



# DURACLONE IM

ACCELERATE YOUR PACE IN IMMUNE SYSTEM RESEARCH



**VISUALIZE**  
*the possibilities.*

For Research Use Only - Not for use in Diagnostic procedures

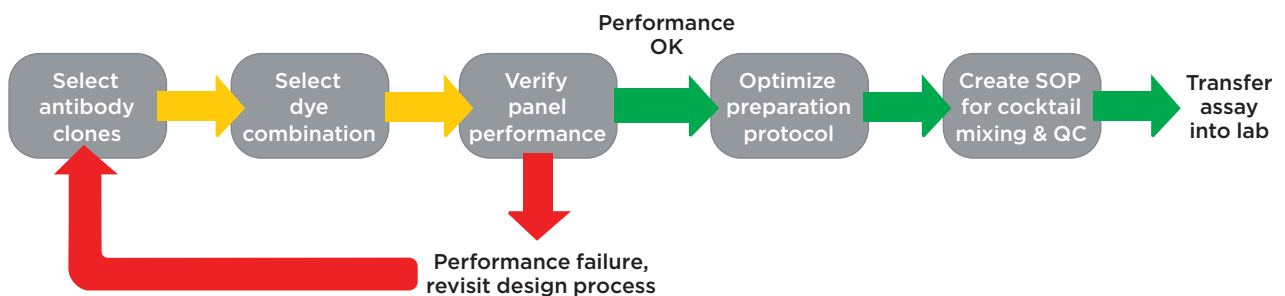


# ACCELERATE YOUR PACE IN IMMUNE SYSTEM RESEARCH

Antibody panel development requires a high level of flow cytometry expertise and may consume critical laboratory resources. Take a leap forward and streamline panel implementation in your laboratory by using expert proven, dry DURAClone IM antibody combinations - the ideal solution for longitudinal and multi-center clinical research studies!

## DEVELOPMENT OF ANTIBODY PANELS FOR FLOW CYTOMETRY

... in-house, using liquid single color antibodies



...using DURAClone



# DURAClone IM PANELS

## ANTIBODY COMBINATIONS FOR IMMUNE SYSTEM RESEARCH

The dry DURAClone IM antibody panels are designed for the identification and characterization of cells of the human immune system.

- Pre-formulated antibody panels up to 10 colors
- Unitized dry Beckman Coulter proprietary format
- Expert-proven marker combinations
- 25 tests/package including dry single color reagents for compensation



Designed by expert labs from

Product	405 nm		488 nm					633 nm				Quality Standard	
	PB	KrO	FITC	PE	ECD	PC5.5	PC7	APC	AF647	AF700	APC-AF700		APC-AF750
IM Phenotyping Basic Tube B53309 (25 tests RUO)	-	CD45	CD16	CD56	CD19	-	CD14	CD4	-	CD8	-	CD3	ISO 9001-2015
IM B Cell Tube B53318 (25 tests RUO)	IgM	CD45	IgD	CD21	CD19	-	CD27	CD24	-	-	-	CD38	
IM T Cell Subsets Tube B53328 (25 tests RUO)	CD57	CD45	CD45RA	CCR7	CD28	CD279 (PD-1)	CD27	CD4	-	CD8	-	CD3	
IM Dendritic Cells Tube B53351 (25 tests RUO)	HLA-DR	CD45	CD16	Lineage <sup>*</sup>	-	CD1c	CD11c	CD370 (Clec9A)	-	-	CD123	-	
IM TCRs Tube B53340 (25 tests RUO)	TCRVδ2	CD45	TCRγδ	TCRαβ	HLA-DR	-	TCRVδ1	CD4	-	CD8	-	CD3	
IM Treg Tube B53346 (25 tests RUO)	Helios	CD45	CD45RA	CD25	-	CD39	CD4	-	FoxP3	-	-	CD3	
IM Granulocytes Tube B88651 (25 tests RUO)	CD15	CD45	CD294 (CRTH2)	-	CD16	CD33	CD11b	CD274 (PD-L1)	-	-	Lineage <sup>**</sup>	CD62L	
IM Count Tube C00162 (25 tests RUO)	-	-	CD45	Counting Beads	-	7-AAD	-	-	-	-	-	-	
IM Innate Lymphoid Cells tube C96081 (25 tests RUO)	-	CD45	CD294 (CRTH2)	Lineage <sup>***</sup>	-	CD117	CD335 (NKp46)	CD127	-	-	-	CD161	

