INSTITUT CARNOT
CALYM

CLASSIFICATION OF DLBCL IN ROUTINE DIAGNOSIS PRACTICE

CALYM offers a rapid, cost-effective and robust GEP assay that allows an accurate classification of DLBCL into GCB and ABC subtypes.

■ BACKGROUND

Diffuse large B cell lymphoma (DLBCL), the most common non-Hodgkin lymphoma, is a heterogeneous disease with two separate diagnostic categories: ABC (activated B cell) – with inferior treatment outcome - and GC (germinal center). GEP (gene expression profiling) on frozen tissues is the gold standard for determination of these two subgroups. However this is not feasible in daily practice, and immunohistochemical (IHC) approaches on paraffin-embedded tissues are hampered by variable reproducibility and accuracy compared to GEP.

■ DESCRIPTION

The CALYM team has developed a robust reverse transcriptase-multiplex ligation-dependent probe amplification (RT-MLPA)-based assay allowing an accurate classification of GCB and ABC DLBCL. This easy-to-use method is suitable for a routine diagnosis workflow.

The simple and flexible RT-MLPA assay allows the rapid evaluation of the relative expression of 14 genes in a single reaction. From one up to 40 samples can be tested in parallel. It is efficient on frozen or formalin-fixed, paraffin embedded (FFPE) samples.

The whole procedure can be achieved in less than one day.

To facilitate the interpretation of the results, interfaced software was developed to handle the entire analysis process.

The method was validated on an independent cohort of frozen samples of 520 patients.
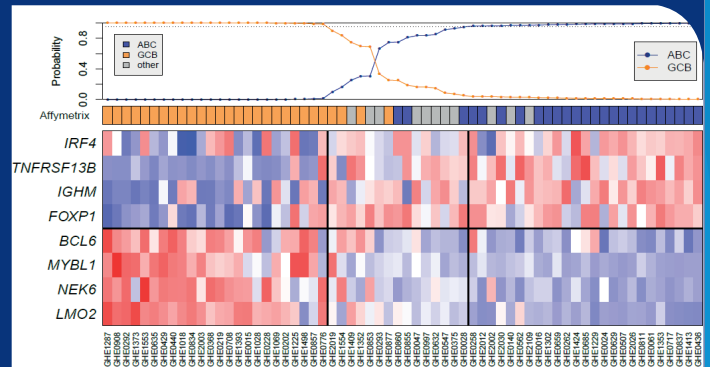
■ PATENT INFORMATION

Number: WO2015135935
Inventors: Philippe RUMINY, Sylvain MARESCHAL, Vinciane MARCHAND, Fabrice JARDIN, Cristina BAGACEAN
Owners: Inserm, Université de Rouen, Centre Henri Becquerel

■ KEYWORDS

RT-MLPA, DLBCL, GCB and ABC subtypes, GEP

A ROBUST AND EASY-TO-USE METHOD TO STRATIFY DLBCL PATIENTS IN PROSPECTIVE CLINICAL TRIALS

■ ADVANTAGES

- Robust RT-MLPA assay challenging current IHC and other array-based gene expression profiling assays for the stratification of DLBCL patients

- Rapid and cost-effective method suitable for routine diagnosis practice.

- No dedicated platform required.

- Results obtained in less than one day

- Up to 40 samples, including frozen or FFPE samples, tested in parallel

■ PUBLICATION

"Accurate classification of germinal center B-cell-like/activated B-cell-like diffuse large B-cell lymphoma using a simple and rapid reverse transcriptase-multiplex ligation-dependent probe amplification assay: a CALYM study"
S. Mareschal *et al.* J Mol Diagn 2015 Apr 9, 17: 273e283 doi: 10.1016/j.jmoldx.2015.01.007

PARTNERSHIP

- Collaboration to finalize the development of the method
- Licensing

RESEARCH TEAM

Inserm U918, "Lymphoid Proliferations"

CONTACT

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