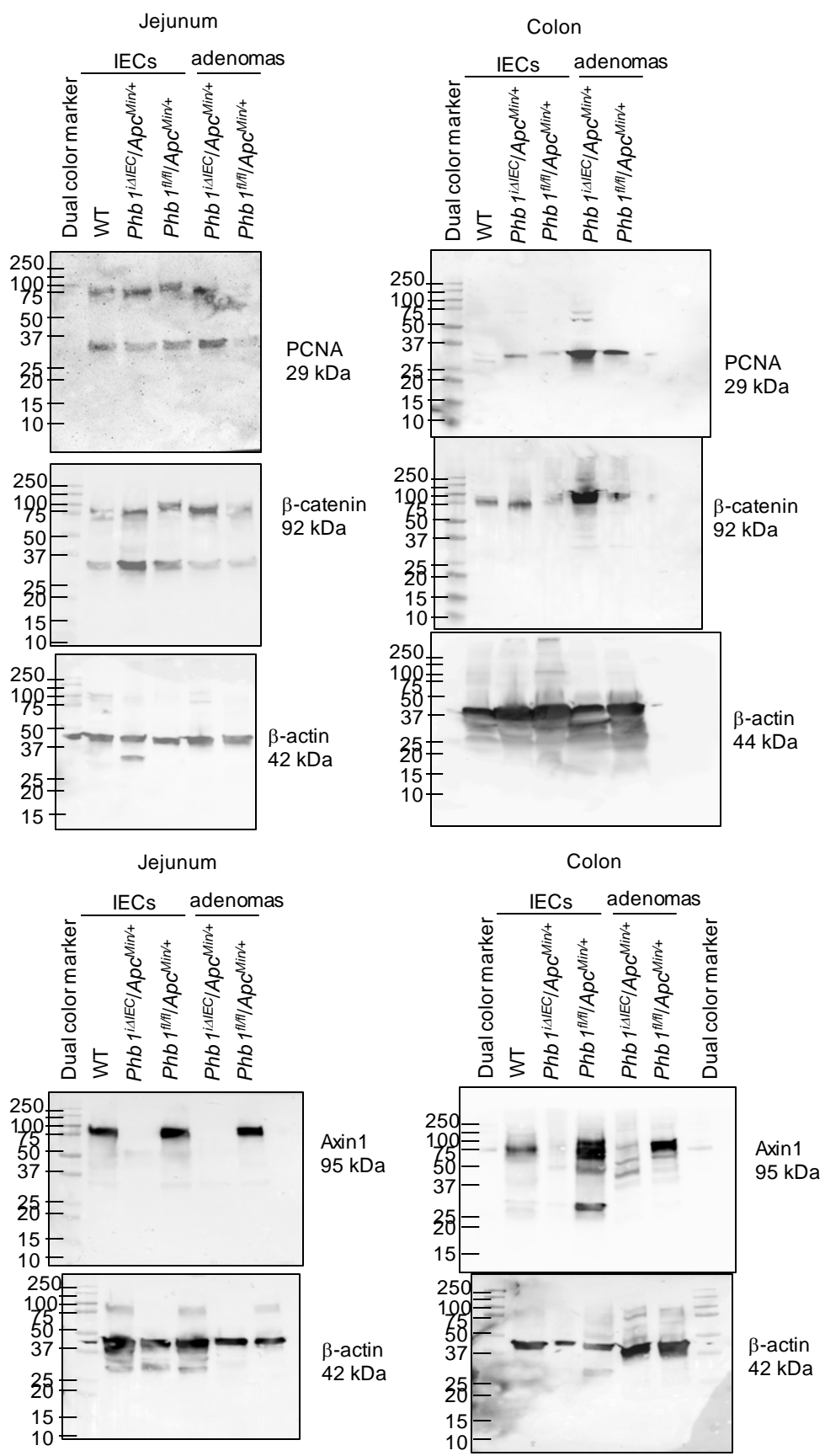
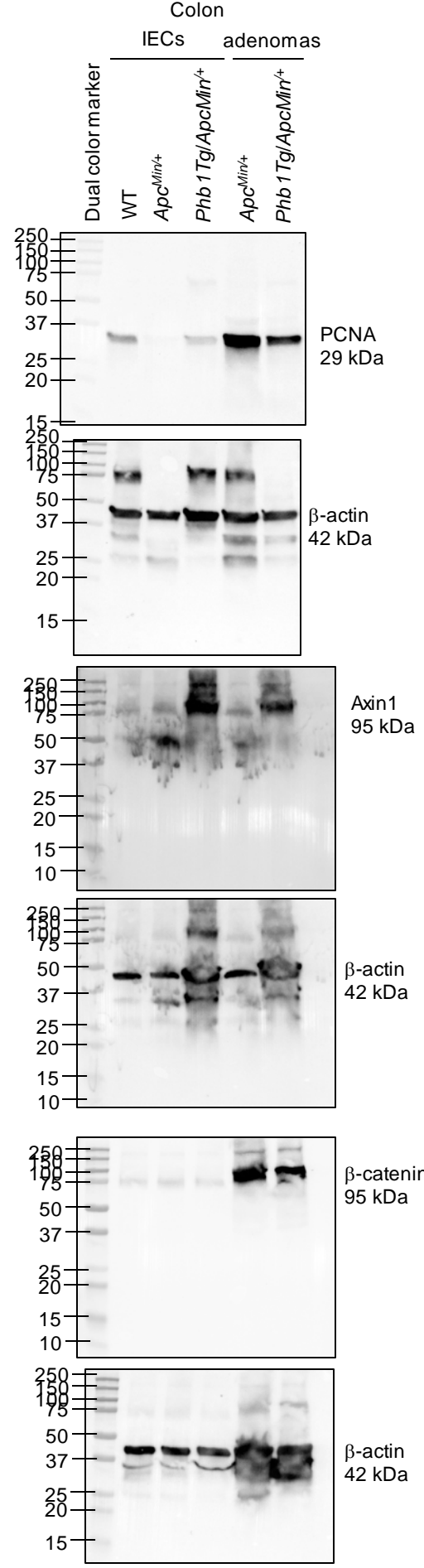
