Figure S1. Expression level of PTPN18 detected by western blotting. (A) Western blot was used to detect the expression of PTPN18 in different types of breast cancer cells. (B and C) Expression changes at different time points after PTPN18 (B) overexpression or (C) knockdown treatment in MCF-7 cells. ***P<0.001. PTPN18, protein tyrosine phosphatase non-receptor 18; siRNA, small interfering RNA.

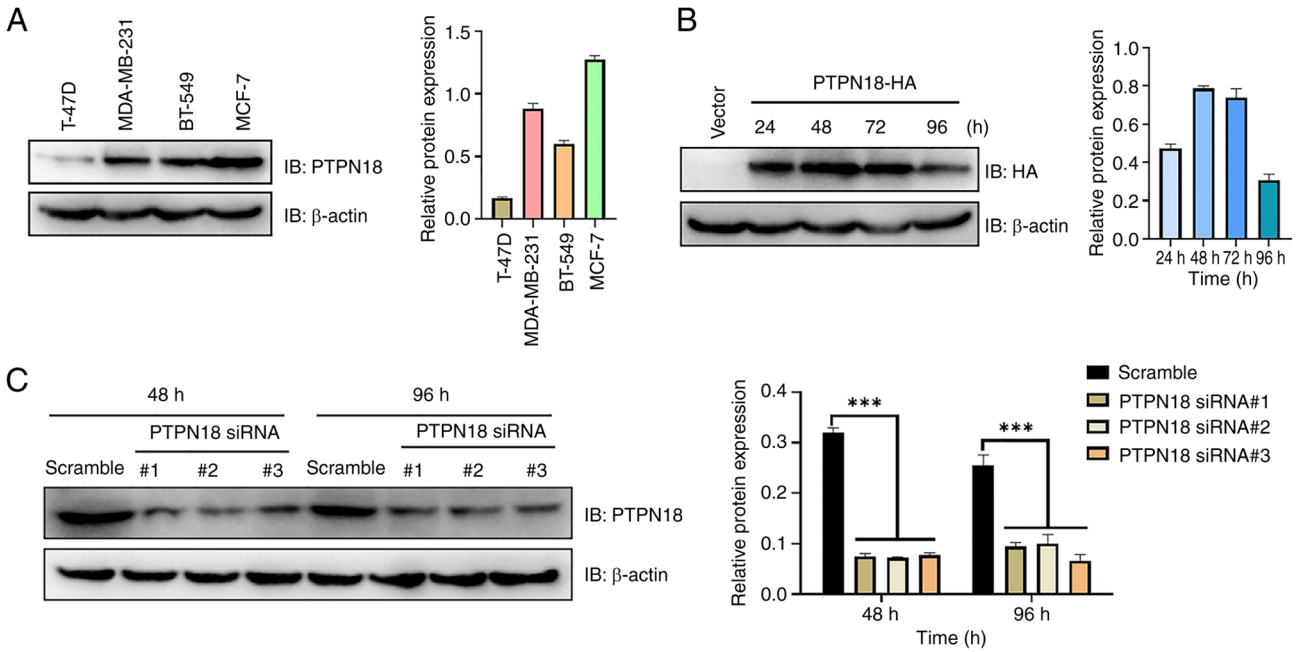

Figure S2. Gene Expression Profiling Interactive Analysis database was used to analyze the effect of the cyclin E1 and E2 expression levels on the (A) overall survival and (B) disease-free survival of patients with breast cancer. HR, hazard ratio.

