Specifications:

- No. of cases: 20
- Tissue type: Breast cancer tissues with corresponding normal tissues
- No. of spots: 2 spots from each cancer case (40 spots)
  20 non-neoplastic spots (20 spots)
- Total spots: 60
- Corresponding normal tissues with cancers: Yes
- Diameter: 1.0 mm

Documents:

- Product specification: layout, summary of tissue spots
- H&E stained images
- Detailed pathological information

Layout:

\[
\begin{array}{cccccc}
 & 1 & 2 & 3 & 4 & 5 & 6 \\
A & T & T & N & T & T & N \\
B & T & T & N & T & T & N \\
C & T & T & N & T & T & N \\
D & T & T & N & T & T & N \\
E & T & T & N & T & T & N \\
F & T & T & N & T & T & N \\
G & T & T & N & T & T & N \\
\end{array}
\]

- : moderately
- : poorly

For research use only
### Summary of tissue spots

<table>
<thead>
<tr>
<th>No</th>
<th>Coordinate</th>
<th>Sex</th>
<th>Age</th>
<th>Key Word</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A 1,2</td>
<td>f</td>
<td>45</td>
<td>Invasive ductal carcinoma</td>
</tr>
<tr>
<td>2</td>
<td>A 3</td>
<td>f</td>
<td>45</td>
<td>Non-neoplastic from A1,2</td>
</tr>
<tr>
<td>3</td>
<td>A 4,5</td>
<td>f</td>
<td>47</td>
<td>Invasive ductal carcinoma</td>
</tr>
<tr>
<td>4</td>
<td>A 6</td>
<td>f</td>
<td>47</td>
<td>Non-neoplastic from A4,5</td>
</tr>
<tr>
<td>5</td>
<td>A 7,8</td>
<td>f</td>
<td>44</td>
<td>Invasive ductal carcinoma</td>
</tr>
<tr>
<td>6</td>
<td>A 9</td>
<td>f</td>
<td>44</td>
<td>Non-neoplastic from A7,8</td>
</tr>
<tr>
<td>7</td>
<td>B 1,2</td>
<td>f</td>
<td>51</td>
<td>Invasive ductal carcinoma</td>
</tr>
<tr>
<td>8</td>
<td>B 3</td>
<td>f</td>
<td>51</td>
<td>Non-neoplastic from B1,2</td>
</tr>
<tr>
<td>9</td>
<td>B 4,5</td>
<td>f</td>
<td>62</td>
<td>Invasive ductal carcinoma</td>
</tr>
<tr>
<td>10</td>
<td>B 6</td>
<td>f</td>
<td>62</td>
<td>Non-neoplastic from B4,5</td>
</tr>
<tr>
<td>11</td>
<td>B 7,8</td>
<td>f</td>
<td>59</td>
<td>Invasive ductal carcinoma</td>
</tr>
<tr>
<td>12</td>
<td>B 9</td>
<td>f</td>
<td>59</td>
<td>Non-neoplastic from B7,8</td>
</tr>
<tr>
<td>13</td>
<td>C 1,2</td>
<td>f</td>
<td>46</td>
<td>Invasive ductal carcinoma</td>
</tr>
<tr>
<td>14</td>
<td>C 3</td>
<td>f</td>
<td>46</td>
<td>Non-neoplastic from C1,2</td>
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<tr>
<td>15</td>
<td>C 4,5</td>
<td>f</td>
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<tr>
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<td>f</td>
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<tr>
<td>18</td>
<td>C 9</td>
<td>f</td>
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<td>Non-neoplastic from C7,8</td>
</tr>
<tr>
<td>19</td>
<td>D 1,2</td>
<td>f</td>
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<td>Invasive ductal carcinoma</td>
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<tr>
<td>20</td>
<td>D 3</td>
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<td>Non-neoplastic from D1,2</td>
</tr>
<tr>
<td>21</td>
<td>D 4,5</td>
<td>f</td>
<td>26</td>
<td>Invasive ductal carcinoma</td>
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<tr>
<td>22</td>
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<td>f</td>
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<tr>
<td>23</td>
<td>D 7,8</td>
<td>f</td>
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<td>Invasive ductal carcinoma</td>
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<td>24</td>
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<td>f</td>
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<td>E 1,2</td>
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<td>Invasive ductal carcinoma</td>
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<td>E 3</td>
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<td>E 4,5</td>
<td>f</td>
<td>68</td>
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<td>28</td>
<td>E 6</td>
<td>f</td>
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<td>Non-neoplastic from E4,5</td>
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<tr>
<td>29</td>
<td>E 7,8</td>
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<td>Invasive ductal carcinoma</td>
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<tr>
<td>30</td>
<td>E 9</td>
<td>f</td>
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<td>Non-neoplastic from E7,8</td>
</tr>
<tr>
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<td>F 1,2</td>
<td>f</td>
<td>54</td>
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</tr>
<tr>
<td>32</td>
<td>F 3</td>
<td>f</td>
<td>54</td>
<td>Non-neoplastic from F1,2</td>
</tr>
<tr>
<td>33</td>
<td>F 4,5</td>
<td>f</td>
<td>55</td>
<td>Invasive ductal carcinoma</td>
</tr>
<tr>
<td>34</td>
<td>F 6</td>
<td>f</td>
<td>55</td>
<td>Non-neoplastic from F4,5</td>
</tr>
<tr>
<td>35</td>
<td>F 7,8</td>
<td>f</td>
<td>57</td>
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</tr>
<tr>
<td>36</td>
<td>F 9</td>
<td>f</td>
<td>57</td>
<td>Non-neoplastic from F7,8</td>
</tr>
<tr>
<td>37</td>
<td>G 1,2</td>
<td>f</td>
<td>35</td>
<td>Invasive ductal carcinoma</td>
</tr>
<tr>
<td>38</td>
<td>G 3</td>
<td>f</td>
<td>35</td>
<td>Non-neoplastic from G1,2</td>
</tr>
<tr>
<td>39</td>
<td>G 4,5</td>
<td>f</td>
<td>42</td>
<td>Invasive ductal carcinoma</td>
</tr>
<tr>
<td>40</td>
<td>G 6</td>
<td>f</td>
<td>42</td>
<td>Non-neoplastic from G4,5</td>
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A312- Breast cancer tissues with corresponding normal tissues
(formalin fixed)

