



FLOW CYTOMETRY

2017 CATALOG - Outside US Version



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the possibilities.

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Outside US Version

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INFORMATION

Format and Lines

Beckman Coulter provides a variety of cellular analysis reagents to meet the needs of today's flow cytometry laboratories. We offer several complete systems that combine reagents, calibrators, controls, software and hardware.

Flow cytometry reagents are typically provided as directly conjugated products and are available as single color configurations or as two, three, four or five color combinations.

These comprise hundreds of products allowing sample preparation flexibility as well as panel customization.

Abbreviation	Name	Primary Excitation (nm)	Appropriate Light Source	Emission Maximum (nm)	Suitable Band Pass Filter (nm)
KrO	Krome Orange	398	Violet/405 nm Diode Laser	528	550
PB	Pacific Blue ^s	405	Violet/405 nm Diode Laser	455	450
PE	Phycoerythrin	480	Blue Diode/Argon Laser	575	575
RD1	Phycoerythrin	480	Blue Diode/Argon Laser	575	575
ECD	Phycoerythrin-Texas Red ^s -x	480	Blue Diode/Argon Laser	620	620
PC5	Phycoerythrin-Cyanin 5	480	Blue Diode/Argon Laser	670	675
PC5.5	Phycoerythrin-Cyanin 5.5	480	Blue Diode/Argon Laser	694	700
PC7	Phycoerythrin-Cyanin 7	480	Blue Diode/Argon Laser	767	770
Atto ^s 488	Atto 488	488	Blue Diode/Argon Laser	523	525
PE-Dy649	PE-Dyomics649	488	Blue Diode/Argon Laser	676	675
PerCP	Peridin-chlorophyll-protein Complex	488	Blue Diode/Argon Laser	682	700
FITC	Fluorescein Isothiocyanate	495	Blue Diode/Argon Laser	520	525
AF488	Alexa Fluor ^s 488	495	Blue Diode/Argon Laser	520	525
PI ¹	Propidium Iodide	540	Blue Diode/Argon Laser	620	620
7-AAD ¹	7-Aminoactinomycin D	550	Blue Diode/Argon Laser	660	675
APC	Allophycocyanin	650	Red Diode/HeNe Laser	660	675
AF647	Alexa Fluor ^s 647	650	Red Diode/HeNe Laser	668	675
APC-A700	APC-Alexa Fluor ^s 700	650	Red Diode/HeNe Laser	719	720
APC-A750	APC-Alexa Fluor ^s 750	650	Red Diode/HeNe Laser	780	780
AF700	Alexa Fluor ^s 700	695	Red Diode/HeNe Laser	719	720

¹ As DNA Complex

BIOT Biotin
 UNLB Unlabelled, Unconjugated, purified

^s Trademarks are the property of their respective owners (see Trademarks page)



INFORMATION

Format and Lines

Flow Cytometry Reagents

CYTO-STAT® Monoclonal Antibodies

CYTO-STAT Monoclonal Antibodies are :

- Ready-to-use monoclonal antibodies for flow cytometric analysis.
- Available in one, two, three and four-color configurations for direct immunofluorescent staining.
- Provided as 50 tests per vial at 10 µL per test (0.5 mL/vial)

Source: Mouse ascitic fluid or conditioned culture media unless otherwise noted.

Purification: Ion-exchange, affinity chromatography or gel filtration.

Components and storage: supplied in liquid, ready-to-use form requiring no dilution. Store at 2-8°C in the dark without freezing. Expiration date and concentration are indicated on the vial label.

IMMUNOPREP Reagent System

- No-wash lyse and fix reagent for whole blood lysis.
- Maintains white blood cell integrity and natural scatter characteristics.
- Maximizes separation between cells of interest versus red blood cell debris and platelets.
- Twenty-four hour processed-sample stability when stored at 2-8°C.

IOTest® and IOTest®3 Conjugated Antibodies

IOTest® Conjugated Antibodies are :

- Ready-to-use conjugated monoclonal or polyclonal antibodies for flow cytometric analysis.
- Adapted for manual lysing procedures with a wash and for automated lysing procedures on the PrepPlus 2 Workstation and the FP 1000 Cell Preparation System.
- Open to all instrument platforms.
- Available as single or multi color configurations for direct immunofluorescent staining.
- Single color reagents are titrated for easy mixing in user-defined multi-color combinations.
- Provided as 100 or 50 tests per vial at 10 or 20 µL per test.

Purification: Affinity chromatography or gel filtration.

Components and storage: supplied in phosphate-buffered saline, containing 0.1% sodium azide and 2 mg/mL of bovine serum albumin, unless otherwise specified. The expiration date is indicated on the vial label. Store at 2-8°C in the dark without freezing.

IOTest®3 Conjugated Antibodies are :

- Preformulated and standardized product line composed of antibodies conjugated to FITC, PE and ECD.
- Cover the most useful markers for peripheral blood or bone marrow characterization exploring intracellular as well as surface antigens.
- Optimized to work with the IOTest 3 Lysing Solution and IOTest 3 Fixative Solution.
- IntraPrep™ Permeabilization Reagent is recommended for intracellular antigen exploration.
- Provided as 25 tests per vial at 20 µL per test.



INFORMATION

Format and Lines

Flow Cytometry Reagents

OptiClone® Monoclonal Antibodies

OptiClone Monoclonal Antibodies are :

- Ready-to-use monoclonal antibodies for flow cytometric analysis.
- Available in two and three color configurations for direct immunofluorescent staining.
- Specially formulated for use in wash or no-wash procedures using OptiLyse B or C Lysing Reagents.
- Provided as 50 tests per vial at 20 μ L per test.
- For individual monoclonal antibody specifications, see the product description.

Purification: Affinity chromatography or gel filtration.

Components and storage: supplied in phosphate-buffered saline, containing 0.1% sodium azide and 2 mg/mL of bovine serum albumin, unless otherwise specified. Expiration date and concentration are indicated on the label. Store at 2-8°C in the dark without freezing.

OptiLyse Lysing Reagent

- OptiLyse C is specially formulated for Beckman Coulter flow cytometers.
- OptiLyse B is specially formulated for BD Biosciences flow cytometers.
- Provided as 200 or 250 tests per vial, at 500 μ L per test for OptiLyse C and 100 μ L per test for OptiLyse B.
- Suitable for wash or no-wash applications.

COULTER CLONE Monoclonal Antibodies

COULTER CLONE Monoclonal Antibodies are :

- Suitable for flow cytometric, microscopic or immunohistochemical procedures.
- Available as purified and fluorochrome-conjugated antibodies for direct immunofluorescent staining.
- Provided as 100 tests per vial at 5 μ L per test.
- Purified and most FITC antibodies are lyophilized and require reconstitution in 500 μ L of distilled water.
- RD1 conjugated antibodies are liquid and ready-to-use.

Source: Mouse ascitic fluid or conditioned culture media unless otherwise noted.

Purification: Ion-exchange, affinity chromatography or gel filtration.

Components and storage: supplied in phosphate-buffered saline, containing 0.1% sodium azide and 2 mg/mL of bovine serum albumin, unless otherwise specified. The freeze-dried material must be reconstituted with distilled water without preservative as described in the package insert. Expiration date and concentration are indicated on the vial label. Store at 2-8°C in the dark without freezing.



INFORMATION

Format and Lines

Flow Cytometry Reagents

Cell Lab Reagents

Cell Lab: Cell Lab reagents are a selection of specialized tools, which equip researchers with the resources necessary to fulfill their cellular analysis needs. These reagents are provided in various forms and sizes and may be used for a wide range of applications including cell biology and functional studies.

Signaling Cytometry (SC): Signal transduction markers are used to dissect complex biological processes in heterogeneous cell populations. The Activation State Specific markers may be used to identify cell signaling processes that take place within cellular sub populations.

Cell Lab SC: Cell Lab SC reagents are a selection of antibodies targeting intracellular targets such as signal transduction markers. Labeling of these markers may be used to identify cell signaling processes taking place within cellular sub populations. These reagents are validated for multicolor flow cytometric analysis. Cell Lab SC reagents are supplied as ready-to-use conjugates to Alexa Fluor* 488, Alexa Fluor* 647, PE and Pacific Blue*

Other Reagents

Purified and biotinylated antibodies are provided in various formats adapted for multiple applications: cell biology, immunohistochemistry, functional studies, pharmacology, Western blot, immunoprecipitation, and immunostaining. The lyophilized format (0.1 or 0.2 mg) permits quantitative experiments. The liquid format, sold as a number of tests, is specifically adapted to immunostaining experiments. Many of these products are available for bulk purchase.

Source: Polyclonal antibodies from rat, rabbit, goat, and hamster. Monoclonal antibodies from murine ascitic fluid or conditioned culture media.

Purification: Ion-exchange, affinity chromatography or gel filtration.

Components and storage: In the freeze-dried format, most of the antibodies are supplied in phosphate-buffered saline solution, containing 1 mg/mL bovine serum albumin, without preservative. The freeze-dried material must be reconstituted with distilled water as described in the package insert. Aliquots may be stored at -20°C. Avoid repeated freezing and thawing. The addition of sodium azide (0.1%) is recommended for storage up to one month at 2-8°C.

In the liquid format, antibodies are supplied in phosphate-buffered saline solution, containing 0.1% sodium azide and 2 mg/mL of bovine serum albumin, unless otherwise specified. The expiration date is indicated on the vial label. Storage is at 2-8°C in the dark without freezing. Some other formats are available, please refer to the product list for more information.



INFORMATION

Format and Lines

Flow Cytometry Reagents

DuraClone (Multi-Color dry) Reagents

DuraClone Dry Reagents come in a format that ensures stability for long periods of time without the need for refrigerated shipping or storage. Beckman Coulter's new DuraClone line of dry reagents enables you to simplify and expedite sample preparation and handling while delivering the same performance as liquid reagents.

- No titration of antibodies
- No risk of aggregation in dried form
- Stable at room temperature
- Pre-dispensed reagents in unitized form - reduces pipetting errors
- Dried down reagents - No refrigeration

The DuraLyse solution is provided with DuraClone products (except with DuraClone T-Count). It is a lysing solution which results in simultaneous lysis of red blood cells under gentle hypotonic conditions and fixation of the leukocytes resulting in a leukocyte suspension substantially free of red blood cells and suitable for flow cytometric analysis.

DuraClone IM Panels

DuraClone IM Panels are premixed, dried reagent cocktails to standardize and streamline flow cytometry workflow for clinical research studies involving the identification of principal populations of the human immune system.

