

**DENDRITICS**



# The Blood B Booster® system :

fast & easy access to overall peripheral B cell repertoire

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

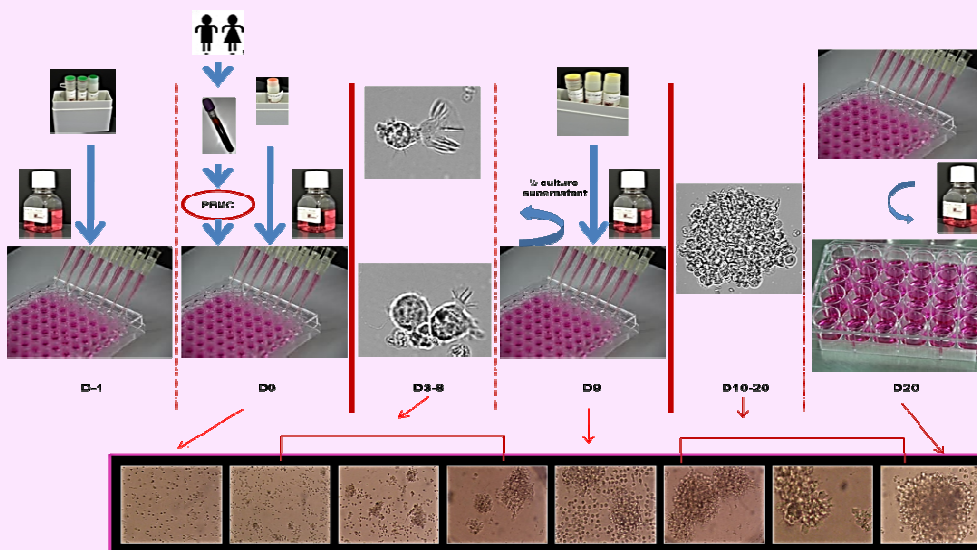
- Human monoclonal antibodies development for Research use or *In vitro* Diagnostic
- Drug discovery/development : identification of drug-candidate - analysis of the natural autoantibody repertoire during non clinical studies
- Evaluation of biotherapeutics agents or candidate vaccines on Immunoglobulin 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  $10^7$  PBMC, an average of  $5 \cdot 10^4$  to  $2 \cdot 10^5$  independent immortalized B cell lines can be obtained.



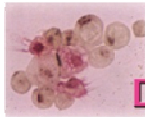
## Key benefits

- 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

From D20,  $10^6$  cells/well (24w plates) obtained within 2 weeks with a medium change twice a week

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Langerin

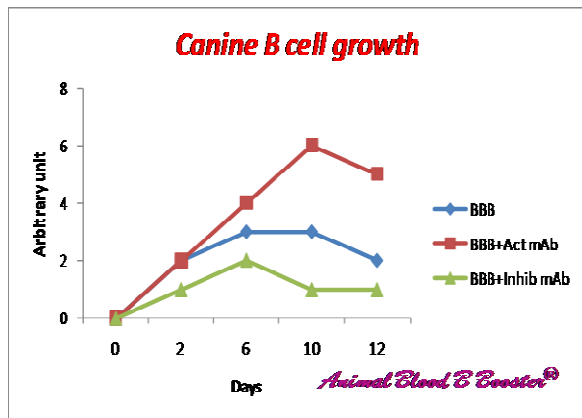
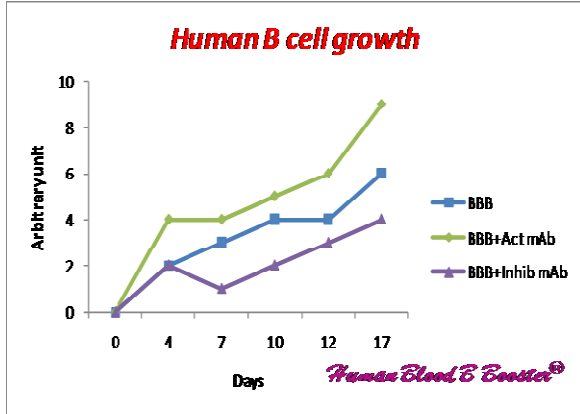