QC sheet_LOT#132130804142
Hematoxylin and Eosin staining

A1  A2  A3  A4
A5  A6  A7  A8
A9  B1  B2  B3
B4  B5  B6  B7
B8  B9  C1  C2
C3  C4  C5  C6
A312- Breast cancer tissues with corresponding normal tissues
(formalin fixed)

QC sheet_LOT#132130804142
Hematoxylin and Eosin staining

C7  C8  C9  D1
D2  D3  D4  D5
D6  D7  D8  D9
E1  E2  E3  E4
E5  E6  E7  E8
E9  F1  F2  F3
A312- Breast cancer tissues with corresponding normal tissues
(formalin fixed)

QC sheet_LOT#132130804142
Hematoxylin and Eosin staining

F4    F5    F6    F7
F8    F9    G1    G2
G3    G4    G5    G6
<table>
<thead>
<tr>
<th>No</th>
<th>Coordinate</th>
<th>Sex</th>
<th>Age</th>
<th>Key Word</th>
<th>Histological Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A 1,2</td>
<td>f</td>
<td>45</td>
<td>invasive ductal carcinoma</td>
<td>Breast, right, total mastectomy with SLNB: invasive ductal carcinoma 1) size: 2.8x1.9cm 2) Black’s nuclear grade: 1 (poorly differentiated) 3) modified Bloom–Richardson's histological grade: III (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 3) 4) intraductal component: 15% 5) resection margins: negative 6) vascular invasion: present 7) perineural invasion: absent 8) microcalcification: present in invasive cancer, in associated with benign epithelium, in stroma 9) ER(+), PR(+), C erb B2(weak +:2+/3+) 10) nipple and areola: free of tumor 11) overlying skin: free of tumor 12) underlying fascia: free of tumor 13) lymph node, sentinel(0/4), axillary(0/3), regional(0/2):(0/9): free of tumor.</td>
</tr>
<tr>
<td>2</td>
<td>A 3</td>
<td>f</td>
<td>45</td>
<td>non-neoplastic</td>
<td>Breast, left, partial mastectomy: invasive ductal carcinoma 1) size: 1.9x1.6cm 2) Black’s nuclear grade: 1 (poorly differentiated) 3) modified Bloom–Richardson’s histological grade: III (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 3) 4) intraductal component: less than 5% 5) resection margins: negative, distance to closest (relevant) margin: 3mm relevant margin is medial for the report of the margins 6) vascular invasion: absent 7) perineural invasion: absent 8) microcalcification: present in associated with benign epithelium, in stroma 9) ER(−), PR(−), C erb B2(−:0+/3+) 10) overlying skin: free of tumor 11) lymph node, sentinel(0/1): free of tumor.</td>
</tr>
<tr>
<td>3</td>
<td>A 4,5</td>
<td>f</td>
<td>47</td>
<td>invasive ductal carcinoma</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>A 6</td>
<td>f</td>
<td>47</td>
<td>non-neoplastic</td>
<td>non-neoplastic from A4,5</td>
</tr>
</tbody>
</table>
**A312: Breast cancer tissues with corresponding normal tissues**