- Provided with 3 complete compensation kits with single color set of compensation reagents, specific for each panel.
- Single color conjugate compensation tubes are color-coded with lot-matched dyes.
- Stable at room temperature
- Pre-dispensed reagents in unitized form - reduces pipetting errors
- Dried down reagents - No refrigeration



INFORMATION

Regulatory Status

Status Definitions:

- ASR** — Analyte Specific Reagents (ASR)
An ASR is the active ingredient of an in-house (“home-brew”) test. It is the responsibility of the laboratory using the ASR to develop the test and to take responsibility for establishing and maintaining performance. These reagents are labeled “Analyte Specific Reagents. Analytical and performance characteristics are not established.”
- CE** — CE-marked products (CE)
CE marking on products included in this catalog indicates conformity to the legal requirements of the European Union (EU) Directive 98/79/EC of the European Parliament for in vitro diagnostic medical devices with respect to safety, health, environment, and consumer protection. In this catalog, CE-marked products are labeled for in vitro diagnostic use and can be traded freely throughout the EU.
- IVD** — In Vitro Diagnostic Products (IVD)
Reagents, instruments and systems intended for use in the diagnosis of disease or other conditions, including a determination of the state of health, in order to cure, mitigate, treat or prevent diseases. Such products are intended for use in the collection, preparation and examination of specimens taken from the human body. These products can be used for clinical diagnosis. These products are labeled “For In Vitro Diagnostic Use.”
- IVD & CE** — In Vitro Diagnostic Products & CE-Marked Products (IVD & CE)
These reagents comply with the IVD and CE classifications.
- LUO** — Laboratory Use Only Reagents (LUO)
Generic reagents whose use is generally known by a trained person. Not intended to identify a specific disease or condition. These reagents are labeled “For Laboratory Use Only.”
- RUO** — Research Use Only Reagents (RUO)
A product in the laboratory testing phase of development that does not have a recognized clinical utility and is not represented as an effective in vitro diagnostic product. These products cannot be used for clinical diagnosis, prognosis or therapeutic determinations. These reagents are labeled “For Research Use Only. Not for use in diagnostic procedures.”
- nMD** — Non-Medical Device (nMD)
Equipment not intended to be used in diagnostic procedures.

Geographical Distribution:

- CE-marked products are sold in European Union countries
IVD products are sold in countries where they comply with applicable regulation.



INFORMATION

Trademarks

Beckman Coulter, the stylized logo, and the Beckman Coulter product and service marks mentioned herein are trademarks or registered trademarks of Beckman Coulter, Inc. in the United States and other countries.

The following are Beckman Coulter trademarks:

4C	Flow-Check	OptiClone	VersaLyse
Allegra	Flow-Clean	OptiLyse	Vi-Cell
ARIES	Flow-Count	Optima	XL
Astrios	Flow-Set	PrepPlus	XL-MCL
Avanti	Gallios	Q-PREP	Z Series
Beckman Coulter	IMMUNO-BRITE	Retic-CAL	
Biomek	IMMUNOPREP	reticONE	
ClearLLab	IMMUNO-TROL	Retic-STAT	
COULTER	Index	Stem-Comp	
COULTER CLENZ	IntraPrep	Stem-Count	
COULTER CLONE	IOTest	Stem-Kit	
COULTER COUNTER	IsoClonic	stemONE	
CyAn	IsoFlow	Stem-Trol	
CYTO-COMP	ISOTON	System II	
CYTO-STAT	J-LITE	tetraCHROME	
CYTO-TROL	Kaluza	tetraONE	
DRAQ7	Krome Orange	ThromboFix	
DuraClone	Load & Go	TQ-Prep	
ECD	MoFlo	triCHROME	
EPICS	Navios		

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All other trademarks are the property of their respective owners

Instrument Manager is a trademark of Data Innovations, Inc. Texas Red and Pacific Blue are trademarks of Molecular Probes, Inc.

AlexaFluor: This product is provided under an agreement between Molecular Probes, Inc. and Beckman Coulter and the manufacture, use, sale or import of this product may be subject to one or more of US Patent Nos. 5,696,157; 6,130,101; 5,830,912; pending applications and corresponding foreign equivalents, owned by Life Technologies Corp. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product in research conducted by the buyer (whether the buyer is an academic or for-profit entity), including use as an Analyte Specific Reagent (ASR), but excluding use in combination with microarrays or for High Content Screening. The buyer cannot sell or otherwise transfer (a) this product (b) its components or (c) materials made using this product or its components to a third party or otherwise use this product or its components or materials made using this product or its components for Commercial Purposes. Commercial Purposes means any activity by a party for consideration and may include, but is not limited to: (1) use of the product or its components in manufacturing; (2) use of the product or its components to provide a service, information, or data; (3) use of the product or its components for therapeutic, diagnostic or prophylactic purposes; or (4) resale of the product or its components, whether or not such product or its components are resold for use in research.

“Trillium products are sold under an agreement between Trillium Diagnostics, LLC. and Beckman Coulter. These products are not available in all countries. Please contact your local distributor for more information.”

INFORMATION

Custom Design Services



CDS
Custom Design Services



Our Custom Design Services (CDS) offer personalized options designed to provide custom solutions for your multicolor flow cytometry and imaging needs.

As a recognized leader in multicolor flow cytometry, our CDS product options include dry reagent cocktails, liquid multicolor cocktails, single and multicolor antibody conjugates and purified antibodies. A wide selection of fluorochromes provides options to meet specific multicolor experimental design requirements. Beckman Coulter's dry reagents are shelf-stable at room temperature, ready-to-use, affordable, and accurate. Dry reagents simplify your workflow, minimize your hands-on time, and deliver the same consistent performance as liquid reagents.

Whether you are looking for a different conjugate of our antibody or need a custom conjugation of your own antibody, CDS provides affordable, high-quality custom antibody conjugation services. Our CDS offerings range from custom conjugations to optimized multicolor combinations. In addition, our dry reagents provide a means to simplify and expedite sample preparation and handling. These temperature-stable reagents allow for the production of a single batch that can be stored at room temperature for the duration of a study eliminating the need for refrigeration space and revalidation of new lots. Dry reagent custom panels are available in a single use tube or multiwell plate format.

A wide selection of fluorochromes across BCI's popular antibody clones provides options to meet specific multicolor experimental design requirements. With flexible order quantities, we make custom antibody conjugates more affordable allowing tight budgets to go further and removing bottlenecks to your downstream work.

Antibodies may be supplied in a specified buffer solution. Conjugates are suitable for flow cytometry, UV-microscopy or chemiluminescent applications (ELISA, Western blots).

Product Category	Description	Suggested Minimum Quantity	Antibody Source
Custom Dry Cocktails	2-color; 3-color; 4-color; 5-color; 6-color; 7-color; 8-color; 9-color; 10-color; 11-color; 12-color; 13-color; 14-color	500 tests, single use test tubes. New: 200 tests can be provided (without prelot testing by customer)	Optimizations and configuration with existing BCI-conjugated or customer-supplied antibodies
Custom Liquid Cocktails and Panels	2-color; 3-color; 4-color; 5-color; 6-color; 7-color; 8-color; 9-color; 10-color	500 tests	Optimizations and configuration with existing BCI-conjugated or customer-supplied antibodies
Custom Conjugation	Pacific Blue, Kiome Orange, Fluorescein, PE, ECD, PC5, PC5.5, PC7, APC, Biotin, Alexa Fluor* 488, Alexa Fluor* 647, APC-Alexa Fluor*700, APC-Alexa Fluor*750	500 µg	Conjugation of BCI owned antibodies or customer-supplied antibodies
Unlabelled antibodies	Available in liquid with or without sodium azide	1 mg	Concentration and buffer can be specified

Custom Design Service products are for Research Use Only. Not for use in Diagnostic procedures.



INFORMATION



PROService combines a secure, direct data connection to Beckman Coulter's Customer Technical Support centers with a suite of sophisticated support tools and functionalities. This powerful synergy enables our Service and Support teams to view and diagnose the performance of your Beckman Coulter instrument in real time with a greater level of efficiency and accuracy.

- Real-time instrument performance Dashboards that facilitate instant review and rapid diagnosis of instrument issues
- Remote Desktop Sharing (RDS) with Service and Support that allows deeper investigation and troubleshooting and repair
- Resolve many instrument issues without the need for a Service visit



PROService is a remote diagnostic system that enhances the technical support of your Beckman Coulter systems. Using firewall-friendly technology, PROService securely transfers information pertinent to instrument health to a Beckman Coulter server via the Internet. PROService provides the means by which the Beckman Coulter Hotline and other Beckman Coulter service and support personnel can remotely view and diagnose the performance of your Beckman Coulter instrument.

PROService automatically scans available instrument health data for potential causes of downtime, allowing Beckman Coulter system experts to identify potential technical solutions from a remote location, often resolving issues before they impact your lab's operating efficiency. When necessary, service calls can be scheduled proactively and any necessary parts can be shipped ahead to facilitate efficient repair.

Using firewall-friendly technology, the PROService system securely transfers information pertinent to instrument health to a Beckman Coulter server via the Internet. The PROService RAP box coordinates this secure, encrypted communication between your instruments and the secure Beckman Coulter servers.

Foresight to protect your uptime.

PROService's specialized Triggers automatically scan incoming instrument performance data for potential causes of downtime and notifies our Service and Support teams.

- Reduce downtime by informing proactive, preventative action to be taken by you or Field Service
- Minimize interruptions when Service is needed by enabling advance issue isolation and preparation of needed parts

Secure and confidential.

PROService transfers data pertinent to instrument performance and uses a multi-faceted approach to meet rigorous standards for security, privacy, and confidentiality. Industry-standard encryption and connection methods protect the data being transferred. Sophisticated systems, safeguards, and controls maintain integrity in data confidentiality. Access is limited to Beckman Coulter Service and Support staff and is controlled by user support role and geographic location.

Get connected.

The connection provided by PROService can also provide you easy access to media-free instrument software upgrades, online lab management utilities, and reagent usage and replenishment on supported systems.

* Not available in all geographies.



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INSTRUMENTATION

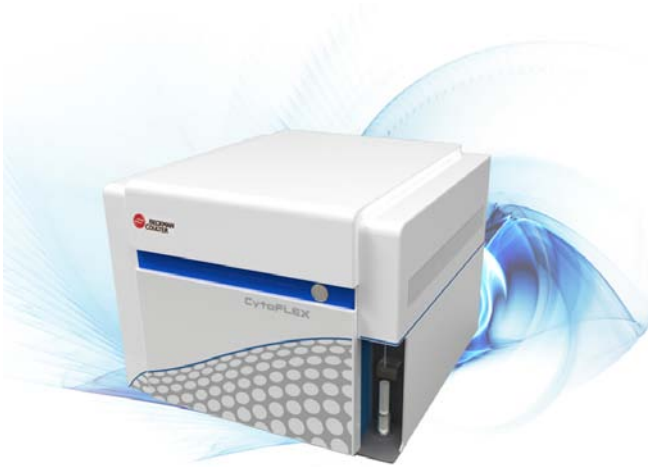
Instruments and Software

FLOW CYTOMETER

ANALYZER

CytoFLEX

CLASS IIASER



The CytoFLEX system brings you upgradeable detection capabilities for up to 3 lasers and 13 color research flow cytometry to your bench top. Providing sensitivity and performance at any configuration, the CytoFLEX system delivers powerful detection capability and resolution for the simple to the most challenging applications. CytoFLEX surpasses capabilities expected in top tier analyzers, with excellent sensitivity and nanoparticle resolution. The proprietary beam shaping optics design includes an innovative flow cell with integrated optics. The revolutionary fiber array (APD) avalanche photo diode detection system, collects the optimal emission light signals, while minimizing light loss and maximizing detection capability. Proprietary Wavelength Division Multiplexing (WDM) detection module with solid-state, high efficiency, low-noise (APD) detectors for a flexible detection system allows for easy setup of band pass filters for a variety of research applications. CytExpert software empowers both novice and experienced researchers to learn and operate the system quickly. High color applications are fully supported with auto compensation set-up. Simplified system setup, data acquisition, analysis, compensation and export of experimental results are integrated into a complete workflow solution.

CytoFLEX Instrument
Upgradable Sensitivity in a small footprint, for both single color and multicolor analysis.

