Established in 2005 as a spin-off of Schering Plough Laboratory for Immunological Research, DENDRITICS is a supplier of high quality level reagents in different areas of immunology. The company proposes the Blood B Booster ® system, a powerful B cell activation and immortalization tool which provides access to the antibody repertoire of a given donor. This bioprocess is available as a ready to use kits for Human and various animal species.

Based on stimulation through CD40 and immortalization with Epstein-Barr virus, the Blood B Booster ®kit generates within 2-3 weeks, up to 20% of the starting B cell population. Using blood sample isolated from a given donor, scientists can identify the presence of antibodies specific of targeted antigen in the supernatant of oligoclones.

**FIELDS OF APPLICATION**

- Human monoclonal antibodies development for Research use or *In vitro* Diagnostic
- Drug discovery/development: identification of drug-candidate - analysis of the natural autoantibody repertoire during non clinical studies
- Evaluation of biotherapeutics agents or candidate vaccines on Immunoglobulin secretion
- Measurement of Auto/Allo-antibodies against specific biological target like cytokines

**Successful proofs of concept**

- HuMab anti-HPA5b, -IL1a, -BetV1, -Derp1
- Neutralizing HumAB anti-Chik
- Hu and canMab anti-Leptospira

**TECHNOLOGY OVERVIEW**

Starting from 10⁷ PBMC, an average of 8-10⁴ to 2-10⁵ independent immortalized B cell lines can be obtained.

**Key benefits**

- No cell sorting
- Rapid (functional assays at week 3)
- Rapid cloning
- No isotype restriction
- High affinity Ab
- Rare Ab
- Validated in several species
- Unmodified natural Abs

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Applications of the Blood B Booster® system

Readout system to identify the effects of candidate mAbs on B cell growth

**Human B cell growth**

**Canine B cell growth**

**Comparison of human and canine antibody response to Leptospira**

Detection of anti-IL17 autoantibodies in polyarthritis rheumatoid patients

**CHIKV-neutralizing mAbs (IF)**

**Control mAb**

**Anti-CHIK mAb (E26.D9.02)**

**High neutralization efficiency**

**DDX genuine human monoclonal antibodies**

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<th>Application</th>
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<td>DDX0210</td>
<td>ELISA, Western-Blot</td>
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<td>ELISA, Blocks Histamine release, western-blot</td>
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<td>Chikungunya virus</td>
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<td>DDX0021</td>
<td>Platelet phenotyping by FACS, IF, aggregation studies</td>
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<td>GP1α-IA</td>
<td>DDX0022</td>
<td>IF, ELISA, detects activated platelets, aggregation studies</td>
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<td>IL1α</td>
<td>DDX00710</td>
<td>Inhibits IL1α binding to IL1 receptors, binds to IL1β, inhibits biological effects of recombinant and natural IL1α, does not bind to IL1β or to IL1βα</td>
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