**BCR-ABL P210 Quantitation by Real-Time PCR and Report by IS**

**Clinical Indication and Relevance**
- Can confirm the initial diagnosis of chronic myelogenous leukemia (CML) or p210 BCR-ABL positive acute lymphoblastic leukemia (ALL).
- Recommended for monitoring minimal residual disease in follow-up samples.

**Methodology**
RNA is isolated, reverse transcribed and amplified by real-time PCR using specific primers targeting the p210 BCR-ABL and ABL genes. Quantitative results are obtained by comparing relative levels of p210 BCR-ABL and ABL transcripts to standard curves. P210 BCR-ABL results are reported as a percentage based on an international scale (IS).

**Sensitivity**
This assay can detect p210 BCR-ABL transcripts to a sensitivity of 0.001% international scale (IS).

**Turn-around Time**
Five to seven working days

**Sample Requirements**
**Collect**
- Peripheral blood (PB): 3-5 mL, in purple top (sodium EDTA) tube; yellow top tube (ACD) acceptable.
- Bone marrow (BM): 1-3 mL, drawn into a syringe containing anticoagulant and then delivered in a purple top tube.

**Transport**
Deliver immediately at 2-8°C (wet ice or cold packs). Do not freeze.

**Stability**
Ambient - 1 hour; refrigerated – 48 hours.
**Note:** for RNA based assays, samples should be transported to the laboratory within 8 hours of collection (optimal), or up to a maximum of 48 hours after collection to avoid RNA degradation. RNA integrity is critical, especially for samples used for monitoring minimal residual disease.

**Unacceptable Conditions**
Serum or plasma; frozen PB or BM; clotted blood; severely hemolyzed samples.

**CPT Code(s)**
81206: BCR/ABL1 (t(9;22))translocation analysis; major breakpoint, qualitative or quantitative
G0452-26: Molecular pathology procedure; physician interpretation and report

**References**