

## Partnership and/ or Licensing Opportunities

## DELTA-CD20: NEW BIOMARKER FOR DIAGNOSIS APPLICATIONS

*Human CD20 is a B-cell lineage marker expressed by normal and leukemic B-Cells. CD20 is a target for monoclonal antibodies (mAb) such rituximab (RTX), active agents for B-cell malignancies treatment. EFS Immuno-Molecular Therapeutics Laboratory has identified a CD20 transcript variant which encodes a CD20 protein deleted of RTX target domains (DELTA-CD20). Expressed only by B-cell malignancies, this new truncated protein can be used for diagnosis of B-cell malignancies.*

### Invention:

**New spliced CD20 transcript and its use as molecular marker for diagnosis and monitoring B-cell malignant diseases.**

This invention is patented.

### Keywords:

CD20, Truncated protein CD20, biomarker, B-cell malignancies, diagnosis marker.

### Description:

The EFS inventors established a **novel CD20 alternative mRNA coding** for truncated protein of 15-17 Kda (DELTA-CD20) **lacking large parts of the transmembrane segments.**

This protein is expressed at **various levels in malignancies B-cells** and is absent in normal B cells isolated from healthy donors. This data show that truncated protein CD20 could be used as a molecular marker for diagnosis, prognostic and monitoring B-cell malignant diseases.

Moreover the EFS inventors show that **DELTA-CD20 expression is associated to RTX resistance.** DELTA-CD20 protein is a potential target for treatment of B-cell lymphoproliferative disorders.

### Applications:

This new truncated protein (Delta-CD20) could be used as **Molecular diagnosis marker:**

- Diagnosis of diseases related to B-Lymphocyte dysfunction.
- Measuring the development stage of pathological disease: The expression level of DeltaCD20 is correlated with disease stage.
- Follow-up of the treatment Effectiveness.

### Bibliography:

**Henry C et al**, Blood. 03/2010; **Gamonet C et al**, Exp Hematol Oncol. 04/2016

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### PATENTS:

**Granted:**  
FR 0806644  
US 13/129 509  
EP 09793553,0  
US DIV 10/303 999

**Pending:**  
DE 602009038646,8  
CA 2743945  
BR PI0916038-8  
CN 200980152802,1  
HK 12104996,2  
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