<table>
<thead>
<tr>
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</tr>
</thead>
</table>
| 5  | A 7,8      | f   | 44  | invasive ductal carcinoma | Breast, right, modified radical mastectomy:  
1) multicentric invasive ductal carcinomas  
   - 1) size: 1.9x1.3cm  
   2) Black's nuclear grade: 2 (moderately differentiated)  
   3) modified Bloom–Richardson's histological grade: II (tubule formation: 3, nuclear pleomorphism: 2, mitosis: 1)  
   4) intraductal component: less than 5%  
   - 1) size: 1.5x0.7cm  
   2) Black's nuclear grade: 2 (moderately differentiated)  
   3) modified Bloom–Richardson's histological grade: I (tubule formation: 2, nuclear pleomorphism: 2, mitosis: 1)  
   4) intraductal component: less than 5%  
   - resection margins: negative  
   - vascular invasion: absent  
   - perineural invasion: absent  
   - microcalcification: present, in invasive cancer, in stroma  
   - ER(+), PR(+), C erb B2(-: 0+/3+)  
   - associated benign changes: fibrocystic change  
2) nipple and areola: free of tumor  
3) overlying skin: free of tumor  
4) underlying fascia: free of tumor  
5) lymph node, separately submitted axillary (0/0), regional axillary (0/13): (0/13): free of tumor. |
<p>| 6  | A 9        | f   | 44  | non-neoplastic            | non-neoplastic from A7,8 |</p>
<table>
<thead>
<tr>
<th>No</th>
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<th>Age</th>
<th>Key Word</th>
<th>Histological Diagnosis</th>
</tr>
</thead>
</table>
| 7  | B 1,2      | f   | 51  | invasive ductal carcinoma | Breast, right, modified radical mastectomy: invasive ductal carcinoma  
1) size: 4.5x3.6cm  
2) Site: LUO quadrant, 2 o’clock area, 0cm away from the nipple  
3) Black’s nuclear grade: 1 (poorly differentiated)  
4) modified Bloom–Richardson’s histological grade: III (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 3)  
5) intraductal component: 5% or EIC:present  
6) resection margins: negative, distance to closest(relevant) margin: 20mm, relevant margin is posterior  
7) vascular invasion: absent  
8) perineural invasion: absent  
9) results of immunohistochemistry: ER(3+), PR(3+), C-erb B2(−: 1+/3+)  
10) microcalcification: present in invasive cancer, in ductal carcinoma in situ  
11) nipple and areola: free of tumor.  
12) overlying skin: free of tumor.  
13) underlying fascia: free of tumor. |
| 8  | B 3        | f   | 51  | non-neoplastic           | non-neoplastic from B1,2 |
| 9  | B 4,5      | f   | 62  | invasive ductal carcinoma | Breast, left, modified radical mastectomy: status incisional biopsy with residual invasive ductal carcinoma  
1) size of the residual tumor: 2x1.8cm  
2) site: LO quadrant  
3) Black’s nuclear grade: 1(poorly differentiated)  
4) modified Bloom–Richardson’s histological grade: III (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 3)  
5) intraductal component: 10%  
6) vascular invasion: present  
7) perineural invasion: absent  
8) microcalcification: present, in invasive cancer, In DCIS, in association with benign epithelium  
10) immunohistochemistry: ER(−), PR(+), C-erb B2(−: 0/3+)  
11) nipple and areola: free of tumor.  
12) lymph node, sentinel(2/2), axillary(2/24):(4/26): tumor metastasis in 4 out of 26 nodes. |
| 10 | B 6        | f   | 62  | non-neoplastic           | non-neoplastic from B4,5 |
**A312: Breast cancer tissues with corresponding normal tissues**

