

10A-0-3

*Carcinoma infiltrating lobular, NOS 8520/3*  
*Path Site: breast, upper inner quadrant C50.2*  
*CQCF: Site breast, NOS C50.9 2/8/11*

**SPECIMENS:**

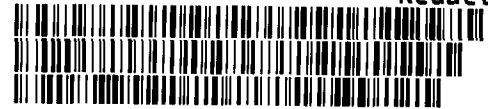
- A. SENTINEL NODE #1 LEFT AXILLA
- B. SENTINEL NODE #2 LEFT AXILLA
- C. LEFT BREAST MASS WITH NEEDLE LOCALIZATION
- D. ADDITIONAL MARGIN LEFT BREAST

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- C. LEFT BREAST MASS WITH NEEDLE LOCALIZATION
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UUID:12DAEBF2-CDBF-4D98-9C74-2A2AEF1E8433  
 TCGA-E2-A1IH-01A-PR

Redacted

**GROSS DESCRIPTION:****A. SENTINEL NODE #1 LEFT AXILLA**

Received fresh is a tan pink lymph node 1.5 x 1.0 x 0.7cm. The specimen is serially sectioned and one touch prep is taken. Toto A1

**B. SLN #2 LEFT AXILLA**

Received fresh is a tan pink lymph node 1.0 x 0.7 x 0.5cm. The specimen is serially sectioned and one touch prep is taken. Toto B1

**C. LEFT BREAST NEEDLE LOCALIZATION**

Single stitch: Anterior

Double stitch: Lateral

Triple stitch: Superior

Received fresh is a 79g oriented WLE breast specimen 2.5cm from anterior to posterior, 7.5cm from superior to inferior and 8.5cm from medial to lateral, with needle localization wire and attached radiograph. The specimen is inked as follows: Anterior-Blue, Posterior-Black, Superior-Red, Inferior-Orange, Medial-Green, Lateral-Yellow. The specimen is serially sectioned from lateral to medial in to 8 slices: slice 1 being most medial, slice 8 being most lateral. The cut surfaces reveal a gray white firm well circumscribed mass 1.5 x 1.0 x 0.8cm, 0.6cm from the closest deep margin, 0.7cm from the anterior margin and 0.8cm from the medial margin. The mass is located in slice 2 and 3. The remaining cut surfaces reveal yellow lobulated adipose tissue interdispersed with gray white fibrous tissue. A portion of the specimen is submitted for tissue procurement. Representative sections are submitted as follows:

C1-C5: medial margin perpendicular sections from superior to inferior slice 1

C6: superior margin slice 2

C7: mass with anterior and deep margin slice 2

C8: inferior margin slice 2

C9: superior margin slice 3

C10: mass with anterior margin slice 3

C11: mass with deep margin slice 3

C12: inferior margin slice 3

C13: next to mass with anterior margin slice 4

C14: next to mass with deep margin slice 4

C15: slice 5

C16: lateral margin perpendicular sections slice 8

As per attached diagram.

**D. ADDITIONAL MEDIAL MARGIN LEFT BREAST: Stitch at new margin**

Received fresh is a 4g oriented tan pink fragment of fibrofatty tissue 5.0 x 2.0 x 1.0cm. The new true margin is inked Black and the specimen is serially sectioned to reveal grossly unremarkable breast parenchyma. Toto D1-D4.

**DIAGNOSIS:****A. LYMPH NODE, SENTINE# 1, LEFT AXILLA, BIOPSY:**

- ONE LYMPH NODE, NEGATIVE FOR METASTASES (0/1).

**B. LYMPH NODE, SENTINE# 2, LEFT AXILLA, BIOPSY:**

- ONE LYMPH NODE, NEGATIVE FOR METASTASES (0/1).

**C. BREAST, LEFT, WIDE LOCAL EXCISION:**

- INVASIVE, LOBULAR CARCINOMA, SBR GRADE 2, MEASURING 1.5 CM
- SURGICAL MARGINS ARE NEGATIVE FOR TUMOR
- SEE SYNOPTIC REPORT AND SEE NOTE.

