Lab Dept:	**Anatomic Pathology**
Test Name:	**BCR/ABL1, QUALITATIVE, DIAGNOSTIC**

General Information

Lab Order Codes:	BCRL
Synonyms:	BCR/ABL1 RNA; Philadelphia chromosome Ph bone marrow or blood; BCR-ABL; t(9;22)
CPT Codes:	81206 - BCR/ABL1 translocation analysis; major breakpoint, qualitative or quantitative
	81207 - Minor breakpoint, qualitative or quantitative
	81208 - Other breakpoint, qualitative or quantitative
Test Includes:	A qualitative result is provided that indicates the presence or absence of BCR/ABL1 messenger RNA. When positive, the fusion variant is also reported.

Logistics

Test indications:	Useful for the diagnostic workup of patients with a high probability of BCR/ABL1-positive hematopoietic neoplasms, predominantly chronic myeloid leukemia and acute lymphoblastic leukemia.
	This test is only qualitative and should not be used for routine monitoring (i.e., quantitative messenger RNA [mRNA] level).
	Monitoring of most patients with chronic myeloid leukemia (CML) should be performed using test code BCRR (Mayo Test Code: BCRAB) BCR/ABL, p210, mRNA Detection, Reverse Transcription-PCR (RT-PCR), Quantitative, Monitoring Chronic Myelogenous Leukemia (CML), Varies.
	Monitoring of patients known to carry a p190 fusion should be performed using test code BCRP (Mayo Test Code: BA190) BCR/ABL, p190, mRNA Detection, Reverse Transcription-PCR (RT-PCR), Quantitative, Monitoring Assay, Varies.
Lab Testing Sections:	Anatomic Pathology - Sendouts
Referred to:	Mayo Medical Laboratories (MML) (Mayo Test Code: BADX)
Phone Numbers:	MIN Lab: 612-813-6280
	STP Lab: 651-220-6550

Test Availability:	Daily, 24 hours
Turnaround Time:	5-10 days
Special Instructions:	Provider completion of the MML Hematopatholoy Patient Information sheet with clinical history is recommended. See reference lab test catalog (Test Code: BADX) for the form.

Specimen

Specimen Type:	Blood or bone marrow
Container:	**Blood**: Lavender (EDTA) tube, label as blood Alternative: Yellow top ACD tube **Bone marrow**: Collect in dry syringe and **immediately** transfer to EDTA tube to minimize clotting, label as bone marrow aspirate. Alternative: Yellow top ACD tube
Draw Volume:	**Blood**: 10 mL (minimum 8.0 mL) **Bone marrow**: 4 mL (minimum 2 mL)
Processed Volume:	Same as collection volume
Collection:	Routine blood or bone marrow aspirate collection procedure, invert tube several times to mix with anticoagulant.
Special Processing:	Lab Staff: Do not process or aliquot. Ensure label indicates specimen type. Store and ship at refrigerated temperature. Forward promptly. Specimen stable for 5 days refrigerated (preferred) or for 72 hours at room temperature.
Patient Preparation:	N/A
Sample Rejection:	Unlabeled or mislabeled specimen; gross hemolysis; moderately to severely clotted specimen; specimen collected in incorrect anticoagulant; inadequate specimen volume.

Interpretive

Reference Range:	A qualitative result is provided that indicates the presence or absence of BCR/ABL1 messenger RNA. When positive, the fusion variant is also reported.
Critical Values:	N/A

Limitations:	This test is only qualitative and should not be used for routine monitoring. Monitoring of most CML patients should be performed using test code BCRR (Mayo test: BCRAB) BCR/ABL, p210 mRNA Detection, Reverse Transcription-PCR (RT-PCR), Quantitative Chronic Myelogenous Leukemia (CML). Monitoring of patients known to carry a p190 fusion should be performed using test code BCRP (Mayo test code: BA190) BCR/ABL, p190, Quantitative mRNA Detection, Reverse Transcription- PCR, Quantitative Monitoring Assay.
Methodology:	Reverse Transcription-Polymerase Chain Reaction (RT-PCR) Multiplex PCR
References:	Test Catalog - Mayo Clinic Laboratories (mayocliniclabs.com) (February 2023)
Updates:	1/29/2013: CPT 2013 update 9/2/2015: Method update, previous PCR method included fluorescent bead array analysis (Luminex). Change from ABL to ABL1. Specimen stability extended, previously arrival within 72 hours. Updated specimen rejection. 5/19/16: Storage temp change, previously room temp. 2/14/2023: Reinstituted test code as orderable. Updates to collection volumes.