

Figure S1. Pathological examination results of the left breast core needle biopsy specimen. H&E staining at (A) x100 magnification (scale bar, 50  $\mu\text{m}$ ) and (B) x400 magnification (scale bar, 20  $\mu\text{m}$ ). The black arrows indicate tumor cells. IHC for (C) Ki-67 (magnification, x400; scale bar, 50  $\mu\text{m}$ ), (D) ER (magnification, x400; scale bar, 50  $\mu\text{m}$ ), (E) PR (magnification, x400; scale bar, 50  $\mu\text{m}$ ) and (F) HER2 (magnification, x400; scale bar, 50  $\mu\text{m}$ ) in the core needle biopsy specimen of the left breast. IHC, immunohistochemistry; ER, estrogen receptor; PR, progesterone receptor; HER2, human epidermal growth factor receptor 2.

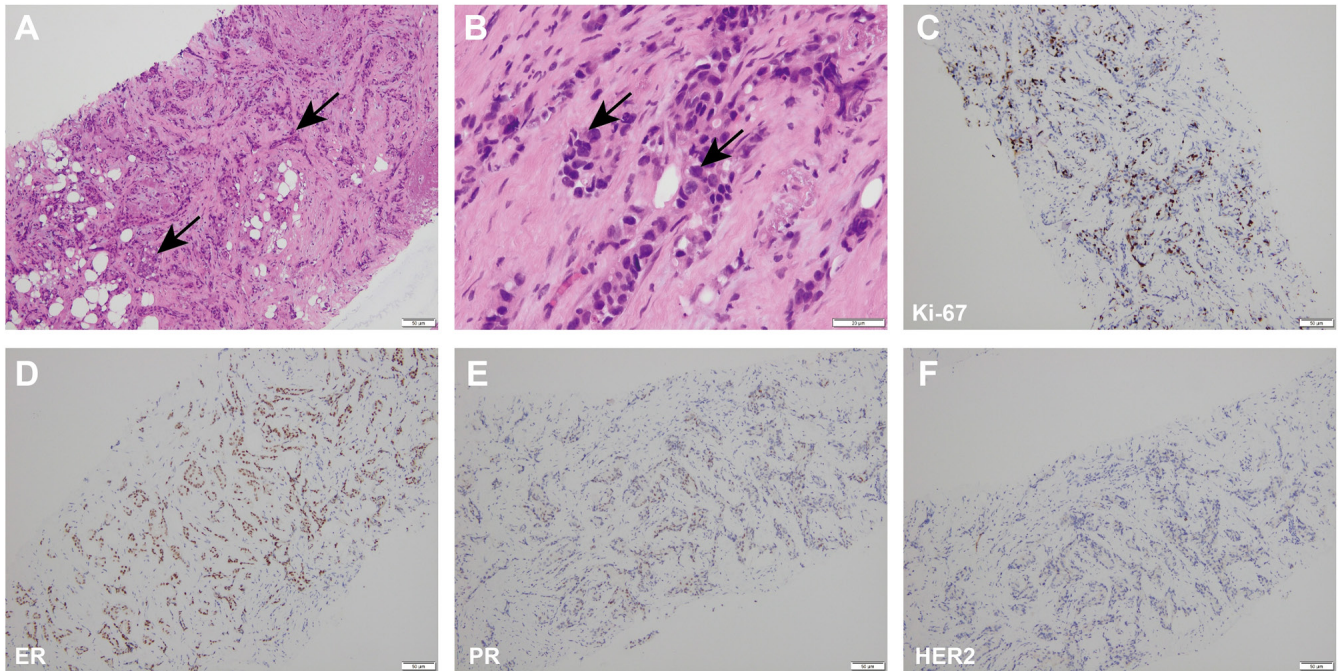


Figure S2. Histological findings of postoperative breast tissue. (A) H&E staining showing neural invasion by tumor cells (black arrow; magnification, x400; scale bar, 20  $\mu\text{m}$ ). (B) IHC for CD34 revealing no evidence of lymphovascular invasion in the tumor microenvironment (magnification, x400; scale bar, 50  $\mu\text{m}$ ). H&E staining showing negative surgical margins confirmed at multiple orientations: (C) 12 o'clock, (D) 3 o'clock, (E) 6 o'clock, (F) 9 o'clock, (G) basal (deep) and (H) superficial (skin), with no residual tumor cells observed at any margin (magnification, x20; scale bar, 200  $\mu\text{m}$ ). IHC, immunohistochemistry.

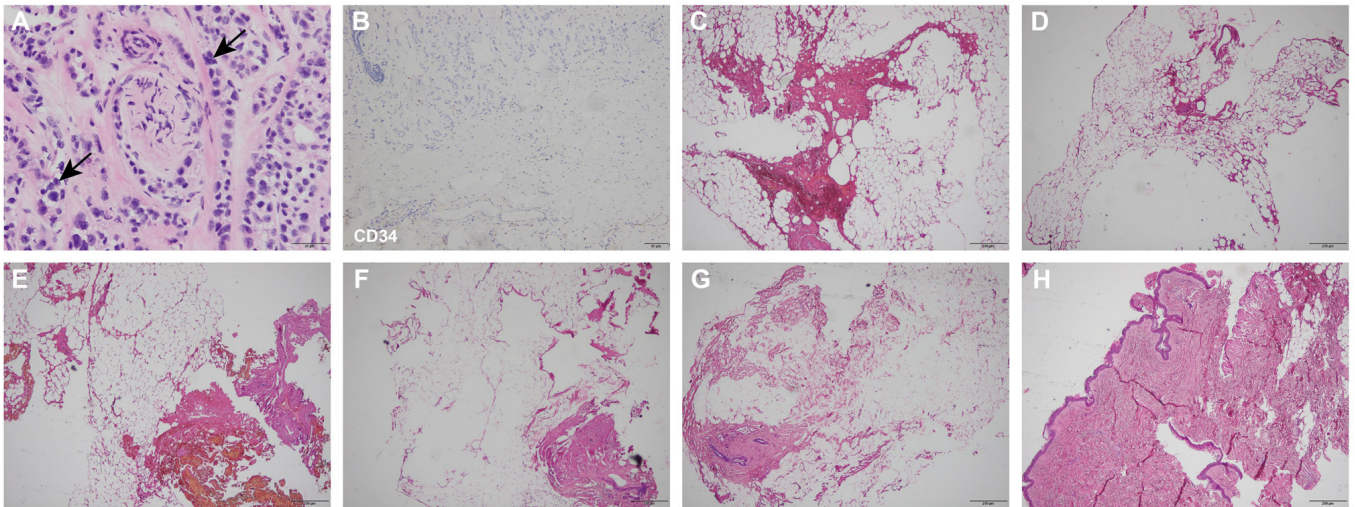


Figure S3. Pathological examination results of the left axillary sentinel lymph nodes and fatty tissue. H&E staining at x100 magnification (scale bar, 50  $\mu$ m) in the left axillary sentinel lymph nodes and fatty tissue. Black arrows indicate tumor cells.

