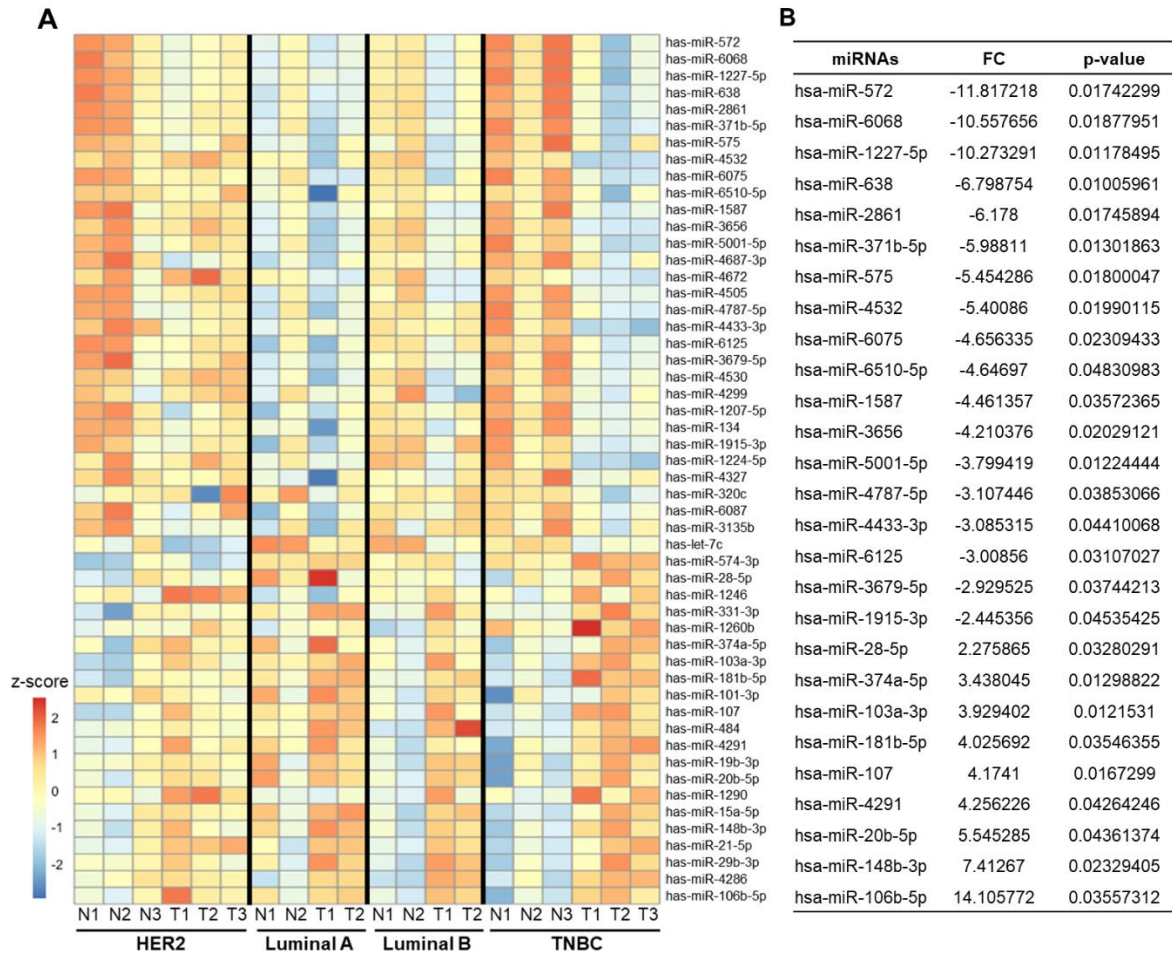


Supplementary Data

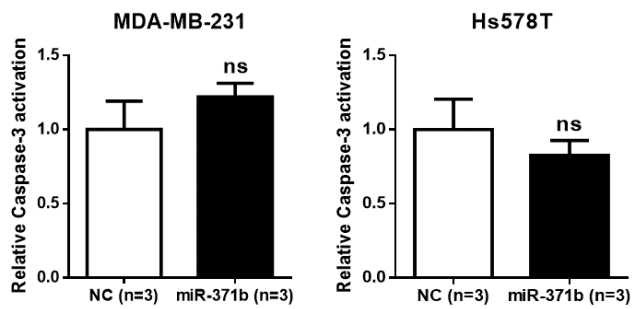
Supplementary Figure 1.



Supplementary Figure 1. Analysis of miRNA microarray data of breast cancer tissues

(A) A heatmap showing the 52 miRNAs in matched normal tissues and tumors in four breast cancer subtypes. Z-score (normalized expression levels) are represented by colored bars; higher (red) or lower (blue). (B) Twenty-seven miRNAs that is differentially expressed in patients with TNBC compared to other subtypes (Luminal A, Luminal B, and HER2).

