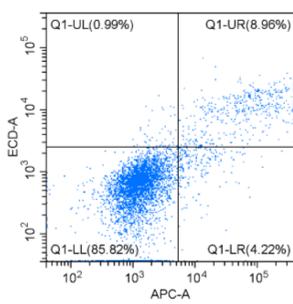
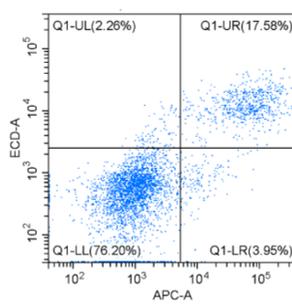
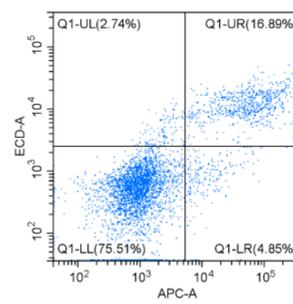
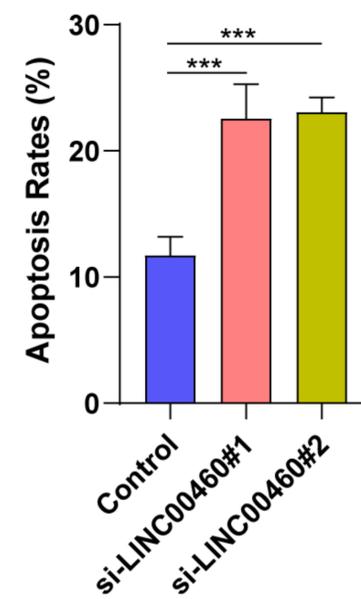
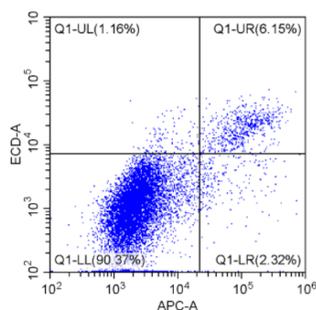
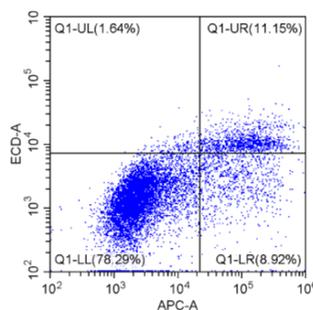
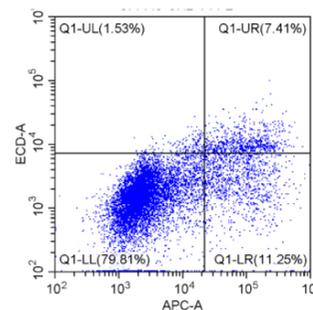
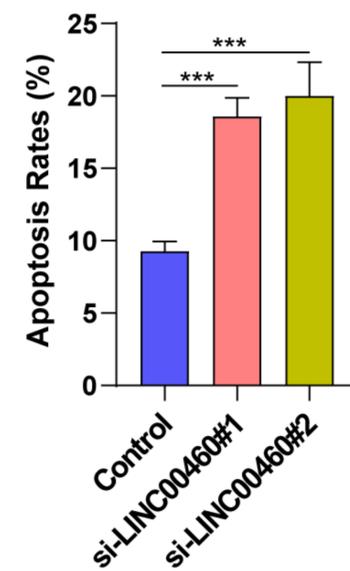
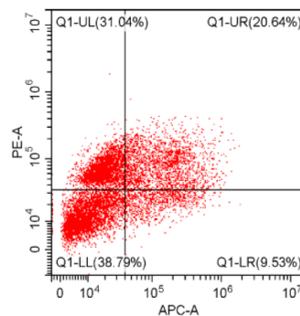
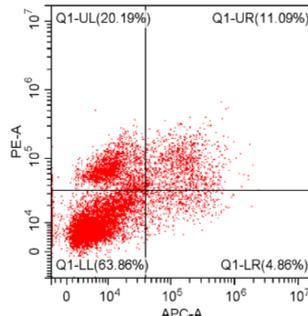
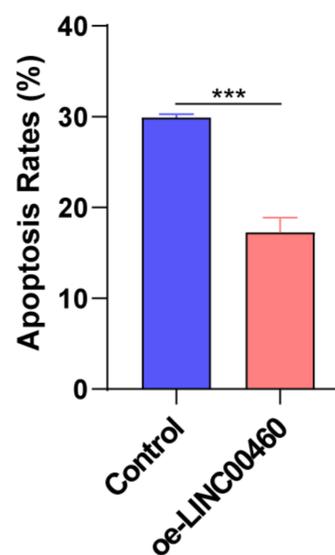
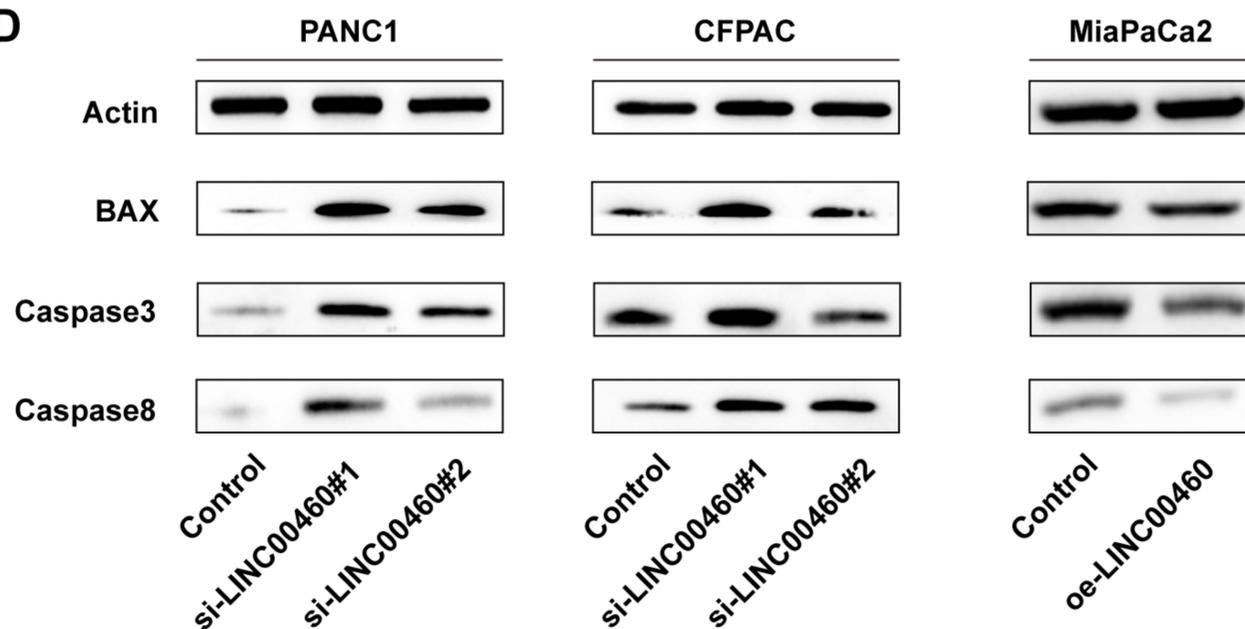
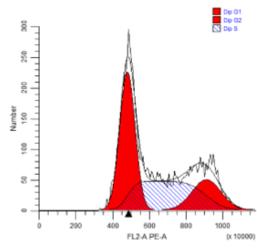
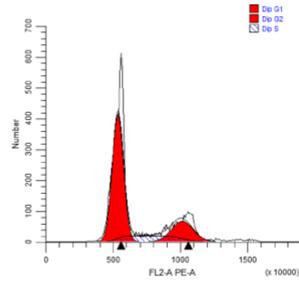


