

BCR-ABL GENE REARRANGEMENT, PCR QUALITATIVE

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QUALITATIVE
(Real Time PCR)

BCR-ABL gene rearrangement

Type of Translocation

Note:

1. Sensitivity of the assay is 0.01% when copies of ABL detected is 100,000
2. Limit of detection is 10 copies of BCR-ABL fusion gene transcripts per PCR
3. This is an in-house developed assay designed as per EAC (Europe Against Cancer) protocol
4. This test detects Major (M) gene rearrangements namely- e13a2 & e14a2 and Minor (m) gene arrangement e1a2. This test does not detect micro gene rearrangement e19a2.
5. Test conducted on Whole blood / Bone Marrow.

Comments

Chronic Myeloid Leukemia (CML) is the commonest myeloproliferative neoplasm and possibly the commonest adult leukemia in India. This clonal stem cell disorder is characterized by a proliferation of myeloid cells at all stages of differentiation and the t(9:22) (q34;q11) leading to formation of BCR-ABL fusion gene. Cytogenetic and molecular studies are vital for the diagnosis of CML by using detection procedures for Philadelphia chromosome. The abnormality is present in over 95% patients of CML while remainder 5% has complex or variant translocations involving additional chromosomes. Major gene rearrangements are detected in CML while minor gene rearrangement may be detected in ALL.

Uses

- To detect & monitor therapy in CML patients.
- As a prognostic marker in ALL patients. Presence of BCR-ABL gene rearrangement is associated with poor prognosis