



Maxpar Direct Immune Profiling Assay, 30 Marker—25 Tests

Catalog number: 201334

Package size: 25 tests

Kit Contents

- Cell-ID™ Intercalator-Ir—125 µM, 25 µL
- Maxpar® Direct™ Immune Profiling Assay™—25 tests*
- Maxpar Cell Staining Buffer—500 mL
- Maxpar Fix and Perm Buffer—25 mL
- Maxpar PBS—100 mL
- Maxpar Cell Acquisition Solution Plus—200 mL†

* Antibodies in pre-mixed dry cocktail with Cell-ID Intercalator-103Rh

† This solution is for use on CyTOF® XT or with the WB Injector on Helios™.

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 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), and granulocytes (basophils, eosinophils, and neutrophils). The assay kit includes all Standard BioTools™ reagents needed for cell staining. Additional reagents required for cell staining and acquisition on the Helios or CyTOF XT™ system can be purchased separately from Standard BioTools or third-party suppliers.

Required Instrument and Software

A Helios system and Standard BioTools WB Injector (107950, can be purchased separately) or a CyTOF XT system is required. Data is acquired using CyTOF Software v6.7.1016 or later (108520, for Helios) or v8.0 or later (130069, for CyTOF XT) and the panel kit acquisition template (**Maxpar Direct Immune Profiling Assay_Acq.tem**).

Recommended Usage

The kit is intended for staining human whole blood and PBMC samples according to the Maxpar Direct Immune Profiling Assay Cell Staining and Data Acquisition User Guide (400286).

Analysis

The normalized .fcs files can be analyzed using Maxpar Pathsetter™ software (401019), 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

Antibody (clone)	Mass
CD45 (HI30)	89Y
CD196/CCR6 (G034E3)	141Pr
CD123 (6H6)	143Nd
CD19 (HIB19)	144Nd
CD4 (RPA-T4)	145Nd
CD8a (RPA-T8)	146Nd
CD11c (Bu15)	147Sm
CD16 (3G8)	148Nd
CD45RO (UCHL1)	149Sm
CD45RA (HI100)	150Nd
CD161 (HP-3G10)	151Eu
CD194/CCR4 (L291H4)	152Sm
CD25 (BC96)	153Eu
CD27 (O323)	154Sm
CD57 (HNK-1)	155Gd
CD183/CXCR3 (G025H7)	156Gd
CD185/CXCR5 (J252D4)	158Gd
CD28 (CD28.2)	160Gd
CD38 (HB-7)	161Dy
CD56/NCAM (NCAM16.2)	163Dy
TCRγδ (B1)	164Dy
CD294 (BM16)	166Er
CD197/CCR7 (G043H7)	167Er
CD14 (63D3)	168Er
CD3 (UCHT1)	170Er
CD20 (2H7)	171Yb
CD66b (G10F5)	172Yb
HLA-DR (LN3)	173Yb
IgD (IA6-2)	174Yb
CD127 (A019D5)	176Yb
Cell-ID Intercalator-103Rh	103Rh

Safety

Use standard laboratory safety protocols. Read and understand the safety data sheets (SDSs) before handling chemicals. To obtain SDSs

for chemicals ordered from Standard BioTools, go to store.fluidigm.com and search using either the product name or the part or catalog number.



