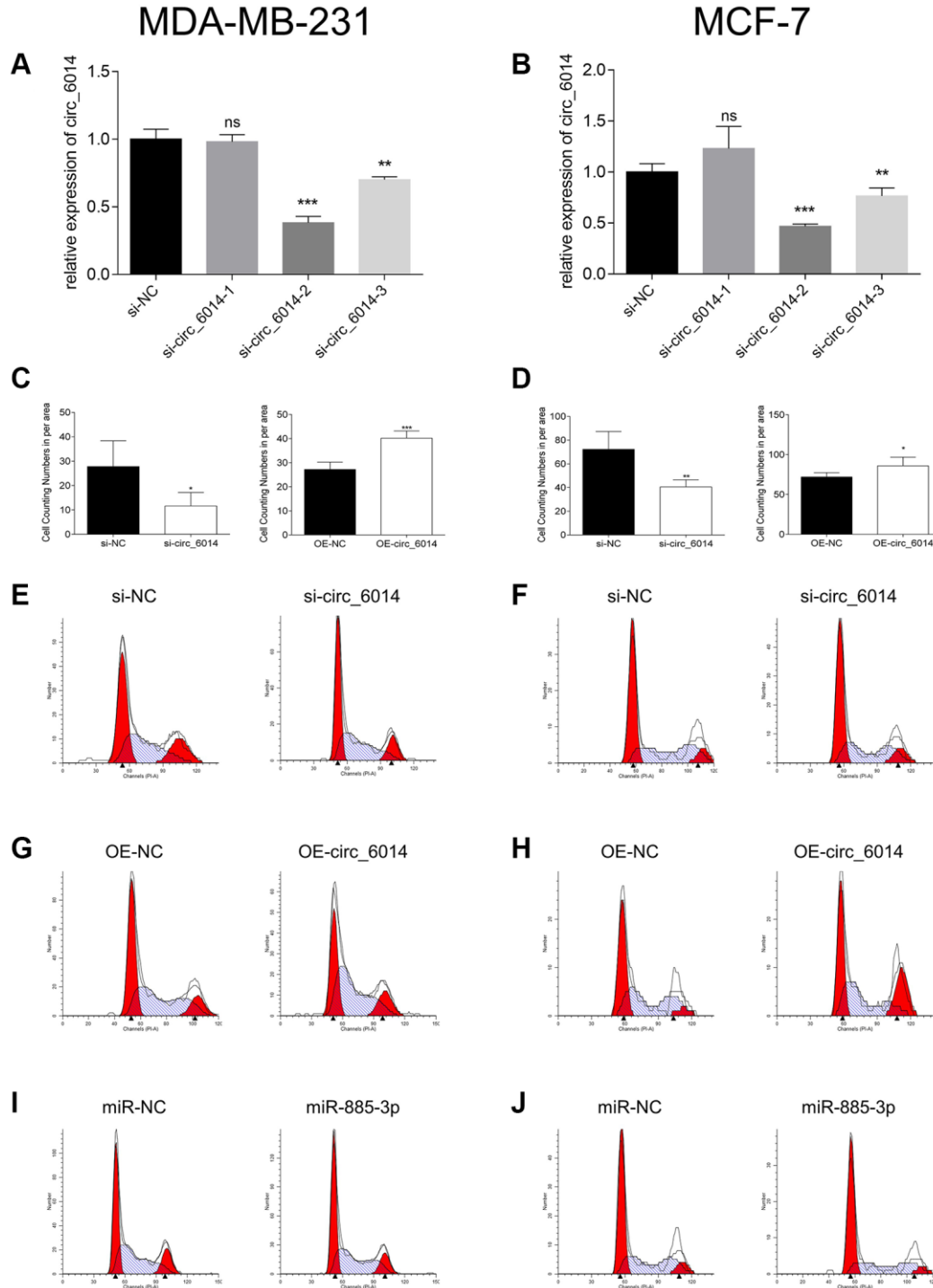