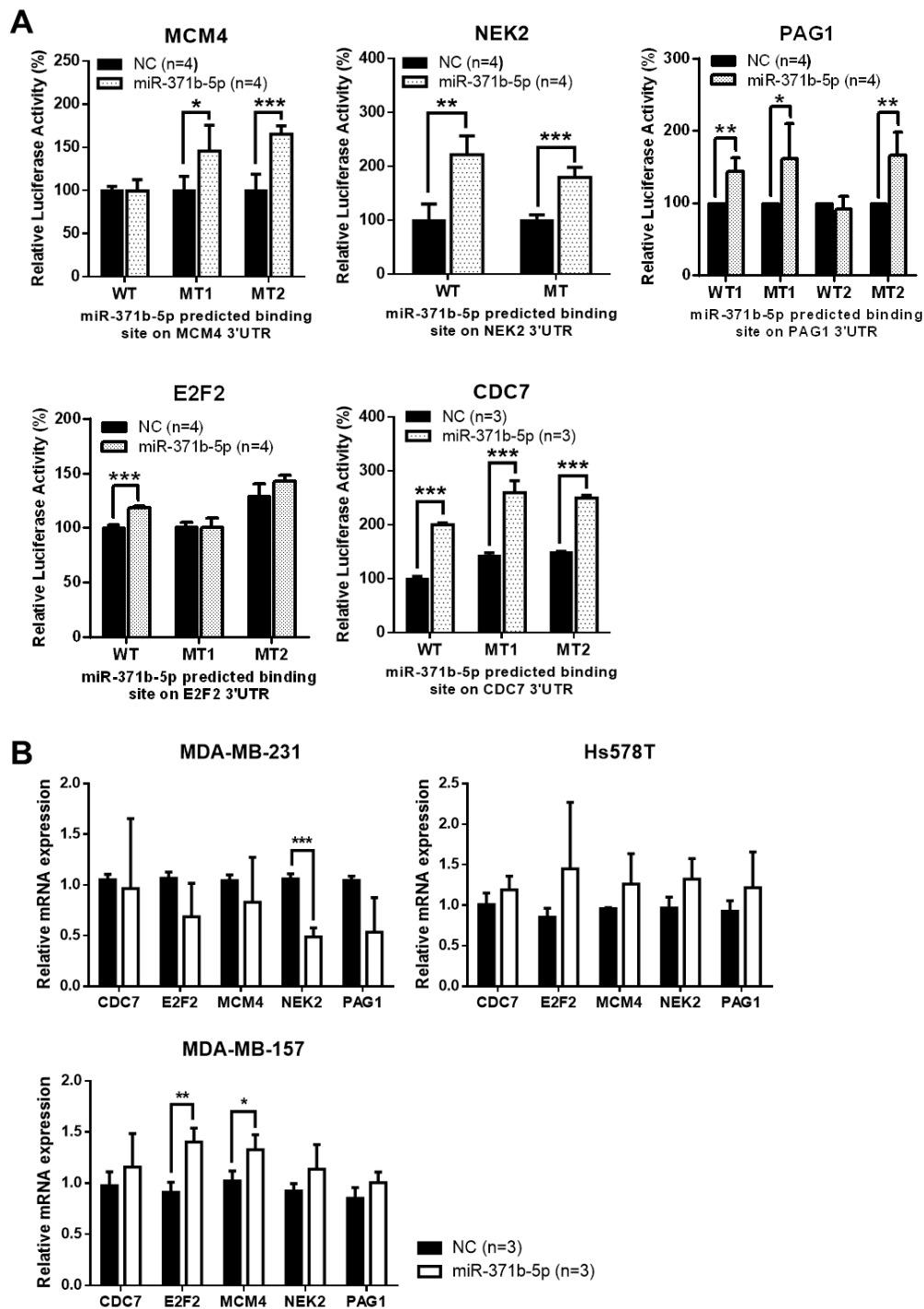
Supplementary Figure 2.



Supplementary Figure 2. Effect of miR371b-5p on apoptosis of MDA-MB-231 and Hs578T

Relative Caspase-3 activation in MDA-MB-231 and Hs578T cells after treatment with miR-371b-5p mimics or negative control (NC) mimic. Data are presented as mean \pm SD with 3 biological replicates. ns, not significant.

Supplementary Figure 3.

