



**Mrs. MONIKA**  
 AMBALA, AMBALA  
 Tel No : 8607344999  
 PIN No: 133001  
 PID NO: P542100655362  
 Age: 36.0 Year(s) Sex: Female

**Reference: Dr.VINAY CHOPRA**

Sample Collected At:  
 Dr vinay kumar chopra  
 Kos diagnostic lab, 6349/i, nicholson road,  
 ambala cantt, hry 133001.  
**PROCESSING LOCATION:- Metropolis  
 Healthcare Ltd, Unit No. 409- 416, 4th  
 Floor, Commercial Building-1,  
 Kohinoor Mall, Mumbai-70**

**VID: 54213320015854**  
 Registered On:  
 23/08/2021 05:12 PM  
 Collected On:  
 25/08/2021 1:38PM  
 Reported On:  
 26/08/2021 09:20 PM

**IMMUNOHISTOCHEMISTRY PANEL  
 (PREDICTIVE & PROGNOSTIC MARKER ASSESSMENT)**



**INTERNATIONAL & NATIONAL  
 SUBSPECIALITY PATHOLOGY**

- Breast Pathology
- Dermatopathology
- Gastrointestinal Pathology
- Genitourinary Pathology
- Gynecologic Pathology
- Head & Neck Pathology
- Hematolymphoid Pathology
- Hepatobiliary Pathology
- Neuropathology
- Paediatric & Perinatal Pathology
- Pulmonary Pathology
- Renal Pathology
- Soft tissue Pathology
- Transplant Pathology (Renal & Hepatic)

**GROUP HEAD - MEDICAL AFFAIRS,  
 SR. ONCOPATHOLOGIST**

Dr Kirti Chadha

**GLOBAL REFERENCE  
 LABORATORY FACULTY**

- Dr Anuradha Murthy
- Dr Vikas Kavishwar
- Dr Barodawala S.M
- Dr Kunjal Lila
- Dr Shital Munde
- Dr Roshani Gala

Case Summary

**CASE NO. :21MLI9931**

**Clinical Notes** -  
**Original H and E** Invasive carcinoma of no special type (NST), Grade 3  
**Gross Examination** Received two paraffin blocks labelled as Monika -  
 142108070016.

**RESULT :**

**Estrogen Receptor (ER)**

<b>Interpretation</b>	Positive
<b>Proportion</b>	4
<b>Intensity</b>	2
<b>Quick Score</b>	6

**Progesterone Receptor (PgR)**

<b>Interpretation</b>	Positive
<b>Proportion</b>	4
<b>Intensity</b>	2
<b>Quick Score</b>	6

**PROPORTION & INTENSITY SCORING - ALLRED SCORE**

Proportion	Intensity
0 = No nuclear staining	0 = No staining
1 = <1% nuclei staining	1 = weak staining
2 = 1-10 % nuclei staining	2 = moderate staining
3 = 11-33 % nuclei staining	3 = strong staining
4 = 34-66% nuclei staining	
5 = 67-100 % nuclei staining	

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<b>C-erbB-2/ Her 2 neu</b>	<b>Score value</b>	2+
	<b>Score result</b>	Equivocal

**RESULT INTERPRETATION OF Her 2/neu. (ASCO/CAP 2018).**

Score	C-erbB-2 (HER-2 protein) overexpression assessment	Staining pattern
0	Negative	No observed staining or incomplete, faint / barely perceptible membrane staining in <= 10% of invasive tumour cells.
1+	Negative	Incomplete, faint / barely perceptible membrane staining in > 10% of invasive tumour cells.
2+	Equivocal	Weak to moderate complete membrane staining observed in >10% tumor cells.
3+	Positive	Complete / intense circumferential membrane staining in > 10% of invasive tumour cells.

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**Processing :** Manual / Automated (Roche Ventana Benchmark XT 715030, Roche Ventana Benchmark XT 716016, Intellipath)

**CAP Recommendation :**

- Testing ER, PgR and Her2/neu status on all newly diagnosed invasive breast cancers (primary site and/or metastatic site), and whenever appropriate, repeat testing in patients with a known breast cancer diagnosis who now present with a local or distant recurrence.
- Fixation time: Ideally should be 6-72 hours for ER/PgR and Her2/neu.
- Cold Ischemic time: It is the time from tissue removal to initiation of fixation and should be less than or equal to one hour.

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**Note:**

**ER / PR**

- Considering an ER and PgR test performed by an IHC assay as positive if at least one percent of the tumor in the sample tests positive, which helps predict whether a patient is likely to benefit with endocrine treatment.
- Patients whose breast cancers have very low levels of staining(Quick score 2) may still benefit from adjuvant endocrine therapy. It is reasonable for oncologists to discuss the pros and cons of endocrine therapy with patients whose tumors contain low levels of ER by IHC (one percent to ten percent weakly positive cells) and to make an informed decision based on available information.
- Patients with tumours scoring less than 2 are regarded as ER / PgR negative and have a negligible chance of response to endocrine therapy.

**C-erbB-2**

- For equivocal cases (2+) Fluorescent in-situ hybridization (FISH) analysis for Her-2 gene amplification can be used as a secondary test.
- Prolonged cold ischemic and fixation times may lead to a false negative Her2/neu result.
- If the cold ischemic and fixation times are not known, negative Her2/neu results should be interpreted with caution.
- If the initial HER2 test result in a core needle biopsy specimen of a primary breast cancer is negative, a new HER2 test may be ordered on the excision specimen.

**References :**

- Fitzgibbons PL, Murphy DA, Hammond ME, et al. Recommendations for validating estrogen and progesterone receptor immunohistochemistry assays. Arch Pathol Lab Med. 2010;134:930-935
- Wolff AC, Hammond EH, Allison KH, et al. Human Epidermal Growth Factor Receptor 2 Testing in Breast Cancer: American Society of Clinical Oncology/College of American Pathologists Clinical Practice Guideline Focused Update. Arch Pathol Lab Med. 2018;142(11):1364-1382.

**Quality Assurance:**

- The external (positive and negative) and internal control (wherever applicable) show appropriate reactivity.
- Detection system: MACH-2 Universal HRP Polymer Detection / Ultraview Dab detection Kit.
- Clone: ER - SP1; Company: ThermoScientific/Lab Vision.
- Clone: PgR – PgR636; Company: Dako.
- Clone: C-erbB-2 – SP3; Company: ThermoScientific/Lab Vision.

**Dispatch Summary:**

1. Blocks that are submitted are enclosed with the report.
2. Stained slide is archived.
3. Case images are available on request.

**-- End of Report --**

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