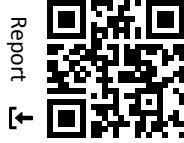


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## Your Test Result

Case ID 102220377385  
Patient Name RAJENDRA PAL 10046174  
Age/Sex 39 Year /Male  
Hospital Location Noida, Uttar Pradesh, India  
Hospital Name JITM Skills Private Limited, Noida  
Physician Name Dr. Self  
Date & Time of Accessioning 24/12/2022 18:35 Hrs  
Date & Time of Reporting 28/12/2022 13:43 Hrs



### TEST NAME

BCR-ABL1 Quantitative International Scale [IS]

### SPECIMEN INFORMATION

Peripheral Blood Collected on 24/12/2022 at 00:00 Hrs

### CLINICAL HISTORY

NOT PROVIDED.

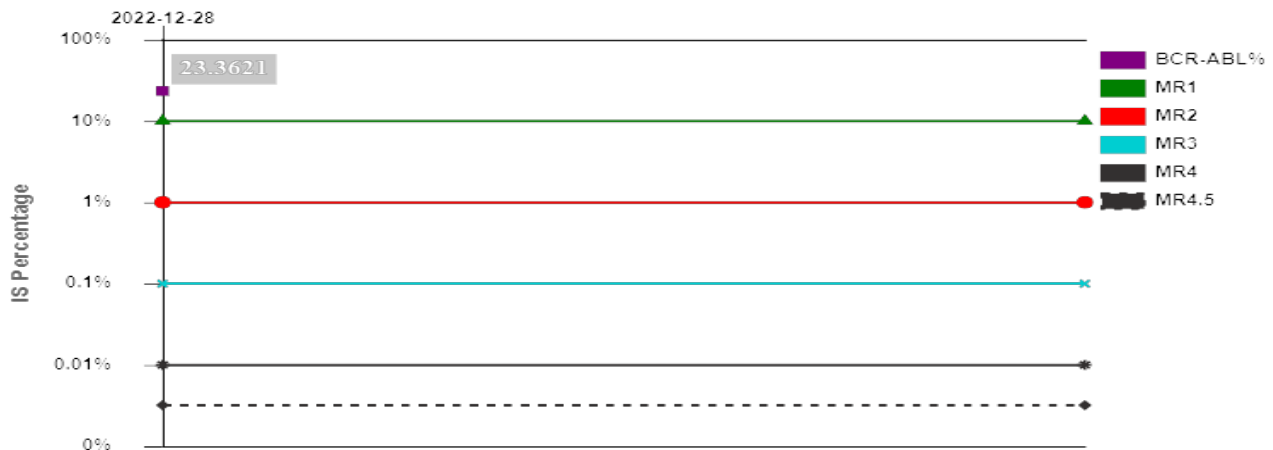
### METHODOLOGY

Real Time Polymerase Chain Reaction (RT PCR)

### TEST RESULT

P210 (b3a2, b2a2) major transcript	<b>Detected</b>
P190 (e1a2) minor transcript	<b>Not detected</b>
P230 (c3a2) micro transcript	<b>Not detected</b>
Observed copies of ABL1	183666
Observed copies of BCR-ABL1	<b>67044</b>
BCR-ABL1/ABL1 ratio [%]	36.50327681
Conversion Factor for IS	0.64
BCR-ABL1 IS [%]	<b>23.3621</b>

Patient IS% Historical Results



White blood cell(WBC) count = 106300.00/ $\mu$ l; Platelet count = 194000.00/ $\mu$ l; Hemoglobin = 11.60 g/dL



*Shivani*

Dr. Shivani Sharma, DCP, DNB  
Reg. No. 1906

*Rahul Katara*

Dr. Rahul Katara, Ph.D.

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## Your Test Result



Report  
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### COMMENTS

1. The hybrid transcript of BCR-ABL1 was quantitated using Real-Time PCR assay. Signals for BCR-ABL1 P210 were detected in leukocytes of the specimen. Follow-up is recommended, if clinically indicated.

