B Cell Gene Rearrangement

Indications for Use: Diagnosis of B cell lymphomas can often be made based on clinical, histologic and immunophenotypic data. However, there are instances where gene rearrangement studies may be required for definitive diagnosis. Rearrangements of the antigen receptor genes in B cells generate products of unique length and sequence.

B cell clonality detection is useful for:

1. Identifying clonal B cell populations highly suggestive of B cell malignancies.
2. Diagnostic evaluation of leukemias and lymphomas for prognosis and treatment selection.
3. Detection of minimal residual disease.
4. Monitoring disease recurrence.

Testing Method: The immunoglobulin heavy chain gene (IGH) clonality assay detects by polymerase chain reaction (PCR) followed by capillary electrophoresis (CE) the presence of monoclonal B cell populations. Clonality is indicated if one or more framework master mixes generate a clonal band.

Test Parameters: The limit of detection of this multiplex PCR assay has been determined to be approximately 5%. PCR testing does not identify 100% of clonal cell populations and the sensitivity for detecting monoclonality varies based on type of lymphoma. Positive and negative results should be interpreted in the context of all clinical, pathological and laboratory information.

Reported: 3-5 business days

Sample requirements:

- 3 ml peripheral blood in lavender top tube (EDTA)
- Bone marrow aspirate (anticoagulated with either heparin or EDTA and, if possible, placed into tissue culture medium)
- Formalin fixed, paraffin-embedded tissue
- 5-6 tissue sections (please include H&E slide and a copy of pathology report)
- Fresh frozen tissue

CPT Codes: 81261

Ship Specimens to:

Henry Ford Center for Precision Diagnostics
Henry Ford Hospital
Clinic Building, K6, Core Lab E-655
2799 W. Grand Blvd.
Detroit, MI 48202