### Table S1. Primers used for reverse transcription-quantitative polymerase chain reaction.

| Gene   | Forward (5’ to 3’)       | Reverse (5’ to 3’)           |
|--------|--------------------------|------------------------------|
| ENAH   | GTGGCTCAACTGGATTCAGCA    | AGGAAATGGGCACAGTTTAATCACGA  |
| SEPT9  | CCACTGCTGCCCTACTTCATC    | GGTCCTCCGAGTCCTCATCAA       |
| EGF    | TTCAAGCCTTGTCTTTTCGT     | TTCAAAATCAGCAAAGCATAAAA     |
| MMP-9  | AAGGGCGTCGTGGTTCCAA      | CGGTCGTCGGTGTCGTAGTT        |
| CXCL8  | GCTCTCTTGGCAGCCTTCTCCT   | TGGTCACCTCTCAATCCTCTCA      |
| β-actin| TGGCACCCAGCACAATGAA      | CTAAGTCATAGTCCGCTAGAAGCA    |
| GAPDH  | GACCTGACCTGCGCTCTA       | AGGAGTGGGTGTCGCTGT          |

ENAH, enabled homolog; SEPT9, septin 9; EGF, epidermal growth factor, MMP-9, matrix metalloproteinase-9; CXCL8, C-X-C motif chemokine ligand 8; GAPDH, glyceraldehyde-3-phosphate dehydrogenase.
Table SII. Comparison of the clinical characteristics between the two batches of patients with breast cancer.

| Items                              | First batch (n=31) | Second batch (n=16) | P-value |
|------------------------------------|--------------------|---------------------|---------|
| Age (years), mean±SD               | 55.1±12.3          | 53.5±10.0           | 0.656   |
| Menopause, n (%)                   |                    |                     | 1.000   |
| No                                 | 24 (77.4)          | 12 (75.0)           |         |
| Yes                                | 7 (22.6)           | 4 (25.0)            |         |
| Histological type, n (%)           |                    |                     | 0.205   |
| Ductal carcinoma in situ           | 3 (9.7)            | 0 (0.0)             |         |
| Invasive ductal carcinoma          | 23 (74.2)          | 11 (68.8)           |         |
| Invasive lobular carcinoma         | 1 (3.2)            | 3 (18.8)            |         |
| Others                             | 4 (12.9)           | 2 (12.5)            |         |
| Molecular subtypes, n (%)          |                    |                     | 0.720   |
| Triple-negative                    | 2 (6.5)            | 0 (0.0)             |         |
| Luminal A                          | 5 (16.1)           | 2 (12.5)            |         |
| HER2-negative luminal B            | 6 (19.4)           | 4 (25.0)            |         |
| HER2-positive luminal B            | 12 (38.7)          | 5 (31.3)            |         |
| HER2-enriched                      | 6 (19.4)           | 5 (31.3)            |         |
| Hormone receptor status, n (%)     |                    |                     | 0.739   |
| ER negative and PR negative        | 8 (25.8)           | 5 (31.3)            |         |
| ER positive and/or PR positive     | 23 (74.2)          | 11 (68.8)           |         |
| HER2, n (%)                        |                    |                     | 0.769   |
| Negative                           | 13 (41.9)          | 6 (37.5)            |         |
| Positive                           | 18 (58.1)          | 10 (62.5)           |         |
| Ki-67, n (%)                       |                    |                     | 0.739   |
| <30%                               | 23 (74.2)          | 11 (68.8)           |         |
| ≥30%                               | 8 (25.8)           | 5 (31.3)            |         |
| TNM stage, n (%)                   |                    |                     | 0.389   |
| 0                                  | 4 (12.9)           | 0 (0.0)             |         |
| I                                  | 10 (32.3)          | 3 (18.8)            |         |
| II                                 | 13 (41.9)          | 9 (56.3)            |         |
| III                                | 3 (9.7)            | 3 (18.8)            |         |
| IV                                 | 1 (3.2)            | 1 (6.3)             |         |
| Surgical type, n (%)               | 31 (100.0)         | 16 (100.0)          | -       |
| Modified radical mastectomy        | 11 (35.5)          | 13 (81.3)           | 0.003   |
| Sentinel lymph node biopsy         | 16 (51.6)          | 2 (12.5)            | 0.009   |
| Radical mastectomy                 | 14 (45.2)          | 1 (6.3)             | 0.007   |
| Breast-conserving surgery          | 3 (9.7)            | 2 (12.5)            | 1.000   |
|                      | Group 1 | Group 2 | p-value |
|----------------------|---------|---------|---------|
| Neoadjuvant therapy, n (%) | 3 (9.7) | 6 (37.5) | 0.045   |
| Adjuvant therapy, n (%)   | 28 (90.3) | 16 (100.0) | 0.541   |

SD, standard deviation; HER2, human epidermal growth factor receptor 2; ER, estrogen receptor; PR, progesterone receptor; TNM, tumor-node-metastasis.