### TEST INFORMATION

#### Background

1. Chronic myeloid leukaemia (CML), is characterized by the translocation between chromosomes 9 (9q34.1) and 22 (22q11.2). The t(9;22)(q34.1;q11.2) is detected cytogenetically in more than 91-96% of adult CML patients; in 5% of pediatric ALL-B CALLA positive; and 15-30% of adult ALL-B CALLA positive patients. At the molecular level, breaks in the BCR, and ABL1 genes result in the formation of fusion mRNA transcripts.

#### Assay Description, and Methodology

1. This assay quantifies the Major (p210), Minor (p190), and Micro (p230) transcripts. Its internal reference gene is ABL1. It is in accordance with EAC Guidelines, and uses an inhouse approved kit with high sensitivity (>MR4.5). Its IS conversion factor is established in accordance with the guidelines of Europe Against Cancer (EAC), and has been calibrated using WHO International Standards for CML.
2. Total cellular RNA is extracted via silica-membrane-based purification from whole blood or bone marrow collected in EDTA. The assay is an RT-qPCR that uses oligonucleotide hydrolysis principle.
3. Molecular Response (MR) is measured using % BCR-ABL ratio. The formula used is: % BCR-ABL1 = [No. of copies of BCR-ABL1 transcripts/No. of copies of control gene transcripts] x 100.
4. For the P210 transcript, this ratio is further normalized to the international scale (IS) and reported as BCR-ABL1/ABL1 % (IS). The formula used is: % BCR-ABLIS = [Sum of BCR-ABL1 copy number/Sum of ABL1 copy number\* x CF x 100. Where \*denotes minimum of 10,000 copies.
5. Molecular response is thus expressed and reported as BCR-ABL% on a log scale relative to the standard baseline (100% IS), where 10%, 1%, 0.1%, and 0.0032% correspond to a decrease of 1, 2, 3, and 4.5 logs, respectively, below the standard baseline, i.e. 100% BCR-ABL<sup>IS</sup>.

**Disclaimer:** The in house assay is designed to perform the reactions at the specified analytical sensitivity given that the template RNA is not heavily fragmented, and does not contain materials that could inhibit the amplification reaction.

**Recommendations:** Real Time PCR is generally recommended until stable MMR is achieved followed by 3-to-6 month testing thereafter. BCR-ABL1 KD mutation testing is recommended both by the ELN and by the NCCN in CML patients who do not achieve an optimal response to TKI therapy.

### REFERENCES

- Druker BJ, et al. IRIS Investigators. Five-year follow-up of patients receiving imatinib for chronic myeloid leukemia. N Engl J Med. 2006 Dec 7;355(23):2408-17.
- Branford S et al. Rationale for the recommendations for harmonizing current methodology for detecting BCR-ABL transcripts in patients with chronic myeloid leukaemia. Leukemia. 2006 Nov;20(11):1925-30.
- Baccarani M et al., European LeukemiaNet. Evolving concepts in the management of chronic myeloid leukemia: recommendations from an expert panel on behalf of the European LeukemiaNet. Blood. 2006 Sep 15;108(6):1809-20.
- Beillard E et al. Evaluation of candidate control genes for diagnosis and residual disease detection in leukemic patients using 'real-time' quantitative reverse-transcriptase polymerase chain reaction (RQ-PCR) - a Europe against cancer program. Leukemia. 2003 Dec;17(12):2474-86.



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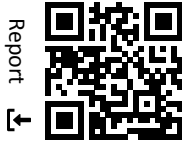
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## Your Test Result



Result



Report

- Cross NC et al. Laboratory recommendations for scoring deep molecular responses following treatment for chronic myeloid leukemia. Leukemia. 2015 May;29(5):999-1003.

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MC-2256



Dr. Shivani Sharma, DCP, DNB  
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## Question?

Contact us at **+91 124 4615 615**

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