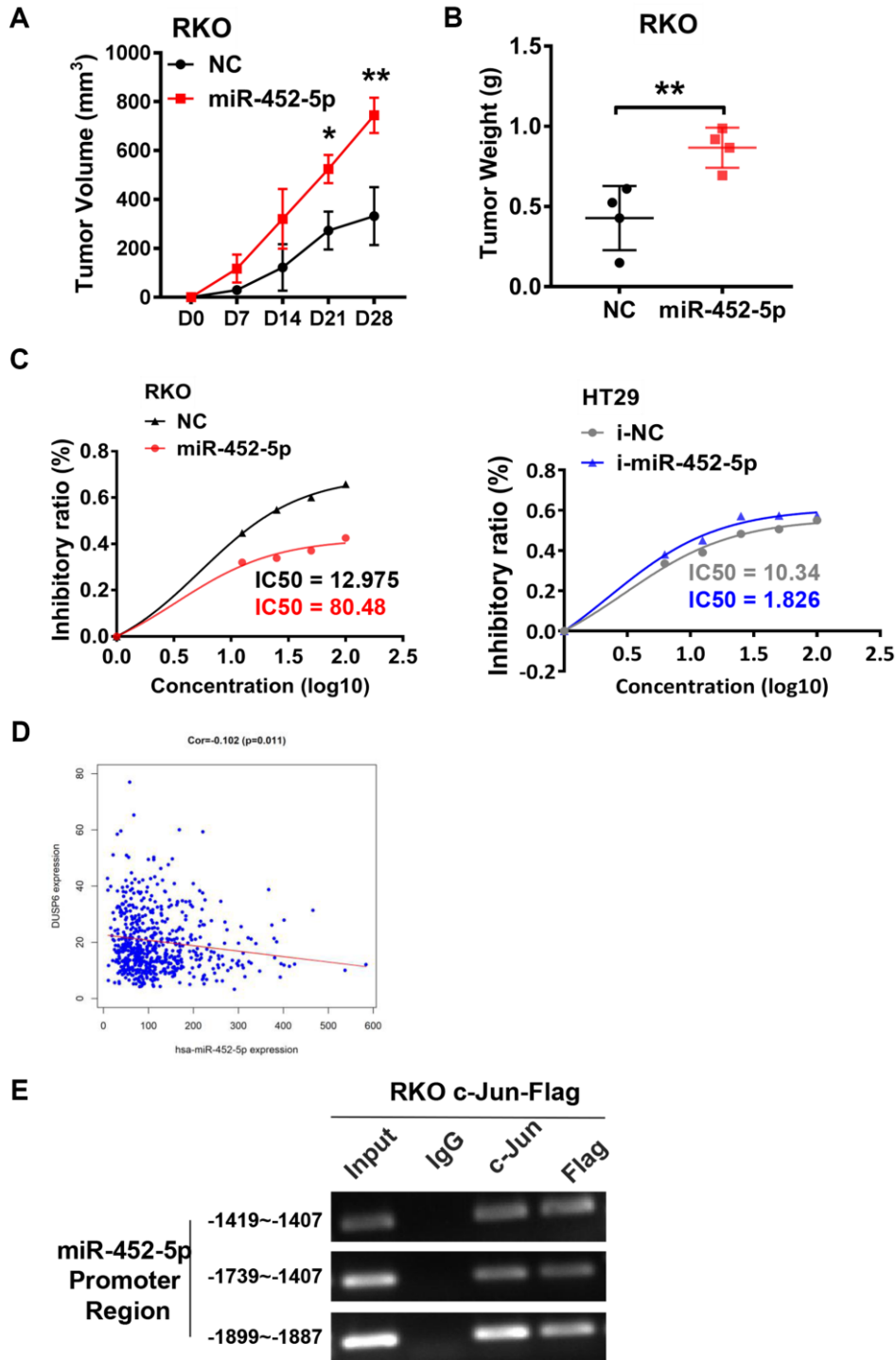
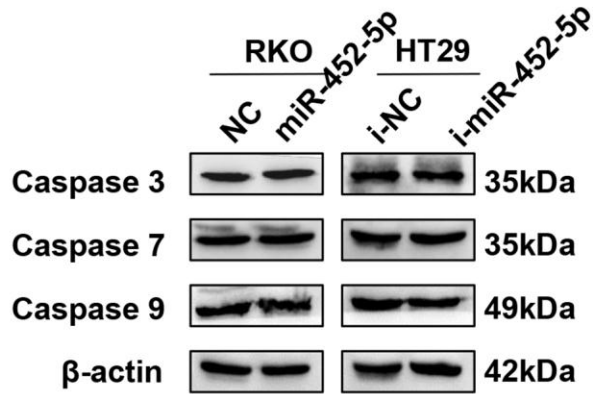