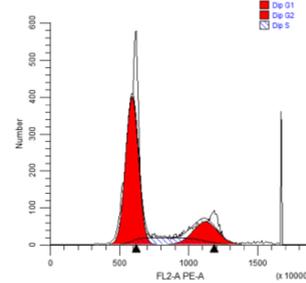
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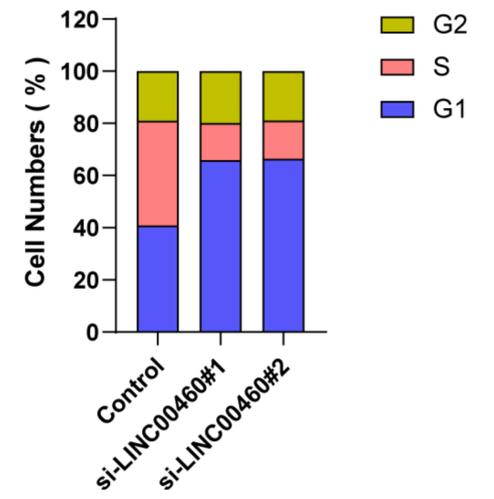
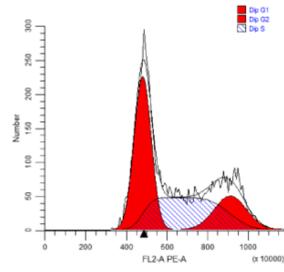
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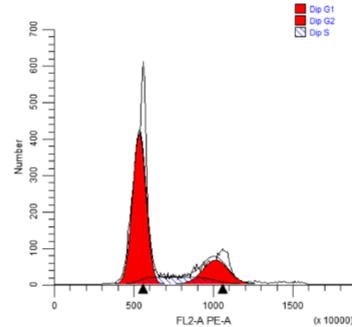
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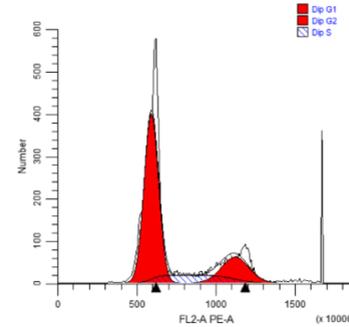
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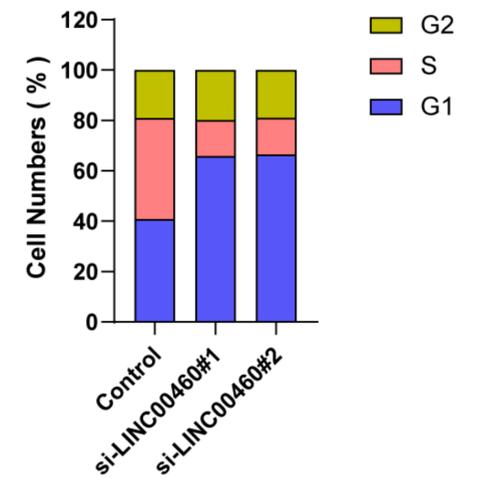
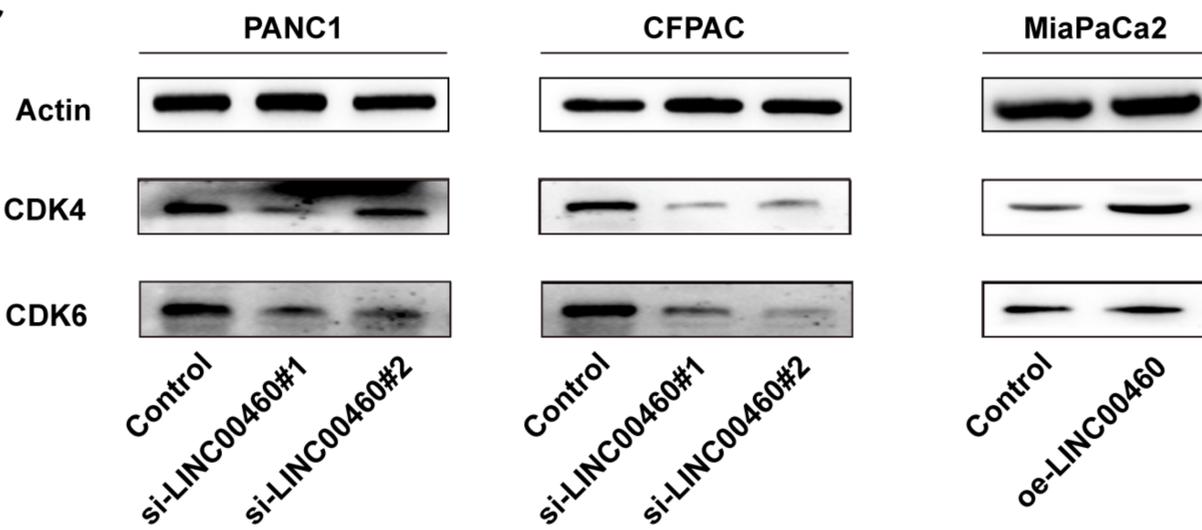
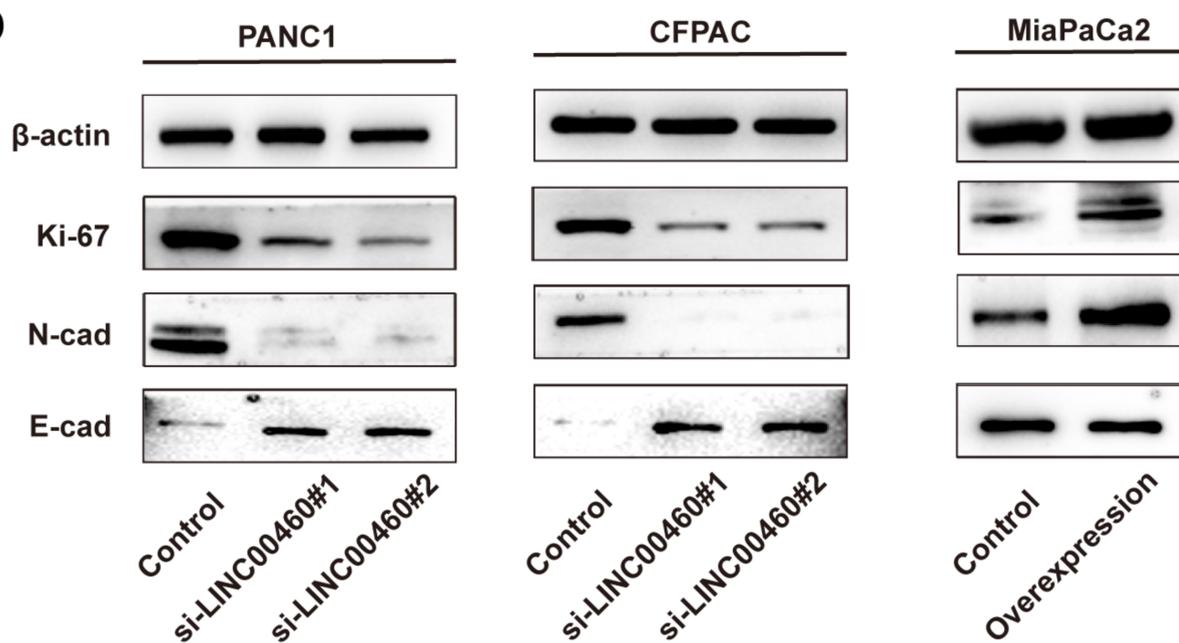
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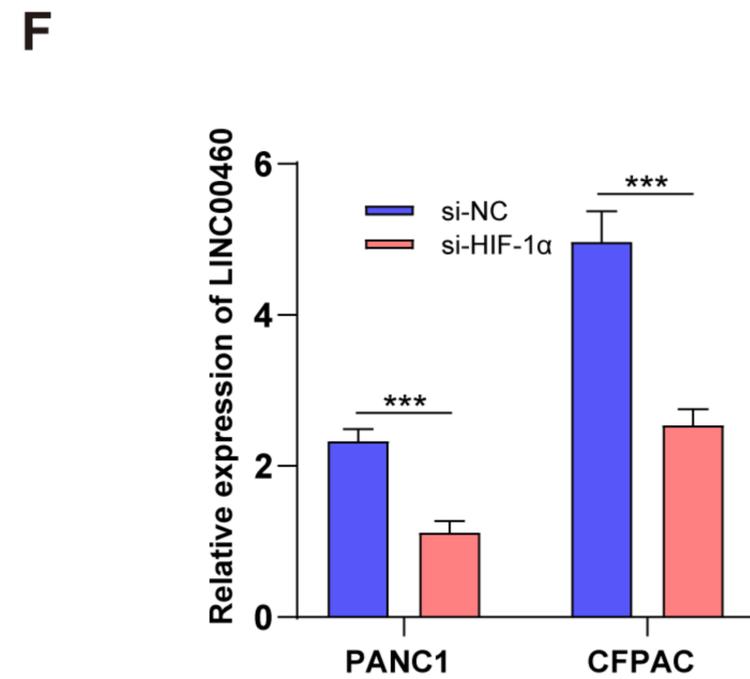
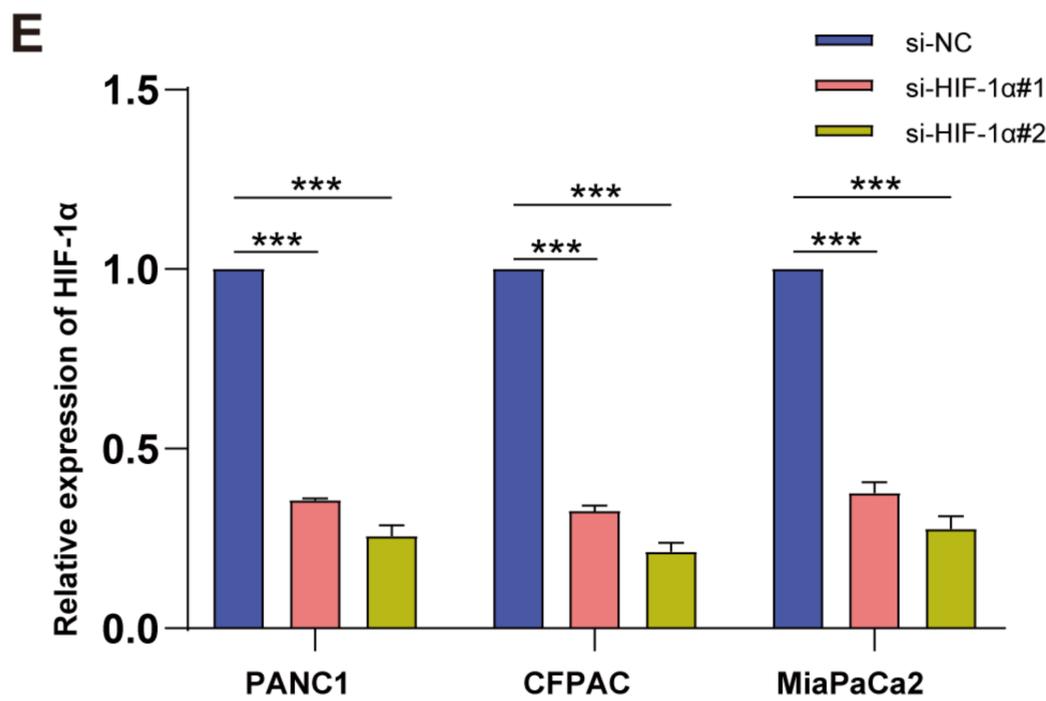
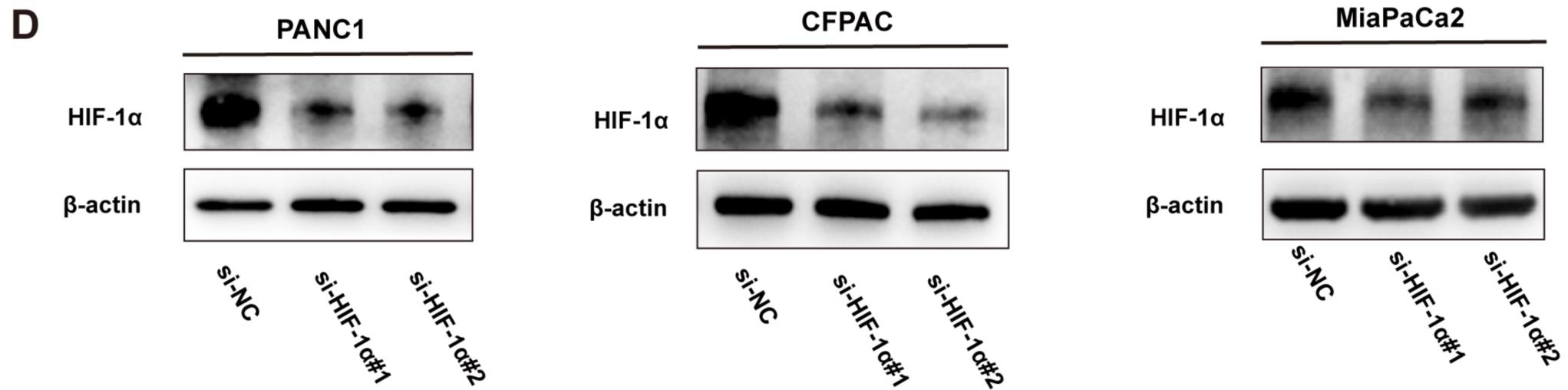
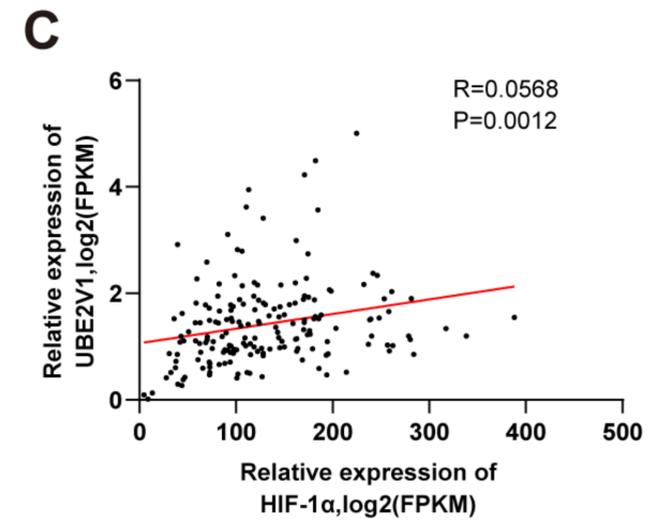
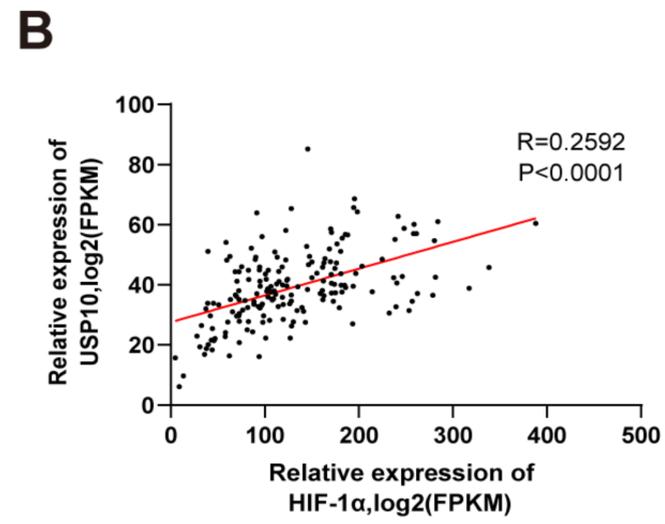


