

Supporting information

eEF2K-Mediated Stabilization of PCBP2 Promotes Oncogenic mRNA Programs in Triple-Negative Breast Cancer

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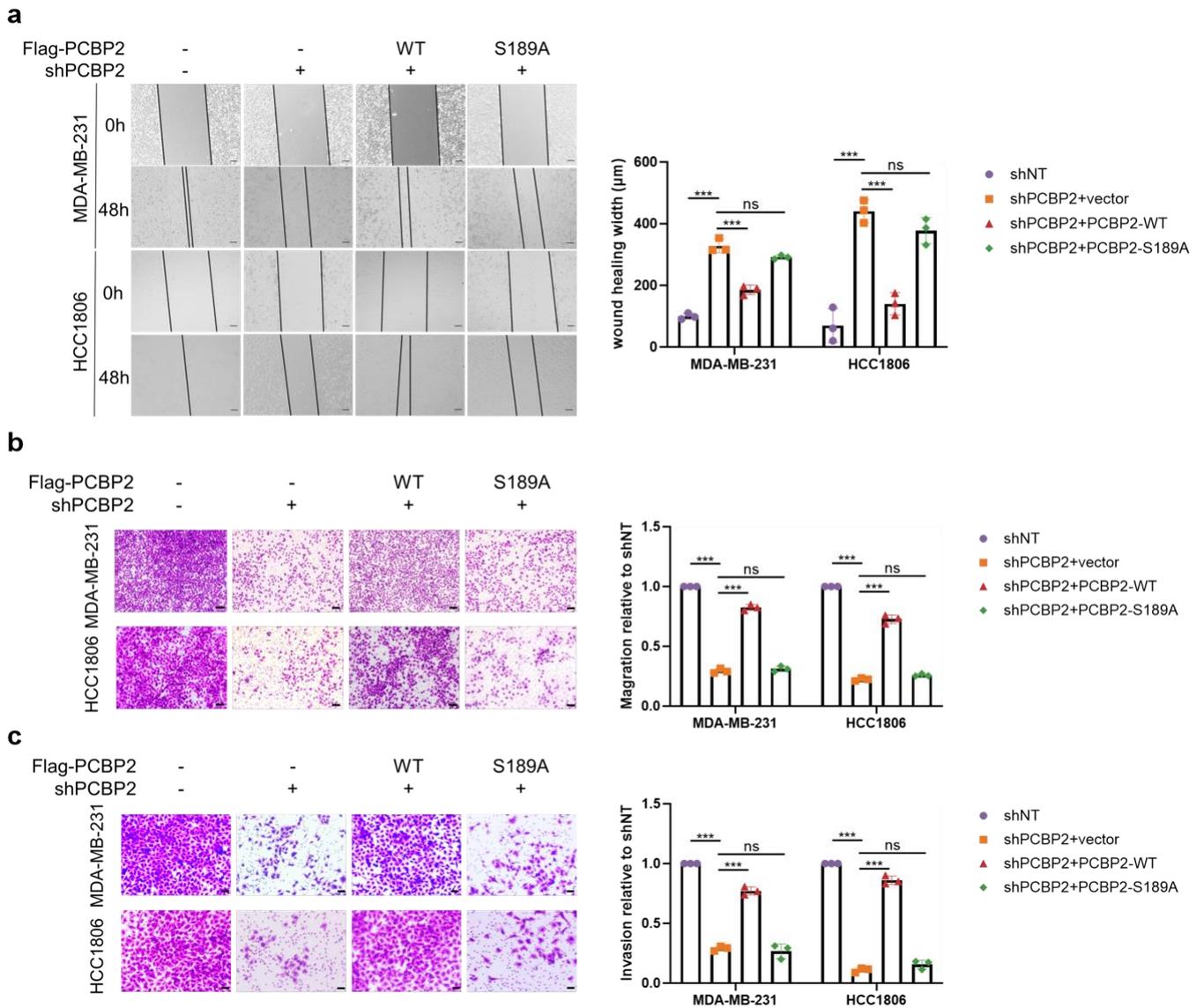


Figure S1. Phosphorylation of PCBP2 Ser189 promotes migration and invasion of TNBC cells. a) Scratch assay was done to show the effect stable cell lines in Figure 3f on cell migration ability. Scale bar, 100 μm . ns, no significance, $***p < 0.001$. b) Representative images and the migration capacity of the stable cell lines shown in Figure 3f were determined through transwell chambers. Scale bar, 100 μm . ns, no significance, $***p < 0.001$. c) Representative images and invasiveness measurements were performed on the stable cell lines shown in Figure 3f. Scale bar, 50 μm . ns, no significance, $***p < 0.001$.

