Supplemental information for

miR-103/107 prolong Wnt/β-catenin signaling and colorectal cancer stemness by targeting Axin2

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Supplemental Data

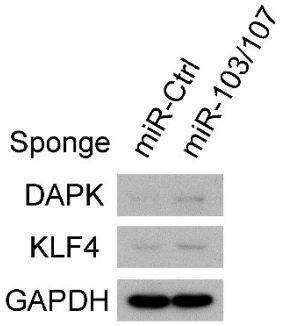

Figure S1. The efficacy of miR-103/107 sponge. Immunoblot analysis of DAPK and KLF4 in HCT116 cells stably expressing indicated miRNA sponges. GAPDH was used as a loading control.

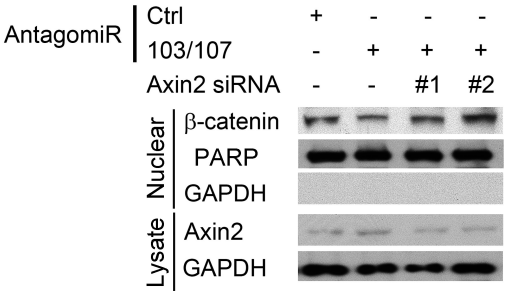

Figure S2. miR-103/107 induce β-catenin nuclear accumulation via regulating Axin2 mRNA. Immunoblot analysis of Axin2 and nuclear β-catenin levels in HT29 cells transiently transfected with indicated antagomiRs and/or siRNA.

