

DETERMINATION OF MONOCLONALITY OF DEI B CELL LYMPHOMAS

AMPLI Lymphoma B

Cat. n. 1.400HS

During the differentiation of B lymphocytes, the rearrangement of the genes' immunoglobulin creates unique DNA sequences. These rearrangements are used as clonal markers in the lymphoproliferative diseases.

The AMPLI lymphoma-B kit allows to identify, thanks to Polymerase Chain Reaction (PCR), the "framework II-III" regions, and **LJH** e **VLJH** of the "joining" region (JH). The primers used are **Fr2A** e **Fr3A**, homologous to the sequences in the "framework II-III" and **LJH** e **VLJH** of the "joining" region (JH).

The monoclonality in a population of B cells is shown by the presence of a single fragment of amplification after electrophoresis on agarose gel. In the case of a polyclonal population the amplification product will be generated by an high number of rearranged Ig genes that will give rise to fragments of different length.

The polyclonality will be shown on agarose gel by the presence of a smear band. The use of the **Fr2A** and **Fr3A** primers in two different PCR reactions allows to reach a "detection rate" of 95%.

Principle of assay: A) extraction on genomic DNA B) amplification C) revelation on agarose gel.

Applicability: on extracted and purified genomic DNA from whole blood samples.

Number of tests: 45.

REAGENTS AND STORAGE

AMPLIFICATION	
Mix PCR Fr2A	-20°C
Mix PCR Fr2A semi-nested	-20°C
Mix PCR Fr3A	-20°C
Mix PCR Fr3A semi-nested	-20°C
sterile H ₂ O	-20°C
Taq Polymerase (5U/μl)	-20°C
Control DNA Fr2A	-20°C

Stability: over 12 months if correctly stored.

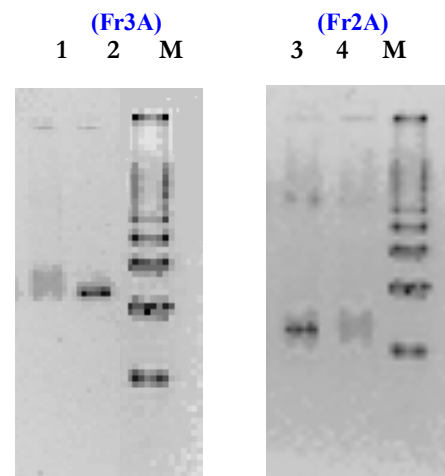
ANALYSIS OF RESULTS

MONOCLONAL PATTERN index of a lymphoproliferative disease

The samples generate one or two discrete bands in a range of 80 - 120 bp for Fr3A and 240 -280 bp for Fr2A

POLYCLONAL PATTERN index of a normal condition

The samples generate a smear amplified in a range of 80 - 120 bp for Fr3A and 240 -280 bp for Fr2A.



References:

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

- 1) monoclonal pattern F3A = lymphoma B sample
- 2) polyclonal pattern F3A = negative sample
- 3) polyclonal pattern F2A = negative sample
- 4) monoclonal pattern F2A = lymphoma B sample
- M Marker 100bp ladder