

Supplementary Table 1 Details of the four GEO datasets

Dataset	Samples		Platform	Title of platform
	IBC	nIBC		
GSE5847	15	35	GPL96	[HG-U133A] Affymetrix Human Genome U133A Array
GSE22597	30	52	GPL96	[HG-U133A] Affymetrix Human Genome U133A Array
GSE23720	66	131	GPL570	[HG-U133_Plus_2] Affymetrix Human Genome U133 Plus 2.0 Array
GSE45581	20	20	GPL6480	Agilent-014850 Whole Human Genome Microarray 4x44K G4112F (Probe Name version)

Abbreviations: IBC, inflammatory breast cancer.

Supplementary Table 2 Details of the four GEO datasets

Characteristics	IBC (n=8)	non-IBC (n=20)	P value
Age	48.36±15.15	51.59±10.63	0.520
Body mass index, BMI	25.44±3.23	23.56±2.45	0.276
Age at menarche (y)	14.12±1.66	15.22±1.35	0.888
Age at first birth (y)	25.66±2.45	24.48±2.12	0.287
Breastfeeding duration(m)	6.05±3.16	7.23±1.22	0.699
Menopausal status(No.,%)			
Pre-menopausal	4(50%)	12(60%)	0.677

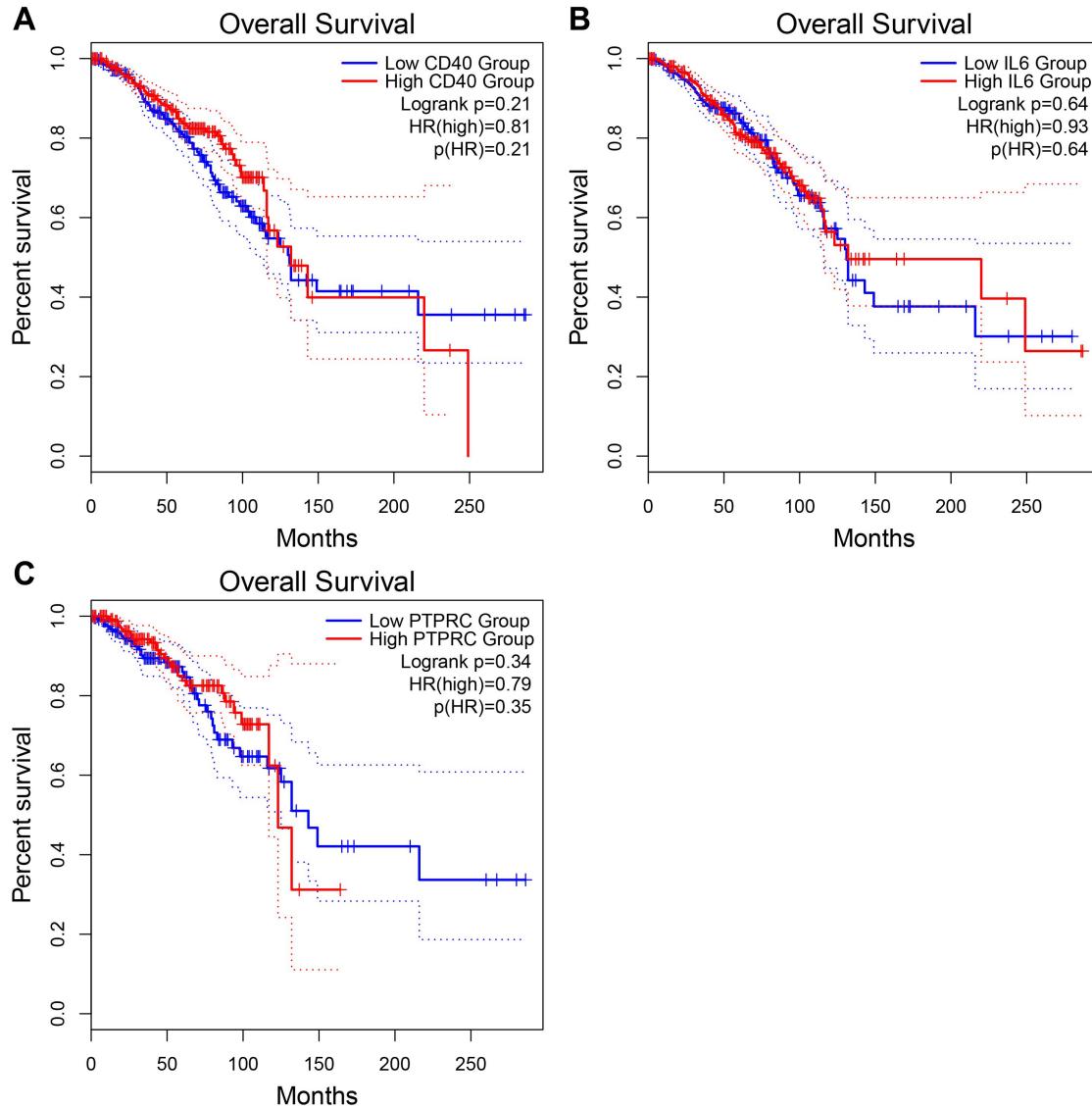
Post-menopausal	4(50%)	8(40%)	
Family history(No.,%)			
No	1(12.5%)	2(10%)	0.986
Yes	7(87.5%)	18(90%)	
Tumor size(cm)			
≤2	0(0.0%)	8(40.0%)	0.067
>2	8(100.0%)	12(60.0%)	
LNM			
Negative	0(0%)	11(55.0%)	0.007
Positive	8(100.0%)	9(45.0%)	
ER status			
Negative	5(62.5%)	7(35.0%)	0.230
Positive	3(37.5%)	13(65.0%)	
PR status			
Negative	5(62.5%)	8(40.0%)	0.423
Positive	3(37.5%)	12(60.0%)	
HER2 status			
Negative	3(37.5%)	15(75.0%)	0.093
Positive	5(62.5%)	5(25.0%)	
Ki67 status			
>20%	8(100.0%)	15(75.0%)	0.281
≤20%	0(0.0%)	5(25.0%)	

Intrinsic subtypes			
Luminal A	0(0.0%)	2(10.0%)	0.826
Luminal B	3(37.5%)	9(45.0%)	
HER2-positive	2(25.0%)	4(20.0%)	
Triple-negative	3(37.5%)	5(25.0%)	

Abbreviations: LNM, lymph node metastasis; ER, estrogen receptor; PR, progesterone receptor; HER2, human epidermal growth factor receptor 2.

Supplementary Table 3 Sequences of primers for qRT-PCR

Gene symbol	Sequences of primers
PTPRC	F: 5'-AACAGTGGAGAAAGGACGCA-3' R: 5'-ACACTGGGCATCTTGCTGT-3'
IL6	F: 5'-TTCTCCACAAGCGCCTTCG-3' R: 5'-TGGAATCTTCTCCTGGGGGT-3'
SELL	F: 5'-GCCCTCTGTTACACAGCTTCT-3' R: 5'-GGCCCATAGTACCCCACATC-3'
CD40	F: 5'-CTGATGTTGTCTGTGGTCCCC-3' R: 5'-GGCTTCTTGGCCACCTTTTG-3'
SPN	F: 5'-CTTATCAGCCGAGCCGGTCC-3' R: 5'-GTGTCTGCACTGCTGTTGTG-3'



Supplementary Figure 1 Kaplan-Meier analysis of *CD40*, *IL6*, and *PTPRC*.

Notes: (A) Kaplan-Meier curve of *CD40*. (B) Kaplan-Meier curve of *IL6*. (C) Kaplan-Meier curve of *PTPRC*.