

**Figure S5**. Distribution of predicted probability of the model with six TAAbs among subgroups of BC patients based on tumor stage (A-B), family history of cancer (C), estrogen receptor, ER (D), lymph node metastasis (E), histological types (F), progesterone receptor, PR (G), human epidermal growth factor receptor 2, HER2 (H), and ages (I). Age 0, age< 50; Age 1, age≥ 50. TAAbs, tumor-associated autoantibodies.