\* CD3 / CD14 / CD19 / CD20 / CD56

\*\* CD3 / CD14 / CD19 / CD56

\*\*\* CD1a / CD3 / CD14 / CD16 / CD19 / CD34 / CD94 / CD123 / TCRαβ / TCRγδ / FCεR1a

PB: Pacific Blue<sup>§</sup>  
KrO: Krome Orange  
AF647: Alexa Fluor<sup>®</sup> 647

AF700: Alexa Fluor<sup>®</sup> 700  
AF750: Alexa Fluor<sup>®</sup> 750  
APC-AF700: APC-Alexa Fluor<sup>®</sup> 700

APC-AF750: APC-Alexa Fluor<sup>®</sup> 750

<sup>§</sup> Alexa Fluor and Pacific Blue are registered trademarks of Molecular Probes, Inc.

# SIMPLIFY YOUR REAGENT INVENTORY MANAGEMENT

Working with cocktails prepared from liquid antibodies is associated with complex and time consuming inventory management impacting laboratory productivity. DURAClone IM kits simplify inventory management dramatically by replacing multiple different single color reagents with just 1 pre-formulated product.



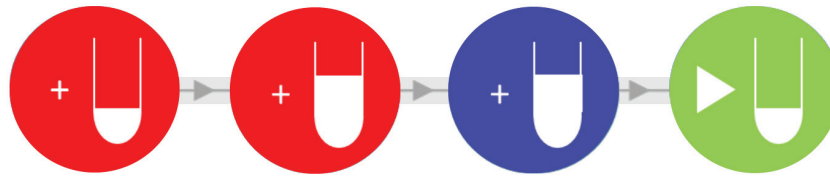
Reagent Inventory Management	Liquid Cocktails from Single Color Reagents	DURAClone IM
QC of reagent lots	Multiple single color reagent lots for each panel	1 reagent lot for each panel
Format	<ul style="list-style-type: none"><li>• Liquid</li><li>• Mix from single color reagents with varying test volumes and staggered expiry dates</li></ul>	<ul style="list-style-type: none"><li>• Dry</li><li>• Unitized per test</li></ul>
Reagent waste sources	<ul style="list-style-type: none"><li>• Pipetting failure</li><li>• Unused remnant volume</li><li>• Non-stoichiometric consumption of single color reagents</li></ul>	None
Storage / Shipping conditions	Refrigerated	Room temperature

# STREAMLINE YOUR WORKFLOW WITH DURAClone IM

In the DURAClone IM kits every assay tube contains a layer with the dried-down antibody panel unitized for a single test. The elimination of antibody pipetting shortens the turn-around-time, minimizes human error sources and purges the workflow from repetitive actions that are expensive to automate.



## Workflow for DURAClone IM Panels\*



Add whole  
blood sample  
& incubate

Lysis

Wash

Acquire

\* DURAClone IM Treg and IM Innate Lymphoid Cells use modified protocols, please see respective details in the instructions for use.

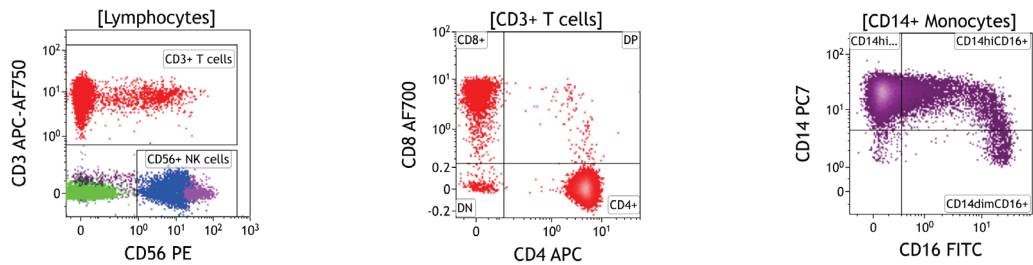
Assay tubes and compensation kits contain identical tandem dye-labeled antibodies to assure accurate and easy compensation.



