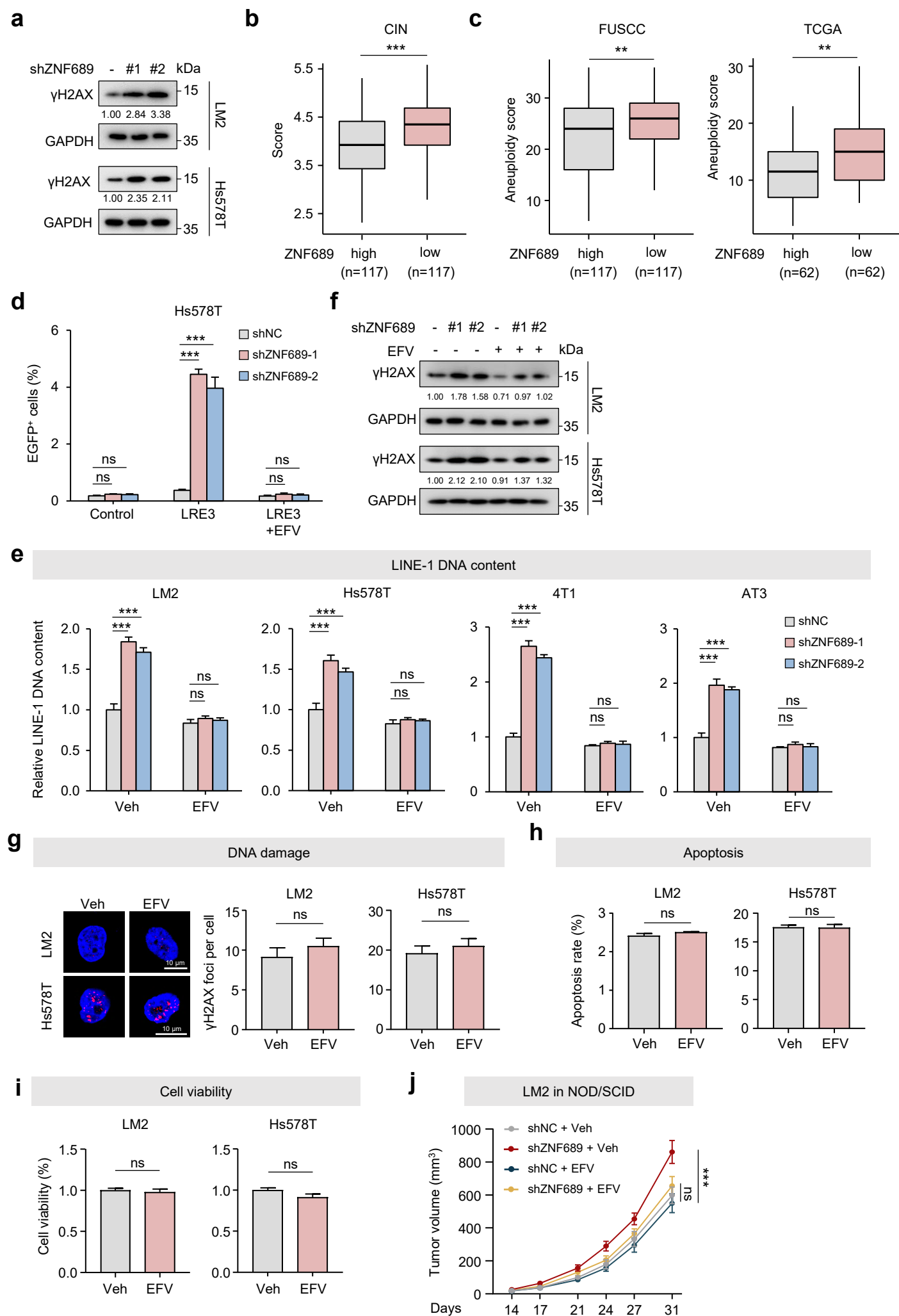


# Supplementary information, Fig. S7



**Supplementary information, Fig. S7 The LINE-1 inhibitor EFV reverses the effects of ZNF689 deficiency on LINE-1 retrotransposition.**

**a** Western blot assessment of  $\gamma$ H2AX levels in LM2 and Hs578T cells with shNC and shZNF689. **b** Distribution of CIN scores across TNBC tumors stratified by ZNF689 expression in the FUSCC cohort. **c** Distribution of aneuploidy scores across TNBC tumors by ZNF689 expression. **d** Quantification of retrotransposition events (EGFP-positive cells) in shNC and shZNF689 Hs578T cells treated with EFV (20  $\mu$ M). **e** RT-qPCR evaluation of relative LINE-1 (5'-UTR for LM2 and Hs578T; ORF2 for 4T1 and AT3) genomic DNA content in TNBC cells following EFV (20  $\mu$ M) treatments. **f** Western blotting analysis of  $\gamma$ H2AX in LM2 and Hs578T cells treated with EFV (20  $\mu$ M). **g** Representative IF images and quantification of  $\gamma$ H2AX foci in LM2 and Hs578T cells treated with 20  $\mu$ M EFV for 24 h. Scale bar, 10  $\mu$ m. **h** Apoptotic rate determination using flow cytometry and Annexin V-Alexa Fluor 647/PI staining in LM2 and Hs578T cells after 24 h of exposure to 20  $\mu$ M EFV. **i** Cell viability measurements via CCK8 assays in LM2 and Hs578T cells after 24 h of treatment with 20  $\mu$ M EFV. **j** Tumor growth of LM2 cells expressing shNC or shZNF689 in NOD/SCID mice treated with EFV (n = 6 mice/group). P values were determined using the Wilcoxon tests (**b**, **c**), one-way ANOVA (**d**, **e**), two-tailed unpaired Student's t tests (**g-i**) and two-way ANOVA (**j**). ns, not significant; \*\*p < 0.01, \*\*\*p < 0.001.