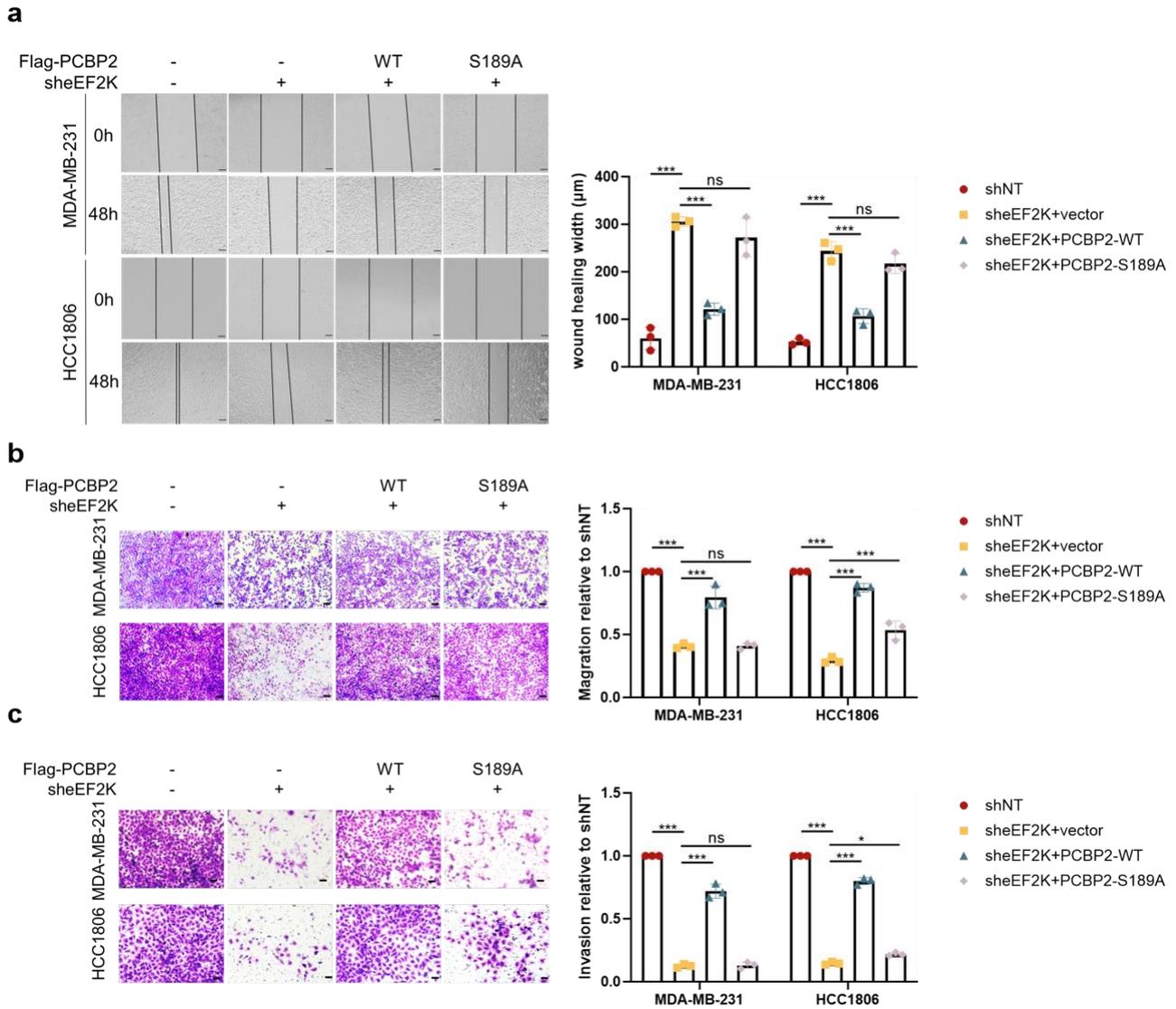


Figure S2. eEF2K promotes migration and invasion of TNBC cells by phosphorylating PCBP2 Ser189.

a) Scratch assay was done to show the effect stable cell lines in Figure 4d on cell migration ability. Scale bar, 100 μm . ns, no significance, $***p < 0.001$. **b)** Representative images and the migration capacity of the stable cell lines shown in Figure 4d were determined through transwell chambers. Scale bar, 100 μm . ns, no significance, $***p < 0.001$. **c)** Representative images and invasiveness measurements were performed on the stable cell lines shown in Figure 4d. Scale bar, 50 μm . ns, no significance, $*p < 0.05$, $***p < 0.001$.