D. BREAST, LEFT, ADDITIONAL MEDIAL MARGIN, EXCISION:  
- BREAST TISSUE, NO TUMOR SEEN.

NOTE: The tumor is negative for E-cadherin, compatible with lobular phenotype.

#### SYNOPTIC REPORT - BREAST

Specimen Type: Excision  
Needle Localization: Yes - For mass  
Laterality: Left  
Invasive Tumor: Present  
Multifocality: No  
WHO CLASSIFICATION  
Invasive lobular carcinoma 8520/3  
Tumor size: 1.5cm  
Tumor Site: Upper inner quadrant  
Margins: Negative  
Tubular Score: 3  
Nuclear Grade: 2  
Mitotic Score: 1  
Modified Scarff Bloom Richardson Grade: 2  
Necrosis: Absent  
Vascular/Lymphatic Invasion: None identified  
Lobular neoplasia: None  
Lymph nodes: Sentinel lymph node only  
Lymph node status: Negative 0 / 2

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DCIS not present

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#### ER/PR/HER2 Results

ER: Positive  
PR: Positive  
HER2: Pending by FISH

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Pathological staging (pTN): pT 1c N 0

#### SYNOPTIC REPORT - BREAST, ER/PR RESULTS

Specimen: Surgical Excision  
Block Number:

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ER: Positive	Allred Score: 8 = Proportion Score 5 + Intensity Score 3
PR: Positive	Allred Score: 8 = Proportion Score 5 + Intensity Score 3

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#### COMMENT:

The Allred score for estrogen and progesterone receptors is calculated by adding the sum of the proportion score (0 = no staining, 1 = <1% of cells staining, 2 = 1 - 10% of cells staining, 3 = 11-30% of cells staining, 4 = 31-60% of cells staining, 5 = >60% of cells staining) to the intensity score (1 = weak intensity of staining, 2 = intermediate intensity of staining, 3 = strong intensity of staining), with a scoring range from 0 to 8.

ER/PR positive is defined as an Allred score of >2 and ER/PR negative is defined as an Allred score of less than or equal to 2.

#### METHODOLOGY:

Tissue was fixed in 10% neutral buffered formalin for no less than 8 and no longer than 24 hours. Immunohistochemistry was performed using the mouse anti-human ER (ER 1D5, 1:100) and PR (PGR 136, 1:100) provided by following the manufacturer's instructions. This assay was not modified. Interpretation of the ER/PR immunohistochemical stain is guided by published results in the medical literature, information provided by the reagent manufacturer and by internal review of staining performance.

**SYNOPTIC REPORT - BREAST HER-2 RESULTS**

Specimen: Surgical Excision

Block Number:

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 Interpretation: EQUIVOCAL

Intensity: 2+

% Tumor Staining: 20%

Fish Ordered: Yes ,

**METHODOLOGY:**

Tissue was fixed in 10% neutral buffered formalin for no less than 8 and no longer than 24 hours. Her2 analysis was performed using the FDA approved Dako HercepTest (TM) test kit using rabbit anti-human HER2. This assay was not modified. External kit-slides provided by the manufacturer (cell lines with high, low and negative HER2 protein expression) and in-house known HER2 amplified control tissue were evaluated along with the test tissue. Adequate, well preserved, clear-cut invasive carcinoma was identified for HER2 evaluation. Interpretation of the HER2 immunohistochemical stain is guided by published results in the medical literature, information provided by the reagent manufacturer and by internal review of staining performance.

This assay has been validated according to the 2007 joint recommendations and guidelines from ASCO and CAP and from the NCCN HER2 testing in Breast Cancer Task Force.

\_\_\_\_\_ takes full responsibility for this test's performance.

**CLINICAL HISTORY:**

woman with Left Breast Ca: Invasive Ductal 11 o'clock. 1.7cm on mammogram.