Flexibility

- Up to 21 available configurations to easily adapt to your application needs.
- Full upgrade capability for all lower configurations enabling future application expansion.

Design

- Compact size 42.5 x 42.5 x 34cm (16.7 x 16.7 x 13.4in) with Tank/Holder 14 x 35.6 x 43.4cm (5.5 x 14.0 x 17.1in).
- Accepts 5mL (12 x 75mm) polystyrene and polypropylene and micro centrifuge 1.5mL and 2mL formats.
- User installable.
- Fixed optical alignment, no requirement for adjustment of optical system.

Fluidics

- Adjustable sample flow rates between 10 μ L and 240 μ L per minute.
- Sample volumes as low as 10 μ L.
- Calibrated volumetric sample volume delivery, suitable for absolute cell counts.

Detection capability & Resolution

- Exceptional detection capability: <30 MESF-FITC, <10 MESF PE.
- Provides 7 decades of resolution, 16,777,216 channels and an event collection rate of 30,000 events/sec.
- Innovative, proprietary Wavelength Division Multiplexing (WDM) detection module.
- Proprietary flow cell design with integrated optics increases sensitivity and multiple wavelength detection capability.
- Fully integrated optical module design, with flow cell and patented Axial Light Loss (ALL) forward scatter for greater stability and detection capability.
- Collection of side scatter light from 405nm (vSSC) for enhanced nanoparticle detection (0.2 μ m).
- Acquire SSC simultaneously from 488nm and 405nm for flexibility to detect a variety of particles.

CytoFLEX CytExpert Software

CytExpert software allows visualization of data acquisition and data analysis modules.

- Start sample acquisition in 3 mouse clicks or less.
- Industry standard FCS 3.0 file format supports the use of third party software.
- Full matrix fluorescence compensation supports both automatic compensation and manual compensation.
- Unique Compensation Library lets users store and retrieve a repository of compensation spillover values of dyes.
- Free fully featured analysis software featuring time saving analysis functions.

Workstation		Status	Part #
CytoFlex Workstation	1 unit	RUO	Please call
Accessories		Status	Part #
Waste Sensor kits	with bottle	nMD	A04-1-0031
Peek tube kits	with flow cell needle	nMD	A04-1-0033
Sample needles		nMD	A04-1-0034
Sheath bottle kits		nMD	A04-1-0036
Waste bottle kits		nMD	A04-1-0037
Cleaning bottle kits		nMD	A04-1-0038
Pump tube kits	sample pump	nMD	A04-1-0048
Sheath Sensor kits	with bottle	nMD	A04-1-0030



INSTRUMENTATION

Instruments and Software

Consumables		Status	Part #
Contrad 70 Cleaning Solution		nMD	81911
CytoFLEX Sheath Fluid		RUO	B51503
CytoFLEX Daily QC Fluorospheres		RUO	B53230
Configuration		Status	Part #
CytoFlex System B2-R0-V2	488nm, 405nm; 6 parameters	RUO	B53017
CytoFlex System B2-R2-V0	488nm, 638nm; 6 parameters	RUO	B53016
CytoFlex System B3-R0-V3	488nm, 405nm; 8 parameters	RUO	B53012
CytoFlex System B3-R1-V0	488nm, 638nm; 6 parameters	RUO	B53015
CytoFlex System B3-R2-V0	488nm, 638nm; 7 parameters	RUO	B53014
CytoFlex System B3-R2-V2	488nm, 638nm, 405nm; 9 parameters	RUO	B53010
CytoFlex System B3-R3-V0	488nm, 638nm; 8 parameters	RUO	B53011
CytoFlex System B3-R3-V2	488nm, 638nm, 405nm; 10 parameters	RUO	B53009
CytoFlex System B3-R3-V3	488nm, 638nm, 405nm; 11 parameters	RUO	B53007
CytoFlex System B3-R3-V5	488nm, 638nm, 405nm; 13 parameters	RUO	B53004
CytoFlex System B4-R0-V0	488nm; 6 parameters	RUO	B53019
CytoFlex System B4-R2-V0	488nm, 638nm; 8 parameters	RUO	B53013
CytoFlex System B4-R3-V2	488nm, 638nm, 405nm; 11 parameters	RUO	B53008
CytoFlex System B4-R3-V3	488nm, 638nm, 405nm; 12 parameters	RUO	B53006
CytoFlex System B4-R3-V4	488nm, 638nm, 405nm; 13 parameters	RUO	B53003
CytoFlex System B4-R3-V5	488nm, 638nm, 405nm; 14 parameters	RUO	B53002
CytoFlex System B5-R0-V0	488nm; 7 parameters	RUO	B53018
CytoFlex System B5-R0-V5	488nm, 405nm; 12 parameters	RUO	B53037
CytoFlex System B5-R3-V2	488nm, 638nm, 405nm; 12 parameters	RUO	B53005
CytoFlex System B5-R3-V4	488nm, 638nm, 405nm; 14 parameters	RUO	B53001
CytoFlex System B5-R3-V5	488nm, 638nm, 405nm; 15 parameters	RUO	B53000
Filter modules		Status	Part #
510nm Bandpass module kits	BP 510/20 GFP	nMD	B76128
550nm Bandpass module kits	BP 550/30 YFP	nMD	B76139
595nm Bandpass module kits	BP 595/20 DsRed	nMD	B76117
585nm Bandpass module kits	BP 585/15 BV570 and dTomato	nMD	B76121
NUV 661nm Bandpass module kits	BP 675/30 BUV 661 and HO Red	nMD	B77545
NUV 737nm Bandpass module kits	BP 740/35 BUV 737	nMD	B78217
NUV 805nm Bandpass module kits	BP 819/44 BUV 805	nMD	B78220
405nm Bandpass module kits	BP 405	nMD	A01-1-0048
450nm Bandpass module kits	BP 450/45 Pacific Blue	nMD	A01-1-0049
488nm Bandpass module kits	BP 488	nMD	A01-1-0050
525nm Bandpass module kits	BP 525/40 Krome Orange	nMD	A01-1-0051
585nm Bandpass module kits	BP 585/42 PE	nMD	A01-1-0052
610nm Bandpass module kits	BP 610/20 ECD/mCherry	nMD	A01-1-0053
638nm Bandpass module kits	BP 638	nMD	A01-1-0054
660nm Bandpass module kits	BP 660/20 Violet 660	nMD	A01-1-0055
690nm Bandpass module kits	BP 690/50 PV5.5	nMD	A01-1-0056
712nm Bandpass module kits	BP 712/25 APC-A700	nMD	A01-1-0057
780nm Bandpass module kits	BP 780/60 APC-A750	nMD	A01-1-0058
NUV 496nm Bandpass module kits	BP 525/40 BUV 496	nMD	A01-1-0031





INSTRUMENTATION

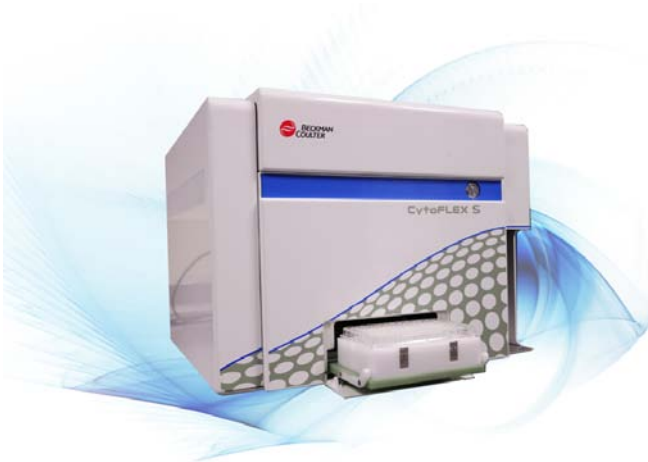
Instruments and Software

FLOW CYTOMETER

ANALYZER

CytoFLEX S System

CLASS IIASER



The CytoFLEX S system brings you sensitive detection capability, for up to 4 lasers and 13 color research flow applications. The CytoFLEX S system provides additional choice of the 561nm and 375nm lasers. CytoFLEX S system delivers powerful detection capability and resolution for simple fluorescent protein expression detection, to challenging multi parameter applications. CytoFLEX S surpasses capabilities expected in top tier analyzers, with excellent sensitivity and nanoparticle resolution. The proprietary beam shaping optical bench design, includes an innovative flow cell with integrated optics. The revolutionary fiber array (APD) avalanche photo diode detection system, collects the optimal emission light signals, while minimizing light loss and maximizing detection capability. Proprietary Dual Port Wavelength Division Multiplexing (WDM) detection module with solid-state, high efficiency, low-noise (APD) detectors for a flexible detection system allows for easy setup of band pass filters for a variety of research applications.

CytExpert software empowers both novice and experienced researchers to learn and operate the system quickly. High color applications are fully supported with auto compensation set-up. Simplified system setup, data acquisition, analysis, compensation and export of experimental results are integrated into a complete workflow solution.

CytoFLEX S Instrument

Up to 4 Lasers Excitation and Superior Detection Sensitivity in a small footprint, for simple and multicolor analysis.

Configuration Choices

- 8 configurations to easily adapt to your application Needs
- Choose up to (4) lasers from the following options: 375nm, 405nm, 488nm, 638nm and 561nm

Design

- Compact size 42.5 x 42.5 x 34cm (16.7 x 16.7 x 13.4in) with Tank/Holder 14 x 35.6 x 43.4cm (5.5 x 14.0 x 17.1in)
- Accepts 5mL (12 x 75mm) polystyrene and polypropylene and micro centrifuge 1.5mL and 2mL formats.
- User installable
- Fixed optical alignment, no requirement for adjustment of optical system.

Fluidics

- Adjustable sample flow rates between 10 μ L and 240 μ L per minute
- Sample volumes as low as 10 μ L
- Calibrated volumetric sample volume delivery, suitable for absolute cell counts.

Detection capability & Resolution

- Exceptional detection capability: <30 MESF-FITC, <10 MESF PE
- Provides 7 decades of resolution, 16,777,216 channels and an event collection rate of (30,000 events/sec).
- Innovative, proprietary Wavelength Division Multiplexing (WDM) detection module; Dual Port WDM Modules
- Proprietary flow cell design with integrated optics increases sensitivity and multiple wavelength detection capability
- Fully integrated optical module design, with flow cell and patented Axial Light Loss (ALL) forward scatter for greater stability and detection capability.
- Collection of side scatter vSSC from 405nm laser excitation for enhanced nanoparticle detection (0.2 μ m)
- Acquire SSC simultaneously from both 488nm and 405nm for flexibility to detect a variety of particles

CytoFLEX CytExpert Software

CytExpert software allows visualization of data acquisition and data analysis modules.