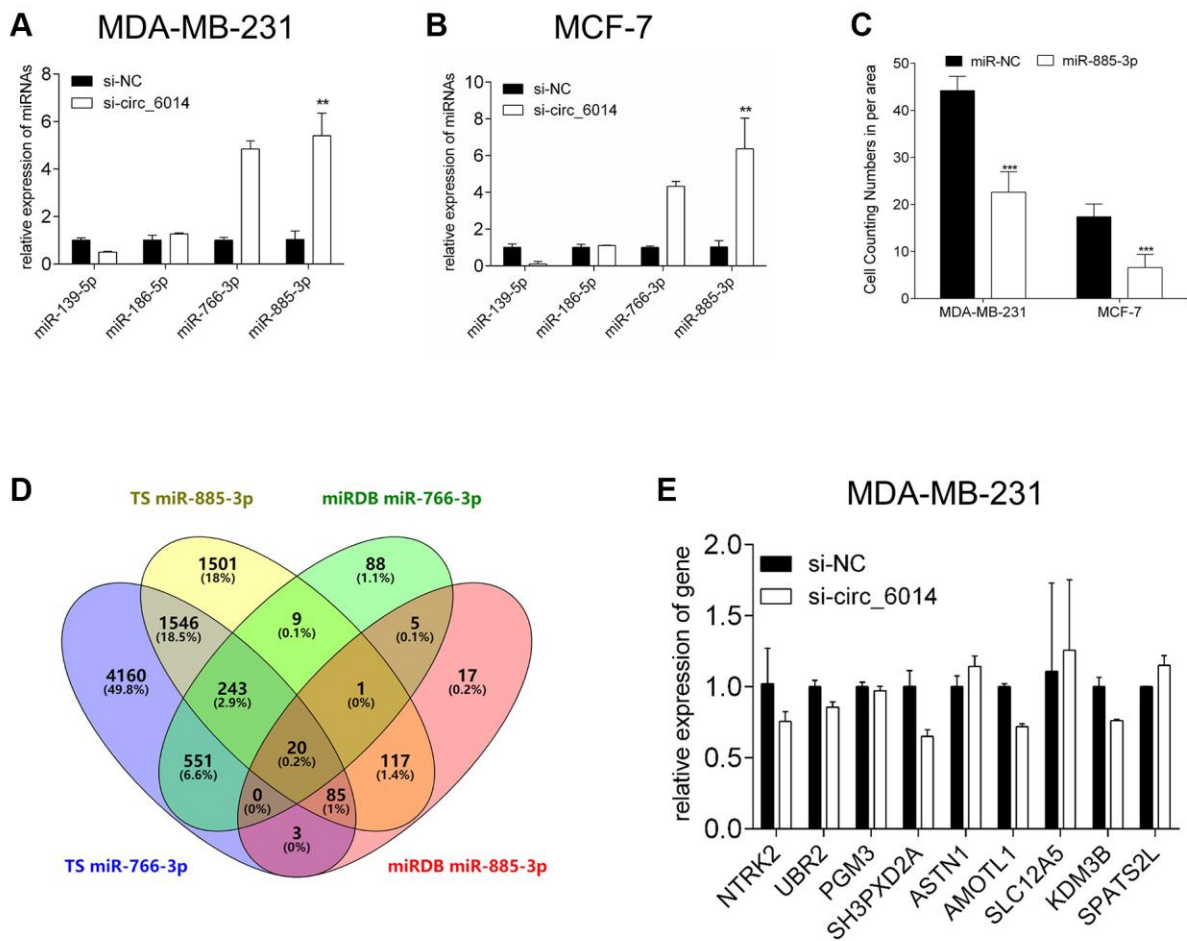