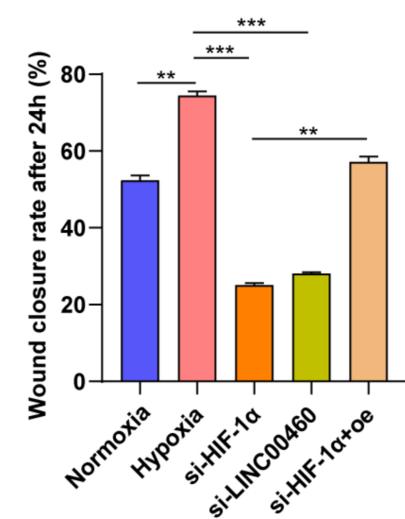
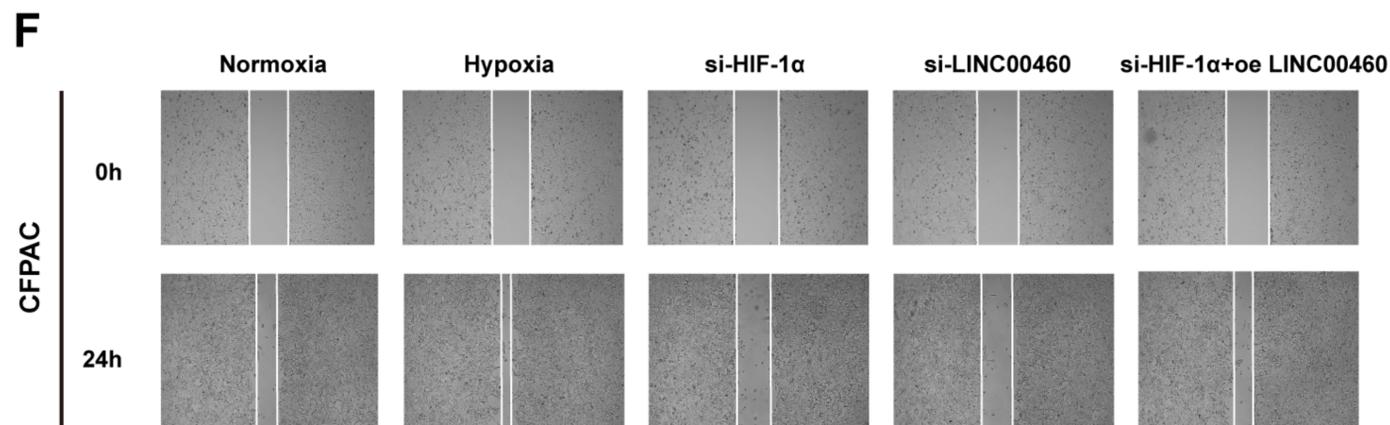
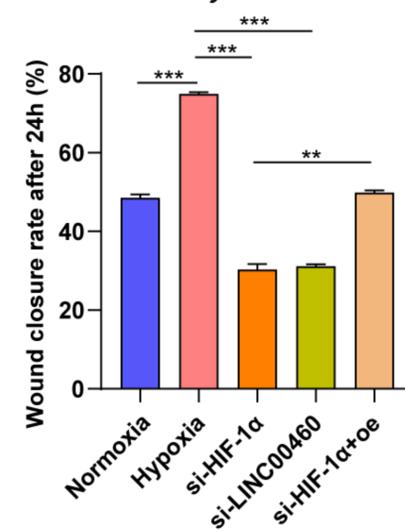
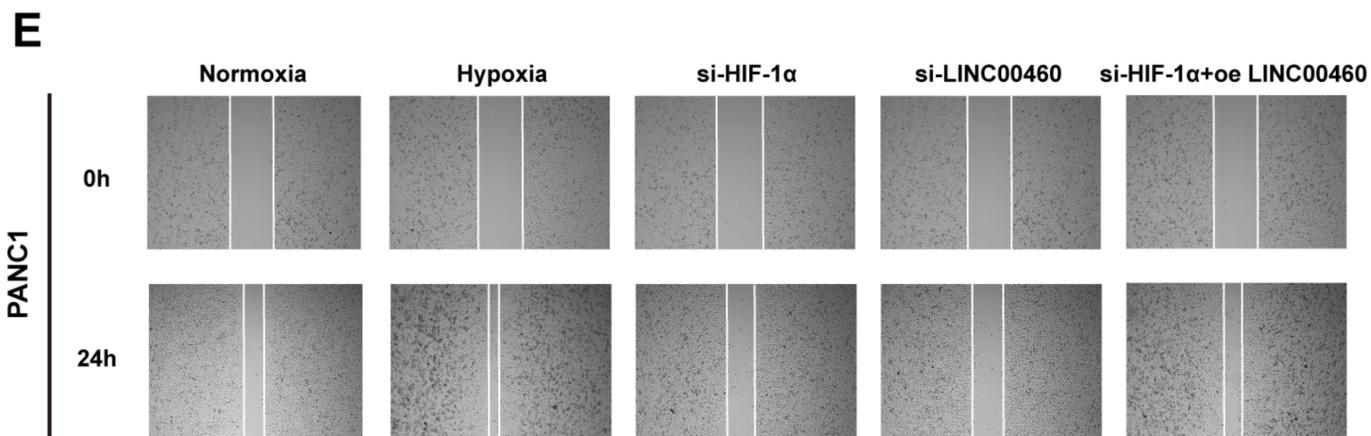
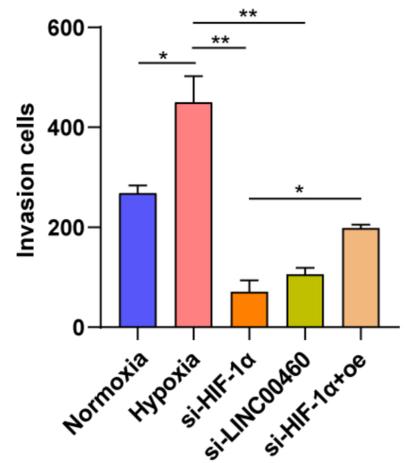
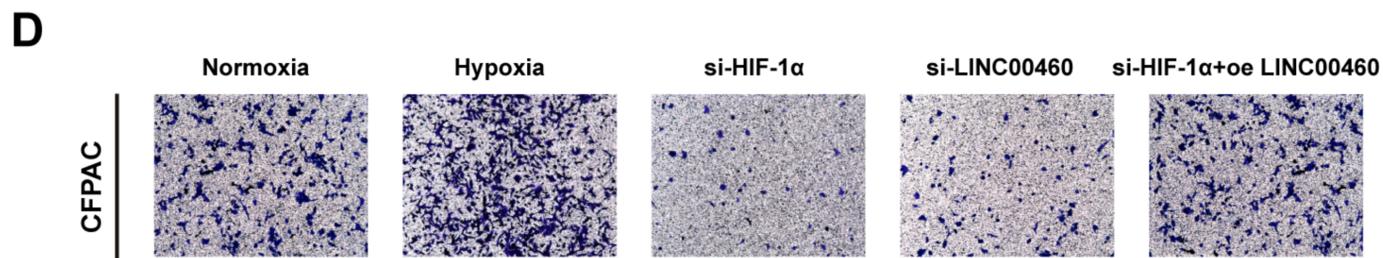
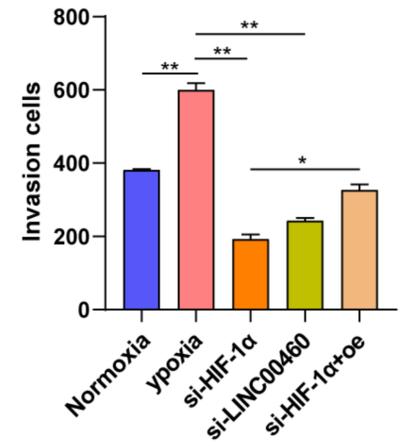
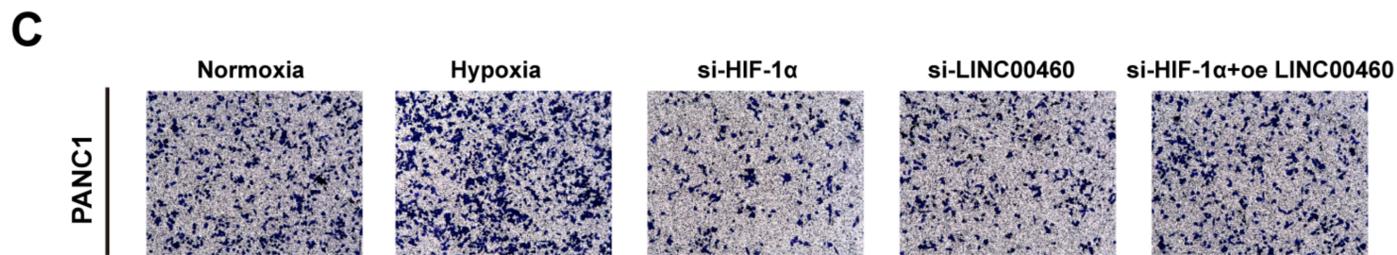
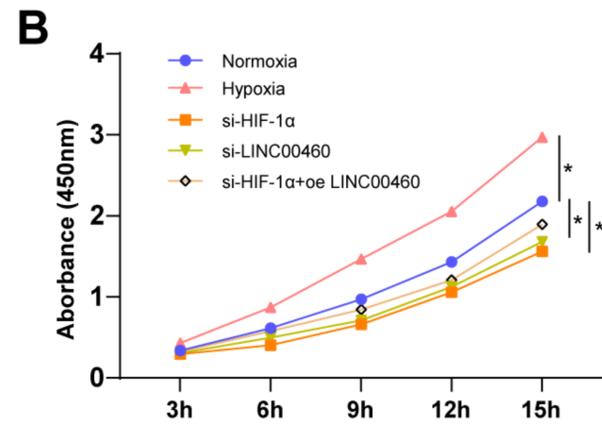
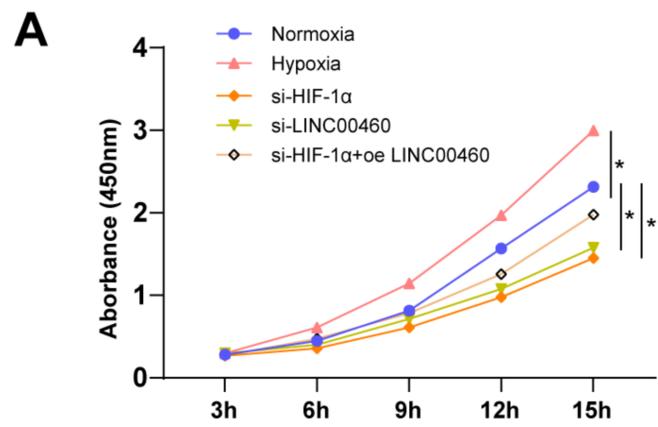