- Start sample acquisition in 3 mouse clicks or less.
- Industry standard FCS 3.0 file format supports the use of third party software.
- Full matrix fluorescence compensation supports both automatic compensation and manual compensation
- Unique Compensation Library lets users store and retrieve a repository of compensation spillover values of dyes
- Free fully featured analysis software featuring time saving analysis functions

Workstation	Status	Part #
CytoFlex S Workstation	RUO	Please call

Consumables	Status	Part #
CytoFLEX Sheath Fluid	RUO	B51503
CytoFLEX Daily QC Fluorospheres	RUO	B53230
Conrad 70 Cleaning Solution	nMD	81911



INSTRUMENTATION

Instruments and Software

Configuration		Status	Part #
CytoFlex S System B2-R0-V0-Y4	488nm, 561nm; 8 parameters	RUO	B75812
CytoFlex S System B2-R3-V0-Y4	488nm, 638nm, 561nm; 11 parameters	RUO	B75811
CytoFlex S System B2-R3-V4-Y4	488nm, 638nm, 405nm, 561nm; 15 parameters	RUO	B75408
CytoFlex S System B4-R0-V0-Y0-NUV2	488nm, 375nm; 8 parameters	RUO	B78558
CytoFlex S System B2-R0-V0-Y4-NUV2	488nm, 561nm, 376nm; 10 parameters	RUO	B78561
CytoFlex S System B5-R3-V0-Y0-NUV2	488nm, 638nm, 375nm; 12 parameters	RUO	B78559
CytoFlex S System B2-R0-V4-Y4-NUV2	488nm, 405nm, 561nm, 376nm; 14 parameters	RUO	B78560
CytoFlex S System B5-R3-V3-Y0-NUV2	488nm, 638nm, 405nm, 376nm; 15 parameters	RUO	B78557

Filter modules		Status	Part #
510nm Bandpass module kits	BP 510/20 GFP	nMD	B76128
515nm Bandpass module kits	BP 515/20 eGFP	nMD	B76124
550nm Bandpass module kits	BP 550/30 YFP	nMD	B76139
595nm Bandpass module kits	BP 595/20 DsRed	nMD	B76117
585nm Bandpass module kits	BP 585/15 BV570 and dTomato	nMD	B76121
NUV 661nm Bandpass module kits	BP 675/30 BUV 661 and HO Red	nMD	B77545
NUV 737nm Bandpass module kits	BP 740/35 BUV 737	nMD	B78217
NUV 805nm Bandpass module kits	BP 819/44 BUV 805	nMD	B78220
405nm Bandpass module kits	BP 405	nMD	A01-1-0048
450nm Bandpass module kits	BP 450/45 Pacific Blue	nMD	A01-1-0049
488nm Bandpass module kits	BP 488	nMD	A01-1-0050
525nm Bandpass module kits	BP 525/40 Krome Orange	nMD	A01-1-0051
585nm Bandpass module kits	BP 585/42 PE	nMD	A01-1-0052
610nm Bandpass module kits	BP 610/20 ECD/mCheery	nMD	A01-1-0053
638nm Bandpass module kits	BP 638	nMD	A01-1-0054
660nm Bandpass module kits	BP 660/20 Violet 660	nMD	A01-1-0055
690nm Bandpass module kits	BP 690/50 PV5.5	nMD	A01-1-0056
712nm Bandpass module kits	BP 712/25 APC-A700	nMD	A01-1-0057
780nm Bandpass module kits	BP 780/60 APC-A750	nMD	A01-1-0058
NUV 496nm Bandpass module kits	BP 525/40 BUV 496	nMD	A01-1-0031

Accessories		Status	Part #
Waste Sensor kits	with bottle	nMD	A04-1-0031
Peek tube kits	with flow cell needle	nMD	A04-1-0033
Sample needles		nMD	A04-1-0034
Sheath bottle kits		nMD	A04-1-0036
Waste bottle kits		nMD	A04-1-0037
Cleaning bottle kits		nMD	A04-1-0038
Pump tube kits	sample pump	nMD	A04-1-0048
Sheath Sensor kits	with bottle	nMD	A04-1-0030





INSTRUMENTATION

Instruments and Software

FLOW CYTOMETER

ANALYZER

Navios Flow Cytometer

CLASS IIASER



The Navios flow cytometer provides high sensitivity and resolution as well as a wide dynamic range to run high complexity, multi-color analyses on both clinical and clinical research samples. The Navios can be configured as either a two-laser system providing six- or eight-color detection, or as a three-laser system offering up to 10-color analysis*. The instrument can be upgraded to adapt as clinical assays and clinical research applications become more complex.

A new optical design optimizes light collection for superior analysis of dim particles and identification of rare-event populations. Innovative picomotor-driven beam steering optics facilitate fine adjustments of laser position from instrument-based controls. The Navios' acquisition speed of up to 25,000 events per second combines with a low data abort rate to improve data collection efficiency, lower sample volume requirements and reduce reagent consumption. Additionally, the 20-bit digital electronics and 40-MHz pulse sampling deliver low-end sensitivity and resolution.

Tubes in the instrument's 32-position carousel are vortexed individually, which both ensures sample homogeneity and avoids over-mixing. Automated barcode reading provides verification of carousel number, position and tube label for true positive sample identification. Navios data files also contain cytometer settings, plots, gates and regions, providing a complete record of sample analysis.

Navios flow cytometers interface with Beckman Coulter automation systems to provide secure, high-throughput results, even at the highest volumes. The instruments are LIS-ready, and in conjunction with Beckman Coulter's automated preparation systems and Data Innovations middleware, can provide a complete sample-in/result-out solution for clinical labs.

* CE marked for 10-color in-vitro diagnostic use. In the U.S., Navios is intended for use as an in-vitro diagnostic device for immunophenotyping with Navios tetra software and CYTOSTAT tetraCHROME reagents. All other uses are for research use only.

Optics

Lasers/Power Output

- Blue Solid State Diode, 488 nm, 22 mW
- Red Solid State Diode, 638 nm, 25 mW
- Violet Solid State Diode, 405 nm, 40 mW
- 125 µm spatially separated beam spots

Flow Cell

- 150 x 460 µm quartz, gel coupled 1.2 NA lens

Fluorescence Delivery

- Highly efficient multi-mode fiber optics to maximize light delivery
- Easy interchangeable 18-degree tilted optical filters

Detectors

- Forward Scatter: Fourier design providing up to three measurements of forward angle
- Side Scatter: Independently focused high performance photodiode with electronic attenuation
- Fluorescence: FL1-FL10 Fluorescent Detectors

Sample Processing

- Three selectable flow rates
- 32 tube Multi Carousel Loader or single tube mode
- Automated or manual worklist acquisition
- True Positive ID
- Biohazard contained workstation

Signal Processing

- Dynamic range: 20-bit data acquisition
- Workstation resolution: 1,048,576 channels
- Digital sampling rate: 40 MHz
- Digital accuracy: < 5% error

Performance Characteristics

- Throughput: Up to 80 tubes/hour at 10,000 events per second
- Scatter resolution: Resolves 0.404 µm diameter particles from background noise using forward scatter with maximum detection of up to 40 µm diameter particles

Instrument	Status	Part #
Navios 6 colors, 2 lasers (5+ 1 configuration)	IVD & CE	B47903
Navios 8 colors, 2 lasers (5+ 3 configuration)	IVD & CE	B47904
Navios 10 colors, 3 lasers (5+ 3+ 2 configuration)	IVD & CE	B47905



INSTRUMENTATION

Instruments and Software

Software	Status	Part #
Navios tetra Software	IVD & CE	775213
Navios Win 7 Workstation and SW Upgrade	IVD & CE	B47899

Optional Data Innovations products	Status	Part #
Data Innovations Instrument Manager Software, Licenses and Service	nMD	Please call
Data Innovations Additional Connection, Licence and Service	nMD	Please call
Data Innovations Hardware Computer System	nMD	B35622



INSTRUMENTATION

Instruments and Software

FLOW CYTOMETER

ANALYZER

Navios EX Flow Cytometer

CLASS IASER



The Navios EX flow cytometer is built on the successful Navios platform but includes a new optical bench and enhanced functionality. The Navios EX can be configured as either a two-laser system providing six- or eight-color detection, or as a three-laser system offering up to 10-color analysis*. The instrument can be upgraded to adapt as clinical assays and clinical research applications become more complex.

The Navios EX has updated acquisition software and leverages the optical design from our CytoFLEX platform for optimal performance. With an acquisition speed of up to 25,000 events per second combined with a low data abort rate the Navios EX improves data collection efficiency and lowers sample volume requirements.. The new adjustable probe and improved minimum dead volume maximize precious samples. Additionally, the 20-bit digital electronics and 40-MHz pulse sampling deliver low-end sensitivity and resolution.

Tubes in the instrument's 32-position carousel are vortexed individually, which both ensures sample homogeneity and avoids over-mixing. Automated barcode reading provides verification of carousel number, position and tube label for true positive sample identification. Navios EX data files also contain cytometer settings, plots, gates and regions, providing a complete record of sample analysis.

Navios EX flow cytometers interface with Beckman Coulter automation systems to provide secure, high-throughput results, even at the highest volumes. The instruments are LIS-ready, and in conjunction with Beckman Coulter's automated preparation systems and Data Innovations middleware, can provide a complete sample-in/result-out solution for clinical labs.

* CE-IVD marked for 6, 8 or 10-color in-vitro diagnostic use. Not available in US (pending 510(k) clearance).

Optics

Lasers/Power Output

- Blue Solid State Diode, 488 nm, 55 mW
- Red Solid State Diode, 638 nm, 50 mW
- Violet Solid State Diode, 405 nm, 80 mW
- Nominal 90 µm spatially separated beam spots

Flow Cell

- 430 µm x 180 µm rectangular channel

Fluorescence Delivery

- Highly efficient multi-mode fiber optics to maximize light delivery
- Easy interchangeable 18-degree tilted optical filters

Detectors

- Forward Scatter: Fourier design providing up to three measurements of forward angle
- Side Scatter: Independently focused high performance photodiode with electronic attenuation
- Fluorescence: FL1-FL10 Fluorescent Detectors

Sample Processing

- Three selectable flow rates
- 32 tube Multi Carousel Loader or single tube mode
- Dead volume as low as 2 µL when using Beckman Coulter 12 x 75 mm polypropylene tube and adjustable probe
- Automated or manual worklist acquisition
- True Positive ID
- Biohazard contained workstation

Signal Processing

- Dynamic range: 20-bit data acquisition
- Workstation resolution: 1,048,576 channels
- Digital sampling rate: 40 MHz
- Digital accuracy: < 5% error

Performance Characteristics

- Throughput: Up to 82 tubes/hour at 10,000 events per second; 89 tubes/hour for a concentrated sample
- Scatter resolution: Resolves 0.404 µm diameter particles from background noise using forward scatter with maximum detection of up to 40 µm diameter particles

Instrument	Status	Part #
Navios EX 6 colors, 2 lasers (5+ 1 configuration)	CE	B86735
Navios EX 8 colors, 2 lasers (5+ 3 configuration)	CE	B86672
Navios EX 10 colors, 3 lasers (5+ 3+ 2 configuration)	CE	B83535



INSTRUMENTATION

Instruments and Software

Software	Status	Part #
Navios EX offline Acquisition 1 User Software, v2.0		B91238
Navios EX Offline Acquisition 5 User Software, v2.0	CE	B91239
Navios EX Win 7 Workstation		B80220
Navios EX tetra Software		B91240

Optional Data Innovations products	Status	Part #
Data Innovations Hardware Computer System	nMD	B35622
Data Innovations Instrument Manager Software, Licenses and Service	nMD	Please call
Data Innovations Additional Connection, Licence and Service	nMD	Please call



INSTRUMENTATION

Instruments and Software

FLOW CYTOMETER

ANALYZER

Gallios Flow Cytometer

CLASS II LASER



Designed to fit your needs, today and tomorrow, the Gallios flow cytometer provides efficient acquisition of superior quality data from up to 12 parameters with advanced optical design for enhanced sensitivity for multicolor assays. With customized forward scatter, to achieve the most accurate size measurement, and optimized electronics for high resolution and fast, accurate processing, the Gallios was designed for your research needs. Gallios is optimized for unparalleled signal to noise resolution in all parameters and its quick and easy setup of automated walk-away processing improves your workflow while its remote diagnostics minimize downtime and allows you to maximize lab productivity.

