



## Hyperion

KEY EQUIPMENT

### HTGHER-PLEXTNG AVAILABLE

- Up to 50-plex Suspension CyTOF
- Up to 40-plex Imaging Mass CyTOF

### CAPACITIES

- Pan Antibodies
- Cell Barcoding
- Peptide MHC-I Tetramers
- HT MHC-I Peptide Screening
- Bespoke Recombinant Probes
- Versatile E. coli, Insect Cells and Expi293 Recombinant Bioengineering Systems

### SAMPLE TYPE

- Blood Human
- Mouse Tissues

### READOUTS

- Cell Viability
- **Apoptosis**
- **Enzymatic Activity**
- Cell Surface Antigen
- Intracellular Antigens
- Morphology

## **ANALYSIS TOOLS**

- Flowlo
- Histocat
- **Tissuegnostics**

# **MASS** CYTOMETRY

High-Plex. High-Throughput. Bespoke

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CyTOF instruments are alternative technology to flow cytometry. Instead of fluorescent molecules, heavy metals are conjugated to antibodies for cell phenotyping with minimal spillover. With advances in CyTOF, we are no longer limited to just 40 antibodies. Instead, you can talk to us for staining panel design, sample preparation & acquisition using the new cadmium panel for various cell types. Alternatively, we can produce recombinant probes and customize hybrid staining panel to fit your research and ensure optimum outcomes.

### SELECTED PUBLICATION

- · Lim I et al. Data-driven analysis of COVID-19 reveals persistent immune abnormalities in convalescent severe individuals. Front Immunol. 2021 12:710217.
- Chan YH et al. Asymptomatic COVID-19: disease tolerance with efficient anti-viral immunity against SARS-CoV-2. EMBO Mol Med. 2021 13(6):e14045.
- Lim J. Destabilizing single chain major histocompatibility complex class I protein for repurposed enterokinase proteolysis. Sci Rep. 2020 10(1):14897.

# Highlights

#### The Suspension Mass Cytometry workflow







30 unique markers 14 open channels for panel customization Just add <300 uL whole blood or PBMC

5-minute automated data analysis quantifies >37 immune cell populations Imagery courtesy of Standard BioTools Inc.

### The Imaging Mass Cytometry workflow



DESIGN

panels using

conjugated to

metal tags.

pathologist-verified

Maxpar antibodies

directly to the assay tube.



tissues (FFPE or frozen)

familiar IHC protocols.

or fixed cells using

STAIN







**IMAGE** 

protein markers at subcellular resolution using the Hyperion Imaging System.

ANALYZE

images in minutes using the MCD Viewer and easily export for secondary analysis.

Imagery courtesy of Standard BioTools Inc.

### Simplifying MHC-I Peptide Discovery

Stabilizing pMHC-I molecules for Immunogenicity

A Brand New Intelligent Technology in MHC-I Peptide Discovery





