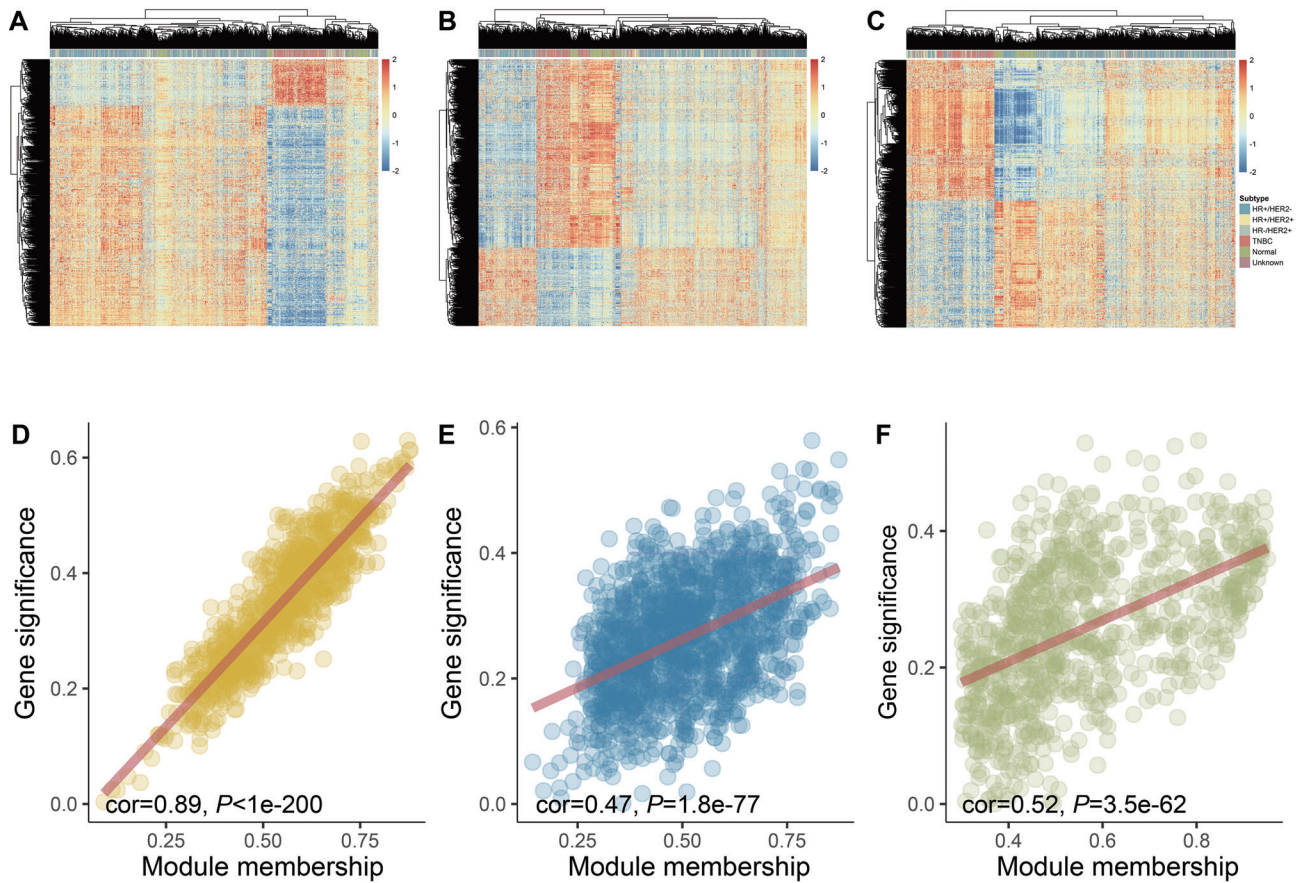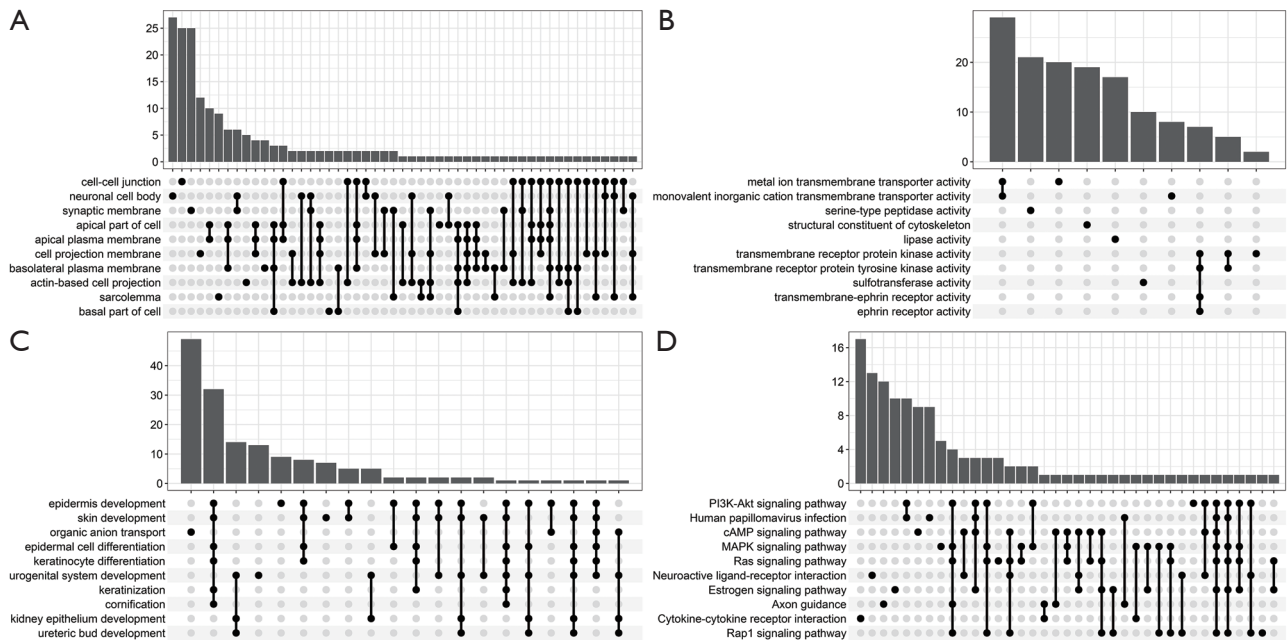**Figure S1** Gene set enrichment analysis plot of the DEGs between TNBC and non-TNBC. DEG, differentially expressed gene; TNBC, triple-negative breast cancer.

