

Client: Example Client ABC123 123 Test Drive Salt Lake City, UT 84108

UNITED STATES

Physician: Doctor, Example

**Patient: Patient, Example** 

**DOB** 11/16/1961

**Gender:** Male

Patient Identifiers: 01234567890ABCD, 012345

**Visit Number (FIN):** 01234567890ABCD **Collection Date:** 00/00/0000 00:00

## Quantitative Detection of BCR-ABL1, Major Form (p210)

ARUP test code 3005840

Quant BCR-ABL1, Major (p210), Source

Bone Marrow

Quant BCR-ABL1, Major (p210), Result

Detected

BCR-ABL1 fusion transcripts (p210 forms) were detected by

RT-qPCR.

This result has been reviewed and approved by

H=High, L=Low, \*=Abnormal, C=Critical



INTERPRETIVE INFORMATION: Quantitative Detection of BCR-ABL1, Major Form(p210)

This assay quantifies BCR-ABL1 transcripts (e13a2 and e14a2) for ongoing therapeutic monitoring and minimal residual disease detection. BCR-ABL1 translocations with BCR breakpoints in the major breakpoint cluster region result in the p210 fusion protein and are seen in nearly all cases of chronic myelogenous leukemia (CML) and in a few cases of acute lymphoblastic leukemia/lymphoma (ALL). To facilitate the interlaboratory comparison of findings and the assessment of molecular milestones (major molecular response or MMR), results are reported using the international scale (IS; see Muller MC, et al. Leukemia. 2009;23:1957-1963).

## METHODOLOGY:

Total RNA was isolated and converted to cDNA; BCR-ABL1 fusions were quantitated by real-time PCR amplification with primers designed to detect the major (p210) BCR-ABL1 breakpoint, including fusions between BCR exon 13 and ABL1 exon 2 (e13a2) and BCR exon 14 and ABL1 exon 2 (e14a2). Each PCR assay includes a standard curve for BCR-ABL1 and the ABL1 control.

The normalized copy number(NCN)is calculated and converted to a value on the international scale (IS) using a validated reference sample (provided by Qiagen, Germantown, MD; see White HE, et al. Blood. 2010;116:111-117) that was calibrated to a standard set of diagnostic specimens defined during the original trial of tyrosine kinase inhibitor therapy in CML patients (Hughes TP, et al. NEJM. 2003;349:1423-1432).

ANALYTICAL SENSITIVITY:

Detection limit percent international scale (IS) at 0.0032.

## LIMITATIONS:

The limit of quantification is 0.0032 percent IS. This assay does not detect transcripts resulting from a rare BCR-ABL1 rearrangement with a BCR exon 19 breakpoint that results in the p230 fusion protein, and does not detect the minor breakpoint (p190) or rare major fusion transcripts (p210) involving ABL1 other than exon 2. The results of this test must be interpreted in the context of morphologic and other relevant data, and should not be used alone for a diagnosis of malignancy.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the U.S. Food and Drug Administration. This test was performed in a CLIA-certified laboratory and is intended for clinical purposes.

Quant BCR-ABL1, Major (p210), IS Percent

20.0000 %

Quant BCR-ABL1, Major (p210), EER

See Note

Authorized individuals can access the ARUP Enhanced Report using the following link:

H=High, L=Low, \*=Abnormal, C=Critical

4848



VERIFIED/REPORTED DATES				
Procedure	Accession	Collected	Received	Verified/Reported
Quant BCR-ABL1, Major (p210), Source	22-321-100865	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Quant BCR-ABL1, Major (p210), Result	22-321-100865	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Quant BCR-ABL1, Major (p210), IS Percent	22-321-100865	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Quant BCR-ABL1, Major (p210), EER	22-321-100865	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00

END OF CHART

H=High, L=Low, \*=Abnormal, C=Critical