



# Laboratory Service Manual

**Lab Dept:** Anatomic Pathology

**Test Name:** BCR-ABL BY PCR, QUANTITATIVE

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## **General Information**

**Lab Order Codes:** BCRU

**Synonyms:** Philadelphia Chromosome; Real-Time PCR; CML by Molecular Detection; p210

**CPT Codes:** 83902 x2 – Molecular diagnostics; reverse transcription

83898 x2 – Molecular diagnostics; amplification of patient nucleic acid, each nucleic acid sequence

83896x2 - Molecular diagnostics; nucleic acid probe, each

83891 – Molecular diagnostics; isolation or extraction of highly purified nucleic acid

**Test Includes:** Chromosomal translocation (9;22) leads to a fusion gene BCR-ABL.

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## **Logistics**

**Test Indications:** Chromosomal translocation (9;22) leads to a fusion gene BCR-ABL. The fusion gene is a signature feature of the Chronic Myeloproliferative disorder (CML). During and after treatment, patients with CML can be monitored for presence or absence of BCR-ABL fusion transcripts using RT-PCR. Regular RT-PCR can detect the fusion gene transcripts, but is not appropriate for detection of tumor load and is not accurate for detection of minimal residual disease after treatment. Quantitative RT-PCR can provide important information to monitor the tumor load, status of remission, the minimal residual disease, and chronological expression level of the fusion transcripts. The molecular lab is offering the Real Time quantitative PCR (qRT-PCR) assay for BCR-ABL1 fusion transcripts, p210 (major breakpoint of BCR-ABL1), for CML only. This test does not include BCR/ABL1 fusion transcripts, p190 (minor breakpoint of BCR-ABL1), for ALL. Follow-up testing for BCR-ABL1 CML should be done on same specimen type, preferably blood.

**Lab Testing Sections:** Anatomic Pathology – Sendouts

**Referred to:** Fairview University Medical Center – Cytogenetics Lab (MD-BCRMINPCR)

## **Phone Numbers:**

Minneapolis: 612-813-6280



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Saint Paul: 651-220-6550

<b>Test Availability:</b>	Daily, 24 hours; However, it is recommended that specimens be collected between Sunday - Friday at noon for optimal specimen quality.
<b>Turnaround Time:</b>	Results are reported in 7-14 days
<b>Special Instructions:</b>	See <a href="#">Test Availability</a>

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## ***Specimen***

<b>Specimen Type:</b>	Whole blood  Alternate specimen: Bone Marrow
<b>Container:</b>	Lavender top (EDTA) tube  Alternate: Yellow (ACD, Solution A) tube available from laboratory.
<b>Draw Volume:</b>	10 mL (Minimum: 5 mL) blood or bone marrow
<b>Processed Volume:</b>	Same as Draw Volume
<b>Collection:</b>	Routine venipuncture or bone marrow collection
<b>Special Processing:</b>	Lab Staff: Do Not Centrifuge. Specimen should remain in the original collection container. Store and ship at refrigerated temperatures. Specimens can be sent daily and will be held over the weekend if collected then. See <a href="#">Test Availability</a>
<b>Patient Preparation:</b>	None
<b>Sample Rejection:</b>	Specimens older than 3 days. Clotted or frozen sample. Insufficient volume. Mislabeled or unlabeled specimens.

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## ***Interpretive***

<b>Reference Range:</b>	Interpretive report
<b>Critical Values:</b>	N/A
<b>Limitations:</b>	N/A
<b>Methodology:</b>	Real-time PCR
<b>References:</b>	Fairview Diagnostic Laboratories – Cytogenetics Lab <a href="http://labguide.fairview.org/showTest.asp?testid=4207">http://labguide.fairview.org/showTest.asp?testid=4207</a> March 2009



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**Updates:**

9/29/2008: CPT and price updates from Fairview.  
3/4/2009: Expanded specimen rejection criteria.