**PRE-OPERATIVE DIAGNOSIS:**

Left Breast Ca

**INTRAOPERATIVE CONSULTATION:**

TPA/TPB: Negative for tumor. Diagnosis called to Dr at \_\_\_\_\_ by Dr.

C. GROSS INSPECTION: 1.5cm mass. 0.6cm from the closest deep margin, 0.7cm from anterior margin. Diagnosis called to Dr. at \_\_\_\_\_ by Dr.

D. GROSS INSPECTION: New medial margin. Negative for tumor. Diagnosis called to Dr. at \_\_\_\_\_ by Dr.

**ADDENDUM:**

FISH for HER-2 amplification for this case was attempted multiple times using multiple blocks from this case. In each instance the tissue would not remain on the slide for analysis. As a result of this one block will be sent to another laboratory for further testing. This case was sent to the for second opinion for HER-2 FISH. The results reported below are the verbatim results of this referral.

HER2 Amp. Breast Cancer. FISH

Specimen Tissue-Paraffin

Specimen ID

Source

Left breast

Order Date

Reason For Referral

r/o HER2 gene amplification

Fixative Formalin

Method:

FISH using probes for HER2 (17q12) and a chromosome 17 centromere (D17Z1) control probe (PathVysion, \_\_\_\_\_). Two technologists score signals in 60 total nuclei from invasive or metastatic tumor and concurrent controls.

Results:

nuc ish (D17Z1x2, Her2x3-5)

The HER2 to D17Z1 ratio is 2.28

Interpretation:

The invasive tumor nuclei have an amplified HER2D17Z1 ratio (per ASCO/CAP

guidelines). The HER2D17Z1 ratio is 2.28. In our opinion, this result may not reflect true HER2 amplification. Most nuclei have 2 copies of the chromosome 17 centromere and 3-5 copies of the HER2 gene. This result indicates the tumor has additional copies of the HER2 gene (i.e., duplication), but does not have sufficient copies to suggest high level HER2 amplification. It is not known if HER2 duplication is associated with HER2 over-expression in breast adenocarcinoma. ASCO/CAP reporting guidelines (Wolff et al, Arch Path Lab Med 131:18-43, 2007). A HER2D17Z1 ratio less than 1.8 indicates absence of HER2 gene amplification. A HER2D17Z1 ratio from 1.8-2.2 is equivocal for HER2 gene amplification. A HER2D17Z1 ratio greater than 2.2 indicates HER2 gene amplification.

DISCLAIMER: This test was developed and its performance characteristics determined by Laboratory Medicine and Pathology. It is intended as an adjunct to existing prognostic clinical and pathologic information for breast cancer patients. This test is not intended to diagnose or screen for breast cancer. Per ASCO/CAP guidelines, HER2FISH test results are valid for non-decalcified paraffin embedded specimens fixed in 10% neutral buffered formalin between 6 and 48 hours. Results from specimens fixed outside these parameters should be interpreted accordingly.

Consultant  
Report Data

Gross Dictation: M.D., Pathologist,  
Microscopic/Diagnostic Dictation: M.D., Pathologist,  
Microscopic/Diagnostic Dictation: M.D., Pathologist,  
Final Review: M.D., Pathologist,  
Final: M.D., Pathologist,  
Addendum: M.D., Pathologist,  
Addendum Final: M.D., Pathologist,  
Addendum: M.D., Pathologist,  
Addendum Review: M.D., Pathologist,  
Addendum Final: M.D., Pathologist,

Criteria	Yes	No
Diagnosis Discrepancy		<input checked="" type="checkbox"/>
Primary Tumor Site Discrepancy		<input checked="" type="checkbox"/>
IIIPAA Discrepancy		<input checked="" type="checkbox"/>
Prior Malignancy History		<input checked="" type="checkbox"/>
Dual/Synchronous Primary Noted		<input checked="" type="checkbox"/>
Case Is (circle):	QUALIFIED	DISQUALIFIED
Reviewer Initials	Date Reviewed: 1/5/11	