SUPPLEMENTARY FIGURES

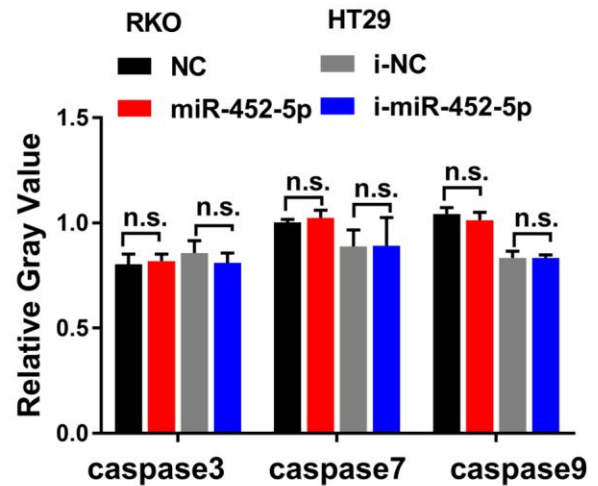


Supplementary Figure 1. (A) Subcutaneous tumor formation growth curve in nude mice. (B) Effect of overexpression of miR-452-5p on subcutaneous tumor formation weight. (C) Effects of overexpression and knockdown of miR-452-5p on chemosensitivity of CRC cells: IC50 test. (D) Spearman’s correlation analysis showed a positive correlation between DUSP6 and miR-452-5p expression according to TCGA datasets. (E) Chip-PCR verified the c-jun-binding regions in miR-452-5p promoter. *p < 0.05, **p < 0.01, ***p < 0.001.