# DATA EXAMPLES

The following data examples have been acquired on a CytoFLEX 13 color instrument, not using the detector set to its full capacity. Please consider the shown examples also as a possible robust framework allowing you to add further antibodies to adapt the panels to your specific research needs<sup>1</sup>. \*

## IM Phenotyping Basic



Identification of principal lymphocyte subsets as well as subpopulations of monocytes.

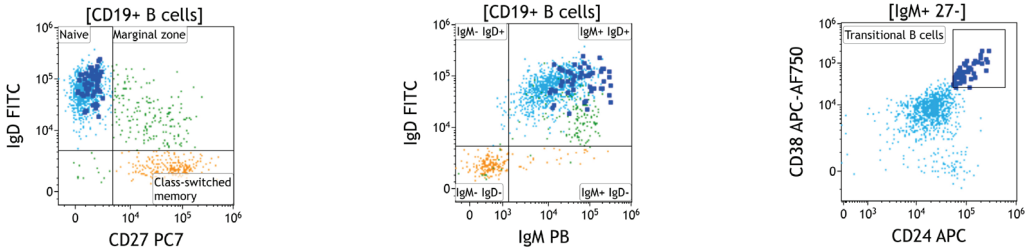
Product	PB	Kr0	FITC	PE	ECD	PC5.5	PC7	APC	AF647	AF700	APC-AF700	APC-AF750	Quality Standard
IM Phenotyping Basic Tube B53309 (25 tests RUO)	-	CD45	CD16	CD56	CD19	-	CD14	CD4	-	CD8	-	CD3	ISO 9001-2015

1 Example for an extended version of DURAClone IM T Cell Subsets: Cossarizza A., De Biasi S., Guaraldi G., Girardis M., Mussini C.; Modena Covid-19 Working Group (MoCo19)#. SARS-CoV-2, the Virus that Causes COVID-19: Cytometry and the New Challenge for Global Health. Cytometry A. 20210;97(4):340-343.

\* Compatibility of the DURAClone IM kits must be verified by the user for each reagent added. Performance characteristics may vary depending on the type of instrument.

# DATA EXAMPLES

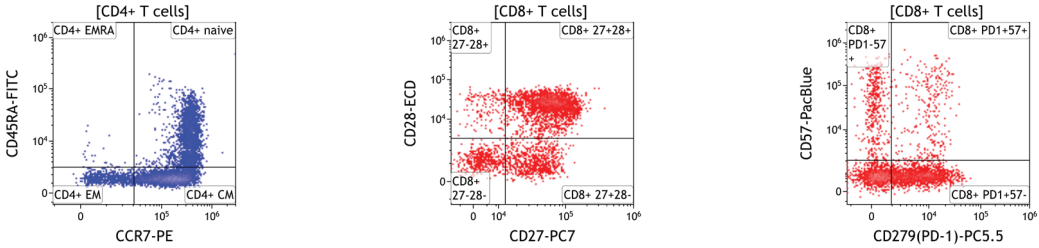
## IM B Cell



Identification of late maturation stages of B cells, such as transitional stage, isotype class-switch, naïve and memory stages.

