



Table .S1. Primers for construction of recombinant plasmids

gene	primer	Sequence (5'-3')
MALAT1 (wild-type)	F	GCTCTAGAATAGGCATTTGAGTGGCTGAGAGG
	R	ATAAGAATGCGGCCGCGCAGTTATATTAGGTTC
MALAT1 (Mutant)	R1	GCAGGGATTTGAAGCATCTTTTGCTT
	F2	GCAAAAGATGCTTCAAATCCCTGCGGCG
BLCAP (wild type)	F	GCTCTAGAAGACGGGAGGGGAGGCATTGA
	R	CGGGATCCTTGGGACAGTTGAGAAAGGCA
BLCAP (Mutant)	R1	TGCAAAAATGAGTTGGACAGGTACTCC
	F2	GTACCTGTCCAACACTCACTTTTGCACCTTATCTCG

F: forward; R: reverse; R1: reverse primer for mutant 1; R2: forward primer for mutant 2

Table .S2. Primers for qRT-PCR

Gene	Sequence	Base number
MiR-339-5p-RT	GTCGTATCCAGTGCAGGGTCCGAGGT	50
	ATTCGCACTGGATACGACCGTGAG	
MiR-339-5p-FP	CGTCCCTGTCCTCCAGGAG	19
MiR-339-5p-RP	AGTGCAGGGTCCGAGGTATT	20
MALAT1-FP	CTCCCCACAAGCAACTTCTC	20
MALAT1-RP	TTCAACCCACCAAAGACCTC	20
BLCAP-FP	GTGAATAATGGCACTGACCG	20
BLCAP-RP	AAGGGAAACCAGAAGAGGGA	20
GAPDH-FP	AACGGATTTGGTCGTATTG	19
GAPDH-RP	GGAAGATGGTGATGGGATT	19

FP: Forward primer RP: Reverse primer

Table .S3. the specific assignment for Clinicopathological parameters and MALAT1, BLCAP expression levels

Influencing factors	Assignment instructions
Age(years)	Less than 60=0 More than 60=1
ER status	Negative=0 positive=1
PR status	Negative=0 positive=1
HER2 status	Negative=0 positive=1
Tumor size (cm)	≤ 2=0 > 2=1
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Lymph node status	Negative=0 Positive=1
Distant metastasis	No=0 Yes=1
Histologic type	Infiltrating Lobular Carcinoma=1 Infiltrating Ductal Carcinoma=2 Other=3
MALAT1 expression	Low expression=0 high expression=1
BLCAP expression	Low expression=0 high expression=1

ER: estrogen receptor PR: progesterone receptor HER2: human epidermal growth factor receptor 2

**Only the size of invasive tumor is included.

Table .S4. The sequences of miR-339-5p mimics, inhibitor and negative control

gene	Sequence (5'-3')
miR-339-5p mimic	UCCCUGUCCUCCAGGAGCUCACG UGAGCUCCUGGAGGACAGGGAAU
Mimic N.C	UUCUCCGAACGUGUCACGUTT ACGUGACACGUUCGGAGAATT
miR-339-5p inhibitor	CGUGAGCUCCUGGAGGACAGGGA
Inhibitor N.C	CAGUACUUUUGUGUAGUACAA