Maxpar Direct Immune Profiling Assay, 30 Marker—25 Tests

Catalog number: 201325
Package size: 25 tests

Kit Contents
- Cell-ID™ Intercalator-Ir—125 µM, 25 µL
- Maxpar® Dry Antibody Panel*—25 tests
- Maxpar Cell Staining Buffer—500 mL
- Maxpar Fix and Perm Buffer—25 mL
- Maxpar PBS—100 mL
- Maxpar Cell Acquisition Solution—200 mL†

* Antibodies in pre-mixed dry cocktail with Cell-ID Intercalator-103Rh.
† This solution is for use in sample acquisition only.

Storage and Handling
- Cell-ID Intercalator-Ir: Upon receiving this product, aliquot and freeze at –20 °C. Frozen aliquots should be used only once after thawing.
- Maxpar buffers and solutions: 2–8 °C. Do not freeze.
- Maxpar® Direct™ Immune Profiling Assay™ foil packets: 2–8 °C. Do not freeze.
- Open Maxpar Direct Immune Profiling Assay foil packets no more than 1 hour before use.

Description
The Maxpar Direct Immune Profiling Assay is designed and optimized for deep immune profiling of human peripheral whole blood and PBMC. The 30 antibodies in the kit are provided in a dry single-tube format that includes Cell-ID Intercalator-103Rh for identification of live/dead cells. The assay enables comprehensive identification and characterization of 37 immune cell populations, including all major T cell subsets (CD4+ and CD8+ naive, central memory, effector memory, and terminal effector), CD4+ regulatory T cells, CD4– mucosal-associated invariant T cells (MAIT) / natural killer T (NKT) cells, B cell subsets (naive and memory, plasmablasts), natural killer (early and late) cells, T helper (Th) cell phenotypic subsets (Th1-like, Th2-like, and Th17-like), gamma delta (γδ) T cells, monocytes (classical, transitional, and nonclassical), dendritic cell subsets (plasmacytoid and myeloid), granulocytes, basophils, eosinophils, and neutrophils. The assay kit includes all Fluidigm reagents needed for cell staining. Additional reagents needed to run a mass cytometry experiment on the Helios™ system can be purchased separately from Fluidigm or third-party suppliers.

Recommended Usage
The kit is intended for staining human whole blood and PBMC samples according to the Maxpar Direct Immune Profiling Assay User Guide (PN 400286).

Analysis
The normalized .fcs files can be analyzed using Maxpar Pathsetter™ software (PN 401018), which automatically generates a report with cell counts and population frequencies. The normalized .fcs files can also be analyzed by other programs designed for .fcs file analysis.

Maxpar Direct Immune Profiling Assay Panel

<table>
<thead>
<tr>
<th>Antibody (clone)</th>
<th>Mass</th>
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<tbody>
<tr>
<td>CD45 (HI30)</td>
<td>89Y</td>
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<tr>
<td>CD196 /CCR6 (G034E3)</td>
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<tr>
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<td>CD45RO (UCHL1)</td>
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<td>Cell-ID Intercalator-103Rh</td>
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Required Instrument and Software
A Helios system and Fluidigm WB Injector (PN 107950) are required. The WB Injector can be purchased separately. Data is acquired using the latest build of CyTOF® Software v6.7.1016 or higher and the panel kit acquisition template (Maxpar Direct Immune Profiling Assay_Acq.tem).
Safety
Use standard laboratory safety protocols. Read and understand the safety data sheets (SDSs) before handling chemicals. To obtain SDSs, go to fluidigm.com/sds and search for the SDS using either the product name or the part or catalog number.

Figure 1. Population definitions. Human PBMC stained with the Maxpar Direct Immune Profiling Assay. Total viable CD4 T cells are displayed in the analysis. The populations are identified as follows: naive CD4 T cells in purple (T4nv), central memory (CM) CD4 T cells in pink (T4cm), effector memory CD4 T cells in blue (T4em), and terminal effector CD4 T cells in yellow (T4te). Bottom: Overlay plot indicating event progression and the % relative intensity (y axis) of CD4 T lymphocytes as a function of the % of events (x axis). The percentage of cells displayed from each immune subtype is provided.
Figure 2. Example population frequency output in the Maxpar Direct Immune Profiling Assay analysis summary using the Maxpar Pathsetter software.