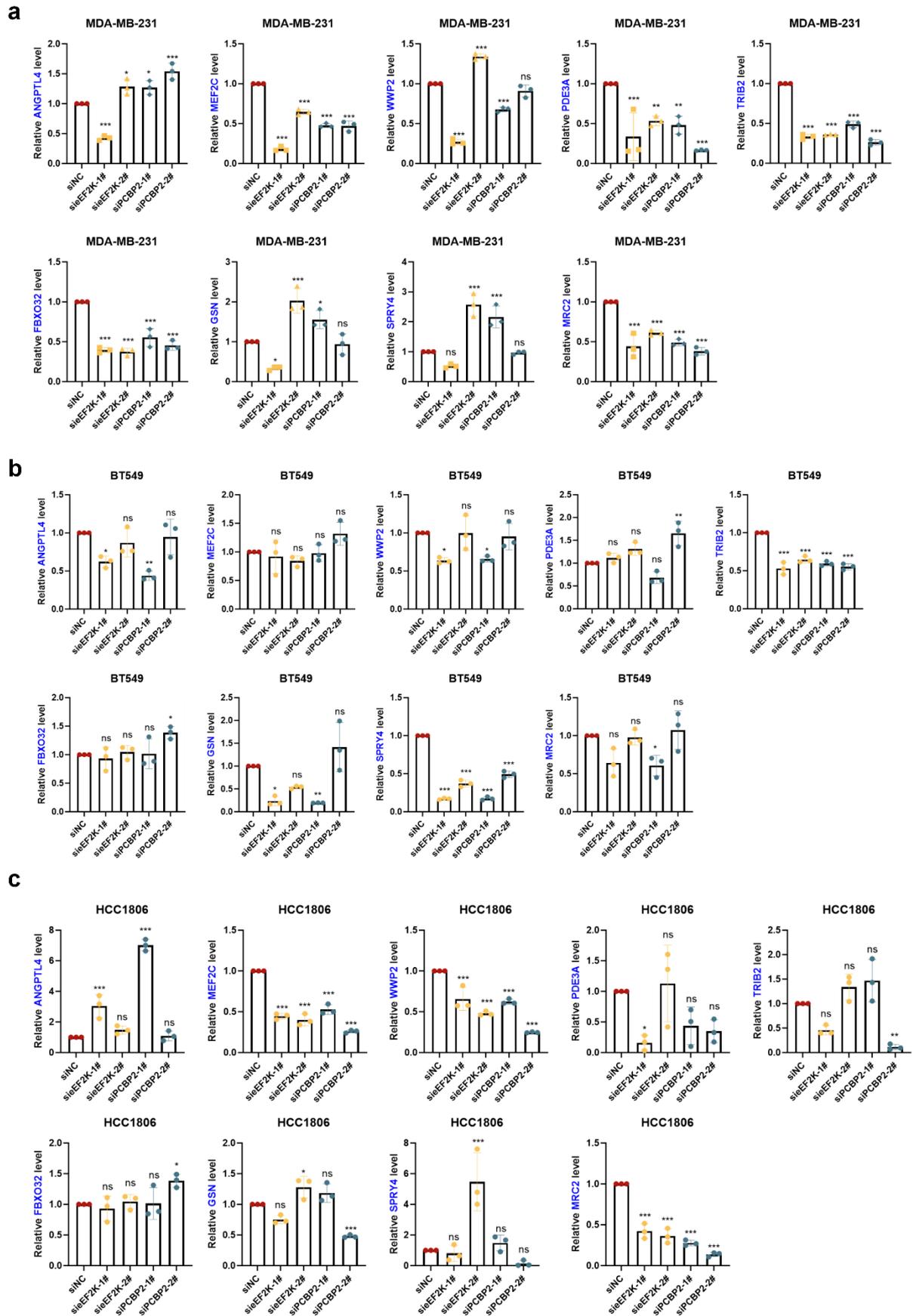


Figure S3. Verification of downstream genes of eEF2K and PCBP2. a-c) qRT-PCR was performed to assess the mRNA expression of nine genes after transfection NC, siEF2K-1#, siEF2K-2#, siPCBP2-1#, siPCBP2-2# target sequences in MDA-MB-231 (a), BT549 (b), and HCC1806 (c). β -actin served as the internal reference gene. ns, no significance, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

