
BCR::ABL1, Rare Fusion Monitoring, Quantitative, Varies

Test ID: BARQ

Useful for:

Quantitative monitoring of rare (non-p210 [non-E13/E14A2], non-p190 [non-E1A2]) *BCR::ABL1* fusion transcript types occurring in myeloid neoplasms (eg, CML, myeloproliferative neoplasms) or B-cell acute lymphoblastic leukemias.

Reflex Tests:

Test ID	Reporting Name	Available Separately	Always Performed
BADX	BCR/ABL1, RNA-Qual, Diagnostic	Yes	No
BA190	BCR/ABL1, p190, Quant, Monitor	Yes	No
BCRAB	BCR/ABL1, p210, Quant, Monitor	Yes	No

Testing Algorithm:

If a previous *BCR::ABL1* rare fusion has not been identified by Mayo Clinic Laboratories (MCL), the qualitative, diagnostic assay for *BCR::ABL1* will be performed at an additional charge to identify the fusion form.

If MCL has previously identified a p190 or p210 *BCR::ABL1* fusion form, the appropriate quantitative testing will be performed and this test will be canceled.

Methods:

Droplet Digital Polymerase Chain Reaction (ddPCR)

Reference Values:

An interpretive report will be provided.

Specimen Requirements:

Submit only 1 of the following specimens:

Specimen Type: Whole blood

Container/Tube:

Preferred: Lavender top (EDTA)

Acceptable: Yellow top (ACD)

Specimen Volume: 10 mL

Collection Instructions:

1. Invert several times to mix blood.
2. Send whole blood specimen in original tube. Do not aliquot.
3. Label specimen as blood.

Minimum volume: 8 mL

Specimen Type: Bone marrow
Container/Tube:
Preferred: Lavender top (EDTA)
Acceptable: Yellow top (ACD)
Specimen Volume: 4 mL
Collection Instructions:

1. Invert several times to mix bone marrow.
2. Send bone marrow specimen in original tube. Do not aliquot.
3. Label specimen as bone marrow.

Minimum volume: 2 mL

Specimen Stability Information:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	5 days
	Ambient	72 hours

Cautions:

Although this quantitative droplet digital polymerase chain reaction (ddPCR) assay is comprehensive for detecting and quantifying 10 rare alternative (non-p210, non-p190) *BCR::ABL1* fusions, there are additional extremely rare fusions (eg, complex translocation/rearrangement events) that may produce highly unusual *BCR::ABL1* products that may not be detectable by this assay

The precision of this assay at very low *BCR::ABL1* levels is less reliable, such that inter-run results can be slightly variable. Significant changes during monitoring should be verified by testing a subsequent specimen.

Results of this assay cannot be directly compared with data generated from other polymerase chain reaction (PCR) assays, including similar assays performed in other laboratories.

The results of this assay cannot be directly compared with *BCR::ABL1* results obtained using fluorescence in situ hybridization (FISH) technology. FISH measures the presence of rearrangements in single cells, whereas this ddPCR-based assay measures relative expression of messenger RNA (mRNA) transcripts. FISH is generally not as sensitive as ddPCR.

Blood or bone marrow can be used for disease monitoring. While *BCR::ABL1* levels in blood and bone marrow drawn at the same time are generally similar, bone marrow may provide a slight increase in detection sensitivity (0.5-1 log).

Specimens with delayed transport or nearing the stability window as stated may result in sufficient RNA degradation to produce false-negative results. Thus, specimens should be shipped as quickly as possible. Ambient specimens over 3 days old and refrigerated specimens over 5 days old at the time of receipt are not acceptable.

CPT Code:

81208
BADX: 81206, 81207, 81208 (if appropriate)
BA190: 81207 (if appropriate)
BCRAB: 81206 (if appropriate)

Day(s) Performed:

Weekly

Report Available:

10 to 15 days

Questions

Contact Melissa Lonzo, Laboratory Resource Coordinator, at 800-533-1710.