

T Cell Gene Rearrangement

Indications for Use: T cell lymphomas, which account for approximately 15% of non-Hodgkin's lymphomas and the majority of primary cutaneous lymphomas, often pose a diagnostic challenge to pathologists, especially during early stages of disease. T cell lymphomas are clonal expansions of neoplastic T cells, each bearing an identical rearranged T cell receptor (TCR) gene. In contrast, most non-neoplastic lymphoproliferations are polyclonal or oligoclonal in nature. PCR-based T Cell Gene Rearrangement assay is useful for identifying clonal T cell populations highly suggestive of T cell malignancy.

Testing Method: The T cell receptor gamma (TCR-gamma) gene and T cell receptor beta (TCRB) rearrangement assays detect by polymerase chain reaction (PCR) followed by capillary electrophoresis (CE) the vast majority of clonal T cell receptor gamma and/or beta gene rearrangements.

Test Parameters: The limit of detection of these multiplex PCR assays has been determined to be approximately 5%. PCR testing does not identify 100% of clonal cell populations and the sensitivity for detecting monoclonality varies depending 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: TCR gamma: 81342

TCR beta: 81340

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