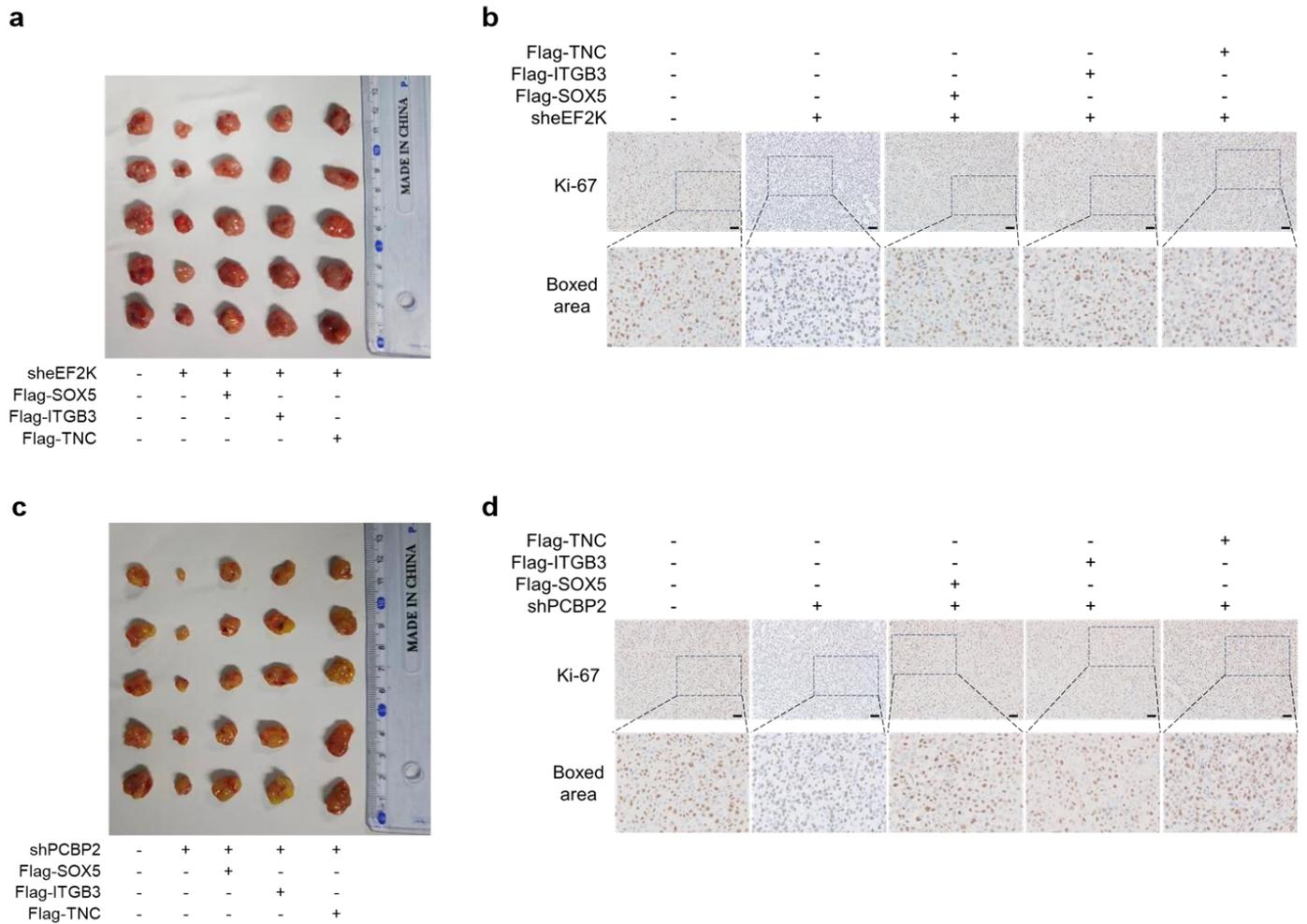


Figure S4. eEF2K and PCBP2 promote proliferation of TNBC through TNC, ITGB3 and SOX5. **a)** Tumors in Figure 6k were photographed. **b)** Representative images of Ki67 staining of subcutaneous tumor sections in (a). Scale bar, 50 μ m. **c)** Tumors in Figure 6l were photographed. **d)** Representative images of Ki67 staining of subcutaneous tumor sections in (c). Scale bar, 50 μ m.

Table S1. Target sequences of shRNAs and siRNAs.

siRNA target sequence	
siNC	Tsingke
eEF2K siRNA 1#	GCUCGAACCAGAAUGUCA
eEF2K siRNA 2#	GCAAACUCCUCCACUUCA
shRNA target sequence	
shNT	TTCTCCGAACGTGTCACGT
PCBP2 shRNA 1#	GCCATCACTATTGCTGGCATT
PCBP2 shRNA 2#	CCATGATCCATCTGTGTAGTT