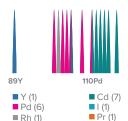


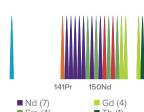
# THE CYTOF ADVANTAGE

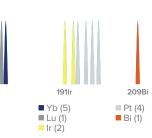
Reasons to take your high-dimensional research beyond the limits of fluorescence

### **Precision data with discrete signals**

Not impacted by spectral overlapping of fluorochromes and tissue autofluorescence

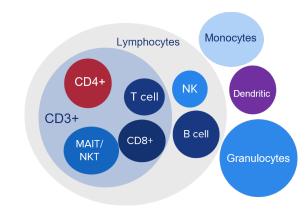






### Capture rare or unexpected cell populations

Unbiased, high-dimensional profiling of 40-plus markers to uncover diverse immune subpopulations



### Easy panel design to complete experiments faster

Large number of available antibodies without overlap simplifies panel design and expansion

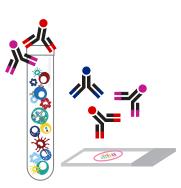


Start with ready-to-go panels and easily swap markers in and out



# Minimal sample required, saving on limited material

Simultaneous staining and detection from a single tube or tissue scan, without multiple staining controls or time-consuming cyclic protocols



3

### Reproducible and comparable

Stained samples can be frozen, stored and shipped to support longitudinal studies and multi-site workflows





### **Trusted by researchers**

The leading technology for high-parameter immune research



>2,000 publications



>200
National
Clinical Trials

# Cytometry by time-of-flight (CyTOF® technology)

Applies purified heavy-metal labels, not normally found in biological systems, instead of fluorophores



### Risks of fluorescence

for high-parameter studies



Missed cell populations or false positives



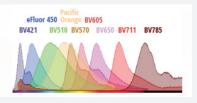
More iterations required in panel design



Reduced sensitivity where fluorescence overlap occurs



Higher resource use to compensate for spectral overlap



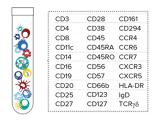
# From sample collection to high-dimensional insights in 3 days\*

Whether you are analyzing suspension or tissue samples, time-of-flight (TOF) technology combined with Maxpar® reagents enables a streamlined end-to-end workflow to complete high-parameter experiments faster than fluorescence-based detection.

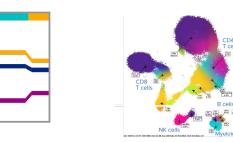
## Flow cytometry

Get started with the validated Maxpar® Direct™ Immune Profiling Assay™

# 1 tube 30 markers (<300 µL of whole blood)



### 5-minute analysis

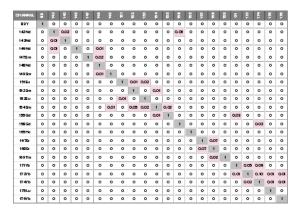


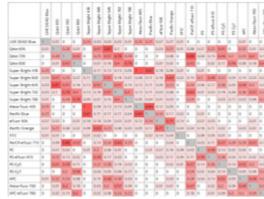
Surface profiles
Cell proliferation
Apoptosis
Metabolism

37 cell populations

Metabolism
Phosphoproteins
Cytokine production
Transcription factors

## Minimal signal overlap





The CyTOF flow cytometry image (far left) shows minimal spillover between metal channels when compared with the same panel from a competitor spectral flow cytometer (left).

# **Imaging Mass Cytometry**

Get started with our Maxpar IMC<sup>™</sup> Cell Segmentation Kits and ready-to-go high-plex panels

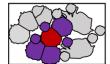
Simultaneous staining

One-step detection

High-plex data in minutes

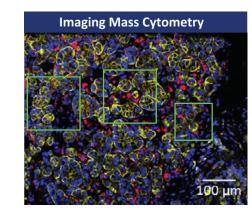


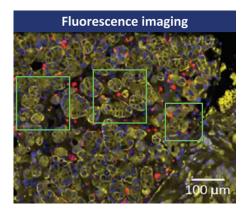




Tissue architecture, protein modifications, signaling pathway activation, cell injury states, cell proliferation, transcriptional signatures

# **Clear spatial imaging**





The Imaging Mass Cytometry™ (IMC) image (far left) shows many well-defined red signals from CD68 that are indistinct or missing from the fluorescence image (left).

# Quantify and visualize 40-plus markers in a single run. Without compromise.

\*After panel and image analysis optimization

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