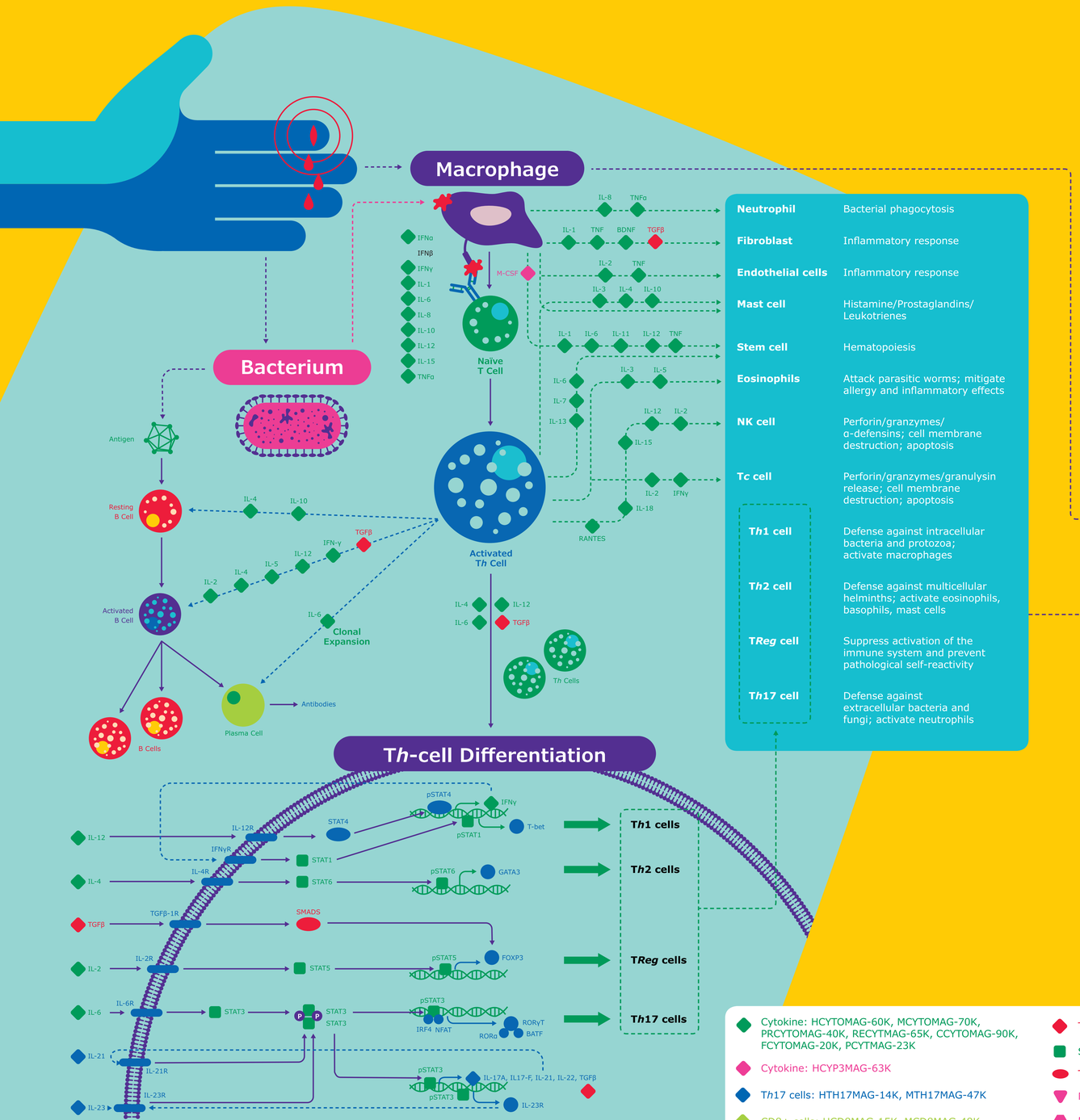
BRING YOUR BIOMARKERS TO LIFE.

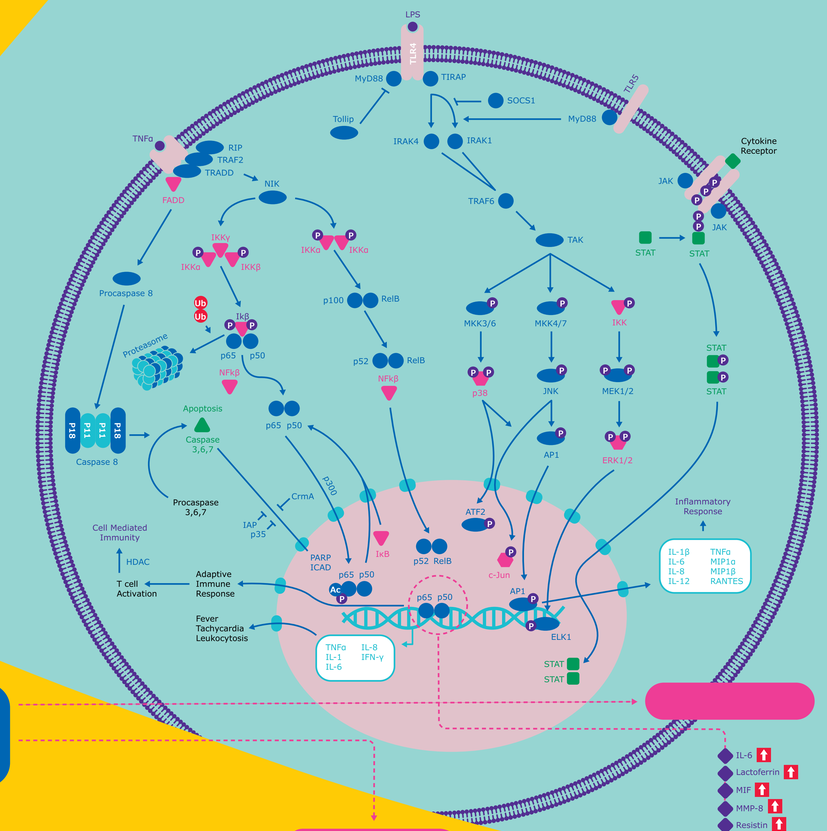
Bridge the gap between immunology and cell signaling with MILLIPLEX® MAP multiplex assays