<table>
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<th>No</th>
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<th>Age</th>
<th>Key Word</th>
<th>Histological Diagnosis</th>
</tr>
</thead>
</table>
| 11 | B 7,8      | f   | 59  | invasive ductal carcinoma | Breast, left, partial mastectomy: invasive ductal carcinoma  
1) size: 1.3x1.1cm  
2) Black's nuclear grade: 2 (moderately differentiated)  
3) modified Bloom–Richardson's histological grade: II (tubule formation: 3, nuclear pleomorphism: 2, mitosis: 2)  
4) intraductal component: absent  
5) resection margins: negative  
6) vascular invasion: present  
7) perineural invasion: absent  
8) microcalcification: present in invasive cancer and in associated with benign epithelium  
9) ER(+), PR(+), C erb B2(−: 0+/3+)  
10) nipple and areola: free of tumor  
11) overlying skin: free of tumor  
12) underlying fascia: free of tumor  
13) lymph node, sentinel(0/2), regional(0/1):(0/3): free of tumor. |
| 12 | B 9        | f   | 59  | non-neoplastic          | Breast, left, partial mastectomy: non–neoplastic from B7,8                                                                                                                                                    |
| 13 | C 1,2      | f   | 46  | invasive ductal carcinoma | Breast, left, partial mastectomy: invasive ductal carcinoma  
1) size: 1.1x0.8cm  
2) Black's nuclear grade: 1 (poorly differentiated)  
3) modified Bloom–Richardson's histological grade: III (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 2)  
4) EIC: present  
5) resection margins: negative  
6) vascular invasion: absent  
7) perineural invasion: absent  
8) microcalcification: absent  
9) immunohistochemistry: ER(+), PR(+), C erb B2(−:1+/3+)  
10) radial scar, focal. |
| 14 | C 3        | f   | 46  | non-neoplastic          | Breast, left, partial mastectomy: non–neoplastic from C1,2                                                                                                                                                    |
**A312: Breast cancer tissues with corresponding normal tissues**

<table>
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<th>Histological Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>invasive ductal</td>
<td>Breast, left, modified radical mastectomy: invasive ductal carcinoma&lt;br&gt;1) size: 3x2cm&lt;br&gt;2) Black’s nuclear grade: 1 (poorly differentiated)&lt;br&gt;3) modified Bloom–Richardson’s histological grade: III (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 3)&lt;br&gt;4) EIC:present&lt;br&gt;5) resection margins: negative&lt;br&gt;6) vascular invasion: present&lt;br&gt;7) perineural invasion: absent&lt;br&gt;8) microcalcification: present in invasive cancer and ductal carcinoma in situ&lt;br&gt;9) ER(focal +), PR(−), C erb B2(+:3+/3+)&lt;br&gt;10) Back ground ductal carcinoma in situ&lt;br&gt;   - nuclear grade: high&lt;br&gt;   - histologic grade: high&lt;br&gt;   - necrosis: present (comedo)&lt;br&gt;   - architecture type: cribriform, solid&lt;br&gt;   - extent of ductal carcinoma in situ: about 8x5cm&lt;br&gt;   - calcification: present in ductal carcinoma in situ&lt;br&gt;   - microinvasion: present&lt;br&gt;11) nipple and areola: free of tumor&lt;br&gt;12) overlying skin: free of tumor&lt;br&gt;13) underlying fascia: free of tumor&lt;br&gt;14) lymph node, axillary(2/31): tumor metastasis in 2 out of 31 nodes (with pericapsular tumor spread: largest size of tumor deposit: 3.3x2.5cm).</td>
</tr>
<tr>
<td>15</td>
<td>C 4,5</td>
<td>f</td>
<td>41</td>
<td>ductal carcinoma</td>
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</tr>
<tr>
<td>16</td>
<td>C 6</td>
<td>f</td>
<td>41</td>
<td>non-neoplastic</td>
<td>non-neoplastic from C4,5</td>
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<tr>
<td>No</td>
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<td>Sex</td>
<td>Age</td>
<td>Key Word</td>
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</tr>
</tbody>
</table>
| 17 | C 7,8      | f   | 70  | invasive ductal carcinoma | Breast, right, partial mastectomy: invasive ductal carcinoma  
1) size: 1.5x1.3cm  
2) Black’s nuclear grade: 2 (moderately differentiated)  
3) modified Bloom–Richardson’s histological grade: III (tubule formation: 3, nuclear pleomorphism: 2, mitosis: 3)  
4) intraductal component: EIC: present < 5%  
5) resection margins: negative  
6) vascular invasion: absent  
7) perineural invasion: absent  
8) microcalcification: absent  
9) ER(+), PR(+), C erb B2(−:0/3+)  
10) lymph node, sentinel(0/6): free of tumor. |
| 18 | C 9        | f   | 70  | non-neoplastic           | Breast, left, total mastectomy: invasive ductal carcinoma  
1) size: 2.6x2.4cm  
2) site: UO quadrant, 6cm away from the nipple  
3) Black’s nuclear grade: 1(poorly differentiated)  
4) modified Bloom–Richardson’s histological grade: III (tubule formation: 2, nuclear pleomorphism: 3, mitosis: 3)  
5) intraductal component: 5%  
6) resection margins: negative  
7) vascular invasion: absent  
8) perineural invasion: absent  
9) microcalcification: absent  
10) associated benign changes: central tumor necrosis and fibrosis myxoid matrix formation  
11) nipple and areola: free of tumor  
12) overlying skin: free of tumor  
13) underlying fascia: free of tumor  
14) lymph node, axillary(1/16), separate node(0/0): Tumor metastasis in 1 out of 16 nodes. |
| 19 | D 1,2      | f   | 75  | invasive ductal carcinoma | |
| 20 | D 3        | f   | 75  | non-neoplastic           | |