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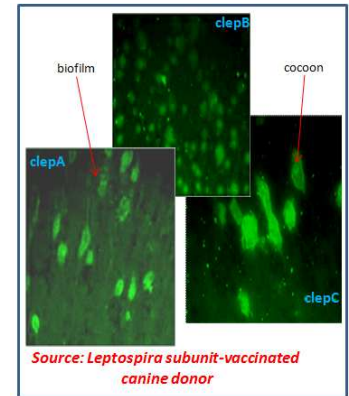
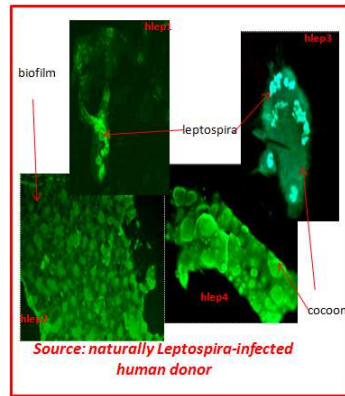


# Applications of the Blood B Booster® system

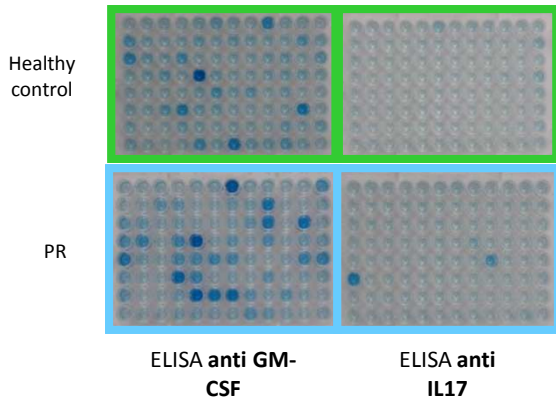
**Readout system to identify the effects of candidate mAbs on B cell growth**



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

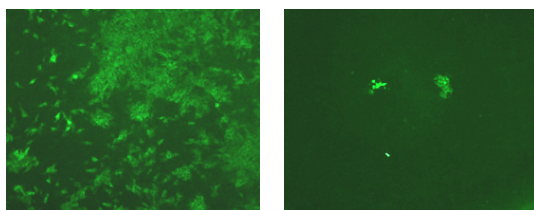


**Detection of anti-IL17 autoantibodies in polyarthritis rheumatoid patients**



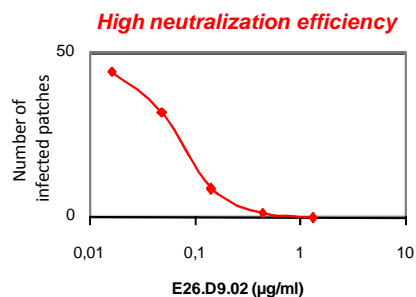
**DDX genuine human monoclonal antibodies**

**CHIKV-neutralizing mAbs (IF)**



**Control mAb**

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



Antigen	Reference	Application
Derp2	DDX0210	ELISA, Western-Blot
Derp1	DDX0211	ELISA, Western-Blot
	DDX0212	
BetV1	DDX0070	ELISA, Immunoprecipitation
	DDX0071	
	DDX0073	
	DDX0074	ELISA, Blocks histamine release, western-blot
	DDX0075	ELISA, Immunoprecipitation
	DDX0076	ELISA, Increases histamine release
Chikungunya virus	DDX9100	IF, Neutralization
	DDX9102	
	DDX9103	
	DDX9104	
Bullous Pemphigoid	DDX0450	Western-Blot, IHC, IF
	DDX0451	
HPA5b	DDX9021	Platelet phenotyping by FACS, IF, aggregation studies
GPIa-IIA	DDX9022	IF, ELISA, detects activated platelets, aggregation studies
IL1α	DDX0710	Inhibits IL1α binding to IL1 receptors, binds to IL1α, inhibits biological effects of recombinant and natural IL1α, does not bind to IL1β or to IL1Ra

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