SUPPLEMENTARY FIGURES



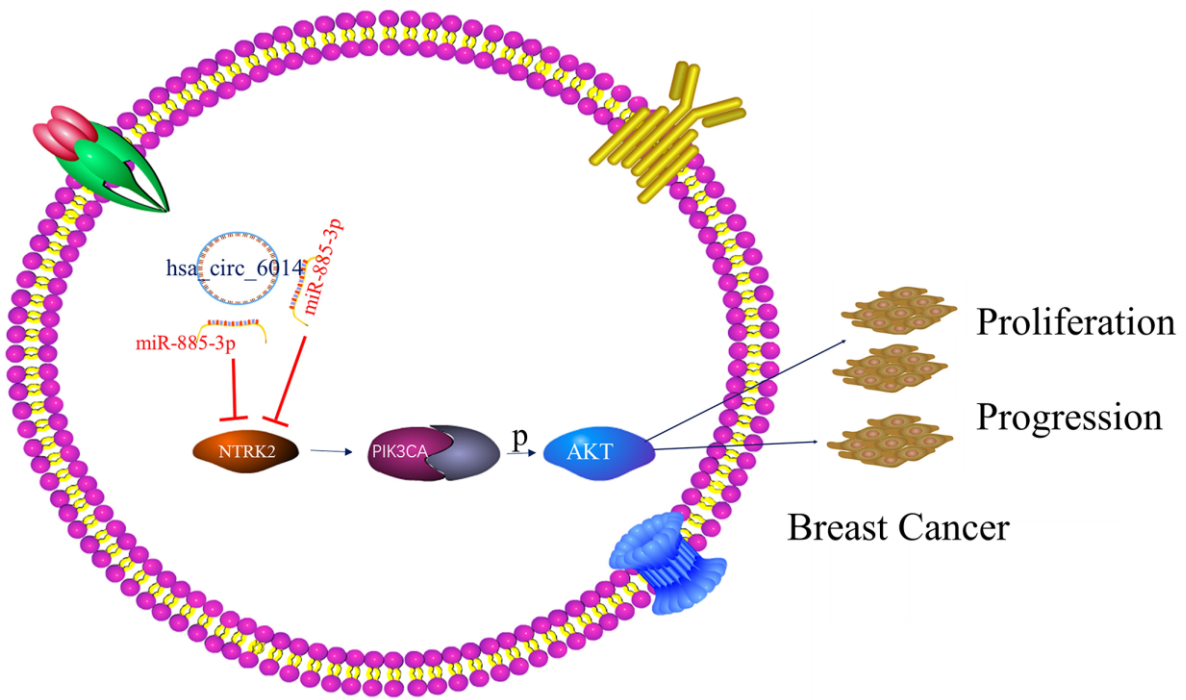
Supplementary Figure 1. Complementary biological functions of circ_6014 in breast cancer cells. (A, B) Expression levels of circ_6014 in both MDA-MB-231 and MCF-7 cells after transfection with three small interfering RNAs synthesized by Ibsbio (Shanghai, China). (C, D) Cell counting numbers of per area of the colony formation assay with decreased or overexpressed levels of circ_6014. (E–J) Original flow cytometry graphs of the cell cycle assay with decreased or overexpressed levels of circ_6014, or increased levels of miR-885-3p. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.



F

	Predicted consequential pairing of target region (top) and miRNA (bottom)	Site type	Context++ score	Context++ score percentile	Weighted context++ score	Conserved branch length	PCT
Position 52-58 of NTRK2 3' UTR	5' ... UGCUUGUUGGUUGAUGCCAU ... 3' AUAGGUGAUGUGGGCGACGGA	7mer-A1	-0.11	76	-0.11	0	N/A
Position 2837-2843 of NTRK2 3' UTR	5' ... AACAAAAGUCUGUGGCCUGCCAG ... 3' AUAGGUGAUGUGGGCGACGGA	7mer-A1	-0.06	60	-0.06	0.043	N/A
Position 3219-3225 of NTRK2 3' UTR	5' ... UUGGCCAGUCAGGUGCCAG ... 3' AUAGGUGAUGUGGGCGACGGA	7mer-A1	-0.04	47	-0.04	0.016	N/A
Position 4441-4447 of NTRK2 3' UTR	5' ... CCAUGAAUUGAAUUGCCAG ... 3' AUAGGUGAUGUGGGCGACGGA	7mer-A1	-0.12	78	-0.12	0.043	N/A
Position 4451-4457 of NTRK2 3' UTR	5' ... AAUUGCCAGGUGCCAG ... 3' AUAGGUGAUGUGGGCGACGGA	7mer-A1	-0.09	71	-0.09	0.016	N/A

Supplementary Figure 2. Additional information of miRNAs and mRNAs. (A, B) Relative expressions of four miRNAs filtrated from four databases in both MDA-MB-231 and MCF-7 cells. (C) Cell counting numbers of per area of the colony formation assay with increased levels of miR-885-3p. (D) The Venn diagram of potential mRNAs that have binding sites with miR-885-3p and miR-766-3p according to TargetScan and miRDB. (E) Relative expressions of the nine candidates in circ_6014 downregulated MDA-MB-231 cells. (F) Five probable binding sites between miR-885-3p and the 3'-UTR region of NTRK2 mRNA. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.



Supplementary Figure 3. Simulated mechanism diagram of the circ_6014/miR-885-3p/NTRK2-PIK3CA/AKT axis in breast cancer.