A312: Breast cancer tissues with corresponding normal tissues
### A312: Breast cancer tissues with corresponding normal tissues

<table>
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<th>Key Word</th>
<th>Histological Diagnosis</th>
</tr>
</thead>
</table>
| 21 | D 4,5      | f   | 26  | invasive ductal carcinoma | Breast, left, partial mastectomy: invasive ductal carcinoma  
1) size: 1.7cm  
2) Black's nuclear grade: 1(poorly differentiated)  
3) modified Bloom-Richardson's histological grade: III (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 3)  
4) intraductal component: 5%  
5) resection margins: negative  
6) vascular invasion: absent  
7) perineural invasion: absent  
8) microcalcification: present, In invasive cancer  
9) ER(+), PR(+), C erb B2(-: 0/3+)  
10) overlying skin: free of tumor  
11) lymph node, axillary(0/25): free of tumor. |
| 22 | D 6        | f   | 26  | non-neoplastic from D4,5  | Breast, left, partial mastectomy: invasive ductal carcinoma  
1) size: 2.2x1.5x1.0cm  
2) Black's nuclear grade: 2 (moderately differentiated)  
3) modified Bloom-Richardson's histological grade: III (tubule formation: 3, nuclear pleomorphism: 2, mitosis: 3)  
4) intraductal component: 15%  
5) resection margins: negative (see F2007-2180 - 2185 for the report of the margins)  
6) vascular invasion: present  
7) perineural invasion: absent  
8) microcalcification: absent  
9) ER(+), PR(+), C erb B2(-:1/3 +)  
10) lymph node, sentinel(0/1): free of tumor. |
| 23 | D 7,8      | f   | 49  | invasive ductal carcinoma | Breast, left, partial mastectomy: invasive ductal carcinoma  
1) size: 2.2x1.5x1.0cm  
2) Black's nuclear grade: 2 (moderately differentiated)  
3) modified Bloom-Richardson's histological grade: III (tubule formation: 3, nuclear pleomorphism: 2, mitosis: 3)  
4) intraductal component: 15%  
5) resection margins: negative (see F2007-2180 - 2185 for the report of the margins)  
6) vascular invasion: present  
7) perineural invasion: absent  
8) microcalcification: absent  
9) ER(+), PR(+), C erb B2(-:1/3 +)  
10) lymph node, sentinel(0/1): free of tumor. |
| 24 | D 9        | f   | 49  | non-neoplastic from D7,8  | Breast, left, partial mastectomy: invasive ductal carcinoma  
1) size: 2.2x1.5x1.0cm  
2) Black's nuclear grade: 2 (moderately differentiated)  
3) modified Bloom-Richardson's histological grade: III (tubule formation: 3, nuclear pleomorphism: 2, mitosis: 3)  
4) intraductal component: 15%  
5) resection margins: negative (see F2007-2180 - 2185 for the report of the margins)  
6) vascular invasion: present  
7) perineural invasion: absent  
8) microcalcification: absent  
9) ER(+), PR(+), C erb B2(-:1/3 +)  
10) lymph node, sentinel(0/1): free of tumor. |
**A312: Breast cancer tissues with corresponding normal tissues**