Figure S2 Heatmap of gene expression profile (A-C) and scatter plot of gene significance for TNBC *vs.* module membership (D-F) in the yellow (A, D), blue (B, E), and green (C, F) module. TNBC, triple-negative breast cancer.

Figure S3 GO and KEGG pathway enrichment analysis for the blue module. (A) Cellular component. (B) Molecular function. (C) Biological process. (D) KEGG pathway enrichment analysis. GO, Gene Ontology; KEGG, Kyoto Encyclopedia of Genes and Genomes.
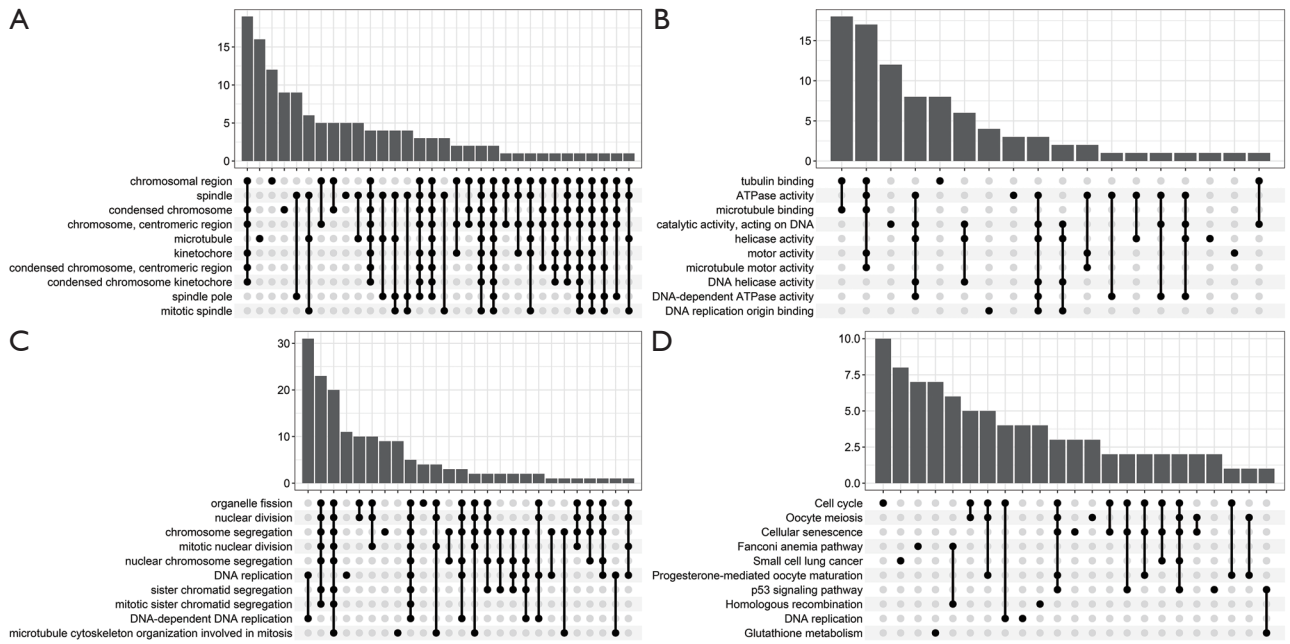
Figure S4 GO and KEGG pathway enrichment analysis for the green module. (A) Cellular component. (B) Molecular function. (C) Biological process. (D) KEGG pathway enrichment analysis. GO, Gene Ontology; KEGG, Kyoto Encyclopedia of Genes and Genomes.
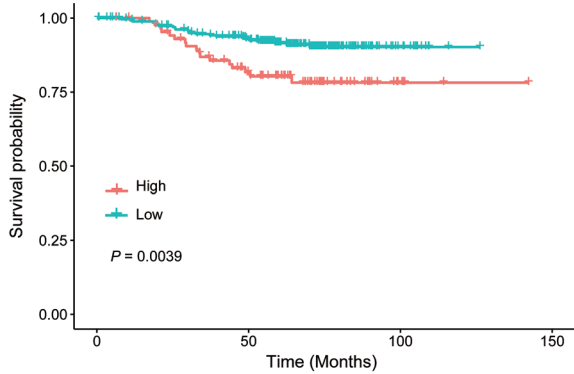
Figure S5 Kaplan-Meier plots of the high- and low-risk scores grouped by the top quartile.

