**Supplement Tables**

**Table S1. Detection of human breast cancer surgical specimens by PC90 phages using immunohistochemistry.** (A) Prevalence of immunoreactivity of PC90 in breast cancer surgical specimens. Labeling index: 3+, more than 60% tumor cells were positive; 2+, 31-59% tumor cells were positive; 1+, less than 30% tumor cells were positive; N, no immunoreactivity was seen in the section. (B) Clinical pathological features and PC90 immunoreactivity of the human infiltrating ductal carcinoma of the breast.

**A**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Labeling****Index** | **3+** | **2+** | **1+** | **N** |
| **Cases** | **12** | **5** | **1** | **2** |

**B**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Diagnosis** | **Tumor size** | **Tumor grading** | **Nodal involvement** | **PC90 immunoreactivity** |
| 1 | Infiltrating ductal carcinoma | pT3,5.5 x 4.5 x 3.5 cm | Grade III, Nottingham Score: 3+2+3 points | 25/32 | 3+ |
| 2 | Infiltrating ductal carcinoma | pT2,2.5 x 2.3 x 2.0 cm. | Grade I, Nottingham Score: 3+1+1 points | 1/9 | 3+ |
| 3 | Infiltrating ductal carcinoma | pT2,4 x 3 x 2 cm | Grade II, Nottingham Score: 3+3+1 points | 9/21 | 3+ |
| 4 | Infiltrating ductal carcinoma | pT2,3 x 2.5 x 2.5 cm. | Grade III, Nottingham Score: 3+3+3 points | 0/43 | 3+ |
| 5 | Infiltrating ductal carcinoma | pT1c,2.6 x 2.1 x 1.9 cm. | Grade II, Nottingham Score: 2+2+2 points | 1/24 | 3+ |
| 6 | Infiltrating ductal carcinoma | pT4b,5.9 x 4.9 x 3.8 cm | Grade II, Nottingham Score: 3+2+1 points | 7/21 | 3+ |
| 7 | Infiltrating ductal carcinoma | pT1c,2 x1.7 x 1.5 cm | Grade II, Nottingham Score:: 2+3+1 points | 0/25 | 3+ |
| 8 | Infiltrating ductal carcinoma | pT2,3 x 2.5 x 2 cm. | Grade II, Nottingham Score: 3+2+1 points | 5/29 | 3+ |
| 9 | Infiltrating ductal carcinoma | pT3,8 x 4 x 2.5 cm | Grade II, Nottingham Score: 3+2+1 points | 23/25 | 2+ |
| 10 | Infiltrating ductal carcinoma | pT3,5 x 3 x 3 cm | Grade II, Nottingham Score: 3+2+1 points | 8/30 | 2+ |
| 11 | Infiltrating ductal carcinoma | pT3,5 x 4.5 x 2 cm | Grade II, Nottingham Score: 3+2+2 points | 7/22 | N |
| 12 | Infiltrating ductal carcinoma | pT2,2 x 1.8 x 1.5 cm | Grade III, Nottingham Score: 3+3+2 points | 0/12 | 3+ |
| 13 | Infiltrating ductal carcinoma | pT2,3.2 x 2.5 x 2 cm | Grade II, Nottingham Score: 3+2+1 points | 5/29 | 2+ |
| 14 | Infiltrating ductal carcinoma | pT2,4.2 x 3.4 x 1 cm | Grade I, Nottingham Score: 1+2+1 points | 10/25 | 3+ |
| 15 | Infiltrating ductal carcinoma | pT2,2.8 x 2.5 x 2.5 cm | Grade III, Nottingham Score: 3+3+3 points | 0/43 | 3+ |
| 16 | Infiltrating ductal carcinoma | pT37.5 x 5.3 x 2.2 cm | Grade I, Nottingham Score: 1+1+1 points | 5/15 | 2+ |
| 17 | Infiltrating ductal carcinoma | pT3,5 x 3 x 2 cm | Grade III, Nottingham Score: 3+3+2 points | 0/1 | N |
| 18 | Infiltrating ductal carcinoma | pT2,2.5 x 2.2 x 0.8 cm | Grade II, Nottingham Score: 3+2+2 points | 3/9 | 1+ |
| 19 | Infiltrating ductal carcinoma | pT2,2.1x 2 x 1.9 cm | Grade II, Nottingham Score: 3+2+1 points | Cannot be assessed | 3+ |
| 20 | Infiltrating ductal carcinoma | pT2,2.2 x 1.8 x 1.8 cm | Grade II, Nottingham Score: 2+3+1 points | 1/28 | 2+ |