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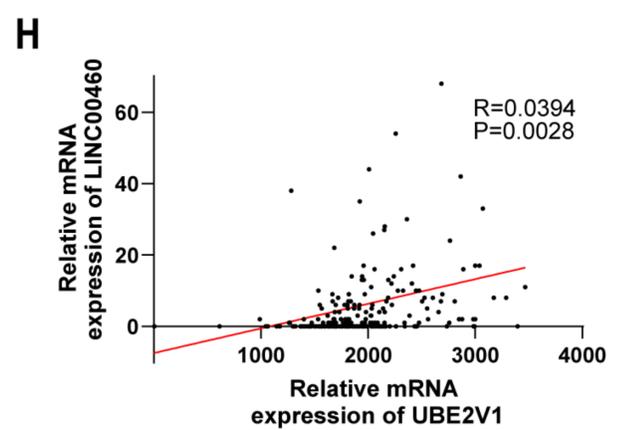
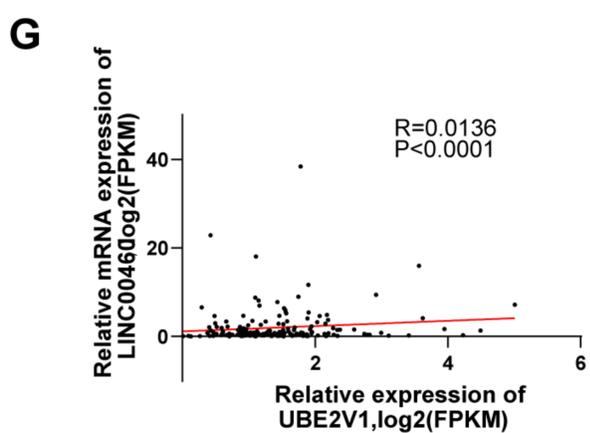
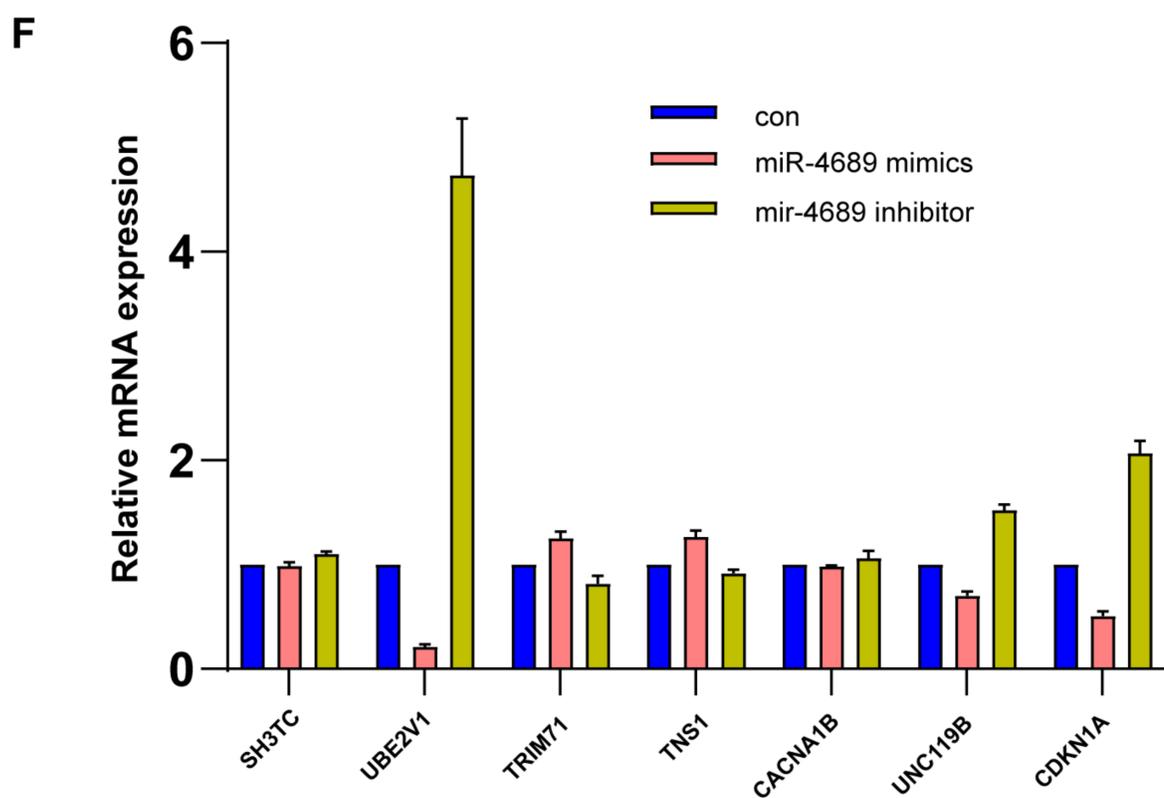
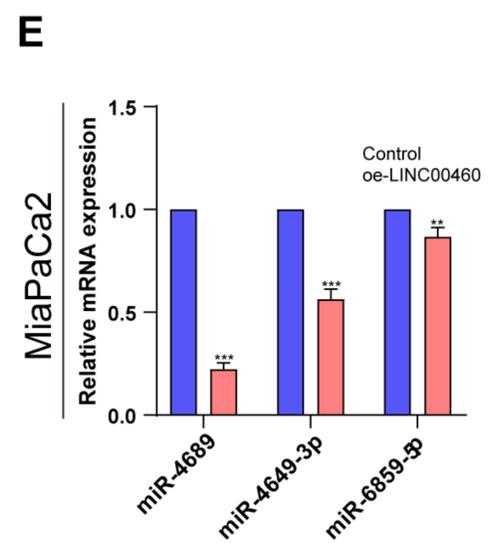
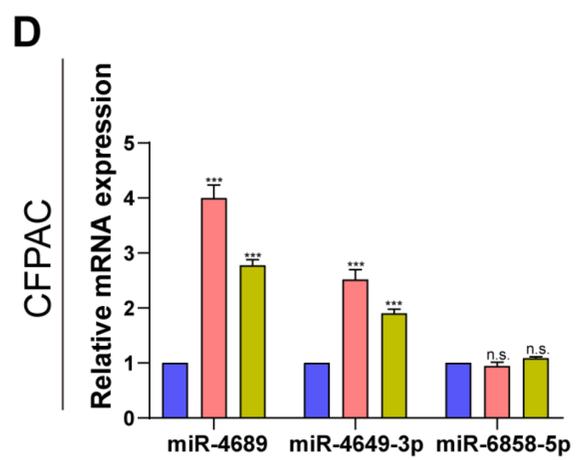
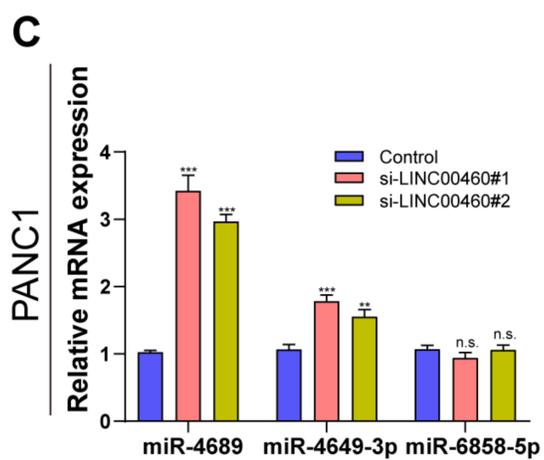
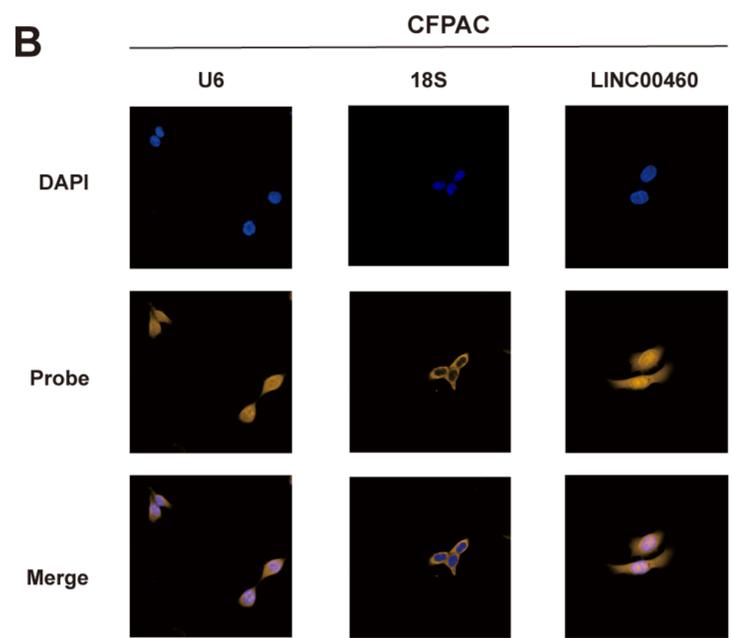
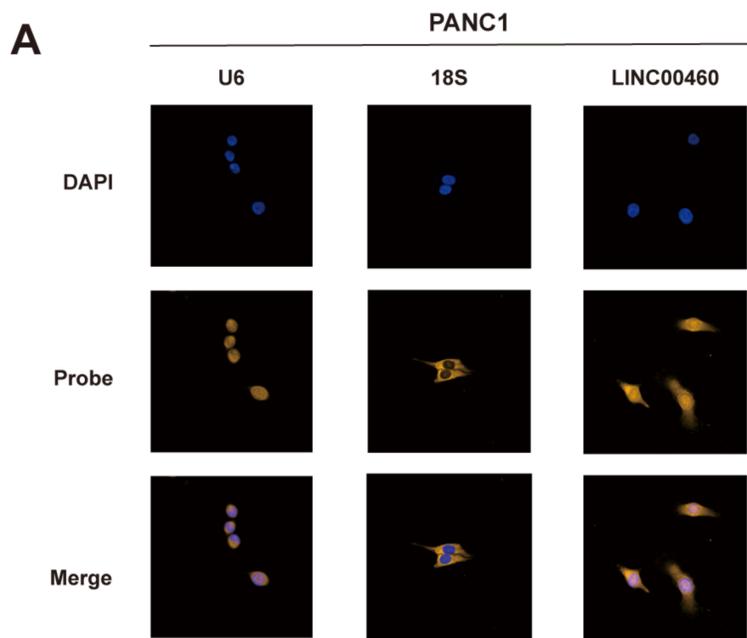