Maxpar® Pathsetter™ Report

Powered by GemStone™

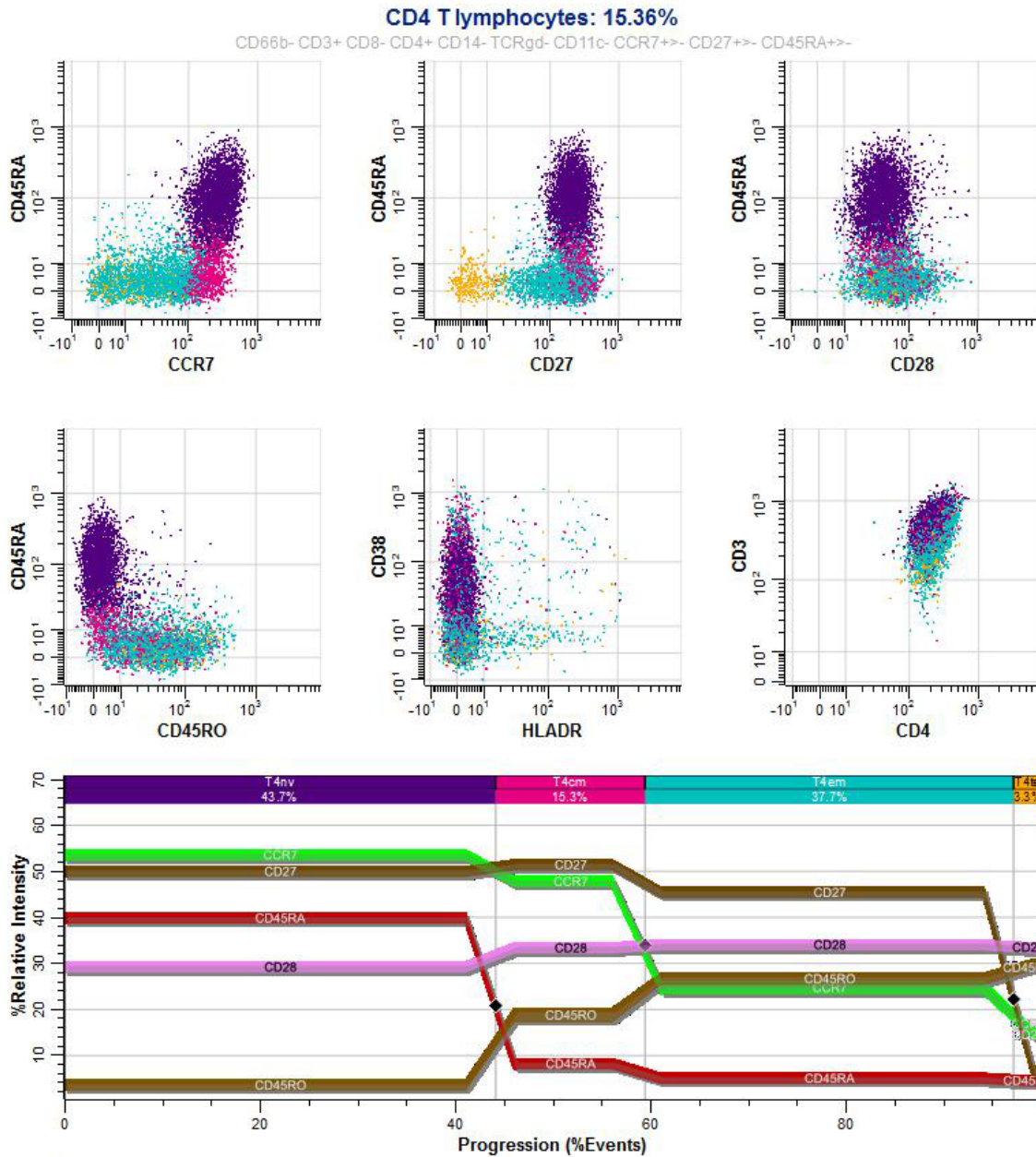


Figure 1. Population definitions. Human PBMC stained with the Maxpar Direct Immune Profiling Assay. Total viable CD4 T cells are displayed in the analysis. The populations are identified as follows: naive CD4 T cells in purple (T4nv), central memory (CM) CD4 T cells in pink (T4cm), effector memory CD4 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.

	Count	* % Intact live	Parent	% Parent
Intact Live Cells	280648	100	All events	94.87
Lymphocytes	72250	25.74	Intact Live	
CD3 T Cells	50640	18.04	Lymphocytes	70.09
CD8 T Cells	11572	4.12	CD3 T Cells	22.85
Naive	7193	2.56	CD8 T Cells	62.16
Central memory	1155	0.41	CD8 T Cells	9.98
Effector memory	2653	0.95	CD8 T Cells	22.93
Terminal effector	571	0.20	CD8 T Cells	4.93
CD4 T Cells	32047	11.42	CD3 T Cells	63.28
Naive	8461	3.01	CD4 T Cells	26.40
Central memory	9433	3.36	CD4 T Cells	29.43
Effector memory	11287	4.02	CD4 T Cells	35.22
Terminal effector	2866	1.02	CD4 T Cells	8.94
Treg	1177	0.42	CD4 T cells	3.67
Th1-like	2316	0.83	CD4 T cells	7.23
Th2-like	2113	0.75	CD4 T cells	6.59
Th17-like	1549	0.55	CD4 T cells	4.83
Gamma Delta T Cells	3900	1.39	CD3 T Cells	7.70
MAIT & NKT CD4- Cells	3121	1.11	CD3 T Cells	6.16
B Cells	8247	2.94	Lymphocytes	11.41
Naive B	7462	2.66	B Cells	90.48
Memory B	726	0.26	B Cells	8.80
Plasmablasts	59	* 0.02	B Cells	0.72
NK Cells	13363	4.76	Lymphocytes	18.50
Early NK	10461	3.73	NK Cells	78.28
Late NK	2902	1.03	NK Cells	21.72
Monocytes	11180	3.98	Intact Live	
Classical	9959	3.55	Monocytes	89.08
Transitional	674	0.24	Monocytes	6.03
Non-classical	547	0.19	Monocytes	4.89
Dendritic Cells	499	0.18	Intact Live	
pDC	219	0.08	Dendritic Cells	43.89
mDC	280	0.10	Dendritic Cells	56.11
Granulocytes	182335	64.97	Intact Live	
Neutrophils	178488	63.60	Granulocytes	97.89
Basophils	43	* 0.02	Granulocytes	0.02
Eosinophils	3213	1.14	Granulocytes	1.76
CD66b- Neutrophils	591	0.21	Granulocytes	0.32
Other	14384	N/A	All events	5.13

Figure 2. Example population frequency output in the Maxpar Direct Immune Profiling Assay analysis summary using the Maxpar Pathsetter software.

For technical support visit fluidigm.com/tech-support.

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