Developed for the research and biopharmaceutical markets, with a particular emphasis on optical and electronics design, combined with powerful automation and software tools, the Gallios enhances the efficiency and analytical capabilities of flow cytometry laboratories. Electronics provide accurate and efficient digital signal processing at high event rates over a wide dynamic range of fluorescence intensities. These benefits are packaged in a compact analyzer that delivers stable performance over long periods of time and across a wide range of operating temperatures.

With Kaluza Software for Gallios you can power through data sets containing multiple colors, plots and events with speed and precision. The result: your flow cytometry research can find that extra gear to get you to your objective sooner.

Optics

Lasers/Power Output

- Blue Solid State Diode, 488 nm, 22 mW
- Red Solid State Diode, 638 nm, 25 mW
- Violet Solid State Diode, 405 nm, 40 mW
- 125 μ m spatially separated beam spots
- Optional 561 nm Yellow Solid State Laser, 20 mW

Flow Cell

- 150 x 460 μ m quartz, gel coupled 1.2 NA lens

Fluorescence Delivery

- Highly efficient multi-mode fiber optics to maximize light delivery
- Easy interchangeable 18-degree tilted optical filters

Detectors

- Forward Scatter: Fourier design providing up to three measurements of forward angle
- Side Scatter: Independently focused high performance photodiode with electronic attenuation
- Fluorescence: FL1-FL10 Fluorescent Detectors

Sample Processing

- Three selectable flow rates
- 32 tube Multi Carousel Loader or single tube mode
- Automated or manual worklist acquisition
- True Positive ID
- Biohazard contained workstation

Signal Processing

- Dynamic range: 20-bit data acquisition
- Workstation resolution: 1,048,576 channels
- Digital sampling rate: 40 MHz
- Digital accuracy: < 5% error

Performance Characteristics

- Throughput: Up to 80 tubes/hour at 10,000 events per second
- Scatter resolution: Resolves 0.404 μ m diameter particles from background noise using forward scatter with maximum detection of up to 40 μ m diameter particles

Models	Status	Part #
Gallios 6 colors, 2 lasers (5+1 configuration)	RUO	B47900
Gallios 8 colors, 2 lasers (5+3 configuration) (561 nm laser ready) with Kaluza Acquisition Software	RUO	B43619
Gallios 10 colors, 3 lasers (5+3+2 configuration) (561 nm laser ready) with Kaluza Acquisition Software	RUO	B43618

Workstation	Status	Part #
Gallios Windows 7 Workstation and SW Upgrade	RUO	B47898
Kaluza Acquisition Upgrade Package	RUO	B43734
Kaluza Acquisition Upgrade Package Minus Monitor	RUO	B43735



INSTRUMENTATION

Instruments and Software

Option	Status	Part #
561nm Laser	RUO	B01751

Software	Status	Part #
Kaluza Software Kit Single User, Perpetual	RUO	A82959
Kaluza Software Kit 5 User Network	RUO	A84175
Kaluza Software Kit 10 User Network	RUO	A82961
Kaluza Software Kit 1 year Single User renewable license	RUO	A84174
Kaluza Software Kit Single User Perpetual Educational License	RUO	B16406
Kaluza Software Kit 1 year Single User Educational License	RUO	B16407
Kaluza Software Kit 5 User Network Educational License	RUO	B16408
Kaluza Software Kit 10 User Network Educational License	RUO	B16409
Kaluza Controller	RUO	B43666
Kaluza Monitor	RUO	B43609



INSTRUMENTATION

Instruments and Software

FLOW CYTOMETER

ANALYZER

FC 500 Series Flow Cytometry Systems

CLASS II LASER



FC 500 with Carousel loader and CXP software

Automated quality control monitoring

To comply with the rigors of the routine flow cytometry laboratory, CXP software provides automatic daily monitoring of system performance, simplifying daily quality control recording. Built in Levy-Jennings plots are updated with each QC run for constant quality monitoring. The integrated product log keeps track of lot numbers and expiration dates helping with compliance for regulated laboratories.

Multi-file analysis software

Data files produced by the FC 500 Flow Cytometer contain complex biological information. Review of the data offline to acquisition is an important process. The CXP software provides powerful tools that offer flexibility and automation in data analysis. It is possible to analyze multiple files concurrently or on one desktop to glean as much information as possible from an experiment or patient sample. Overlay histograms can be created to visualize small changes in populations together with three dimensional plots to analyze interacting parameters. All of which can be processed manually or in batch mode.

Customized panel reporting

Available within CXP software to tailor reports to groups of assays. Each report can include both user selected statistics as well as plots from the panel. Output can be made via a printed page or electronic PDF documents to easily e-mail to offsite laboratories.

The FC 500 Series delivers flexible testing, powerful software and a user-friendly interface; features that help both clinical and basic researchers optimize their overall workflow.

The systems have the capacity to conduct 5-color analysis using either a single (488nm) laser or a dual (488nm/635nm) air-cooled laser configuration. Coupled with the ability to perform tube or plate based automated analysis, the FC 500 Series improves efficiency by enabling users to easily manage and automate every aspect of their flow cytometric analysis.

The FC 500 incorporates Beckman Coulter's ADC technology, the most advanced method of color compensation available. Combined with high resolution acquisition electronics, its proven algorithm provides superior correction of spectral overlap for more accurate results. With ADC technology, biological samples can be used for automated color compensation, without the limitations of latex beads.

20-bit Digital Signal Processing (DSP) on the system is responsible for excellent linearity, drift-free amplification and accurate color compensation. High resolution color compensation is available during acquisition and in Listmode analysis, increasing the flexibility of the system.

Both optical and digital systems work together to yield unrivalled visualization of low intensity fluorescence populations.

FC 500 MPL with MXP software

Accepts a variety of microtiter plates and 12 x 75 mm tubes.

MXP's 21 CFR part 11 tools

Provide the most complete set of optional tools to facilitate compliance for regulated flow cytometry laboratories, giving the maximum protection of data integrity and version tracking. Sub systems such as inactivity timeouts and attempted failure prevention allow only those with verified access rights to gain entry to the software. This combined with E signatures and the Audit Trail tracking of produced Microsoft* Excel files protects output from the system.

MXP's plate wizard

Improves usability and simplifies plate setup, allowing the user to rapidly create worklists for plate based analysis including multi-well panel, protocol and sample ID assignments. For flexible choices of sample types simply select sample volume and mix requirements, then store plate parameters for rapid retrieval.

Automated analysis tools for bead based assays

Multiplexed ELISA assays utilizing Micro-beads are now a common application in flow cytometry. Software modules built into the MXP software enable the FC 500 MPL to carry out these assays with ease. Data from acquisition is automatically exported to Microsoft Excel then analyzed using specifically designed MPL analysis macros. Well plot graphs display well data on a macro level enabling easy visualization of "hits" on an assay by assay basis. Also included is the automatic generation of standard curves for determination of analyte concentration.

Instruments	Status	Part #
FC 500 with Carousel Loader and CXP Software	IVD & CE	Please call
FC 500 MPL with MXP Software	IVD & CE	Please call
Workstation	Status	Part #
Offline Analysis Workstation	nMD	B22394



INSTRUMENTATION

Instruments and Software

Accessories	Status	Part #
Sample Tubes	nMD	2523749
Red Diode Laser Upgrade	nMD	623101
tetraCXP SYSTEM Software	IVD & CE	Please call
stemCXP SYSTEM Software	IVD & CE	Please call
CXP Analysis Software Packages	nMD	Please call
Optional Data Innovations products	Status	Part #
Data Innovations Instrument Manager Software, Licenses and Service	nMD	Please call
Data Innovations Additional Connection, Licence and Service	nMD	Please call
Data Innovations Hardware Computer System	nMD	B35622
Window 7 Upgrades	Status	Part #
CXP Analysis Software 2.2 Single User License	nMD	B27031
CXP Analysis Software 2.2 Three User License	nMD	B27032
CXP Analysis Software 2.2 Five User License	nMD	B27033
WIN 7 Upgrade Kit (Computer, CXP 2.2, 22" Monitor)	nMD	B28946
CyAn ADP Windows 7 Upgrade	RUO	Please call
Optional 22" LCD Monitor	nMD	A56136



INSTRUMENTATION

Instruments and Software

FLOW CYTOMETER

LOAD & GO SYSTEM

AQUIOS CL Flow Cytometer

CLASS IASER



Aquios CL is the first true Load & Go flow cytometer. It is easy to learn, easy to use, ideal for cross-training your lab staff, and represents a breakthrough solution to the most basic operational challenges of flow cytometry. With Aquios CL in your lab, Load & Go simplicity means you can...

- Provide a 24/7 flow cytometry service as the Aquios CL can be run safely by minimally trained users.
- Minimize the potential for user error inherent in existing systems that require numerous manual steps to set up and run.
- Increase productivity with high-throughput performance that eliminates many of the least efficient features of existing systems.
- Minimize hands-on time with a fully integrated system that incorporates automated loading, sample preparation, reagent management, barcode scanning, data analysis, and full LIS connectivity.
- Get system users up to speed in one day with computer-based training and an application specialist site visit.
- Allocate staff resources for maximum productivity, putting your skilled operators where you need them most.
- Minimize exposure to potentially biohazardous material. The Aquios CL uses cap piercing technology which will greatly reduce your need to handle open blood tubes.

The Aquios CL Flow cytometer in combination with Aquios Tetra-1 Panel has been accepted for the WHO list of prequalified in vitro diagnostic products.

Full Bidirectional LIS Connectivity

- Automatic retrieval of test requests and transmission of test results
- No need for additional workstations or software to connect to the LIS System
- No need to create or download worklists manually

Automated System Setup

- Preprogrammed protocols per application
- No daily setup reagents required
- No manual system or controls optimization
- Power on, system warmup, load controls, load samples – that's it!

Smart Track Reagent Monitoring

- Uses a range of barcoded reagents and consumables
- Automatic barcode scanning to track those reagents, lot numbers, open and closed vial expiration dates, and number of tests or volume per reagent container
- Continuous tracking of reagent usage
- Automatic reagent monitoring including the number of tests remaining and warnings when tracked reagents are low, out or expired

Cassette Autoloader

- Total capacity 40 sample tubes
- Accommodates a variety of tube sizes
- Continuous, random loading and unloading
- Separate single-tube loader for STAT samples, open vials, and tubes that are not barcoded

Automated Sample Preparation

- Automatic matching of sample identification code with the test request
- All sample preparation and analysis performed in 96-well microplates
- Automatic launch of applicable testing protocol
- Positive specimen ID and automatic specimen mixing immediately prior to aspiration
- Automatic dispensing and mixing of applicable reagents
- No manual pipetting of primary tubes

Pipeline Sample Processing

- Eliminate slow, inefficient batch processing of samples
- 20 minutes to the first result after sample load (measured with Tetra-1 or Tetra-2+)
- After the first result, it's 25 results/hour for up to one full 96-well plate (measured with Tetra Combo)
- Two multitasking probes: one for cap piercing and sample preparation, the other for aspirating prepared samples for analysis
- Each sample is analyzed as soon as it is ready
- Intelligent analysis algorithm sets all gates and regions automatically
- System flags samples that don't meet autovalidation criteria

Real Time Sample Monitoring

- Intuitive software interface indicates the status of each sample
- Know at a glance where each sample is in the process and how much time until results are available

Comprehensive Quality Control

- Barcode tracking means no manual QC or reagent logs
- Generate a full, easily reviewable audit trail that includes reagent traceability
- Should QC fail, operator can be alerted via text message or email

Aquios CL System Specifications:

Dimensions:

System: W: 32" (82cm); D: 22" (56cm); H: 22" (56cm)
 Workstation: W: 23" (59cm); D: 5" (13cm); H: 18" (46cm)
 Supply Cart: W: 21" (54cm); D: 18" (46cm); H: 16" (41cm)

Sample Loading

Autoloader holds up to 8 cassettes at a time with up to 5 sample tubes each and allows for continuous loading and unloading. A separate single-tube loader enables both open- and closed-vial sampling.