Product	PB	KrO	FITC	PE	ECD	PC5.5	PC7	APC	AF647	AF700	APC-AF700	APC-AF750	Quality Standard
IM B Cell Tube B53318 (25 tests RUO)	IgM	CD45	IgD	CD21	CD19	-	CD27	CD24	-	-	-	CD38	ISO 9001-2015

## IM T Cell Subsets

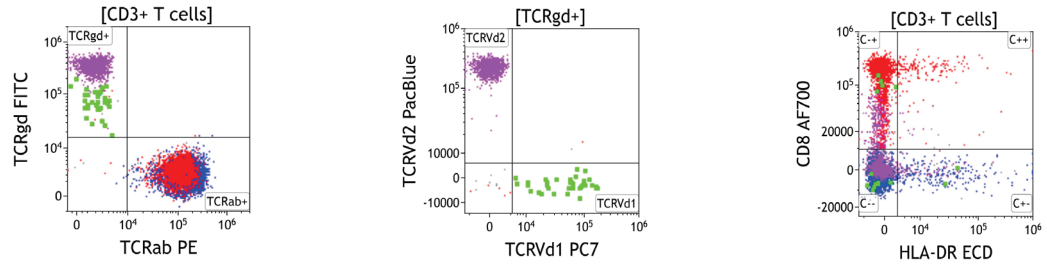


Delineation of maturation stages of T cells, covering naïve, effector, memory and terminal differentiation stages.

Product	PB	KrO	FITC	PE	ECD	PC5.5	PC7	APC	AF647	AF700	APC-AF700	APC-AF750	Quality Standard
IM T Cell Subsets Tube B53328 (25 tests RUO)	CD57	CD45	CD45RA	CD197 (CCR7)	CD28	CD279 (PD1)	CD27	CD4	-	CD8	-	CD3	ISO 9001-2015

# DATA EXAMPLES

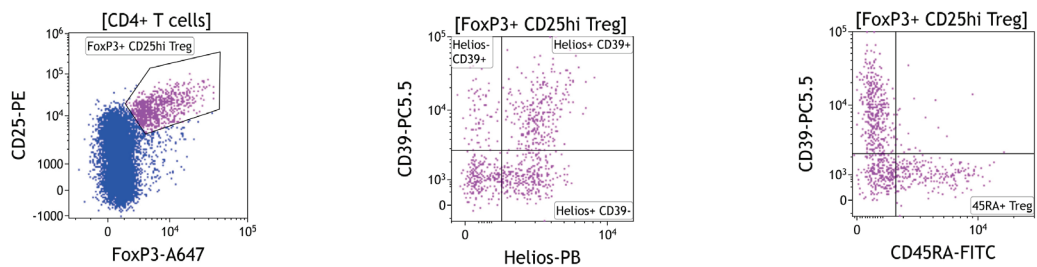
## IM TCRs



Assessment of TCR  $\alpha\beta$  and  $\gamma\delta$  protein chain expression and detection of  $V\delta 1+$  and  $V\delta 2+$  subsets among TCR $\gamma\delta+$  T cells.

Product	PB	Kr0	FITC	PE	ECD	PC5.5	PC7	APC	AF647	AF700	APC-AF700	APC-AF750	Quality Standard
IM TCRs Tube B53340 (25 tests RUO)	TCRV $\delta 2$	CD45	TCR $\gamma\delta$	TCR $\alpha\beta$	HLA-DR	-	TCRV $\delta 1$	CD4	-	CD8	-	CD3	ISO 9001-2015

## IM Treg



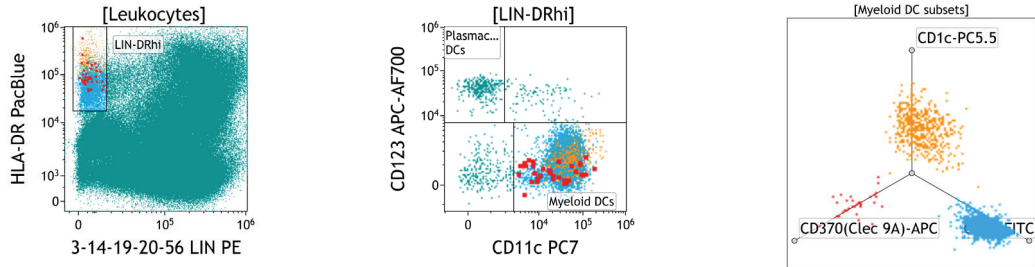
Identification and characterization of FoxP3<sup>+</sup> regulatory T cells using a streamlined permeabilization protocol.

