



**ampli set Lymphoma T<sup>CE IVD</sup> 45 tests**  
 detection of rearrangements of T-cell receptor  $\gamma$

**cat 1401**

This kit is a simple, optimised, polymerase chain reaction (PCR) based method for detecting the rearrangements of the T-cell receptors  $\gamma$  (TCR $\gamma$  gene in normal and neoplastic lymphocytes. It uses as primers oligonucleotides (TCR $\gamma$  V2-V3-V4-V5- V8-V9-V10-V11-V12) homologous to each TCR $\gamma$  V segment and (JGT1-2-3-4) homologous to the joining (J) segments. Monoclonality in a T cell population is indicated by the production of a single discrete fragment detectable on gel electrophoresis. The amplification product of a polyclonal population will result from a number of rearranged TCR $\gamma$  genes, which will give rise to fragments of varying length, resulting in a broad band.

**Principle of method:** A) extraction of genomic DNA; B) amplification; C) detection on agarose gel  
**Applicability:** on extracted and purified genomic DNA from whole blood samples or tissue

**ANALYSIS OF RESULTS**

**TCRV5, 10, 11, 12**  
 LYMPHOPROLIFERATIVE DISEASE  
 Monoclonal pattern

Samples produce one or two discrete fragments (size 170-230 bp)

**ABSENCE OF LYMPHOPROLIFERATIVE DISEASE**  
 Polyclonal pattern

samples produce a broad band (smear) within the predictive size range (170-230 bp)



1) polyclonal pattern.  
 2) monoclonal pattern M  
 M) Marker 100bp ladder

**TCR V2, 3, 4, 8, 9**  
 LYMPHOPROLIFERATIVE DISEASE  
 Monoclonal pattern

Samples produce one or two discrete fragments (170-230 bp)

**ABSENCE OF LYMPHOPROLIFERATIVE DISEASE**  
 Polyclonal pattern

Samples produce a broad band within the predictive size range (170-230 bp)



1) polyclonal pattern  
 2) polyclonal pattern (Control DNA V5-12)  
 3) monoclonal pattern  
 M=Marker 100bp ladder

**REFERENCES**

*Blood* **78**:192-196 (1991)  
*J Clin Pathol* **45**:770-775.(1992) 4 (1996)