

BIOMARKER SERVICES

Immunogenicity profiles for drug development with validated and comprehensive biomarker analysis



DISTINGUISH YOUR DATA WITH COMPREHENSIVE BIOMARKER TESTING SERVICES AND EXPERT INTERPRETATION

An integral component of Eurofins Discovery's Phenotypic Center of Excellence, Biomarker Services provides highly reproducible, quantitative assessment of test agent and drug candidate impact on protein and non-protein biomarkers, using multiple technologies and platforms.

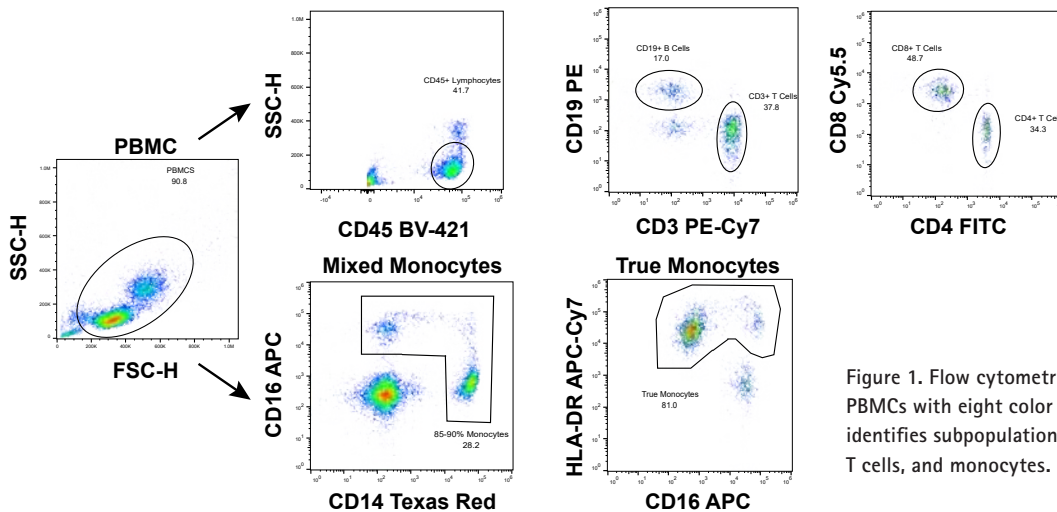


Figure 1. Flow cytometry of human PBMCs with eight color analysis identifies subpopulations of B cells, T cells, and monocytes.

- Screen test agents for potential to treat or prevent immune, infectious, inflammatory, neoplastic and other diseases with Toll-like receptor (TLR) panels and the functional stimulator of interferon genes (STING) Assay.
- Reveal immunomodulatory or anti-inflammatory properties of compounds with T cell function, T cell receptor, and macrophage/monocyte panels; assess potential risk for cytokine release syndrome with the Cytokine Storm Assay.
- Identify novel, or screen for known, translational biomarkers of drug responses for development of companion diagnostic assays.
- Assess rare event determinations; cell death, apoptosis and autophagy distinctions; protein acetylation and phosphorylation status; B cell maturation antigen quantification and more with extensive flow cytometry capabilities.
- Benefit from flexible formats to meet diverse project needs; evaluation of human and non-human (primate, mouse, rat, pig, and dog) PBMCs possible in cellular models and ex-vivo samples.
- Scientific advisory services available.

Eurofins Discovery Phenotypic Services—easing your path on the journey from concept to clinic.

Contact us at: phenotypicsupport@eurofins.com or visit us on the web at: eurofinsdiscoveryservices.com/biomarkers

ENSURE A COMPREHENSIVE APPROACH AND SUCCESSFUL OUTCOME FOR YOUR BIOMARKER INVESTIGATIONS

Work with our experts or order directly online

Biological Capabilities	Technical Capabilities
<ul style="list-style-type: none"> Immunophenotyping, immunogenicity, and inflammation studies 	<ul style="list-style-type: none"> Singleplex or multiplex detection of proteins, metabolites, gene expression
<ul style="list-style-type: none"> Preclinical safety evaluation: nonclinical, normal, and disease comparisons 	<ul style="list-style-type: none"> 360+ multiparameter flow cytometry for biomarker detection; up to 14 colors
<ul style="list-style-type: none"> Quantification of drug-target engagement for nuclear, cytosolic, and surface targets 	<ul style="list-style-type: none"> MSD, Luminex, mass spectrometry, and high content analysis platforms available for diverse applications
<ul style="list-style-type: none"> Evaluation of <i>in vitro</i> and <i>ex vivo</i> cell and tissue samples 	<ul style="list-style-type: none"> Robust automation and screening capabilities
<ul style="list-style-type: none"> Expertise with CAR-T co-culture 	<ul style="list-style-type: none"> Development of GxP-ready assays

