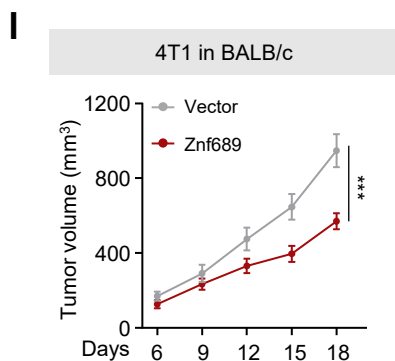
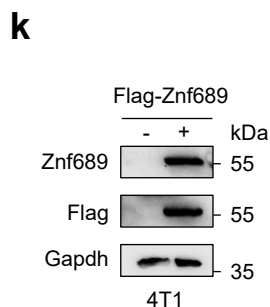
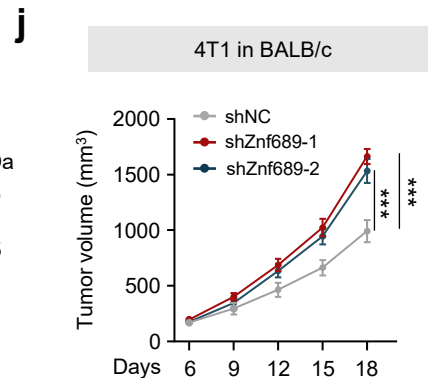
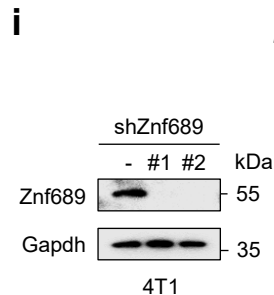
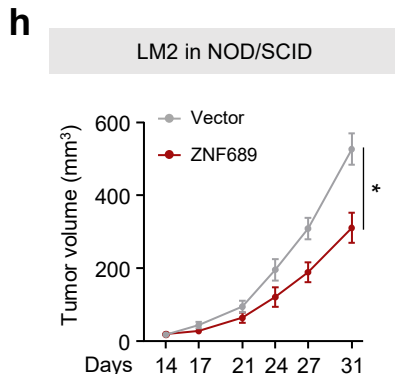
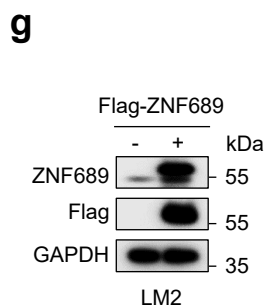
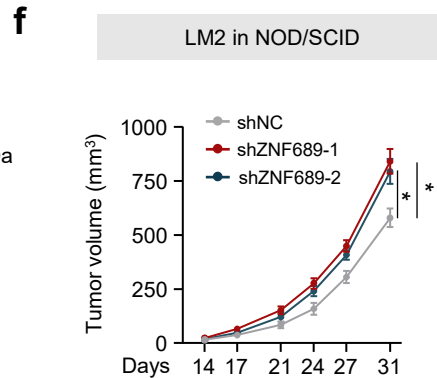
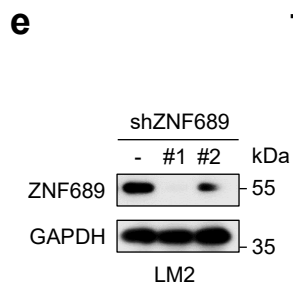
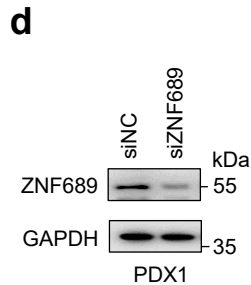
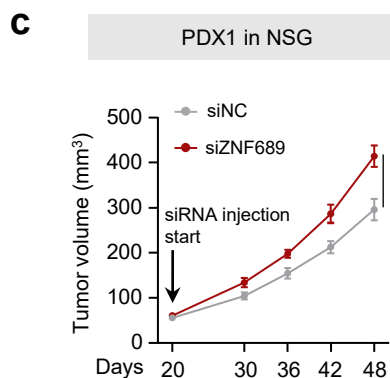
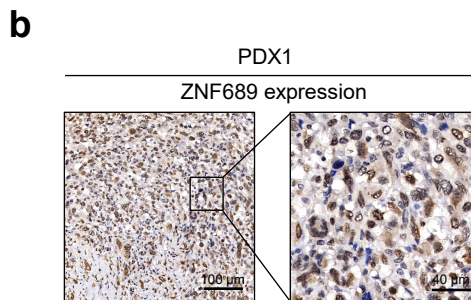
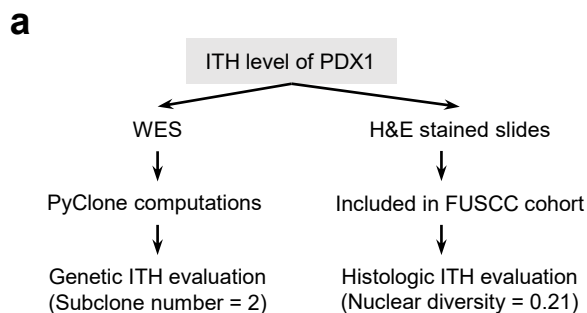


# Supplementary information, Fig. S4



**Supplementary information, Fig. S4 ZNF689 deficiency induces a malignant phenotype of TNBC.**

**a** Assessment method for ITH in PDX1 models. **b** IHC of PDX1 for detecting the expression of ZNF689. Scale bars, 100  $\mu$ m and 40  $\mu$ m. **c** Tumor growth of PDX1 with or without intratumoral ZNF689 knockdown in NSG mice (n = 6 mice/group). **d** Western blotting assays show the efficiency of ZNF689 knockdown in PDX1 tumors. **e** Western blotting assays show the efficiency of ZNF689 knockdown in LM2 cells. **f** Tumor growth of LM2 cells expressing shNC or shZNF689 in NOD/SCID mice (n = 6 mice/group). **g** Western blotting assays show the efficiency of ZNF689 overexpression in LM2 cells. **h** Tumor growth of LM2 cells expressing vector or ZNF689 overexpression in NOD/SCID mice (n = 6 mice/group). **i** Western blotting assays show the efficiency of Znf689 knockdown in 4T1 cells. **j** Tumor growth of 4T1 cells expressing shNC or shZnf689 in BALB/c mice (n = 6 mice/group). **k** Western blotting assays show the efficiency of Znf689 overexpression in 4T1 cells. **l** Tumor growth of 4T1 cells expressing vector or Znf689 overexpression in BALB/c mice (n = 6 mice/group). P values were determined using two-way ANOVA. \*p < 0.05, \*\*\*p < 0.001.