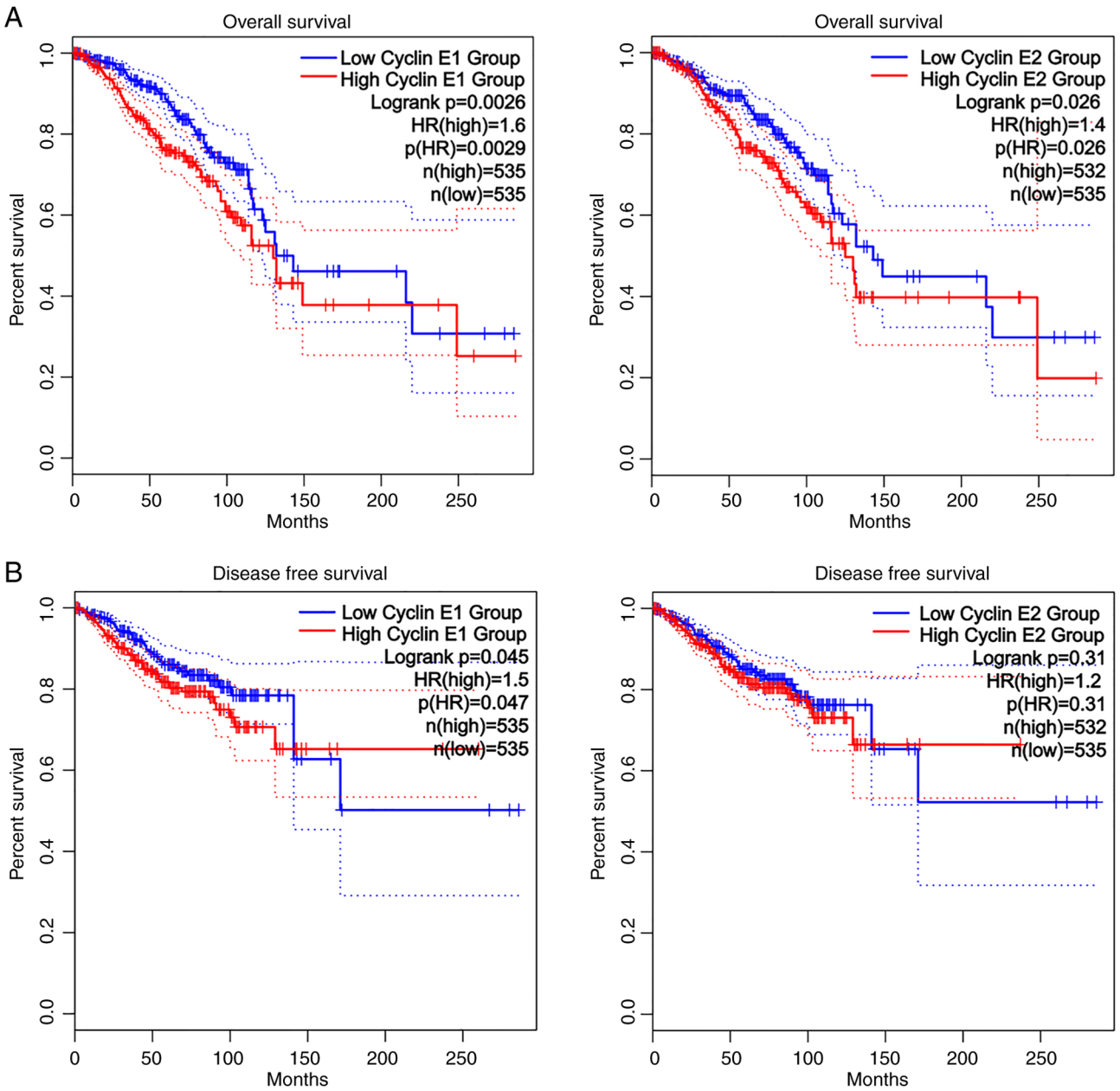

Figure S3. Effect of PTPN18 on cell cycle-related signaling pathway gene expression. (A-C) The relative expression of the cycle-related genes of the (A) PI3K/AKT, (B) FOXO and (C) p53 pathways in MCF-7 cells was measured by reverse transcription-quantitative polymerase chain reaction. (E-F) Effect of PTPN18 on the mRNA levels of genes involved in cell cycle regulation in the (D) WNT, (E) TGF-β and (F) other signaling pathways. (G) The relative mRNA expression levels of cell cycle regulatory genes. (H) The mRNA levels of PTPN18 in different treatment groups. Data are shown as the mean ± SD of three technical replicates following overexpression (48 h) or knockdown (72 h) treatment. *P<0.05, **P<0.01 and ***P<0.001. PTPN18, protein tyrosine phosphatase non-receptor 18; PI3K, phosphatidylinositol 3-kinase; AKT, protein kinase B; FOXO, forkhead box O; TGF-β, transforming growth factor-β; siRNA, small interfering RNA; ns, not significant.