How do intracellular signaling networks regulate the development, maturation and function of immune cells mediating the inflammatory responses that are linked to cardiovascular disease, cancer, neurodegeneration, obesity, diabetes, sepsis and other disease states?

Since no single biomarker can provide conclusive information on the role of inflammation in the initiation and progression of disease states, Merck enables you to measure multiple relevant circulating or intracellular biomarkers in a single, small sample, using our extensive list of multiplex assays.



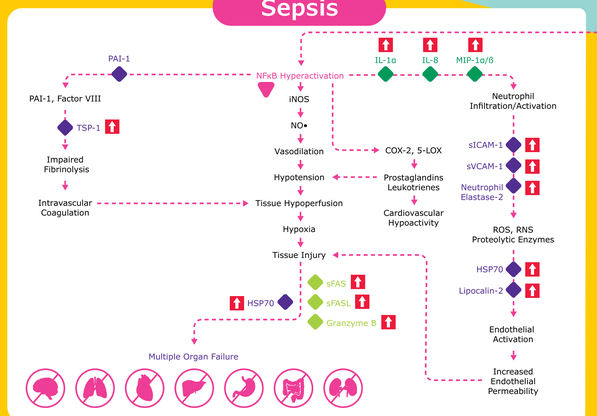
Neutrophil	Bacterial phagocytosis
Fibroblast	Inflammatory response
Endothelial cells	Inflammatory response
Mast cell	Histamine/Prostaglandins/ Leukotrienes
Stem cell	Hematopoiesis
Eosinophils	Attack parasitic worms; mitigate allergy and inflammatory effects
NK cell	Perforin/granzymes/ α-defensins; cell membrane destruction; apoptosis
Tc cell	Perforin/granzymes/granulysin release; cell membrane destruction; apoptosis
***Th*1 cell**	Defense against intracellular bacteria and protozoa; activate macrophages
***Th*2 cell**	Defense against multicellular helminths; activate eosinophils, basophils, mast cells
***TReg* cell**	Suppress activation of the immune system and prevent pathological self-reactivity
***Th*17 cell**	Defense against extracellular bacteria and fungi; activate neutrophils



Macrophage Signaling

Healing

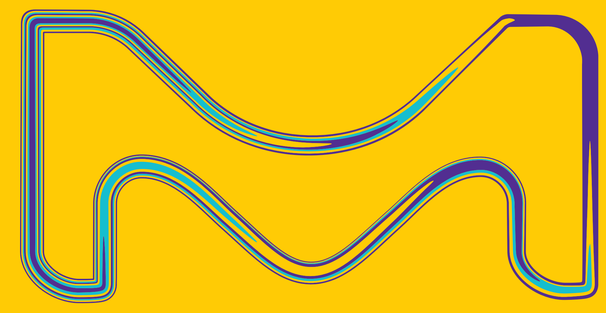
Sepsis



- IL-6
- Lactoferrin
- MIF
- MMP-8
- Resistin
- C5a Activation

- Cytokine: HCYTOMAG-60K, MCYTOMAG-70K, PRCYTOMAG-40K, RECYTMAG-65K, CCYTOMAG-90K, FCYTOMAG-20K, PCYTMAG-23K
- Cytokine: HCYP3MAG-63K
- T*h*17 cells: HTH17MAG-14K, MTH17MAG-47K
- CD8+ cells: HCD8MAG-15K, MCD8MAG-48K
- Sepsis Panels: HSP1MAG-63K, HSP2MAG-63K, HSP3MAG-63K, HSP4MAG-63K, HSP5MAG-63K
- TGFβ: TGFBMAG-64K-01, TGFBMAG-64K-03
- STAT Phosphoprotein: 48-610MAG
- TGFβ Pathway: 48-614MAG
- NFκB Pathway: 48-630MAG
- Multi-Pathways: 48-680MAG MAPK/SAPK: 48-660MAG
- Early Apoptosis: 48-669MAG Late Apoptosis: 48-670MAG

MerckMillipore.com/bmia



The life science business of Merck operates as MilliporeSigma in the U.S. and Canada.

To place an order or receive technical assistance

PS6124ENEU Ver. 2.0 2017 - 02907 10/2017

In Europe, please call
Customer Service:
France: 0825 045 645
Germany: 069 86798021
Italy: 848 845 645
Spain: 901 516 645 Option 1
Switzerland: 0848 645 645
United Kingdom: 0870 900 4645

For other countries across Europe, please call:
+44 (0) 115 943 0840

For other countries across Europe and the world, please visit:
MerckMillipore.com/offices

For Technical Service visit:
MerckMillipore.com/techservice
MerckGroup.com/life-science