Instrument	Status	Part #
AQUIOS CL (220-240v)	IVD & CE	B39102
AQUIOS CL (100-120v)	IVD & CE	B39101



INSTRUMENTATION

Instruments and Software

Option	Status	Part #
AQUIOS Stand-Alone Workstation with Software The AQUIOS Standalone Workstation with preloaded AQUIOS system software is an all-in-one computer system with a 23 inch touch display and wireless mouse and keyboard. The Workstation can be enabled remotely (via network), such as in a nearby office or on a bench top that is not adjacent to the instrument. The Workstation has an Intel Core I7 Processor, 3.2 GHZ, 8GB RAM and includes Microsoft Windows 7 Professional Edition 64-bit and Microsoft Excel 2013 32B/x64 for professional use	nMD	B49616
Color Laser Printer Lexmark color laser printer (C746N), 120v for high-quality color printing and reliable performance. Easy-to-use features and solutions increase efficiency. For compatible color laser printers in other regions, please contact your Beckman Coulter representative.	nMD	B31892
Reagents	Status	Part #
AQUIOS Tetra-1 Panel 50 tests AQUIOS Tetra-1 Panel Monoclonal Antibody Reagents is a four-color monoclonal antibody cocktail consisting of CD45-FITC/CD4-RD1/CD8-ECD/CD3-PC5, and is used in the identification and enumeration of total CD3+, CD3+CD4+, CD3+CD8+, CD3+CD4+/CD3+CD8+ (ratio only) lymphocyte percentages and absolute counts in peripheral whole blood, plus the CD45+ absolute count and CD45+ Low SS (lymphocytes) percentage and absolute count. The formulation is optimized for high performance on the AQUIOS Flow Cytometer system: no experimenting, mixing or other pre-analysis work is necessary. The AQUIOS Tetra-1 Panel is ready to use. AQUIOS monoclonal reagent vials are cap pierceable so there is no need to uncap and recap the vials every day. The vials are barcoded, which allows the user to load the vials in any random position. LOAD the vial in the carousel onboard the system, and GO. The system does the rest. High volume laboratories may load multiple vials in the reagent carousel and the system will automatically detect their presence and move from one vial to the next as needed	IVD & CE	B23533
AQUIOS Tetra-2+ Panel 50 tests AQUIOS Tetra-2+ Panel Monoclonal Antibody Reagents is a four-color monoclonal antibody cocktail consisting of CD45-FITC/(CD56 + CD16)-RD1/CD19-ECD/CD3-PC5, and is used in the identification and enumeration of total CD3+, CD3-CD19+, CD3-CD56+ and/or CD16+ lymphocyte percentages and absolute counts in peripheral whole blood, plus the CD45+ absolute count and CD45+ Low SS (lymphocytes) percentage and absolute count. The formulation is optimized for high performance on the AQUIOS Flow Cytometer system: no experimenting, mixing or other pre-analysis work is necessary. The AQUIOS Tetra-2+ Panel is ready to use. AQUIOS monoclonal reagent vials are cap pierceable so there is no need to uncap and recap the vials every day. The vials are barcoded, which allows the user to load the vials in any random position. LOAD the vial in the carousel onboard the system, and GO. The system does the rest. High volume laboratories may load multiple vials in the reagent carousel and the system will automatically detect their presence and move from one vial to the next as needed.	IVD & CE	B23534
AQUIOS Lysing Reagent Kit 100 tests AQUIOS Lysing Reagent Kit consists of two reagents (Reagent A and Reagent B) used by AQUIOS flow cytometers to prepare whole blood samples for analysis of white blood cells. Reagent A lyses red blood cells in whole blood samples sufficiently to perform monoclonal antibody panel analysis without interference from red blood cells. Reagent B slows the lysing reaction sufficiently to allow analysis without damage to white blood cells. The lysing reagents are placed onboard the system and are barcoded, which allows the system to detect their presence and position. High volume users can load multiple containers and the system will automatically move from one container to the next as needed.	IVD & CE	B23538
AQUIOS IMMUNO-TROL Cells 2 x 3 mL AQUIOS IMMUNO-TROL Cells is an assayed, lysable whole blood quality control product for immunophenotyping analysis using monoclonal antibody reagents and flow cytometry. It provides a positive cell control that is processed in the same manner as a whole blood sample. This allows verification of instrument and reagent performance. It also verifies the methods used for staining targeted cells, the lysing of erythrocytes, and the analysis of samples by the AQUIOS CL Flow Cytometer. When using Tetra-1 Panel or Tetra-2+ Panel tests, there are 15 tests per tube. When using the Tetra Combo, there are 10 tests per tube.	IVD & CE	B23535
AQUIOS IMMUNO-TROL Low Cells 2 x 3 mL AQUIOS IMMUNO-TROL Low Cells is an assayed, lysable whole blood quality control product for immunophenotyping analysis using monoclonal antibody reagents and flow cytometry. It provides a positive cell control that is processed in the same manner as a whole blood sample. This allows verification of instrument and reagent performance. It also verifies the methods used for staining targeted cells, the lysing of erythrocytes, and the analysis of samples by the AQUIOS CL Flow Cytometer. When using Tetra-1 Panel or Tetra-2+ Panel tests, there are 15 tests per tube. When using the Tetra Combo, there are 10 tests per tube.	IVD & CE	B25700
AQUIOS Sheath Solution 10 L AQUIOS Sheath Solution is a non-fluorescent, azide free balanced electrolyte solution for use on AQUIOS flow cytometers with light scatter and fluorescent applications. The AQUIOS Sheath Solution is manufactured for low particulate and fluorescence background to ensure superior signal to noise ratio measurements during the analysis process.	IVD & CE	B25697
AQUIOS Cleaning Agent 500 mL A cleaning agent for use on the AQUIOS flow cytometer components that come in contact with blood samples. This azide-free, formaldehyde-free, biodegradable cleaner contains a proteolytic enzyme that aids in the removal of protein buildup in the fluidics system and flow cell of a flow cytometer. The Cleaning Agent resides onboard the instrument and is used in automatic cleaning cycles.	IVD & CE	B25698
AQUIOS Sodium Hypochlorite Solution 4 x 50 mL AQUIOS Sodium Hypochlorite Solution is a cleaning agent used as part of an AQUIOS flow cytometer system. The solution maintains AQUIOS instruments in optimal condition. Sodium Hypochlorite reacts with protein buildup in the instrument. It is used as a preventative measure for optimal system operation as well as for corrective measures.	IVD & CE	B23536
Accessories	Status	Part #
AQUIOS Deep Well Plate 50 plates/case The AQUIOS Deep Well Plate is a 96-well, conical bottom microplate that optimizes the sample preparation process in the AQUIOS system. The plate is a high quality deep well type, made of virgin polypropylene. Each Deep Well Plate has a unique barcode that is automatically read when placed onboard the system. This enables the system to track sample locations. For Cassettes and other accessories, see the Instrument Accessories section	nMD	B23502



INSTRUMENTATION

Instruments and Software

FLOW CYTOMETER

CELL SORTER

MoFlo Astrios EQ Sorter Family

CLASS IIASER



Simplify your most complex sorting tasks with Beckman Coulter's MoFlo Astrios sorter family, offering six-way jet-in-air proficiency that delivers powerful capability while reducing complexity. It's easy, intuitive, and flexible—and lets you see what others cannot.

Leveraging the historically stable fluidic and electronic design of the original MoFlo Astrios - the new flagship MoFlo Astrios EQs and extended EQ sorters expand sorting capability with not only a broad full palette choice of laser options and 6-way sort capability but also adding a unique patent pending enhanced Forward Scatter (eFSC) technology for submicron particle detection.

Complex, multi-color sorting is enabled by seven pinholes that spatially separate each of up to seven lasers. The flat-top multilaser shaping optic (MLSO) creates flat-top beam profiles, providing short alignment times and high-level optic stability. Two micrometer stages control the alignment for all seven lasers to simplify sorter preparation and reduce setup time.

Advanced software components enhance the instrument's capabilities. The Touch Screen Control Panel facilitates daily set up with its operation optimized for a core laboratory workflow and ideal for compatibility with an optional integrated biohazard hood. Auto QC allows system performance to be tracked and trended for up to 44 simultaneous parameters from a maximum of 51 parameter choices. A simple 2-stage alignment is complemented by our IntelliSort II technology: a fully beadless drop delay determination and monitoring system. Unlike bead-based drop delay systems, the MoFlo Astrios EQs and EQ use camera images and proprietary algorithms to enable the optimal drop delay to be determined and maintained.

Beyond this, a patent pending FSC (Forward Scatter) module combines either a single (EQs) or dual (EQ) FSC PMT assembly with a variety of specially crafted mask options. This FSC customization enables application-specific FSC scatter profiling arising in applications from routine immunology to complex marine research including nanoparticle detection. Measure crucial particle characteristics and preserve sample biology over more than three orders of magnitude, from as small as 200 nm to 30 μ m diameter (on both EQs and EQ), all at the same time!

