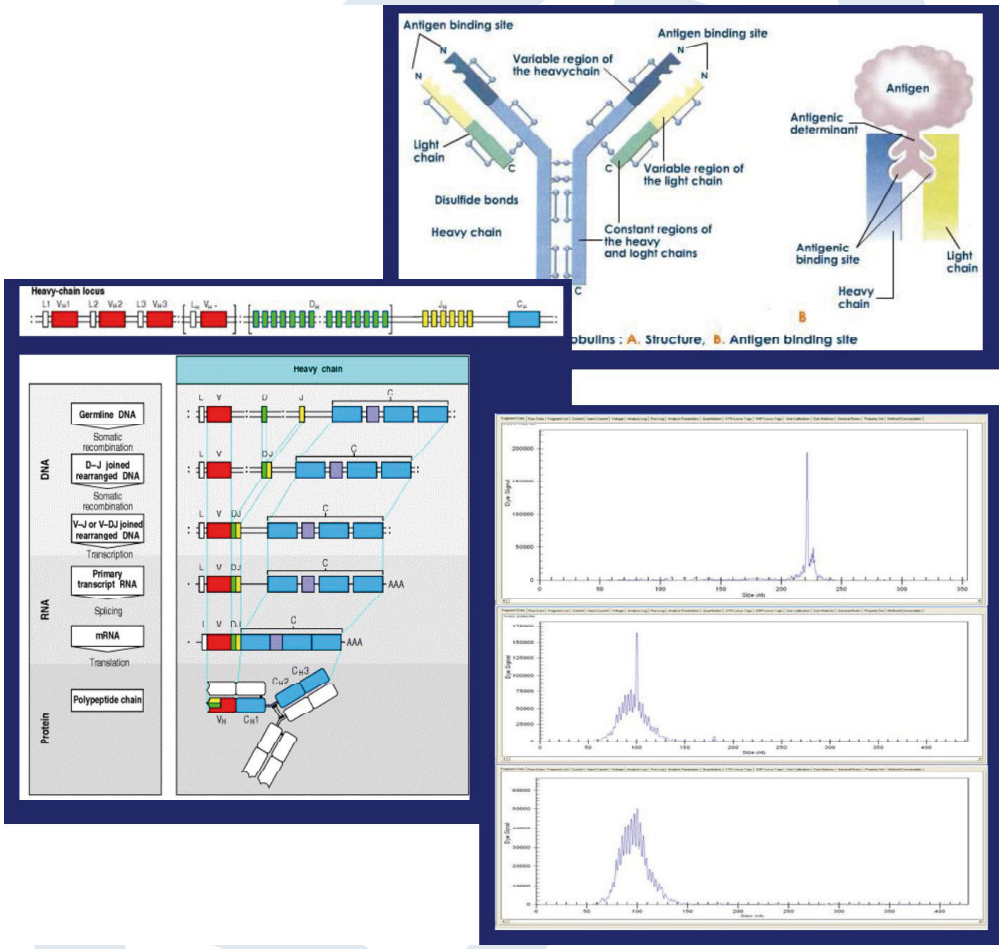
CYTOGEN

Produkte für Medizin und Forschung GmbH

B & T CELL LYMPHOMA KIT -FL

System for clonality testing of the Ig heavy chain (IgH), TCR gamma (TCRG) gene rearrangements by PCR-nested and capillary electrophoresis.



CE IVD

EXPERTEAM

l'esperienza in biologia molecolare

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In patients with suspected **lymphoproliferative disorders,** discrimination between reactive and malignant cell populations is assessed by hystomorpholgy or cytomoprphology supplemented with immunohistochemistry or flow cytometric immunophemotyping. However in several patients diagnosis is more complicated and less straightforward. In such case, molecular clonality studies of immunoglobulin **(Ig)** and/or T-cell receptor **(TCR)** gene rearrangement have proved to be useful additional diagnostic tool.

Ig/TCR gene rearrangements occur sequentially in the earliest stages of lymphoid differentiation and thus are present in almost all immature and mature lymphoid cells.

As lymphomas and leukemias are derived from a single malignantly transformed lymphoid cells, virtually all of them contain **one** or several clonal Ig and/or TCR gene rearrangemnts. The diagnosis of malignant B-andContenutoT-cellproliferationdelkit is therefore supported by the finding of Ig/TCR gene clonality, whereas reactive lymphoproliferations show polyclonality rearranged Ig/TCR genes.

In the last two decades, **PCR-based** analysis of Ig/TCR rearrangement has gradually replaced Southern blot analysis as gold standard method for clonality testing.

Our systems for clonality testing allow the analysis of the Ig heavy chain **(IgH)** gene rearrangement and of the TCR gamma (TCRG) gene rearrangements occuring during lymphocyte development by **PCR-nested** and **capillary electrophoresis.**

How does the kit work?

The B cell lymphoma kit is a systems for the identification of clonal **Ig Heavy Chain** rearrangements by semi-nested PCR. It analyses both FR2 and FR3 segments by two separate semi- nested double step PCR. Both reactions use a common 3'-primer that recognizing consensus JH region while 5' primers recognize the conserved sequence of FR2 and FR3 of the VH genes.

The kit for identification of clonal **TCR-y** analyzes rearrangement involving Vy_{1-9}- $JGT_{1/2}$-JGT_3 segments by two semi-nested double step PCR; consensus primers covering

Vy1-Vy9 segments are used in both reactions; primer consensus covering JGT1/2 and JGT3 are used rispectively in the first and in the second reactions.
Electrophoresis gel or capillary electrophoresis (optimal) is requiered to resolve the different amplified products.

Starting samples: fresh or frozen tissue, FFPE tissue. **DNA isolation method:** QIAamp DNA mini kit,
DNA Sequencer: CEQ 8000/8800 Genetic Analysis System (Beckman Coulter); 310, 3100, 3130, 3730, 3500 Genetic Analyzers (Applied Biosytems).

Product	Unit	Cat.-No.
B cell lymphoma kit-FL	40 tests	BL.01FL
T cell lymphoma kit-FL	40 tests	TL.01FL

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