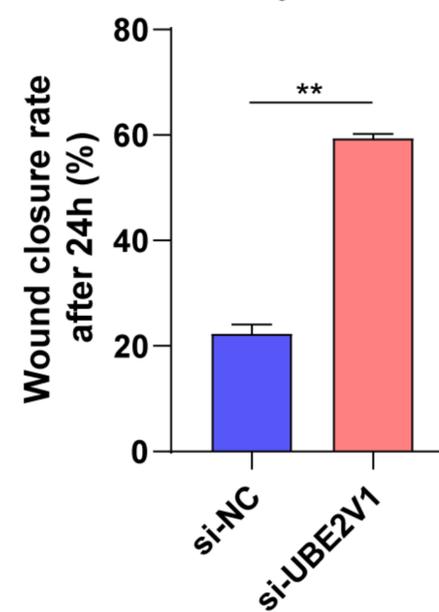
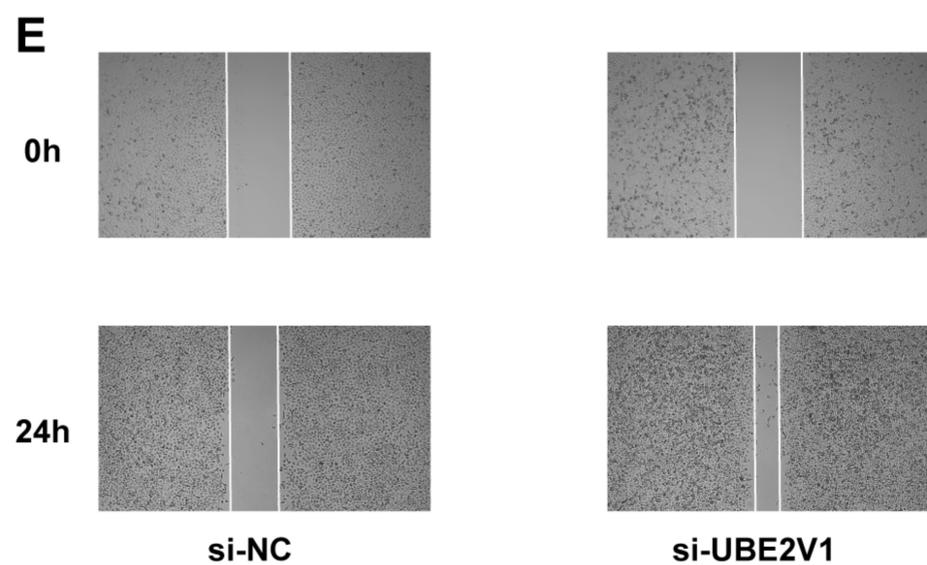
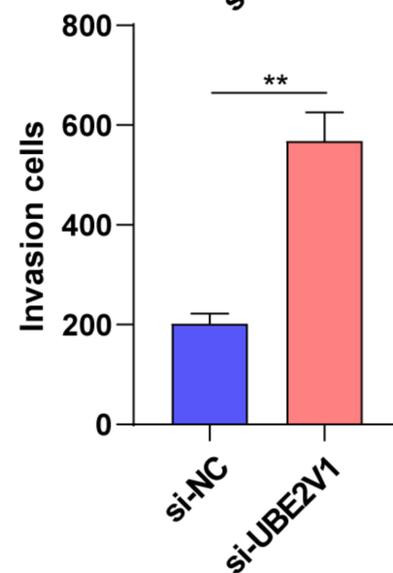
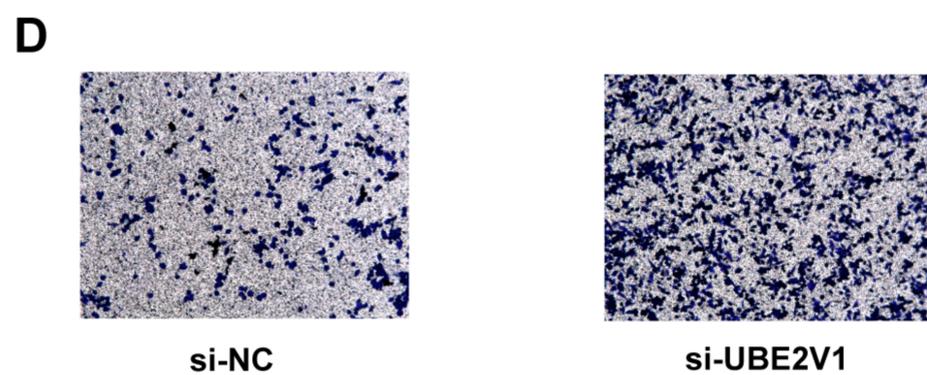
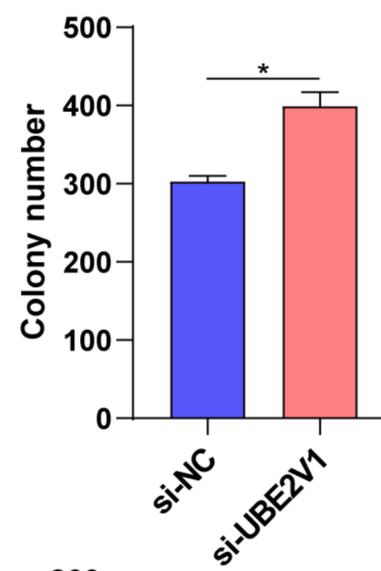
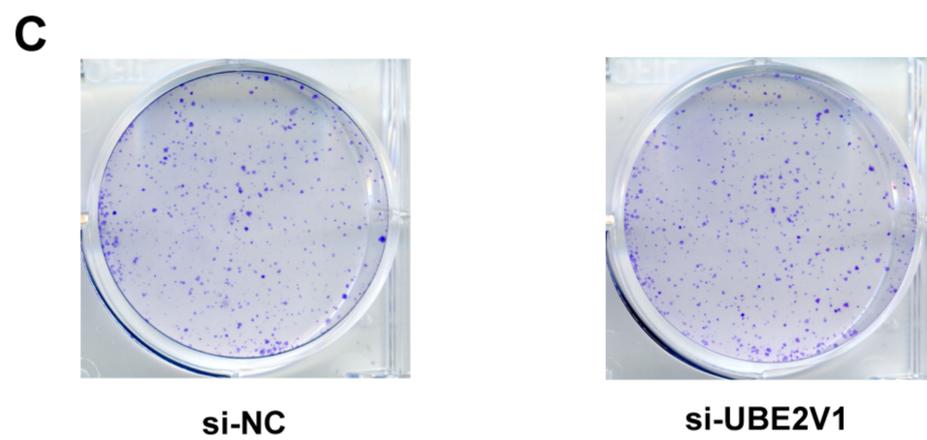
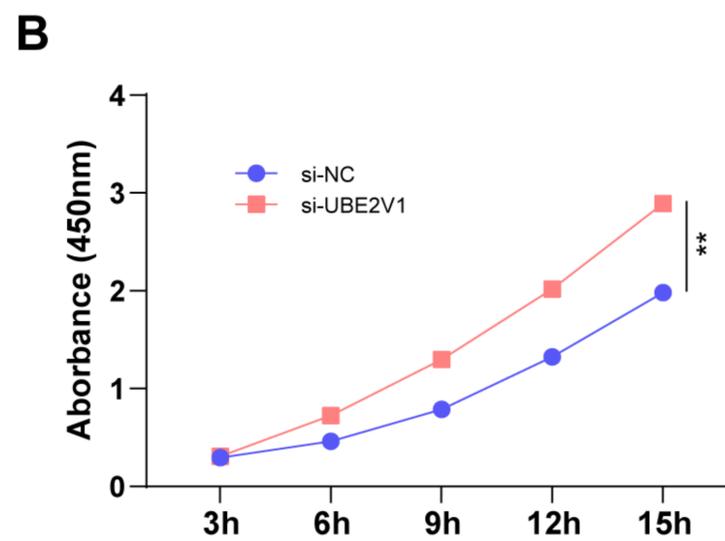
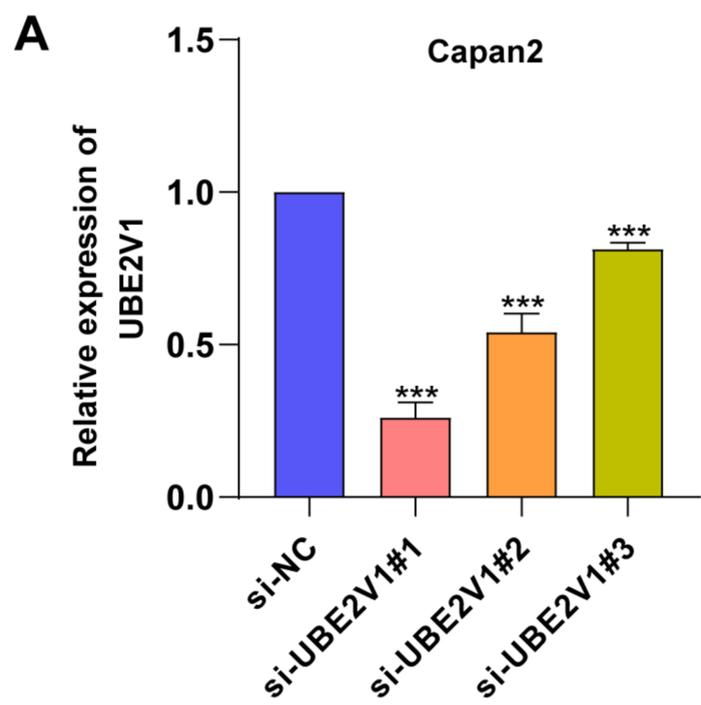
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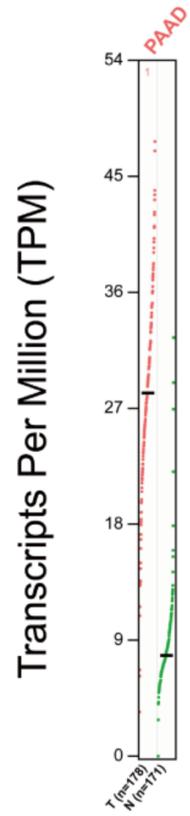
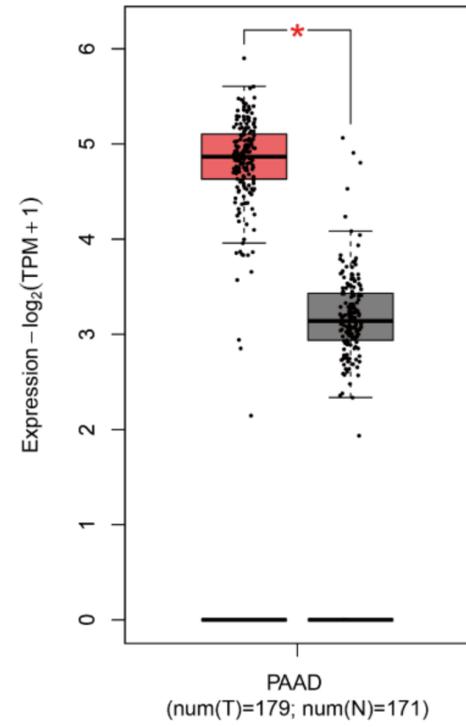
