

**Figure S1** The time-ROC curve for evaluating prognosis. The time-ROC curves of T (A) and N (C) in the FUSCC TNBC cohort. The time-ROC curves of T (B) and N (D) in the TCGA TNBC cohort. ROC, receiver operator characteristic; FUSCC, Fudan University Shanghai Cancer Center, TNBC, Triple-negative breast cancer; TCGA, The Cancer Genome Atlas; T, tumor; N, lymph node.

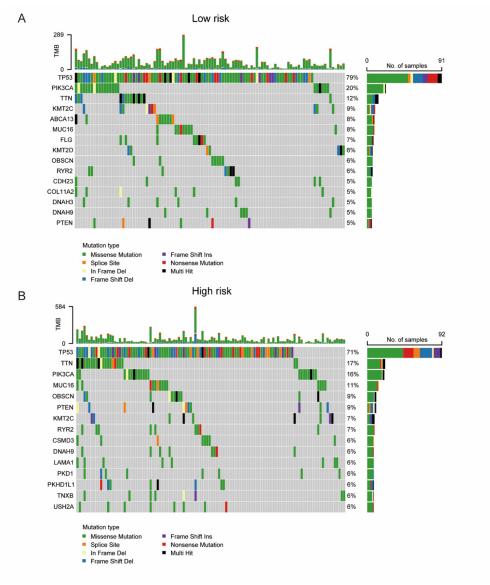
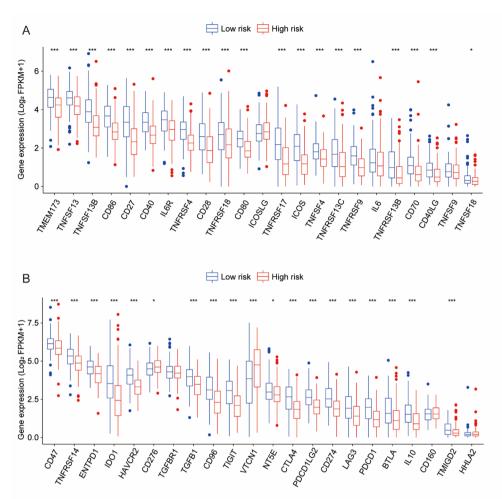


Figure S2 The landscape of genetic mutations of high- and low-risk groups. (A,B) The waterfall diagram displays the mutation specifics and tumor mutation burden for every sample of TNBC cancer patients in the low-risk (A) and high-risk (B) categories. TNBC, Triple-negative breast cancer.



**Figure S3** The immune landscape of high- and low-risk groups. (A) The presence of immune-boosting substances in individuals classified as high- and low-risk. (B) The high- and low-risk groups exhibited differential expression of immune checkpoint genes. Comparison using an unpaired t-test. Significant results were observed at P<0.001, and P<0.05, denoted as \*\*\* and \*, respectively.