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| 25 | E 1,2      | f   | 44  | invasive ductal carcinoma | Breast, right, partial mastectomy: invasive ductal carcinoma  
1) size: 2.1x1.8cm  
2) Black's nuclear grade: 1 (poorly differentiated)  
3) modified Bloom–Richardson's histological grade: III (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 3)  
4) intraductal component: 20%  
5) resection margins: negative distance to closest (relevant) margin: 1mm relevant margin is posterior  
6) vascular invasion: absent  
7) perineural invasion: absent  
8) microcalcification: present in ductal carcinoma in situ, in associated with benign epithelium  
9) ER(+), PR(+), C erb B2(-:1+/3+), E-cadherin(+)  
10) overlying skin: free of tumor  
11) underlying fascia: free of tumor  
12) lymph node, sentinel(0/1): free of tumor. |
| 26 | E 3        | f   | 44  | non-neoplastic non-neoplastic from E1,2 | Breast, left, partial mastectomy: invasive ductal carcinoma with squamous cell carcinomatous change (so called metaplastic carcinoma)  
1) size: 3x2cm  
2) site: LIC area, 9 o'clock area  
3) Black's nuclear grade: 1 (poorly differentiated)  
4) modified Bloom-Richardson's histological grade: III (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 3)  
5) intraductal component: 10%  
6) resection margins: positive in posterior margin  
7) vascular invasion: absent  
8) perineural invasion: present  
9) microcalcification: absent  
10) ER(-), PR(-), C erb B2(-:1+/3+)  
11) overlying skin: free of tumor  
12) underlying fascia: extension of tumor involving posterior resection margin  
13) lymph node, sentinel(0/1): free of tumor. |
| 27 | E 4,5      | f   | 68  | invasive ductal carcinoma | |
| 28 | E 6        | f   | 68  | non-neoplastic non-neoplastic from E4,5 | |
### A312: Breast cancer tissues with corresponding normal tissues