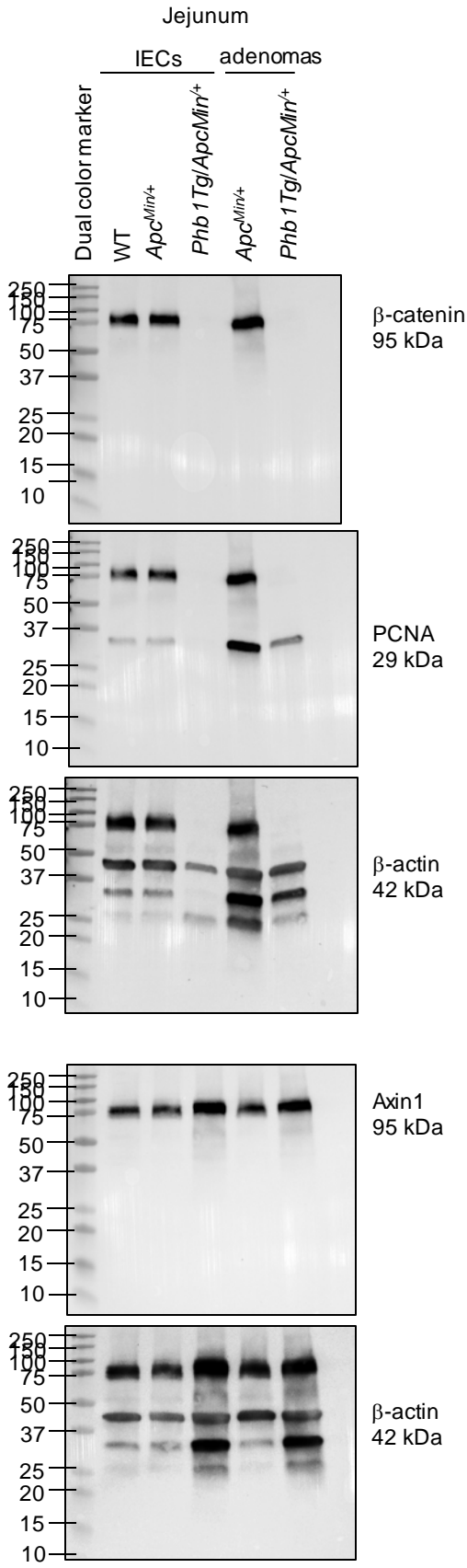