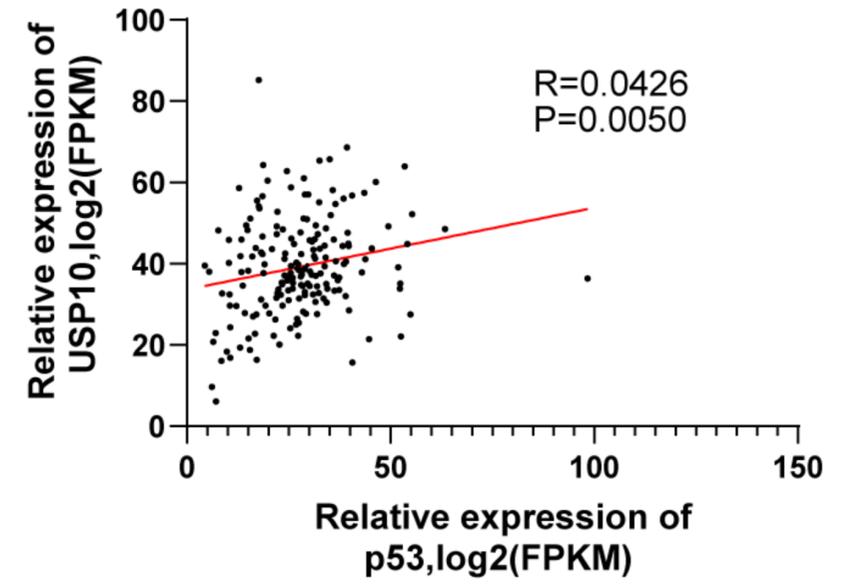
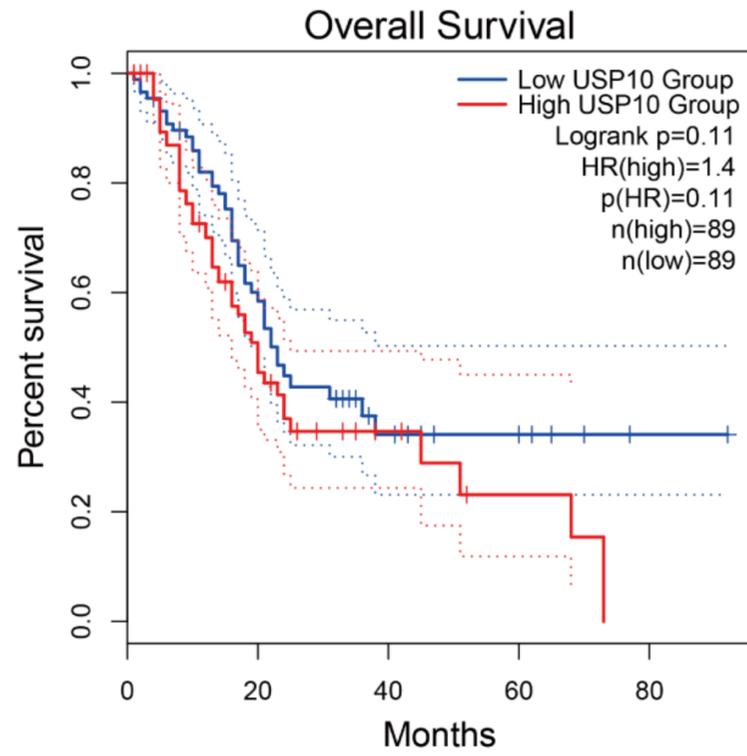
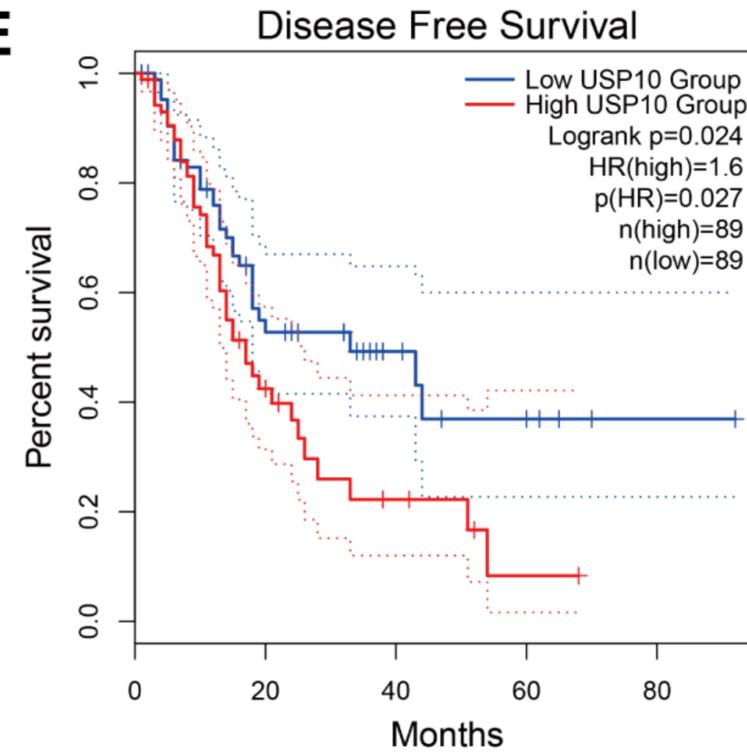
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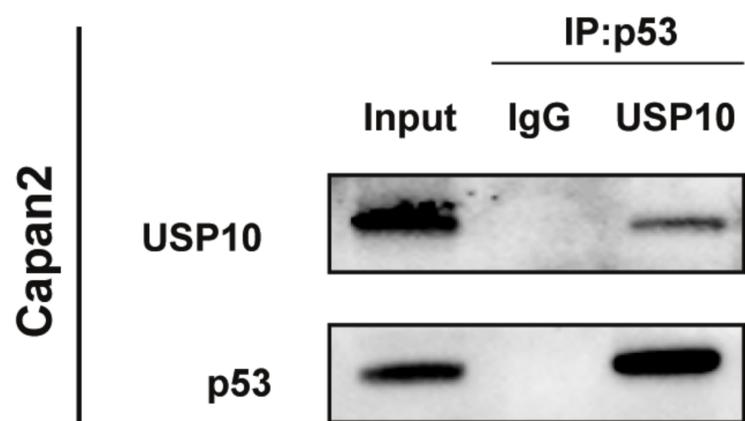
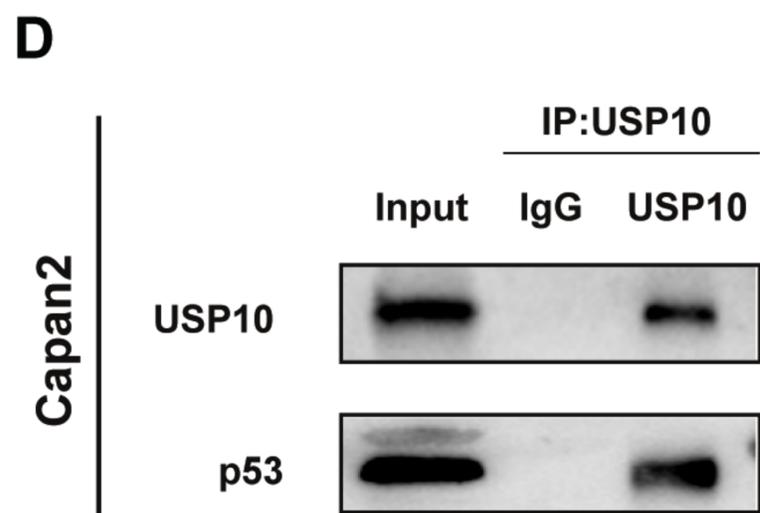
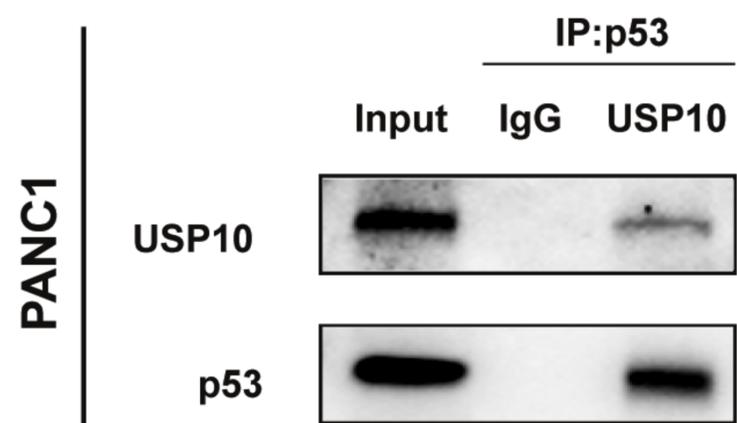
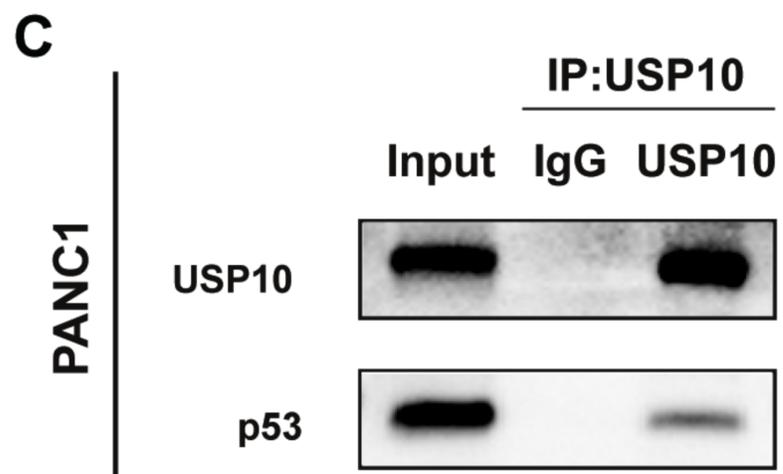
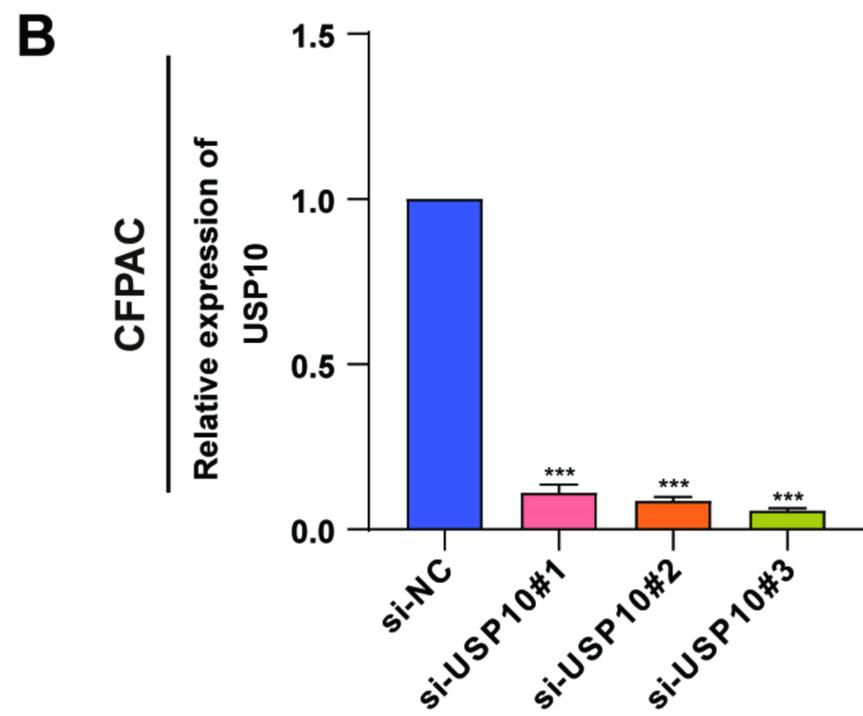
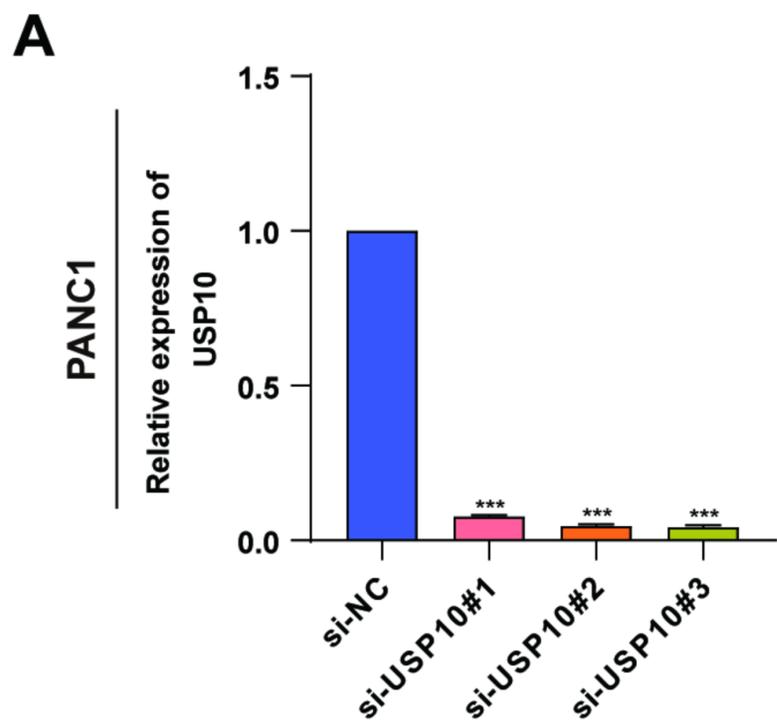