Product	PB	Kr0	FITC	PE	ECD	PC5.5	PC7	APC	AF647	AF700	APC-AF700	APC-AF750	Quality Standard
IM Treg Tube B53346 (25 tests RUO)	Helios	CD45	CD45RA	CD25	-	CD39	CD4	-	FoxP3	-	-	CD3	ISO 9001-2015



# DATA EXAMPLES

## IM Dendritic Cell

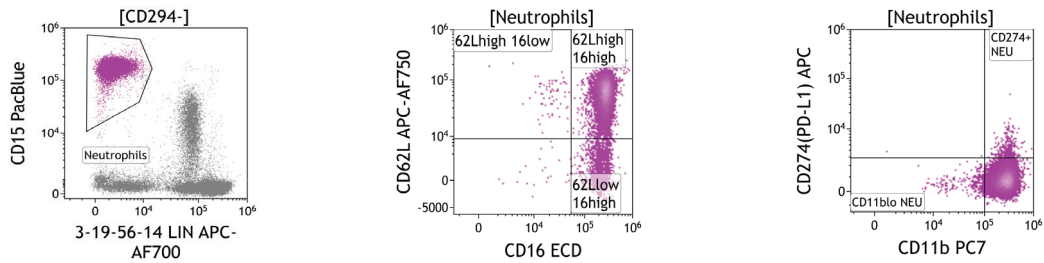


Identification of plasmacytoid dendritic cells and 3 major subsets of myeloid dendritic cells.

Product	PB	KrO	FITC	PE	ECD	PC5.5	PC7	APC	AF647	AF700	APC-AF700	APC-AF750	Quality Standard
IM Dendritic Cells Tube B53351 (25 tests RU0)	HLA-DR	CD45	CD16	Lineage*	-	CD1c	CD11c	CD370 (Clec9A)	-	-	CD123	-	ISO 9001-2015

\* CD3 / CD14 / CD19 / CD20 / CD56

## IM Granulocytes



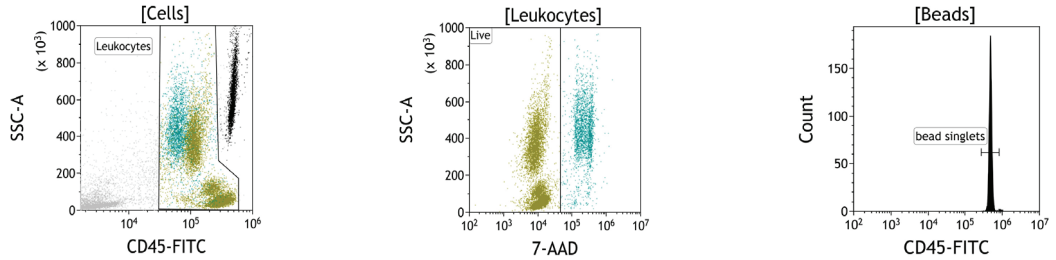
Identification of Basophils, Eosinophils and Neutrophils including assessment of CD11b, CD16, CD62L and PD-L1 co-expression.

Product	PB	KrO	FITC	PE	ECD	PC5.5	PC7	APC	AF647	AF700	APC-AF700	APC-AF750	Quality Standard
IM Granulocytes Tube B88651 (25 tests RU0)	CD15	CD45	CD294 (CRTH2)	-	CD16	CD33	CD11b	CD274 (PD-L1)	-	-	Lineage*	CD62L	ISO 9001-2015

\* CD3 / CD14 / CD19 / CD56

# DATA EXAMPLES

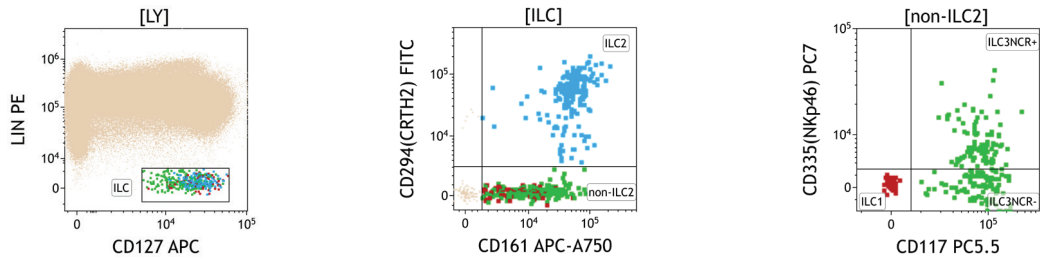
## IM Count



Absolute counting/viability for whole blood samples and counting reference for all DURAClone IM panels.