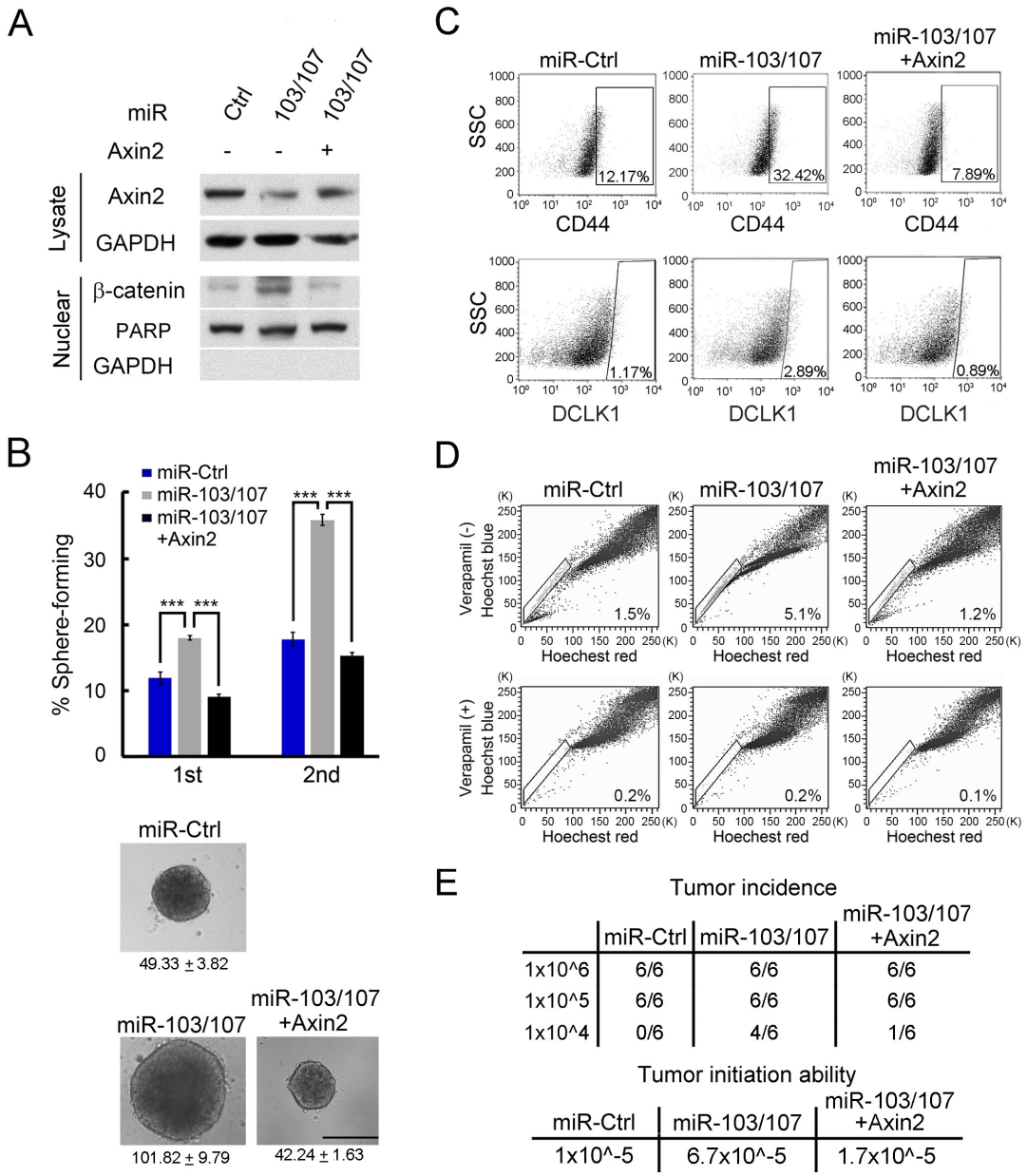

Figure S3. Suppression of Axin2 by miR-103/107 promotes CRC stemness. A. Axin2 and nuclear β-catenin levels in HT29 cells expressing indicated miRNAs and Axin2 construct were assayed by immunoblot analysis. **B**. Tumor sphere-forming abilities of HT29 derivatives as shown in **(A)**. Representative images of spheres and sphere sizes (calculated from 30 spheres per group experiment) are shown on the right

panel. The images were taken at 3 weeks after cell plating. Quantitative data of sphere number are shown on the left panel. Scale bar, 50 mm. Data are mean ± S.D. ***: $P < 0.0005$, n = 3. **C-D.** HT29 derivative as shown in **(A)** were assayed by flow cytometry for cell surface expression of stem-like markers CD44 (upper panel) and DCLK1 (lower panel) **(C)**, and side-population cells **(D)**. **E.** Tumor-initiation ability was measured by subcutaneously implanting HT29 derivatives as shown in **(A)** at indicated cell numbers into nude mice. Seven weeks after transplantation, tumor incidence and tumor-initiating ability were measured.

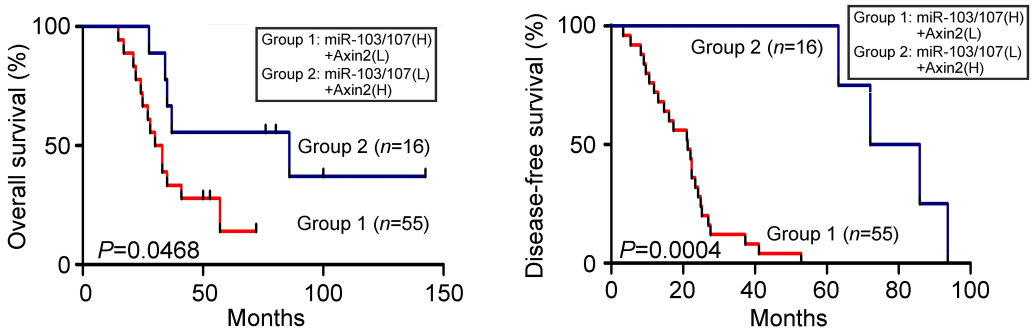

Figure S4. miR-103/107-Axin2 axis correlates with poor prognosis of CRC patients. Kaplan–Meier analysis of overall survival and disease-free survival of CRC patients with the corresponding expression profiles. Log-Rank test was used for comparison between groups.