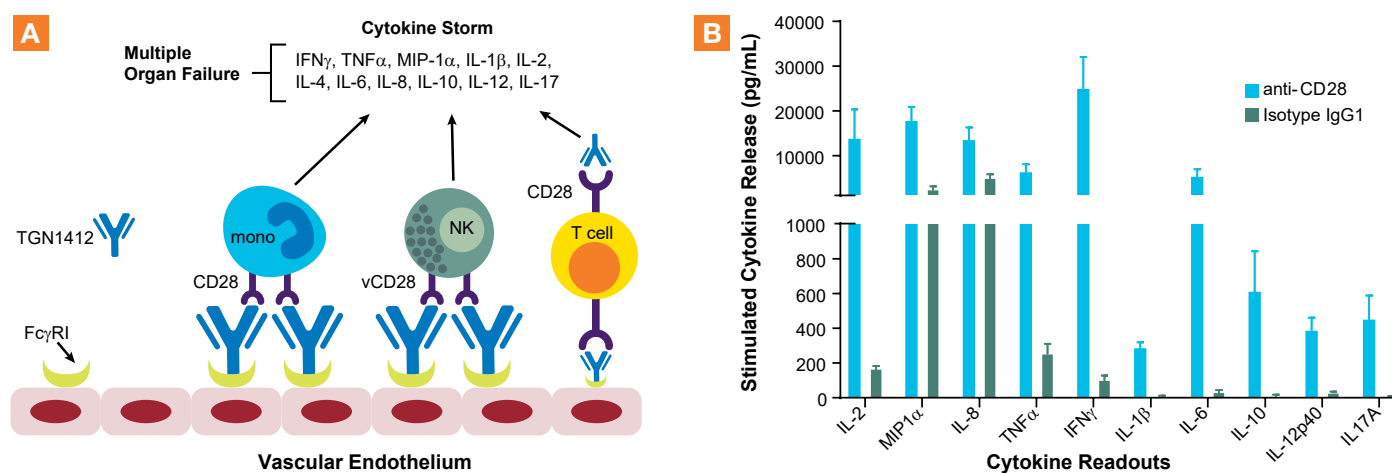


Figure 2. Mechanism model and cytokine release data describing cytokine storm induction. **A.** Superagonist therapeutic mAb TGN1412 binds cell surface receptors CD28 or variant CD28 and simultaneously Fc γ RI on vascular endothelial cells, promoting rapid release of multiple proinflammatory cytokines from monocytes (mono), natural killer (NK), and T cells. Subsequent exponential release of cytokines leads to endothelial cell damage, loss of capillary integrity, and multiple organ failure. **B.** Immobilized superagonist anti-CD28 mAb (clone ANC28.1/5D10) stimulates robust induction of pro-inflammatory cytokines in human PBMCs. Induction levels of each cytokine were interpolated from a standard curve using 5-point non-linear regression analysis.

SELECT BIOMARKER SERVICES

Catalog Number	Description
960060	Cytokine Storm / Cytokine Release Syndrome
960013	Macrophage / Monocyte Inflammation Stimulation
960011	T Cell Inflammation Stimulation
960031	TLR1/2 Activation
960032	TLR2/6 Activation
960033	TLR4 Activation
960041	TLR5 Activation
960034	TLR7/8 Activation
960035	TLR9 Activation
960090	Autoimmune Activation Model / TH17 Panel

Catalog Number	Description
960110	PBMC Proliferation
960012	Macrophage / Monocyte Inflammation Inhibition
960010	T Cell Inflammation Inhibition
960036	TLR1/2 Inhibition
960037	TLR2/6 Inhibition
960038	TLR4 Inhibition
960042	TLR5 Inhibition
960039	TLR7/8 Inhibition
960040	TLR9 Inhibition
960043	STING Activation Assay (THP-1 cells)

CUSTOM SERVICES

Our phenotypic experts are ready to assist in designing an approach to meet your translational program needs and quickly advance your projects. We provide breadth and depth of expertise, a broad range of cell types, comprehensive human disease biomarker readouts, and multiple technology platforms to ensure actionable insights from your profiling efforts.

Get in touch at phenotypicsupport@eurofins.com or visit us on the web at: eurofinsdiscoveryservices.com/phenotypic