

Figure S1. Effect of ANRIL knockdown on the proliferation and cell cycle of CA46 cells. (A) Expression levels of lncRNA ANRIL were analyzed using reverse transcription-quantitative PCR. (B) Cell viability of CA46 cells was determined using a Cell Counting Kit-8. (C) Cell cycle distribution of CA46 cells was analyzed by flow cytometry. (D) Ki67 expression levels in CA46 cells were analyzed using immunofluorescence staining. (E) Cyclin D1, p21 and E2F1 protein expression levels in CA46 cells were analyzed using western blotting. * $P < 0.05$. p21, cyclin-dependent kinase inhibitor 1A; E2F1, E2F transcription factor 1; ANRIL, antisense non-coding RNA in the INK4 locus; siRNA, small interfering RNA; NC, negative control; OD, optical density.

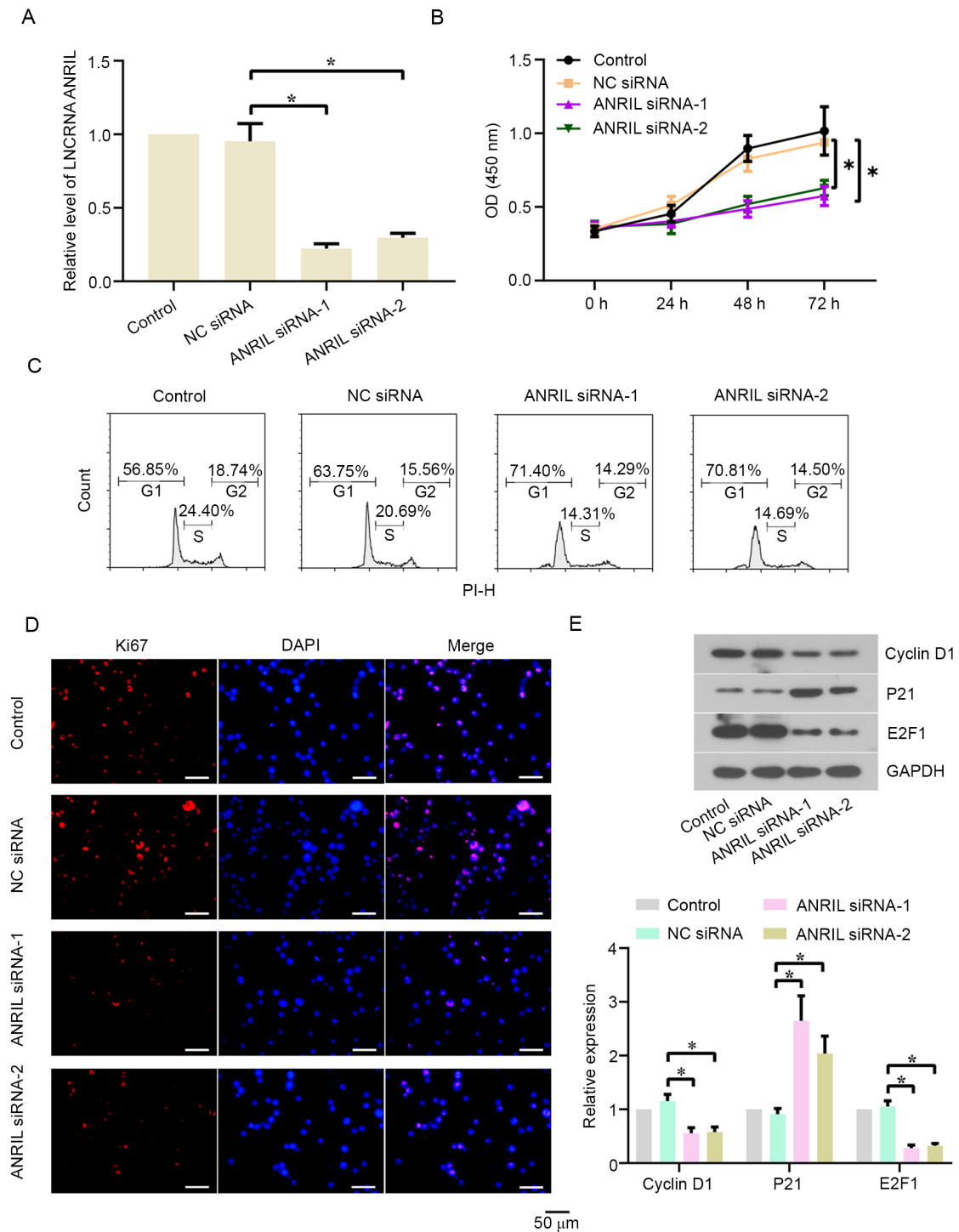


Figure S2. Effect of ANRIL knockdown on the apoptosis of CA46 cells. Apoptotic rate of CA46 cells was detected by (A) flow cytometry and (B) Hoechst staining. (C) Bcl-2, Bax, cleaved-caspase-3/pro-caspase-3 and cleaved-caspase-9/pro-caspase-9 protein expression levels in CA46 cells were analyzed using western blotting. * $P < 0.05$. ANRIL, antisense non-coding RNA in the INK4 locus; siRNA, small interfering RNA; NC, negative control; PI, propidium iodide.

