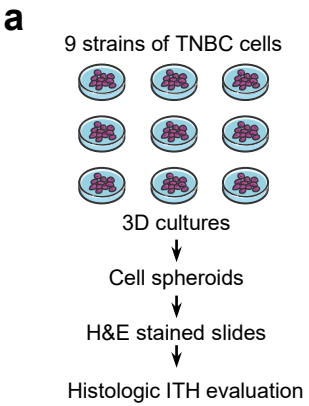
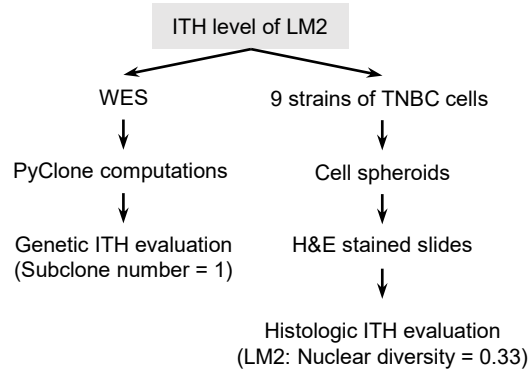
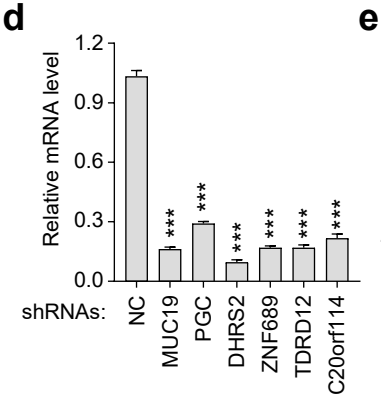
Supplementary information, Fig. S3

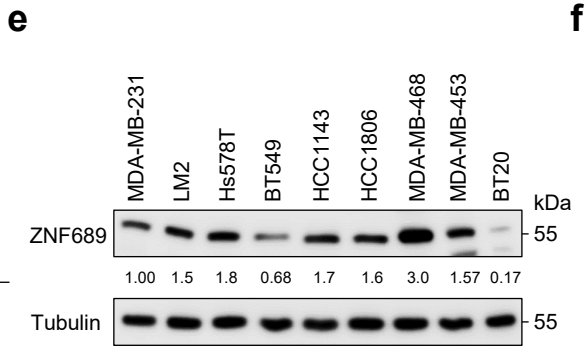


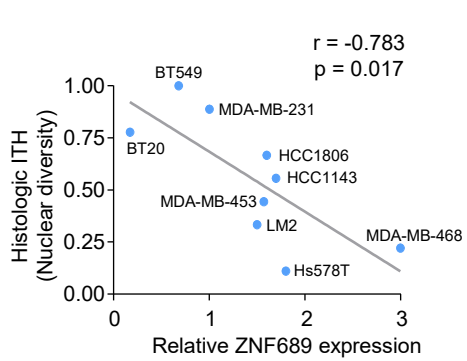
b

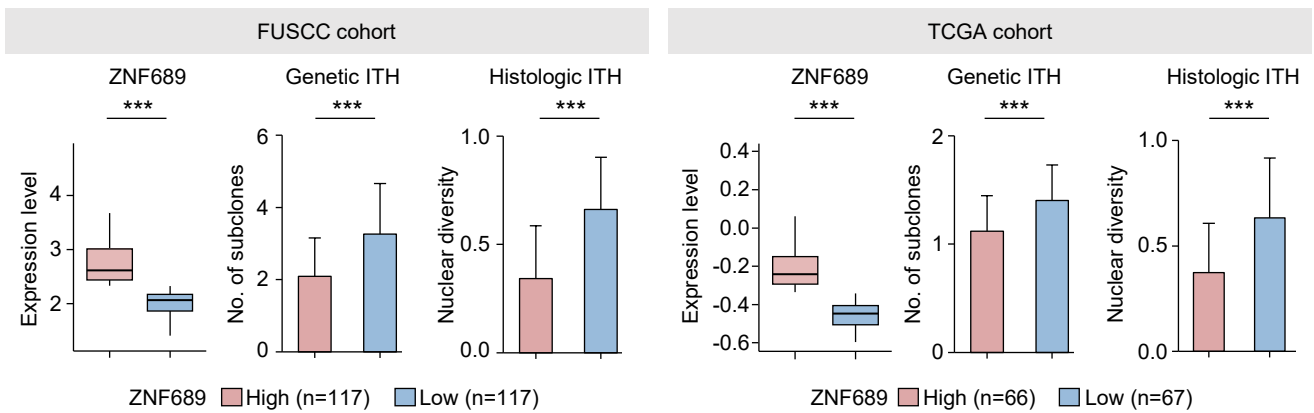
Cell lines	Nuclear diversity
MDA-MB-231	0.89
LM2	0.33
Hs578T	0.11
BT549	1.00
HCC1143	0.56
HCC1806	0.67
MBA-MB-468	0.22
MDA-MB-453	0.44
BT20	0.78











Supplementary information, Fig. S3 Inverse correlation between ZNF689 expression and ITH in TNBC.

a Scheme illustrating the procedural steps of the 3D tumor sphere assay used to assess the histologic ITH across 9 strains of TNBC cells. **b** Table of histologic ITH assessment results for 9 TNBC cell lines. **c** Assessment method for ITH in LM2 models. **d** RT-qPCR analysis of the relative mRNA levels of MUC19, PGC, DHRS2, ZNF689, TDRD12, and C20orf114 after shRNA knockdown in LM2 cells. **e** Western blot analysis of ZNF689 protein expression levels in 9 TNBC cell lines. **f** Spearman's rank analysis of correlations between levels of ZNF689 expression and histologic ITH in 9 TNBC cell lines. **g** Genetic ITH and histologic ITH levels of tumors in the FUSCC cohort and TCGA cohort with different expression levels of ZNF689. P values were determined using one-way ANOVA (**d**) and permutation tests (**g**). ***$p < 0.001$.