Figure S8. Whole membrane scans for western blots shown in Figure 3A and 4B.



Supplementary Figure S9



**Figure S9. Whole membrane scans for western blots shown in Figure 6A and 7B.**

Supplementary Figure S10

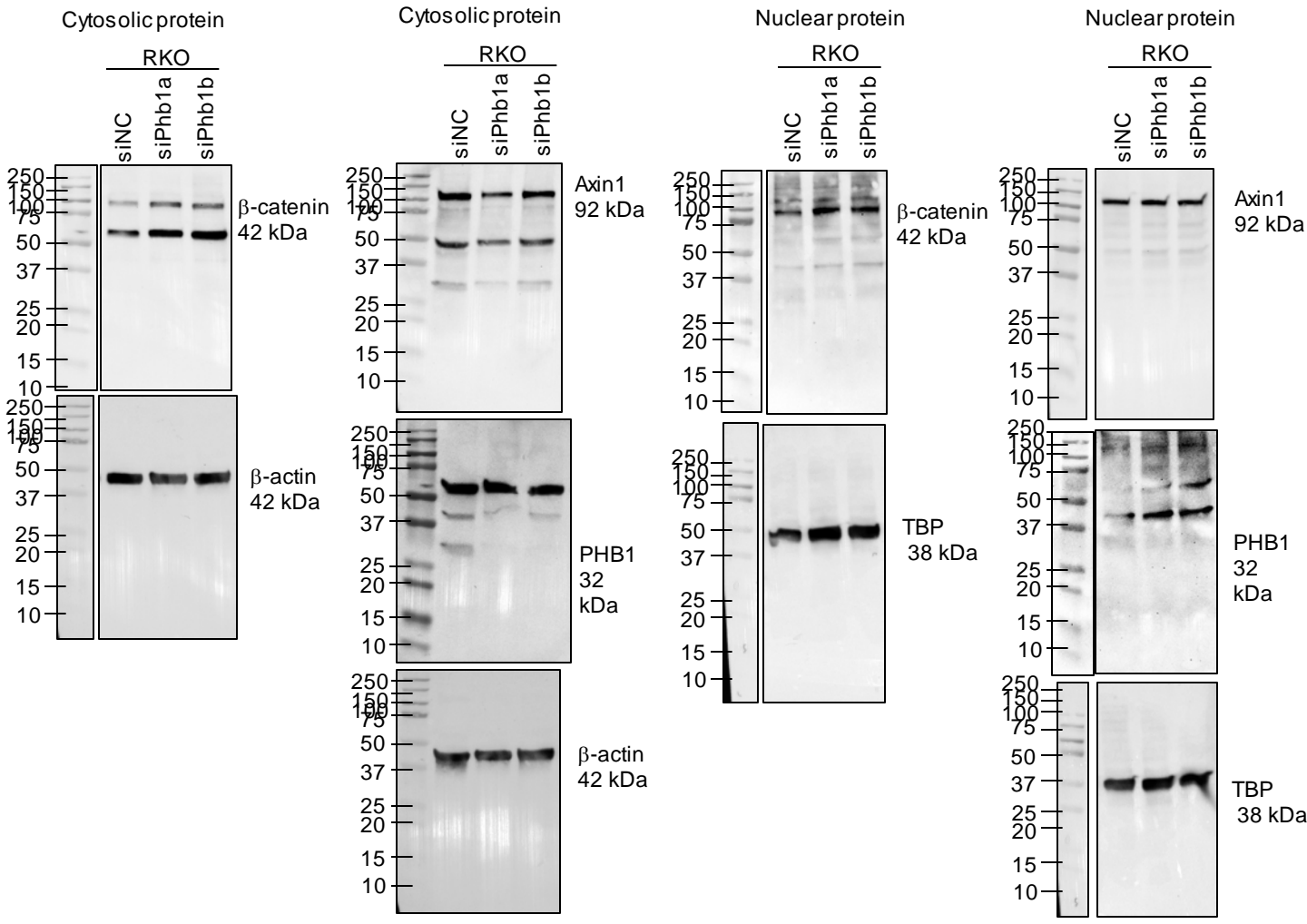


Figure S10. Whole membrane scans for western blots shown in Figure 8E