About the Test: FoundationOne® Liquid is a next generation sequencing (NGS) assay that identifies clinically relevant genomic alterations in circulating tumor DNA.

Patient Information:
- **Disease**: Breast cancer (NOS)
- **Name**: Not Given
- **Date of Birth**: Not Given
- **Sex**: Not Given
- **Medical Record #:** Not Given

Physician Information:
- **Ordering Physician**: Not Given
- **Medical Facility**: Not Given
- **Medical Facility ID**: Not Given
- **Pathologist**: Not Given

Specimen Information:
- **Specimen ID**: Not Given
- **Specimen Type**: Blood
- **Date of Collection**: Not Given
- **Specimen Received**: Not Given

### Biomarker Findings

**MSI Status Undetermined**

**Genomic Findings**:

<table>
<thead>
<tr>
<th>Gene</th>
<th>Alteration</th>
<th>MAF %</th>
<th>Trials</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESR1</td>
<td>D538G</td>
<td>3.0%</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>E380Q</td>
<td>0.09%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Y537N</td>
<td>0.3%</td>
<td></td>
</tr>
<tr>
<td>FGFR1</td>
<td>amplification</td>
<td>n/a</td>
<td>6</td>
</tr>
<tr>
<td>NF1</td>
<td>G751fs*9</td>
<td>0.45%</td>
<td>9</td>
</tr>
<tr>
<td>MDM2</td>
<td>amplification</td>
<td>n/a</td>
<td>1</td>
</tr>
</tbody>
</table>

**Genomic Findings**

- ESR1 D538G, E380Q, Y537N
- FGFR1 amplification
- NF1 G751fs*9
- MDM2 amplification
- MYC amplification
- TPS3 R248Q

**Actionability**

- **Therapies with Clinical Benefit (in Patient's Tumor Type)**
  - Fulvestrant
  - Anastrozole
  - Exemestane
  - Letrozole
  - Aromatase inhibitors

- **Therapies with Clinical Benefit (in Other Tumor Type)**
  - Pazopanib
  - Ponatinib
  - Cobimetinib
  - Trametinib
  - Binimetinib

**Note**: 1. Patient may be resistant to indicated therapy

Electronically Signed by Julia A. Elvin, M.D., Ph.D. • Jeffrey S. Ross, M.D., Medical Director • 30 November 2017

Foundation Medicine, Inc. • 1-888-988-3639

Sample Preparation: 150 Second St., 1st Floor, Cambridge, MA 02141 • CLIA: 22D2027531
Sample Analysis: 150 Second St., 1st Floor, Cambridge, MA 02141 • CLIA: 22D2027531

Page 1 of 23
For more information regarding biological and clinical significance, including prognostic, diagnostic, germline, and potential chemosensitivity implications, see the Genomic Findings section.

<table>
<thead>
<tr>
<th>GENOMIC FINDINGS</th>
<th>MAF %</th>
<th>THERAPIES WITH CLINICAL BENEFIT (IN PATIENT’S TUMOR TYPE)</th>
<th>THERAPIES WITH CLINICAL BENEFIT (IN OTHER TUMOR TYPE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MYC - amplification</td>
<td>n/a</td>
<td>none</td>
<td>none</td>
</tr>
</tbody>
</table>

5 Trials see p. 17

Genomic alterations detected may be associated with activity of certain FDA-approved drugs; however, the agents listed in this report may have varied clinical evidence in the patient’s tumor type. Neither the therapeutic agents nor the trials identified are ranked in order of potential or predicted efficacy for this patient, nor are they ranked in order of level of evidence for this patient’s tumor type.

NOTE: Genomic alterations detected may be associated with activity of certain FDA-approved drugs; however, the agents listed in this report may have varied clinical evidence in the patient’s tumor type. Neither the therapeutic agents nor the trials identified are ranked in order of potential or predicted efficacy for this patient, nor are they ranked in order of level of evidence for this patient’s tumor type.
This comparison table refers only to genes and biomarkers assayed by prior FoundationOne® Liquid or FoundationOne® tests. Up to five previous tests may be shown.

For some genes in FoundationOne Liquid only select exons are assayed. Therefore, an alteration found by a previous test may not have been confirmed despite overlapping gene lists. Please refer to the Appendix for the complete list of genes and exons assayed. The gene and biomarker list will be updated periodically to reflect new knowledge about cancer biology.

As new scientific information becomes available, alterations that had previously been listed as Variants of Unknown Significance (VUS) may become reportable.