



**Figure S1.** (A). Stability analysis of arrays. The test samples were repeated 30 times for stability analysis to evaluate the operational stability of different chips at different times. (B). The expression of 16 genes related to 16 candidate TAABs between BC tissue and normal tissue (GEPIA database). (C). The protein-protein interaction (PPI) analysis of 16 candidate TAABs. TAABs, tumor-associated autoantibodies.