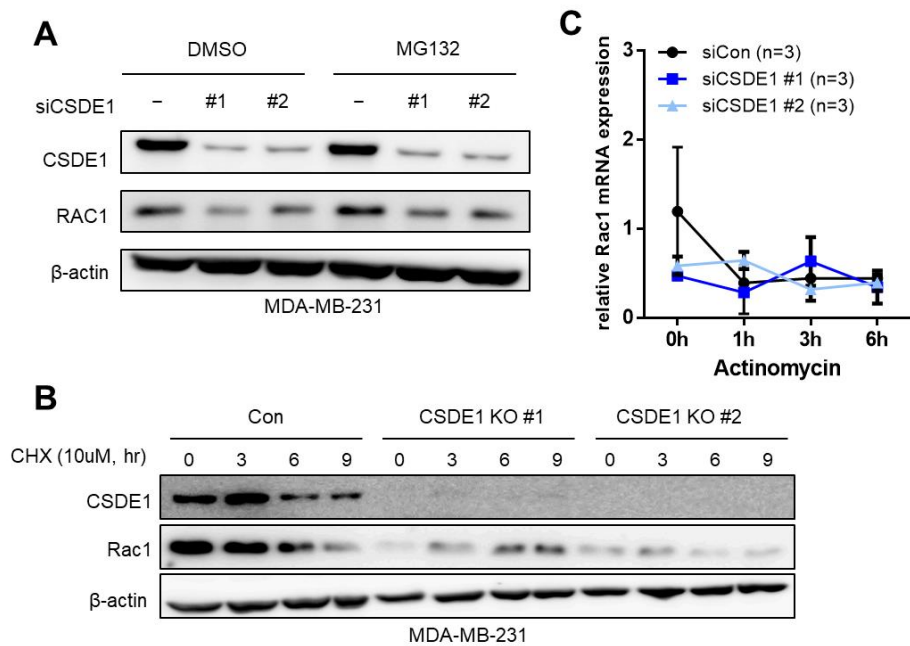


Supplementary Figure 3. Luciferase activity of each gene with miR-371b-5p

(A) Relative Luciferase activity was analyzed for validation as miR-371b-5p target gene. WT (wild type) plasmid contains potential miR-371b-5p binding site, but MT (mutant type) has

mutant binding site. NC, negative control mimic; miR-371b-5p, miR-371b-5p mimic. Data are presented as mean \pm SD with 3 or 4 biological replicates. (B) Relative mRNA expression of CDC7, E2F2, MCM4, NEK2, and PAG1 in miR-371b-5p overexpressed MDA-MB-231, MDA-MB-157, and Hs578T cells. Data are presented as mean \pm SD with 3 biological replicates. * p < 0.05, ** p < 0.01, *** p < 0.005.

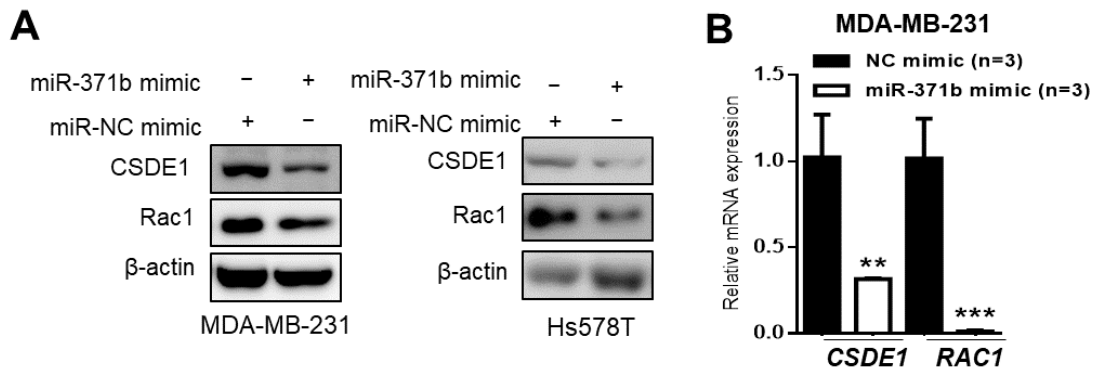
Supplementary Figure 4.



Supplementary Figure 4. Effect of downregulation of CSDE1 on RAC1 protein and mRNA stability

(A) Western blot analysis of CSDE1 and Rac1 expression in MDA-MB-231 transfected with siControl or siCSDE1 under MG132 (proteasome inhibitor) treatment. (B) Western blot analysis of CSDE1 and Rac1 expression in each stably knock-out CSDE1 and control cells in MDA-MB-231 under cycloheximide (inhibitor of protein biosynthesis) treatment. (C) Relative Rac1 mRNA expression in MDA-MB-231 transfected with siControl or siCSDE1 under actinomycin treatment at indicated time points. Data are presented as mean \pm SD with 3 biological replicates.

Supplementary Figure 5.



Supplementary Figure 5. Ectopic expression of miR371b mimic decreases CSDE1 and Rac1 expression

(A) Western blot analysis showed expression of CSDE1 and Rac1 in MDA-MB-231 and Hs578T cells incubated with miR-371b mimics or negative control. (B) The qRT-PCR analysis of CSDE1 and Rac1 mRNA in MDA-MB-231 with NC mimic or miR-371b mimic. Data are presented as mean \pm SD with 3 biological replicates. ** $p < 0.01$, *** $p < 0.005$.