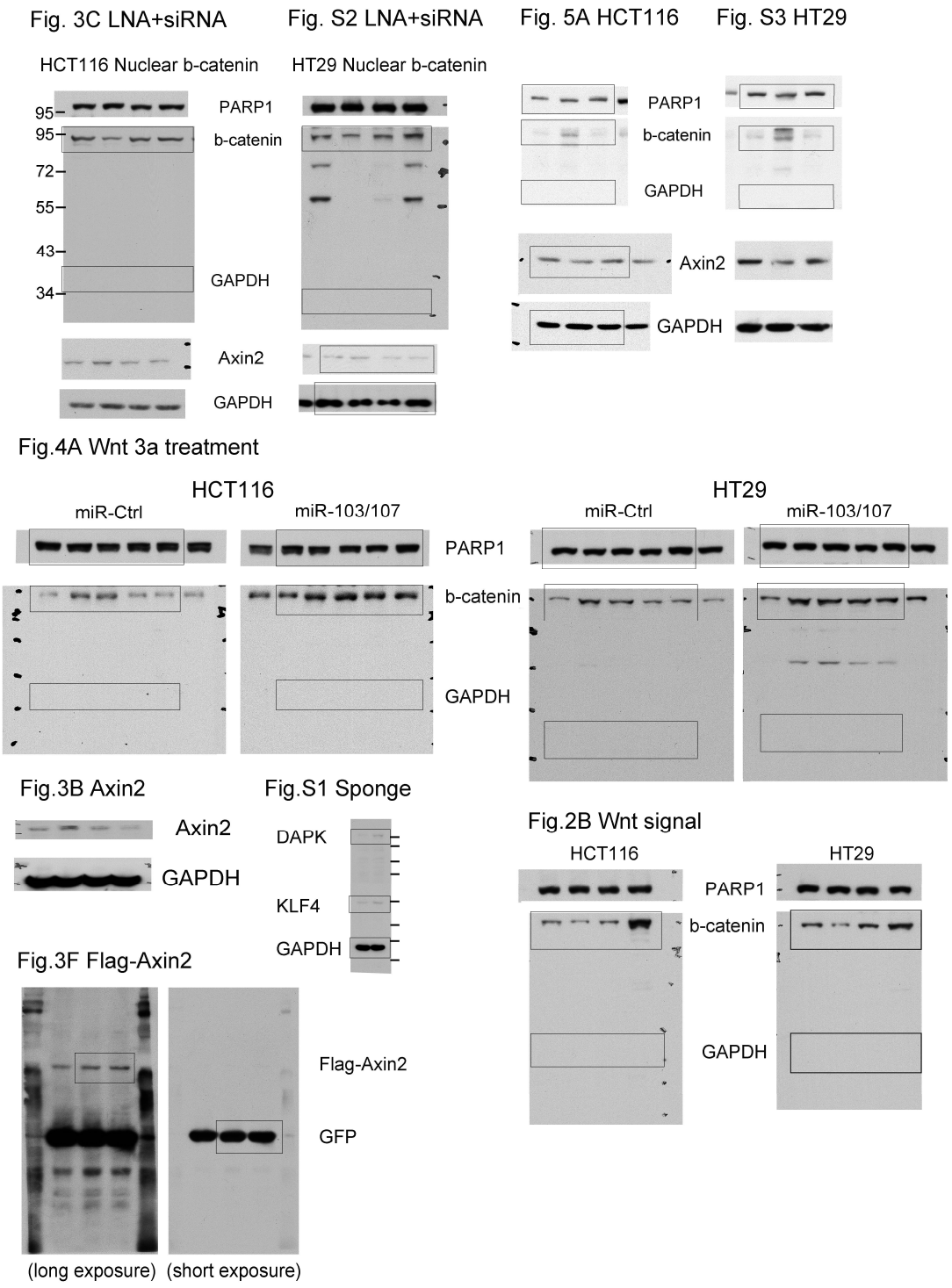

Figure S5. Full scans of western blot data shown in Fig. 2-5, S1-S3.