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| 29 | E 7,8      | f   | 45  | invasive ductal carcinoma | Breast, left, modified radical mastectomy: invasive ductal carcinoma  
1) size: 1.3x1.0cm  
2) Black's nuclear grade: 2 (moderately differentiated)  
3) modified Bloom-Richardson's histological grade: 1 (tubule formation: 1, nuclear pleomorphism: 2, mitosis: 1)  
4) intraductal component: < 5%  
5) resection margins: negative  
6) vascular invasion: absent  
7) perineural invasion: absent  
8) microcalcification: present in invasive cancer, in ductal carcinoma in situ, in associated with benign epithelium, in stroma  
9) ER(+), PR(+), C erb B2(-:0/3+)  
10) ductal carcinoma in situ in the background  
   - nuclear grade: low  
   - histological grade: low  
   - necrosis: absent  
   - architectural types: micropapillary  
   - extent of DCIS: approximately 4x3.5cm  
   - microinvasion: absent  
11) associated benign change: adenosis and papillomatosis  
12) underlying fascia: free of tumor  
13) lymph node, sentinel(0/3): free of tumor. |
| 30 | E 9        | f   | 45  | non-neoplastic | non-neoplastic from E7,8 |
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| 31 | F          | f   | 54  | invasive ductal carcinoma   | Breast, right, modified radical mastectomy: invasive ductal carcinoma  
1) size: 2.2x1.3cm  
2) Black's nuclear grade: 1 (poorly differentiated)  
3) modified Bloom-Richardson's histological grade: III (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 3)  
4) EIC: positive  
5) resection margins: Negative  
6) vascular invasion: Absent  
7) perineural invasion: Absent  
8) microcalcification: Present in invasive cancer, in associated with benign epithelium, in stroma  
9) ER(-), PR(-), C erb B2(-:0+/3+)  
10) showing histologic changes of adjuvant chemotherapy  
11) associated benign changes: fibroadenoma  
12) nipple and areola: free of tumor  
13) overlying skin: free of tumor  
14) underlying fascia: free of tumor  
15) lymph node, axillary(0/7): free of tumor. |
| 32 | F          | f   | 54  | non-neoplastic               | non-neoplastic from F1,2                                                                                                                                |
| 33 | F          | f   | 55  | invasive ductal carcinoma   | Breast, left, total mastectomy: invasive ductal carcinoma  
1) size: 2.3x1.8cm  
2) Black's nuclear grade: 1 (poorly differentiated)  
3) modified Bloom-Richardson's histological grade: III (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 3)  
4) EIC: positive  
5) resection margins: negative  
6) vascular invasion: absent  
7) perineural invasion: present  
8) microcalcification: present in invasive cancer, in ductal carcinoma in situ, in associated with benign epithelium, in stroma  
9) ER(-), PR(-), C erb B2(+:3+/3+)  
10) nipple and areola: paget's disease.  
11) overlying skin: free of tumor  
12) underlying fascia: free of tumor  
13) lymph node, sentinel(0/4):free of tumor. |
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<tr>
<td>34</td>
<td>F 6</td>
<td>f</td>
<td>55</td>
<td>non-neoplastic</td>
<td>non-neoplastic from F4,5</td>
</tr>
<tr>
<td>35</td>
<td>F 7,8</td>
<td>f</td>
<td>57</td>
<td>invasive ductal carcinoma</td>
<td>Breast, right, partial mastectomy: invasive ductal carcinoma  1) size: 1.8x1.2cm  2) Black's nuclear grade: 2 (moderately differentiated)  3) modified Bloom-Richardson's histological grade: III (tubule formation: 3, nuclear pleomorphism: 2, mitosis: 3)  4) intraductal component: less than 5%  5) resection margins: negative  6) vascular invasion: absent  7) perineural invasion: absent  8) microcalcification: absent  9) ER(-), PR(-), C erb B2(+:3+/3+)  10) lymph node, sentinel(0/1): free of tumor.</td>
</tr>
<tr>
<td>36</td>
<td>F 9</td>
<td>f</td>
<td>57</td>
<td>non-neoplastic</td>
<td>non-neoplastic from F7,8</td>
</tr>
<tr>
<td>37</td>
<td>G 1,2</td>
<td>f</td>
<td>35</td>
<td>invasive ductal carcinoma</td>
<td>Breast, left, partial mastectomy: invasive ductal carcinoma mixed with mucinous carcinoma  1) size: 2.2x1.8cm  2) Black's nuclear grade: 1 (poorly differentiated)  3) modified Bloom-Richardson's histological grade: III (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 3)  4) intraductal component: no  5) resection margins: negative (See F2007-2085 - 2090 for the report margins)  6) vascular invasion: absent  7) perineural invasion: absent  8) microcalcification: present in invasive cancer, in associated with benign epithelium  9) ER(+), PR(+), C erb B2(-:0/3+)  Note: About 60-70% of the tumor consists of mucinous carcinoma and this case cannot be categories as pure mucinous carcinoma.</td>
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<tr>
<td>38</td>
<td>G 3</td>
<td>f</td>
<td>35</td>
<td>non-neoplastic</td>
<td>non-neoplastic from G1,2</td>
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| 39 | G          | 4,5 | f   | invasive ductal carcinoma | Breast, left, partial mastectomy:  invasive ductal carcinoma  
1) size: 1.4x1.3cm  
2) Black's nuclear grade: 1 (poorly differentiated)  
3) modified Bloom-Richardson's histological grade: III (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 3)  
4) intraductal component: < 5%  
5) with areas of invasive micropapillary carcinoma  
6) resection margins: negative  
7) vascular invasion: present  
8) perineural invasion: absent  
9) microcalcification: absent  
10) ER(+), PR(+), C erb B2(-0/3+ )  
11) lymph node, sentinel (1/4), axillary (0/4): (1/8): tumor metastasis in one out of 8 nodes with focal perinodal tumor spread. (size of the metastatic tumor: 2x1mm). |
| 40 | G          | 6   | f   | non-neoplastic non-neoplastic from G4,5 | non-neoplastic non-neoplastic from G4,5 |