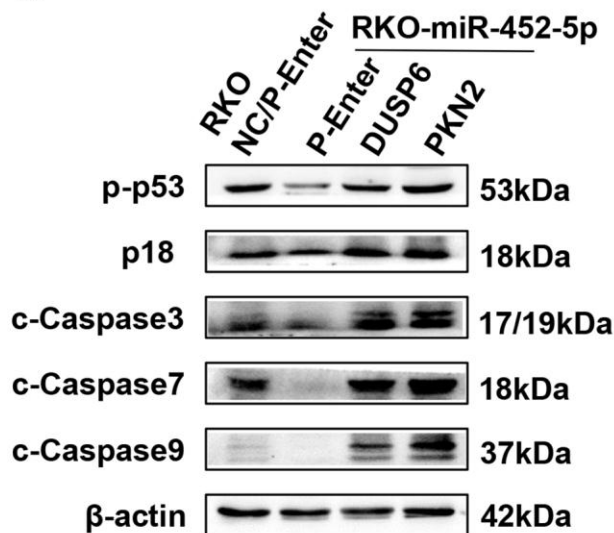
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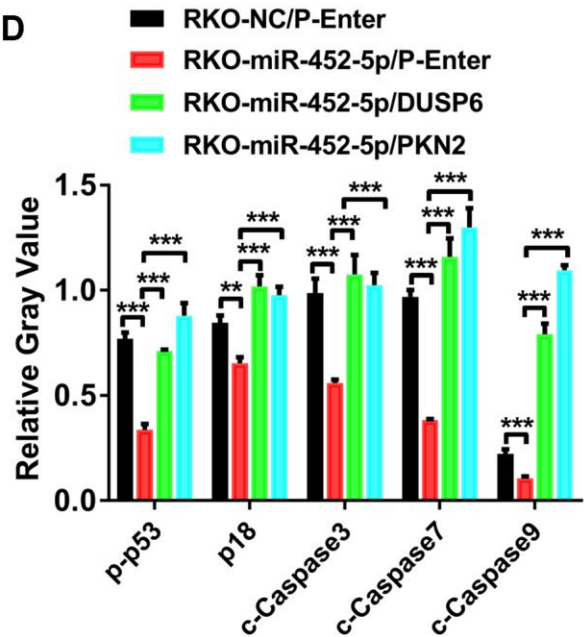
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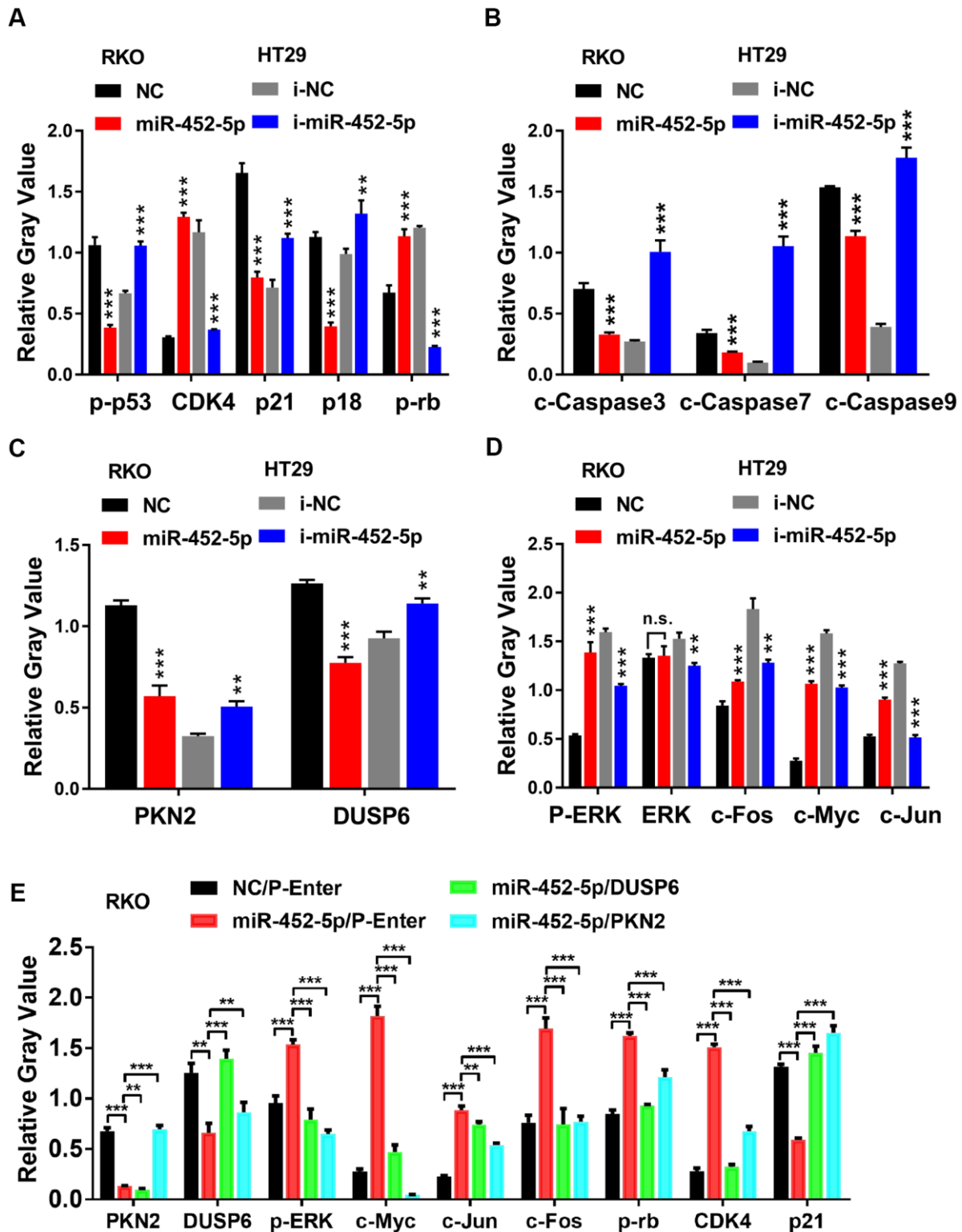
C



D



Supplementary Figure 2. (A) The expression of the full length caspase proteins detected by western blotting. (B) The average gray value analysis of the full length caspase proteins. (C) PKN2/DUSP6 axis was involved in the regulation of miR-452-5p on cell cycle and apoptosis signaling pathways. (D) The average gray value analysis of the protein expression of cell cycle and apoptosis signaling pathways after co-transfection with miR-452-5p mimics and PKN2, DUSP6 plasmids. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, n.s. non-significant.



Supplementary Figure 3. The average gray values analysis of proteins (A) Cell cycle related proteins detected by western blotting. (B) The expression of apoptosis-related proteins detected by western blotting. (C) The expression of PKN2 and DUSP6 after overexpression and knockdown of miR-452-5p detected by western blotting. (D) Western blotting results of ERK/MAPK signaling pathway. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, n.s. non-significant. (E) The average gray values analysis of protein expression of the important CRC signaling pathways after co-transfection with miR-452-5p mimics and PKN2, DUSP6 plasmids. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.