Table S1 Baseline characteristic for patients with TNBC in TCGA-BRCA

Characteristics	Number of patients (%)
Age, year	
<55	79 (50.0)
≥55	79 (50.0)
Menopausal status	
Postmenopausal	98 (63.2)
Premenopausal	44 (28.4)
Indeterminate or unknown	13 (8.4)
Race	
White	90 (57.0)
Black or African American	53 (33.5)
Asian	8 (5.1)
Unknown	7 (4.4)
Histology	
Infiltrating ductal carcinoma	134 (84.8)
Infiltrating lobular carcinoma	6 (3.8)
Other	18 (11.4)
pT stage	
pT1	41 (25.9)
pT2	97 (61.4)
pT3	15 (9.5)
pT4	5 (3.2)
pN stage	
pN0	105 (66.5)
pN1	32 (20.3)
pN2	13 (8.2)
pN3	8 (5.1)
Pathological stage	
Stage I	29 (18.4)
Stage II	101 (63.9)
Stage III	26 (16.4)
Stage IV	2 (1.3)
Breast surgery type	
Lumpectomy	56 (35.4)
Mastectomy	95 (60.2)
Unknown	7 (4.4)
Axillary surgery type	
Sentinel lymph node biopsy	66 (41.8)
Axillary lymph node dissection	87 (55.1)
Unknown	5 (3.2)

TNBC, triple-negative breast cancer; TCGA, The Cancer Genome Atlas; BRCA, breast cancer.

Table S2 Univariable and multivariable analysis for OS

Variables	Univariable analysis		Multivariable analysis	
	HR (95% CI)	P value	HR (95% CI)	P value
Risk score	4.34 (2.35–8.03)	<0.001	7.49 (3.57–15.70)	<0.001
Age, years				
<55	Reference	–	Reference	–
≥55	1.11 (0.46–2.69)	0.815	2.19 (0.86–5.58)	0.100
Menopausal status				
Postmenopausal	Reference	–	Reference	–
Premenopausal	0.98 (0.36–2.71)	0.976	3.27 (1.2–8.89)	0.020
Unknown	1.81 (0.56–5.84)	0.319	1.92 (0.57–6.39)	0.290
Race				
White	Reference	–	Reference	–
Black or African American	0.99 (0.37–2.67)	0.984	0.59 (0.15–2.28)	0.446
Asian	6.25 (0.78–50.28)	0.085	33.92 (0.97–1180.63)	0.052
Unknown	3.22 (0.38–26.93)	0.281	0 (0–Inf)	1.000
Histology				
Infiltrating ductal carcinoma	Reference	–	Reference	–
Infiltrating lobular carcinoma	2.32 (0.49–10.96)	0.289	0.32 (0.07–1.52)	0.151
Other	1.12 (0.31–4.04)	0.858	0.97 (0.28–3.36)	0.960
Pathological stage				
Stage I	Reference	–	Reference	–
Stage II	2.43 (0.30–19.47)	0.404	1.91 (0.69–5.3)	0.216
Stage III	18.84 (2.37–149.60)	0.005	12.32 (4.55–33.39)	<0.001
Stage IV	19.10 (1.17–312.45)	0.039	14.29 (1.59–128.34)	0.018
Breast surgery				
Lumpectomy	Reference	–	Reference	–
Mastectomy	1.36 (0.51–3.63)	0.545	1.37 (0.52–3.6)	0.522
Unknown	2.46 (0.29–20.88)	0.409	0 (0–0)	<0.001
Axillary surgery				
Sentinel lymph node biopsy	Reference	–	Reference	–
Axillary lymph node dissection	5.26 (1.53–18.14)	0.009	2.54 (0.81–7.95)	0.109
Unknown	17.24 (1.67–178.53)	0.017	Inf (Inf–Inf)	<0.002

OS, overall survival; HR, hazard ratio; CI, confidence interval.