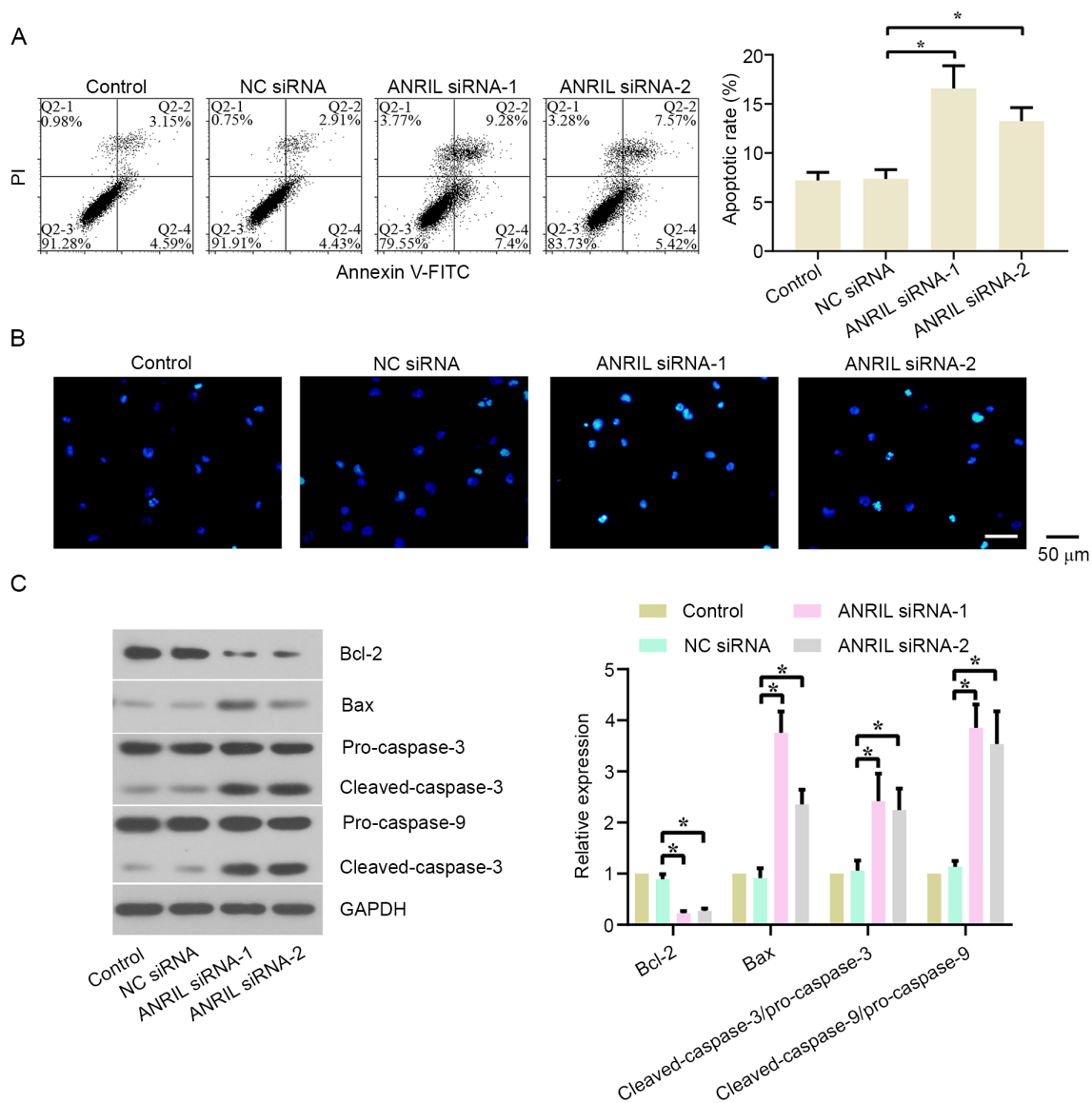


Figure S3. Effect of ANRIL knockdown on TGF- β 1 signaling in CA46 cells. TGF- β 1, p-SMAD2/3/SMAD2/3, p-SMAD1/SMAD1 and S1PR2 protein expression levels in CA46 cells were analyzed using western blotting. * $P < 0.05$. p-, phosphorylated; S1PR2, sphingosine-1-phosphate receptor 2; ANRIL, antisense non-coding RNA in the INK4 locus; siRNA, small interfering RNA; NC, negative control.

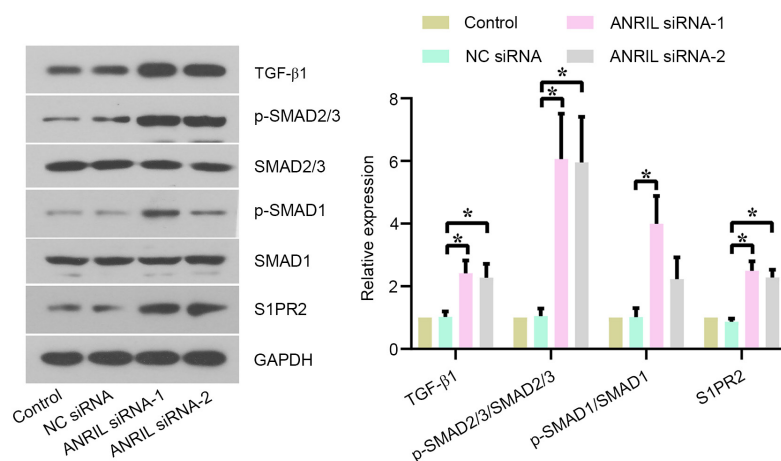


Figure S4. ANRIL knockdown affects the proliferation and apoptosis of CA46 cells by inhibiting TGF- β 1 signaling. (A) Cell viability of CA46 cells was measured using a Cell Counting Kit-8. (B) Apoptotic rate of CA46 cells was analyzed using flow cytometry. (C) Quantification of data presented in part (B). (D) Cyclin D1, p21, cleaved-caspase-3/pro-caspase-3 and cleaved-caspase-9/pro-caspase-9 expression levels in CA46 cells were detected with western blotting. * $P < 0.05$. p21, cyclin-dependent kinase inhibitor 1A; ANRIL, antisense non-coding RNA in the INK4 locus; siRNA, small interfering RNA; NC, negative control; OD, optical density; PI, propidium iodide.