Product	PB	Kr0	FITC	PE	ECD	PC5.5	PC7	APC	AF647	AF700	APC-AF700	APC-AF750	Quality Standard
IM Count Tube C00162 (25 tests RUO)	-	-	CD45	Counting Beads		7-AAD	-	-	-	-	-	-	ISO 9001-2015

## IM Innate Lymphoid Cells



Identification of 3 subtypes of rare innate lymphoid cells.

Product	PB	Kr0	FITC	PE	ECD	PC5.5	PC7	APC	AF647	AF700	APC-AF700	APC-AF750	Quality Standard
IM Innate Lymphoid Tube C96081 (25 tests RUO)	-	CD45	CD294 (CRTH2)	Lineage*	-	CD117	CD335 (NKp46)	CD127	-	-	-	CD161	ISO 9001-2015

\* CD1a / CD3 / CD14 / CD16 / CD19 / CD34 / CD94 / CD123 / TCRαβ / TCRγδ / FcεR1a

# MORE DURAClone PANELS

## DURAClone IF For Immune Function

The DURAClone IF antibody panels reveal immune function at the single cell level utilizing a streamlined and simplified intracellular staining workflow.

Product	405 nm		488 nm					633 nm				Quality Standard
	PB	KrO	FITC	PE	ECD	PC5.5	PC7	APC	AF647	AF700	AF750	
IF T Activation B88649 (25 tests RUO)	CD4	-	IFN $\gamma$	TNF $\alpha$	-	-	IL-2	-		CD8	CD3	ISO 9001-2015
IF T Helper Cell C04666 (25 tests RUO)	IL-17A	-	IFN $\gamma$	-	-	-	IL-4	CD4		-	CD3	
IF Monocytes Activation C21858 (25 tests RUO)	CD14	CD45	-	HLA-DR	-	-	-	-		TNF $\alpha$	-	
IF Basophil Activation C23406 (25 tests RUO)	CD63	CD45	-	CD203c	-	-	CD3	-	CD294 (CRTH2)	-	-	

## DURActive Stimulation Mixes

The DURActive dry stimulation mixes ensure reliability of the first crucial step in cellular activation assays.

	Contained Stimulating Agents	Tested sample volumes	Activation characteristics	Matching DURAClone antibody panel	Quality Standard
<b>DURActive 1</b> C11101 (25 tests, RUO)	PMA / Ionomycin / Brefeldin A	50 $\mu$ L heparinized whole blood  0.5x10 <sup>6</sup> PBMCs in 50 $\mu$ L suspension	Broad activation Inhibition of secretion	DURAClone IF T Activation (B88649) DURAClone IF T Helper Cell (C04666)	ISO 9001-2015
<b>DURActive 2</b> C11102 (25 tests, RUO)	PMA / Ionomycin		Broad activation	Detection of soluble compounds, DURAClone IF T Activation (B88649), DURAClone IF T Helper Cell (C04666) (using secretion inhibitors such as Monensin)	
<b>DURActive 3</b> C21857 (25 tests, RUO)	LPS / Brefeldin A		Innate immune responses Inhibition of secretion	DURAClone IF Monocyte Activation*	

## Choose Beckman Coulter for Benchmark Expertise and Innovation

For over 80 years Beckman Coulter has driven innovation. We remain committed to shaping flow cytometry technology to fit seamlessly into your lab's workflow and to provide an optimal user experience. When you choose a Beckman Coulter solution you receive a high level of expertise, innovation, and quality assurance.



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