Optics:

- 7 laser / 7 pinhole configurable system; 355nm, 405nm, 488nm, 532nm, 560nm, 592nm, 645nm (wavelengths are nominal and may vary).
- Single Multi-Laser Shaping Optic (MLSO) for fiber-coupled lasers
- Flat-Top beam profile on fiber coupled lasers increases beam stability and alignment ease
- 7 lasers aligned through two alignment stages for quick sorter set up

Software:

- IntelliSort II - The only sorter with a fully beadless drop delay determination and monitoring
- Touch Screen Control Panel for instrument set up and sort monitoring (intuitive operation and cross-training)
- Auto Startup enables lasers to automatically turn on and fluidics to pressurize
- Single button Auto QC for tracking and trending with enhanced troubleshooting guidance
- Summit Software 6.2.4 (or later)

Performance:

- 6-way sorting with a variety of collection devices (temperature control for all sort outputs available with water bath option)
- Mixed Mode sorting: each sort stream is capable of having its own sort mode (Enrich, Purify, Single) programmed. Soft aborts can be collected for reanalysis or resorting.
- Index sorting with intuitive mapping of events
- Reproducibly sort up to 1536-well plates (due to historically stable fluidics)
- Only sorter capable of 70,000 sort decisions/second validated performance

Electronics and Software:

- Electronic capability to simultaneously detect 44 parameters
- 32 bit processing and 100 MHz sampling speeds
- Negligible electronic dead time equates to very low hard aborts
- 100,000 events per second acquisition rate validated performance
- 5-decade dynamic range PMTs
- Up to 2 FSC channels including user-selectable FSC masks and optional additional SSC detection off each wavelength greater than or equal to 405nm
- Height, Area, Width, Log, Log Area collected simultaneously for all parameters
- Describes regions mathematically at the full resolution of the parameter
- 1 billion events .fcs files with no parameter limit

Biosafety

- Custom Baker SterilGARD BSL2 cabinet provides best-in-class biocontainment and uninhibited access to sorter fluidics and optical arrays
- Cabinet provides single turnkey aerosol evacuation direct from sorter sort chamber to HEPA enclosure
- Cabinet tested to NSF-49 specifications
- Optional Aerosol Evacuation System (AES) pulls particulates from three (3) chambers with verified performance to meet the ISAC guidelines in absence of Biosafety cabinet
- Quick release nozzle design for easy access to nozzle tip
- Sort chamber free of hard edges designed for aerosol containment and cleanliness
- CyClone plate arm with wiper that seals back of sort chamber



INSTRUMENTATION

Instruments and Software

Instrument	Status	Part #
MoFlo Astrios EQ	RUO	B25982
MoFlo Astrios EQs	RUO	B52102

Accessories	Status	Part #
Baker SterilGARD BSL2 Cabinet 100V version	RUO	B10300
Baker SterilGARD BSL2 Cabinet 110-120V version	RUO	B10302
Baker SterilGARD BSL2 Cabinet 220-240V version	RUO	B10301



INSTRUMENTATION

Instruments and Software

FLOW CYTOMETER

CELL SORTER

MoFlo XDP Cell Sorter

CLASS IIASER



MoFlo XDP combines historic sorting reliability with cutting edge engineering and proven performance. The open architecture of the instrument enables configuration modularity to meet the diverse sorting applications. The optical bench can accommodate any laser used in Flow Cytometry. Improved light detection and filter designs provide the sensitivity required of a sorter.

The unmatched electronics ensure you identify and accurately sort each cell of interest at higher sort speeds. Accelerating cell sorting research with the first true 32-bit-high resolution 5-decade multi-channel digital system enables accurate sorting of rare events and stem cells. Critical for stable droplet formation required in sorting, the MoFlo XDP fluidic design is robust and proven. Whether performing long sorts or additional precision is required for sorting into 1536-well plates, the stable fluidics of the MoFlo XDP will facilitate your needs.

Combined with the inherent flexibility, digital processing, and fluidic stability; the intuitive software and Touch Screen Control Panel make the set up time on a MoFlo XDP quick and easy, leaving more time for sorting critical samples.

Modularity

- Compatible with any Flow Cytometry laser: water cooled, free-space, fiber coupled
- Fiber coupled lasers with Beam Shaping Optics providing increased stability and alignment ease
- Filter changes simplified with the Precision Optical Detector (POD) structure

Biosafety

- Certifiable Biosafety Level I or II cabinet option
- Aerosol Evacuation System (AES) removes aerosols from sort chamber
- Replaceable probe and sample line
- SmartSampler sample input protects the sample and user

Electronics

- Negligible dead time
- > 100,000 analysis events per second
- Digital triggering on any parameter
- Digital pulse processing
- True dynamic range of 5 decades
- Unmatched linearity

Sort Performance

- IntelliSort II: Beadless drop delay determination and monitoring
- Validated for 70,000 sorts per second
- > 99% purity at all data rates
- High recovery, yield and viability
- Proven 4-Way Sort for multiple population sorting
- Independent Sort Mode capability in each tube
- CyClone custom plate and slide sorting

Touch Screen Control Panel

- Easy-to-use intuitive cytometer set up and control
- Independent control of each stream
- Simple coarse and fine alignment
- CyClone calibration up to 1536-well plate
- Real-time sort statistics

Summit Software

- Established software with powerful data handling
- 18x18 Auto-compensation matrix
- Determine regions with full parameter resolutions
- > 1 Billion event listmode files
- Workspace concept for flexible experiment design

Instrument	Status	Part #
MoFlo XDP	RUO	ML99030

Accessories	Status	Part #
Class I Biosafety Cabinet 110V	RUO	ML23230
Class I Biosafety Cabinet 220V	RUO	ML23330
Class II Biosafety Cabinet 90V	RUO	A70400
Class II Biosafety Cabinet 110V	RUO	ML23430
Class II Biosafety Cabinet 220V	RUO	ML23530



INSTRUMENTATION

Instruments and Software

SOFTWARE

Kaluza Analysis Software



Kaluza combines innovative simplicity and efficiency with unprecedented speed facilitating multiparametric data analysis.

Intelligent Workspace Design

- Analyze directly from report or plot sheet
- Drag & drop plots into a report page
- Multiple report layouts per sample

Plot Management

Unique Auto-Layout design intelligently reconfigures your workspace for you.

- Custom plot sizing
- Zoom in and out
- Easy creating of plots
- Guided drag & drop

Radial Menu

Functions such as region creation and statistics selection are a single click away.

On-plot access to:

- Creating gates
- Annotating
- Formatting
- Statistics

Multiparametric Plots

- Simplifies multiparametric data analysis into one interactive display
- Enables quick pattern recognition analysis

Data Merge

- Easily combine multiple files for quality analysis
- Enables better measurement of rare populations
- Facilitates analysis of longitudinal and time course studies

Multi-File Analysis

Analysis of multiple datasets is as simple as a drag & drop into the intuitive analysis list. Composite analysis allows you to quickly and easily change compensation and create overlays with multiple files.

Software	Status	Part #
Kaluza Software Kit Single User, Perpetual	RUO	A82959
Kaluza Software Kit 5 User Network	RUO	A84175
Kaluza Software Kit 10 User Network	RUO	A82961
Kaluza Software Kit 1 year Single User renewable license	RUO	A84174
Educational License	Status	Part #
Kaluza Software Kit Single User Perpetual Educational License	RUO	B16406
Kaluza Software Kit 1 year Single User Educational License	RUO	B16407
Kaluza Software Kit 5 User Network Educational License	RUO	B16408
Kaluza Software Kit 10 User Network Educational License	RUO	B16409



INSTRUMENTATION

Instruments and Software

CELL PREPARATION SYSTEM

TQ-Prep Workstation & IMMUNOPREP Reagent System



The TQ-Prep Workstation and IMMUNOPREP Reagent System together provide rapid, no-wash whole-blood sample preparation. Automation provides inter-sample and inter-laboratory consistency and reproducibility. A standard 32-tube carousel allows walk-away processing and perfectly complements Beckman Coulter flow cytometers with automatic sample loaders. Intended primarily for laboratories with a high test volume (at least 300 tests per month), the TQ-Prep uses the revolutionary patented lyse and fix technology introduced more than a decade ago with the Q-PREP Workstation and IMMUNOPREP Reagent System.

Workstation		Status	Part #
TQ-Prep Workstation	Standard 50/60 Hz	IVD & CE	6605429
Accessories		Status	Part #
Low Angle Light Scatter (LALS)	Upgrade kit for LALS	RUO	6915116
Reagent System		Status	Part #
IMMUNOPREP Reagent System		IVD & CE	7546999



INSTRUMENTATION

Instruments and Software

CELL PREPARATION SYSTEM

PrepPlus 2 Workstation



The PrepPlus 2 provides precision pipetting of reagents, patient samples, controls and fluorospheres into daughter tubes of both the FC500 and Navios Carousels. Lysing is then automatically performed on the TQ-Prep. Other features include:

- Flexible software programming of reagents, controls and pipetting parameters
- Improved safety with closed tube sampling
- Standardized, reproducible performance

Workstation	Status	Part #
PrepPlus 2 Workstation	IVD & CE	378600
Accessories	Status	Part #
PrepPlus 2 Accessory Kit	nMD	6915549



INSTRUMENTATION

Instruments and Software

AUTOMATION WORKSTATION

Biomek NX^P Laboratory Automation Workstation



By incorporating a wide range of next-generation features into a small footprint design, the Biomek NX^P Workstation sets the standard for flexible laboratory solutions. It puts every aspect of liquid handling – including pipetting dilution, dispensing and integration – into a single, automated system that is as powerful and flexible as it is efficient and economical. All while offering unprecedented flexibility for changing needs. Combined with robust Biomek Software and our ongoing applications development, Biomek NX^P Workstation is bringing new possibilities to life.

The flexible, open architecture of Biomek NX^P Workstation simplifies integration, as plate readers, washers and storage devices can be located on the left, right or back of the Workstation. The open frame design allows future vertical workspace integration, for applications where limited lab space is an issue.

The mouse-driven simplicity of our unique point-and-click programming avoids the long learning curve so common to other approaches. Alternatives such as pipetting techniques, liquid types and deck layouts can be chosen from drop-down lists. Method validation features will check your method and find any logical errors. The Estimated Time to Completion (ETC) feature will provide you with an accurate run time, enabling you to speed up methods development and efficiently plan your instrument use. Variables, worklists and logicals can be used to vary runs without reprogramming. All of which makes a wide variety of applications – from nucleic acid purification to cell-based assays – extraordinarily efficient and streamlined.

Workstation	Status	Part #
Biomek NX ^P Workstation	nMD	Please call

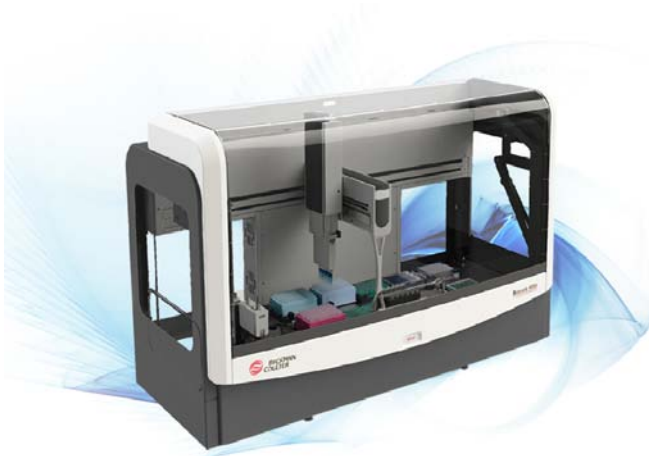


INSTRUMENTATION

Instruments and Software

AUTOMATION WORKSTATION

Biomek 4000 Laboratory Automation Workstation



The Biomek 4000 Workstation offers powerful and intelligent liquid handling that adapts to changing situations. From its easy-to-use, icon-driven software and available application methods to its enhanced work surface with interchangeable tools, the Biomek 4000 Workstation is designed to help you streamline your workflow and automate our laboratory today and tomorrow. The new Biomek 4000 Workstation takes your productivity and accuracy to new levels, so you spend less time on process and more time on powerful discoveries. At the heart of the Biomek 4000 Workstation is its hardware. Built with rugged, robust features, this liquid handling system offers reliable performance that flexes and grows with your needs.

The modular deck configuration allows you to set up the worksurface with the standard eight positions (expandable to 12), while off-deck storage space keeps your tool rack and liquid waste station close by. New and improved tools offer even higher throughput for assays greater than 200 μL and up to 1000 μL volume transfers. The improved wash tool enables tip touches and more accurate volume dispenses.

Optional enclosure

Even though the Biomek 4000 fits comfortably into a laminar flow hood, it's also available with an optional enclosure. The small footprint of the enclosure will fit neatly on your lab bench.

Expanded dynamic volume range

From 1 μL to 1000 μL , the Biomek 4000 workstation offers precise and robust pipetting, both singlechannel and 8-channel.

Frees up deck space

Off-deck mounts—such as the tool rack and liquid waste station—open up deck positions, allowing you to process more plates at a time.

