The Department of Laboratory Medicine and Pathology provides consultation on diagnostic problems regarding the evaluation, interpretation or correlation of clinical laboratory data and test methodology. World renown breast pathologists provide a focus of expertise and support. Esoteric tests not available locally may be obtained through Mayo Medical Laboratories in Rochester, Minnesota.

### CONSULTATIVE SERVICE

70012  Pathology Consultation (appropriate stains and ancillary testing may be performed in order to render an accurate diagnosis)

<table>
<thead>
<tr>
<th>IMMUNOHISTOCHEMICAL (IHC) STAINS</th>
<th>MOLECULAR ASSAYS</th>
<th>IMMUNOHISTOCHEMICAL ASSAYS INTERPRETTED WITH DIGITAL IMAGE ANALYSIS</th>
<th>MISCELLANEOUS TEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actin, smooth muscle</td>
<td>COX-2</td>
<td>GATA-3</td>
<td>Mammaglobin</td>
</tr>
<tr>
<td>Androgen receptor</td>
<td>E-Cadherin</td>
<td>Gross Cystic Fluid Protein 15 (GCDFP-15)</td>
<td>Progesterone Receptor (PR)</td>
</tr>
<tr>
<td>Beta-catenin</td>
<td>Estrogen Receptor (ER)</td>
<td>HER2</td>
<td>P53</td>
</tr>
<tr>
<td>Calponin</td>
<td>ERCC1</td>
<td>Keratin 5/6 (KRT5/6)</td>
<td>P63</td>
</tr>
</tbody>
</table>

### MOLECULAR ASSAYS (PARAFFIN-EMBEDDED TISSUE / CYTOLOGY SPECIMENS)

- Angiosarcoma, MYC (8q24) Amplification, FISH, Tissue [ID: MASF]*
- FGFR1 (8p11.2) Amplification, FISH, Tissue [ID: FGF1F]*
- HER2 Amplification Associated with Breast Cancer, FISH, Tissue [ID: HER2F]*
- Solid Tumor Targeted Cancer Gene Panel by Next Generation Sequencing [ID: CAPN]*
- MYB (6q23) Rearrangement FISH, Tissue [ID: SG7]*
- Beta-Catenin, Fibromatosis, Mutation Analysis [ID: BCAT]*
- USP6 (17p13), Aneurysmal Bone Cyst and Nodular Fascittis, FISH, Tissue [ID: USPF]*

### IMMUNOHISTOCHEMICAL ASSAYS INTERPRETTED WITH DIGITAL IMAGE ANALYSIS (PARAFFIN-EMBEDDED TISSUE)

- Estrogen/Progesterone Receptor, Semi-Quantitative Immunohistochemistry, Manual [ID: 89213]*
- HER2, Breast, Quantitative Immunohistochemistry, Automated [ID: 81504]*
- Ki-67(MIB-1), Breast, Quantitative Immunohistochemistry, Automated [ID: 82230]*

### MISCELLANEOUS TEST

- Circulating Tumor Cells (CTC) for Breast Cancer by CellSearch, Blood [ID: CTCBC]*

*individually orderable

![Invasive ductal carcinoma (H&E)](image1)

![Immunohistochemical estrogen receptor (ER) stain of breast carcinoma](image2)

![FISH: HER2 amplification](image3)