A**B****C****D****E**



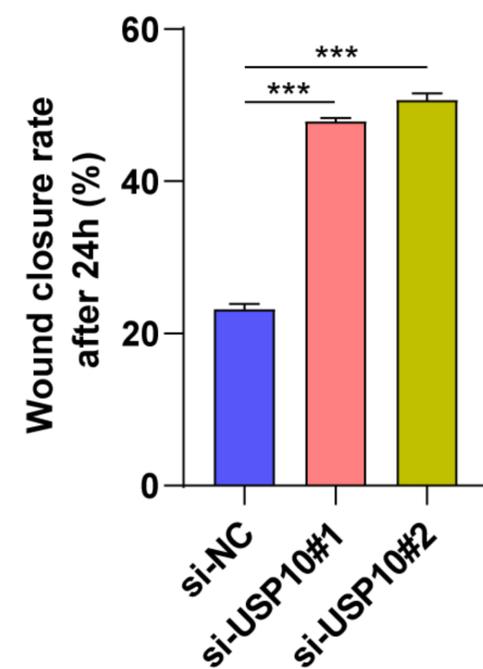
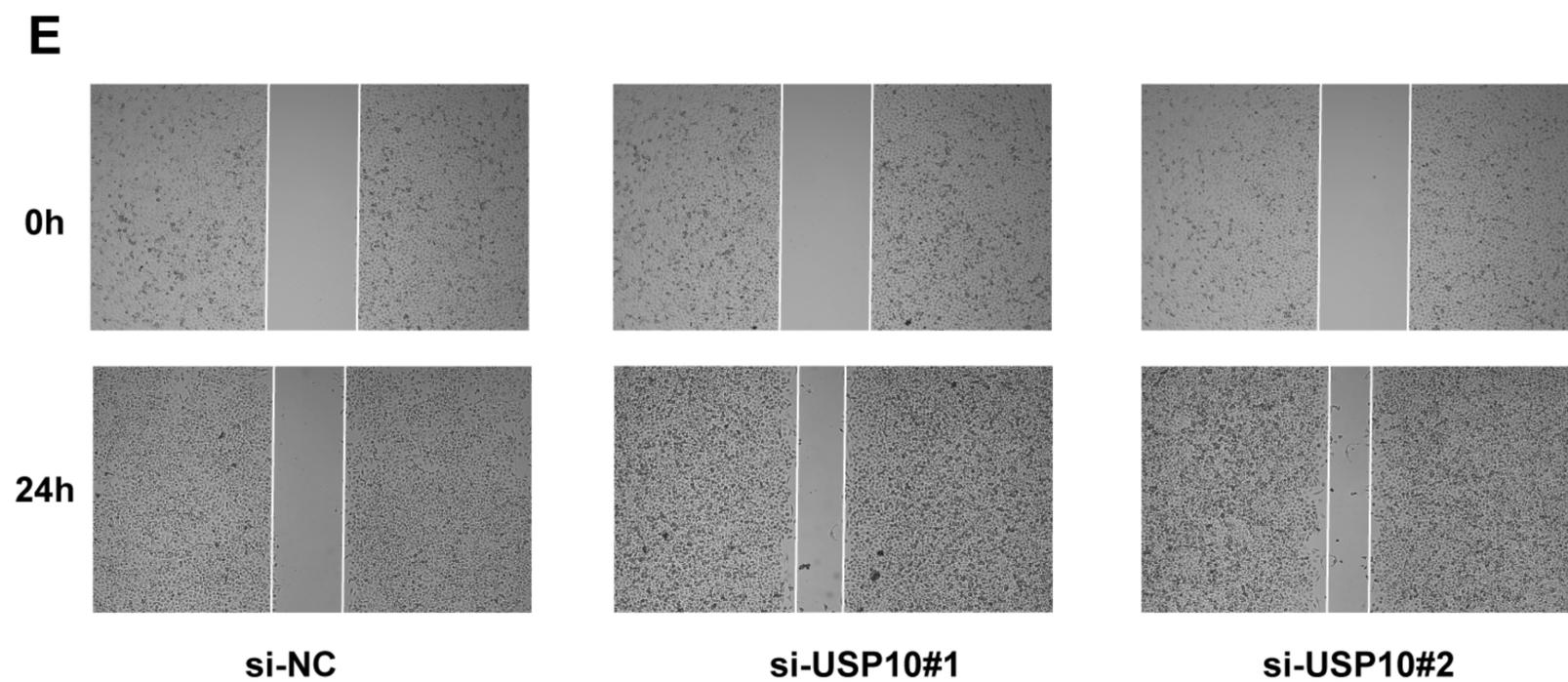
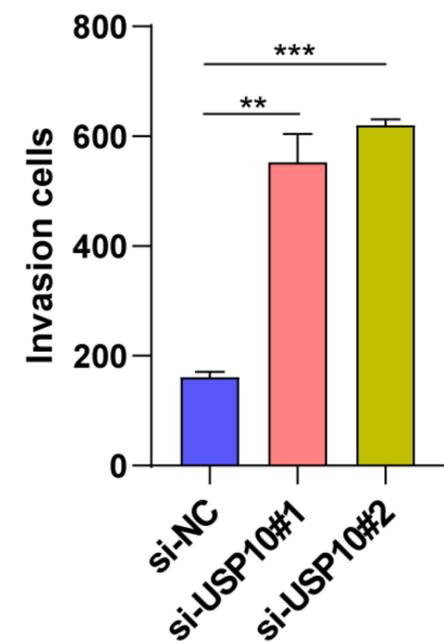
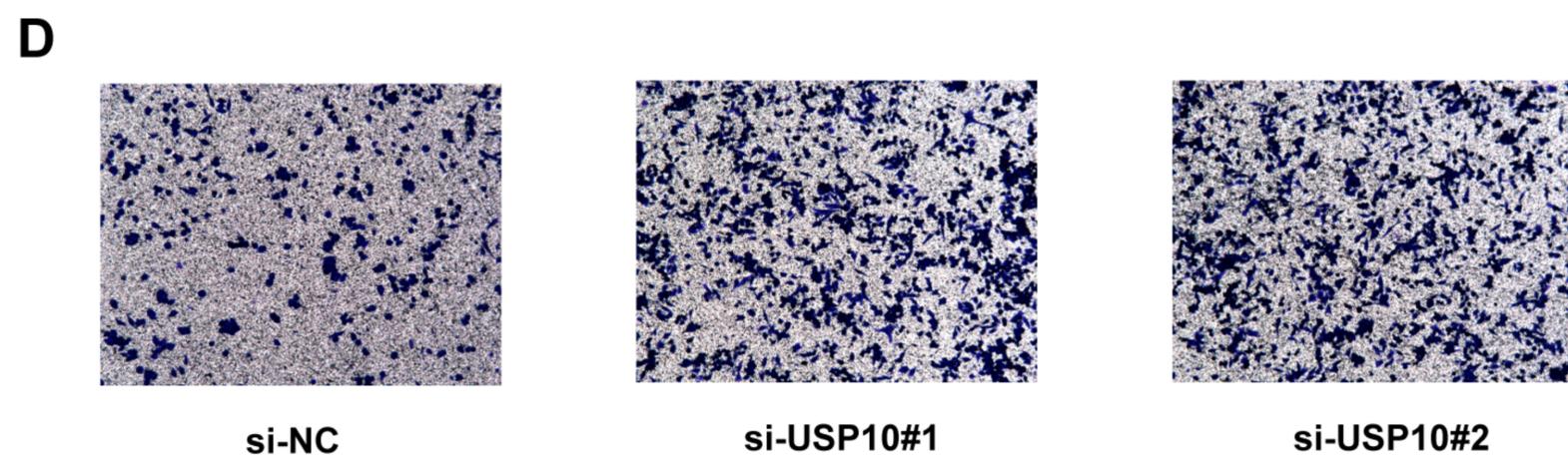
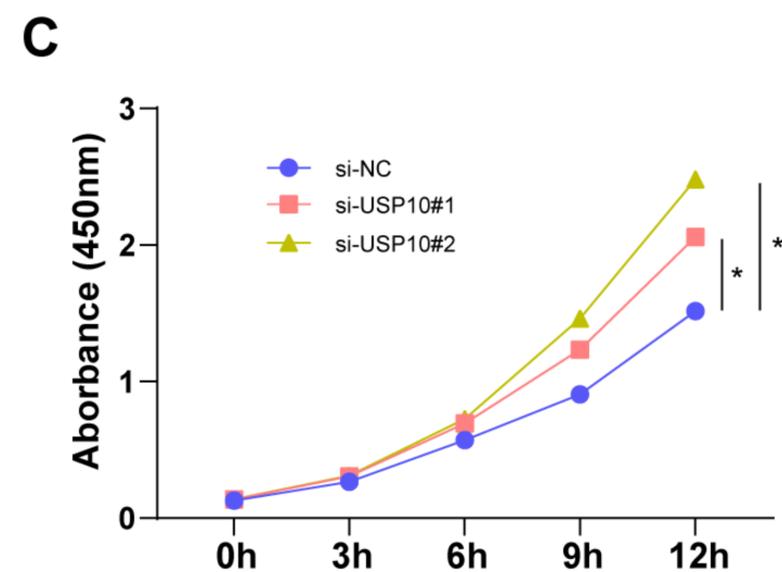
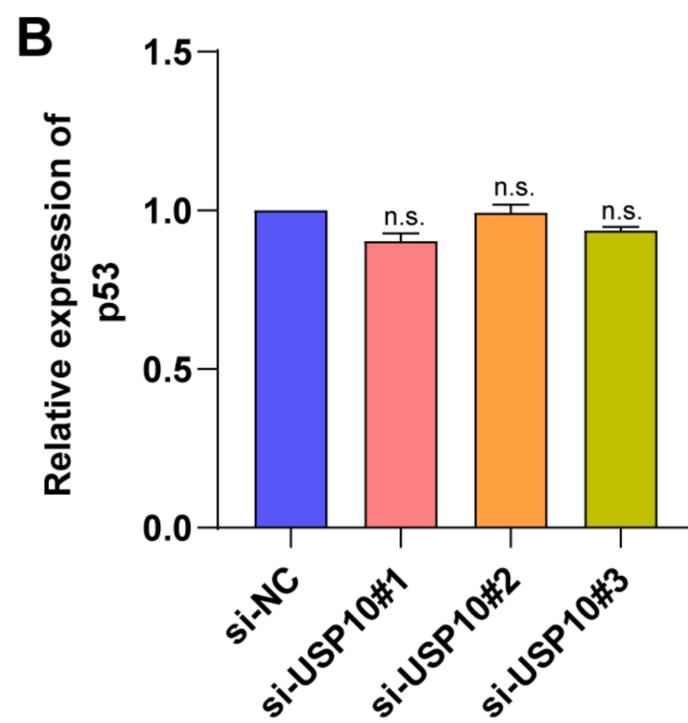
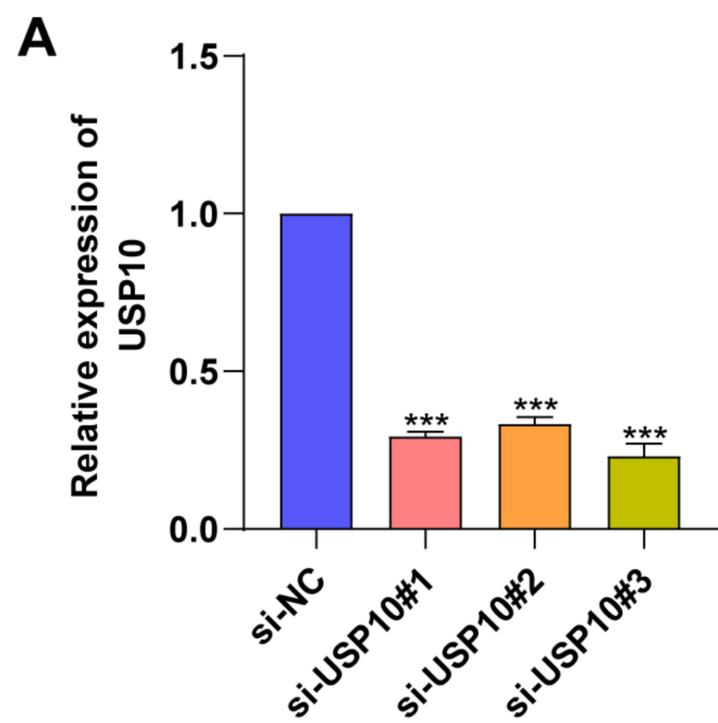


