Supplemental Materials

Molecular Biology of the Cell

Zasadil et al.

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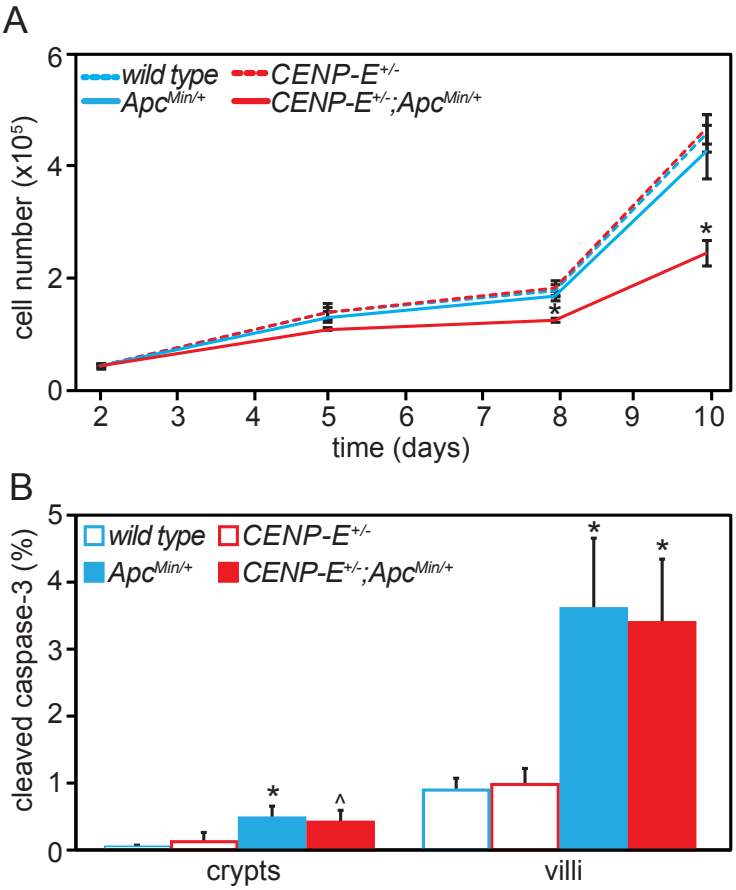
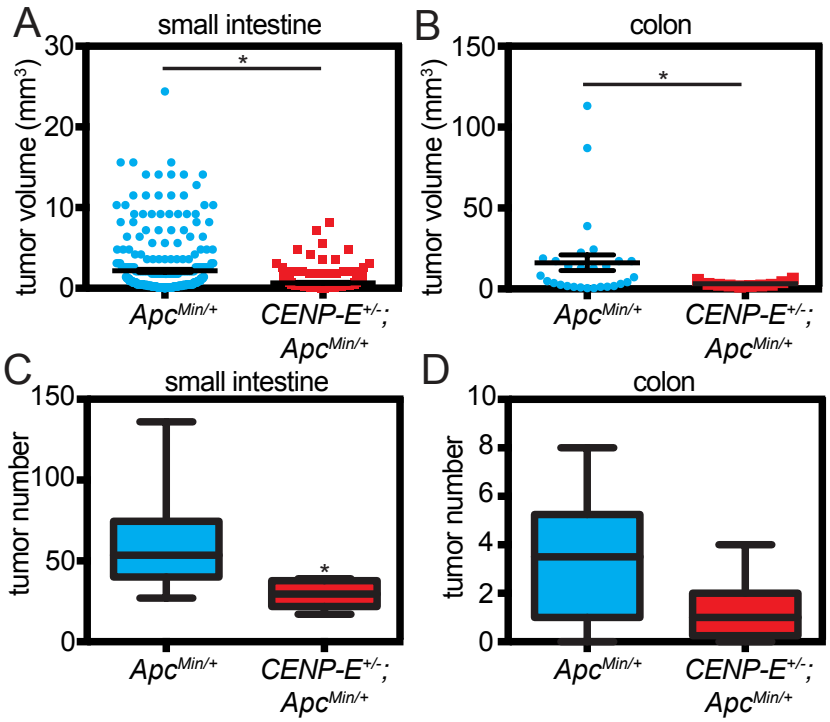


Supplemental Figure S1. Reduction of CENP-E inhibits growth in *Apc*$^{Min/+}$ cells. (A) Primary *CENP-E*$^{+/-}$*;Apc*$^{Min/+}$ MEFs with high CIN have reduced population growth rates as compared to wild type, *CENP-E*$^{+/-}$, and *Apc*$^{Min/+}$ cells. n=3. *=p<0.05 for *CENP-E*$^{+/-}$*;Apc*$^{Min/+}$ as compared to each of the three other genotypes. (B) Expression of the *Min* allele of *Apc* increases cell death in the small intestine. n≥150 cells from each of 7 wild type, 5 *CENP-E*$^{+/-}$, 9 *Apc*$^{Min/+}$, and 6 *CENP-E*$^{+/-}$*;Apc*$^{Min/+}$ mice. * = p<0.05 as compared to wild type; ^ = p = 0.05049 as compared to wild type.



Supplemental Figure S2. Increasing the rate of chromosome missegregation inhibits intestinal tumor progression. (A-B) Reduction of CENP-E in *Apc*$^{Min/+}$ cells, which causes high CIN, suppresses the growth and progression of intestinal adenomas, resulting in smaller tumors in 90 day old animals in the small intestine (A) and large intestine (B). (A) n=339 polyps from 10 *Apc*$^{Min/+}$ mice and 251 polyps from 8 *CENP-E*$^{+/-}$*;Apc*$^{Min/+}$ animals. (B) n=29 and 8 polyps from *Apc*$^{Min/+}$ and *CENP-E*$^{+/-}$*;Apc*$^{Min/+}$ animals, respectively. (C-D) High CIN due to CENP-E heterozygosity reduces tumor number in the small intestine (C), but does not significantly reduce tumor number in the colon (D). The boxes in (C) and (D) show the 25th percentile, median, and 75th percentile of the data, while the whiskers show the range of the complete data set. These animals received Teklad Global Diet 2019. Note that similar results were obtained from an independent experiment (Figure 3), but average tumor numbers differ because these animals were maintained in a separate animal facility and received distinct chow.