Figure. S1 Knocking down LINC00460 promotes cell apoptosis. **A** The cell apoptosis rate of PANC1 while knocking down LINC00460. **B** The cell apoptosis rate of CFPAC while knocking down LINC00460. **C** The cell apoptosis rate of MiaPaCa2 while overexpressing LINC00460. **D** The protein level of BAX, Caspase3 and Caspase8 while knocking down LINC00460 in PANC1 and CFPAC or overexpressing LINC00460 in MiaPaCa2. ***P<0.001

Figure S2 A The cell numbers of G1, S and G2 phase while knocking down LINC00460 or not in PANC1. **B** The cell numbers of G1, S and G2 phase while knocking down LINC00460 or not in CFPAC. **C** The protein level of CDK4 and CDK6 while knocking down LINC00460 in PANC1 and CFPA or overexpressing LINC00460 in MiaPaCa2. **D** The protein level of Ki-67, N-cad and E-cad while knocking down LINC00460 in PANC1 and CFPAC or overexpressing LINC00460 in MiaPaCa2. *P<0.05; **P<0.01; ***P<0.001

Figure S3 A The sequence logo of HIF-1 α in JASPAR database. **B** The correlation analysis of USP10 and HIF-1 α using data from TCGA. **C** The correlation analysis of UBE2V1 and HIF-1 α using data from TCGA. **D** The protein level of HIF-1 α while knocking down HIF-1 α in PANC1, CFPAC and MiaPaCa2 cells. **E** The mRNA expression of HIF-1 α while knocking down HIF-1 α in PANC1, CFPAC and MiaPaCa2 cells. **F** The mRNA expression of LINC00460 while knocking down HIF-1 α in PANC1 and CFPAC cells. *P<0.05; **P<0.01; ***P<0.001

Figure S4 Knocking down LINC00460 could reverse the malignant biological behavior induced by hypoxia. PANC1 and CFPAC cells were treated with normoxia, hypoxia, a combination of si-HIF-1 α and hypoxia, a combination of si-LINC00460 and hypoxia, a combination of si-HIF-1 α co-transfected overexpression LINC00460 and hypoxia. The results of CCK8 assays in PANC1 (**A**) and CFPAC (**B**). The representative images and results of transwell assays in PANC1 (**C**) and CFPAC (**D**). The representative images of wound healing assays and the results of wound closure rate after 24h in PANC1 (**E**)and CFPAC (**F**). *P<0.05; **P<0.01; ***P<0.001

Figure S5 A The location of U6, 18S and LINC00460 in PANC1. **B** The location of U6, 18S and LINC00460 in CFPAC. **C** Relative expression of miR-4689, miR-4649-3p and miR-6858-5p in PANC1 knocked down LINC00460. **D** Relative expression of miR-4689, miR-4649-3p and miR-6858-5p in CFPAC knocked down LINC00460 **E** Relative expression of miR-4689, miR-4649-3p and miR-6858-5p in MiaPaCa2 overexpressed LINC00460. **F** Relative expression of SH3TC, UBE2V1, TRIM71, TNS1, CACNA1B, UNC119B and CDKN1A after transfection of control vector, miR-4689 mimics and miR-4689 inhibitor. **G** Correlation analysis of LINC00460 and UBE2V1 using data from TCGA. **H** Correlation analysis of LINC00460 and UBE2V1 using data from our center. *P<0.05; **P<0.01; ***P<0.001

Figure S6 A The mRNA expression of UBE2V1 when transfected si-NC and si-UBE2V1 in Capan2 cells. **B** The result of CCK8 assay in Capan2 cells. **C** The representative images and results of colony formation assay in Capan2 cells. **D** The representative images and results of transwell assays in Capan2 cells. **E** The representative images of wound healing assays and the results of wound closure rate after 24h in Capan2 cells. *P<0.05; **P<0.01; ***P<0.001

Figure S7 **A** The transcripts level of USP10 in 178 tumor tissues and 171 normal tissues of PAAD patients. **B** The expression of USP10 in 179 tumor tissues and 171 normal tissues of PAAD patients. **C** Correlation analysis of USP10 and p53 using data from TCGA. **D** Overall survival analysis of USP10 in pancreatic cancer from TCGA database. **E** Disease free survival analysis of USP10 in pancreatic cancer from TCGA database.

Figure S8 **A** The mRNA expression of USP10 while knocking down USP10 or not in PANC1 cells. **B** The mRNA expression of USP10 while knocking down USP10 or not in CFPAC cells. **C** The correlation analysis of USP10 and p53 using data from TCGA. **D** CoIP assays using USP10 and p53 antibodies to verify the combination of USP10 and p53 in PANC1. **E** CoIP assays using USP10 and p53 antibodies to verify the combination of USP10 and p53 in Capan2. *P<0.05; **P<0.01; ***P<0.001

Figure S9 **A** The mRNA expression of USP10 when transfected si-NC and si-UBE2V1 in Capan2 cells. **B** The mRNA expression of p53 when transfected si-NC and si-UBE2V1 in Capan2 cells. **C** The result of CCK8 assay in Capan2 cells. **D** The representative images and results of transwell assays in Capan2 cells. **E** The representative images of wound healing assays and the results of wound closure rate after 24h in Capan2 cells. *P<0.05; **P<0.01; ***P<0.001

Figure S10 **A** Mutation information of p53 in PANC1, CFPAC and Capan2 in ATCC website. **B** Mutation information of p53 in PANC1 in Cellosaurus website. **C** Mutation information of p53 in CFPAC in Cellosaurus website. **D** Mutation information of p53 in MiaPaCa2 in Cellosaurus website. **E** Mutation information of p53 in Capan2 in Cellosaurus website.