Improved wash tool performance

Allows for dispensing against the wall of a well, tip touches, bulk dispense and per liquid volume calibration to maximize the efficiency of your assay.

Accessories

Heating, cooling, and shaking accessories are available.

Fully automated deck framing

The AccuFrame tool provides increased accuracy using three-dimensional positioning.

Integration-friendly

The Biomek 4000 system can be customized for larger scale-up applications by Beckman Coulter's Integrated Solutions team of experts.

Additional storage

Storage provided beneath the deck frees up even more precious lab space and keeps all your tools close at hand.

Workstation	Status	Part #
Biomek 4000 Workstation	nMD	Please call
Accessories	Status	Part #
24-Position Tube rack	nMD	373661
Inserts Tube 11mm	nMD	373696
Handheld Barcode Scanner	nMD	A47300
MCL	nMD	6806734
Enclosure	nMD	B22634
P20 Tips	nMD	717254
P1000 Tips	nMD	B01123

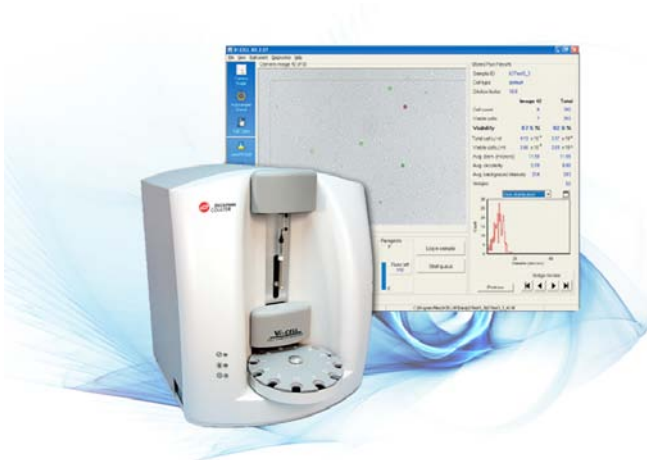


INSTRUMENTATION

Instruments and Software

COUNTER

Vi-CELL



The Beckman Coulter Vi-CELL automates the manual trypan blue viability method. The Vi-CELL removes the subjective variables inherent in the manual assay. The instrument also reports cell concentration, size distribution, and circularity measurements. Real time cell images may be archived for future re-analyses.

Models				Status	Part #
Vi-CELL XR				LUO	383556
<i>Auto Sampler</i>	<i>Size Range</i>	<i>Sample Volume</i>	<i>Analysis Time</i>		
Yes	2–70 µm	0.5 mL	< 2.5 min		
Accessories				Status	Part #
Vi-CELL XR Single Pack				LUO	383260
Vi-CELL XR Quad Pack				LUO	383722
Vi-CELL Concentration Control				LUO	175478
Vi-Cell Focus Control				LUO	175474
Vi-CELL Sample Cups				LUO	383721



INSTRUMENTATION

Instruments and Software

COUNTER

Z Series COULTER COUNTER



The Z Series consists of three models of analyzers; the Z1 Single Threshold, the Z1 Dual Threshold, and the Z2.

Each model allows for variable, user selectable cell size settings and operates in the size range of 1-120 μm diameter. Thus, the instruments have the capability of analyzing practically all cell types and species variations.

Models		Status	Part #
Z2 Analyzer	inc. 100 μm aperture	LUO	6605700
Z1 Dual Threshold Analyzer	inc. 100 μm aperture	LUO	6605699
Z1 Single Threshold Analyzer	inc. 100 μm aperture	LUO	6605698
Software		Status	Part #
Z2 AccuComp Software		LUO	383550
Accessories		Status	Part #
Z-Series Starter Kit (includes 200 Accuvettes ST, one Waste/Diluent sensors and the 10 mL Dispenser)		LUO	8320310
Z-Series Tri-Pak (includes 3 Z-Paks)		LUO	8320312
Accuvettes ST	(200 vials with caps)	LUO	A35473
N4 accuvettes		LUO	7800091
L10 Standard <i>nominal 10 μm, Latex Particle (NIST Traceable)</i>	(1 x 15 mL)	LUO	6602796
Aperture Concentration Control	(1 x 20 mL)	LUO	177495
Aperture Tube, 50 μm		LUO	9912784
Aperture Tube, 70 μm		LUO	9912785
Aperture Tube, 100 μm		LUO	9912786
Aperture Tube, 140 μm		LUO	9912787
Aperture Tube, 200 μm		LUO	9912788
Aperture Tube, 50 μm Ampoule		LUO	9913155
Aperture Tube, 70 μm Ampoule		LUO	9913156
Aperture Tube, 100 μm Ampoule		LUO	9913157



INSTRUMENTATION

Instruments and Software

CENTRIFUGE

BENCHTOP CENTRIFUGE

Allegra X-15R Benchtop Centrifuge



Whether harvesting cells, separating blood components or other general separations, you can simplify your processes and save time with the Allegra X-15R Benchtop Centrifuge.

The X-15R spins up to three liters of sample at an industry-leading 5,250 x g, with a robust refrigeration system that cools from ambient to 4C in less than 4 minutes – over 10 minutes faster than other three liter centrifuges. Save even more time with optional ARIES rotor technology that accepts up to 50 grams (effectively one tube!) of rotor imbalance, allowing you to eye-balance your samples with confidence. The X-15R is the ideal choice for all your cellular separation applications.

New power & flexibility — on the bench!

- Optimize Recoveries
- Faster Separations
- Save Time
- Achieve up to 5,250 xg in your 4 x 750 mL Swinging Bucket Rotor

Some key applications Include:

- Filtration and Concentration
- Fast and Slow Blood Component Spins
- Microbial Cell Harvesting - up to 3 liters, in as little as 14 minutes

Skip steps in cell culturing

- Cell lines, primary cells, adherent cells, suspension cells
- Save time, labor and a potential contamination step
- Eliminate 15 mL or 50 mL conical tubes
- Centrifuge cells directly in T-75 cm² or T-25 cm² flasks
Adapters currently available for Corning 75cm² and 25cm² canted neck cell culture flasks. Corning is a trademark of Corning Incorporated.

All rotors and carriers with covers certified for biocontainment

Validation was done at CAMR, Porton Down, UK, or USAMRIID, Ft. Detrick, MD, USA

Complete a run — Even with imbalance

- ARIES Smart Balance Rotor Automatically Detects and Corrects imbalance: up to 50 grams opposing loads

Allegra X-15R Centrifuge	Status	Part #
208V, 60-Hz	nMD	392932
230V, 50-Hz	nMD	392934
200V, 50/60-Hz	nMD	392933

Canted-Neck Cell Culture Flask Adapters	Status	Part #
Corning* T-75 cm ²	nMD	369292
Corning* T-25 cm ²	nMD	369295



INSTRUMENTATION

Instruments and Software

CENTRIFUGE

HIGH PERFORMANCE CENTRIFUGE

Avanti JXN-26 High-Performance Centrifuge



The Avanti JXN-26 has been redesigned to provide even more versatility and safety.

The Avanti JXN-26 has a more impact resistant lid, full containment barrier, and automatic rotor identification. But improvements aren't the only features that set the Avanti JXN-26 apart. It's built upon standard-setting performance, including high speed, low heat output, imbalance tolerance and low noise. Its vast range of separations only continues to grow. And its ergonomic design—with lower instrument height and hands-free door operation is enhanced by a large easy to read touch screen interface..

High Performance

Application versatility: can process six liters of fermentor output in less than 10 minutes, deliver a subcellular fraction at 82,000 x g, run 24 microplates at a time, and separate live cell populations with elutriation.

Ease of use

Large, Windows based intuitive multi language touch screen interface. Ideal for shared labs & GMP environments

Complete BioSafety* Systems

BioCertified** rotors, instruments and labware contain microbiological aerosols, while sterile filters prevent infectious materials from being expelled into the lab environment. Together, they enhance peace of mind for users and lab managers.

Dual System Rotor Recognition

Automatically detects which rotor is installed and prevents the rotor from running above its maximum-rated speed—without shutting down the run. All to ensure the safety of your lab.

Friction Reduction System

Enables quicker, quieter, more energy-efficient runs with better temperature control, which improves system reliability. High-torque, switched reluctance (SR) drive technology shortens cycle times.

Lightweight J-Lite Rotors

Consistently designed to be the most efficient rotors—for reduced run times and high g-force.

Ergonomic Design

Lower work surface for easier rotor handling. Foot pedal opens the door and improved door design swings up and out of the way.

Sustainability is Built In

Each instrument saves approximately 9.6 pounds of post-consumer materials from the landfill.

* Biosafety is term intended to describe the enhanced biocontainment features of product.
 **BioCertified is a term used to describe our products which have been tested and validated to demonstrate containment of microbiological aerosols by an independent, third-party facility (Health Protection Agency, Porton Down, UK or USAMRIID, Ft. Detrick, MD, USA). Improper use or maintenance may affect seal integrity and, thus, containment.

Avanti JXN-26	Status	Part #
200-240V, 3-PH, 50-60 HZ, 24A	nMD	B34183
200-240V, 3-PH, 50-60 HZ, 24A	IVD	B38619
220V, 3-PH, 50 HZ, 12A	nMD	B34182
220V, 3-PH, 50 HZ, 12A	IVD	B38618
230V, 50-Hz, 24A	nMD	B37912
230V, 50-Hz, 24A	IVD	B38623



INSTRUMENTATION

Instruments and Software

CENTRIFUGE

ULTRACENTRIFUGE

Optima XPN Series Ultracentrifuges



Optima XPN is the ultra of ultracentrifuges. No other floor-model preparative ultracentrifuge offers this level of design, functionality, and performance. Possessing all of the attributes of our entry-level model, the XE, the Optima XPN boasts additional enhancements that will simplify use, optimize control and security, and increase productivity. You'll applaud its intelligent user interface, networking and remote control capabilities, and energy efficiency. And of course, our total system design backed by our exclusive rotors, labware, and unparalleled service.

Large Touch-screen Display

Easy to read and navigate. Viewable from across the lab. Intuitive graphical interface with on-screen help. Multilingual software for error-free operation.

Improved Power Tolerance

Maintains runs during power fluctuations. Handles a wider tolerated range of 180 VAC to 264 VAC. Tracks power interruption data to convey if parameters remained within an acceptable range.

Security and tracking features

Manage rotor life by serial number. Track detailed usage history. Password protection and electronic signatures help you maintain chain of custody and compliance.

Remote Monitoring and Control

Saves time. Start, stop, and monitor from computer or smart phone. Receive diagnostic alerts via e-mail.

Real-time Run Graphing

Plots speed and temperature over time, allowing you to track and record progress.

Powerful On-board Simulation and Calculation Tools

Saves time and samples. Proprietary software optimizes protocols before running to ensure maximum efficiency. Quickly perform common calculations and conversions.

Energy Efficient

Regenerative braking returns energy to local circuit reducing utility costs. Highly efficient thermoelectric cooling results in lower power consumption. Uses the same amount of power as a 60-watt light bulb while idling.

Quiet-drive Technology

Designed for lowest drive noise – this is the quietest floor model on the market. Operates at less than 51dBA.

Total System Design

The Optima XPN, its rotors and its labware are designed, manufactured, and tested as an integrated system to ensure optimal performance and safety for your lab.

Optima 80K Preparative Ultracentrifuge	Status	Part #
XPN-80K	nMD	A95765
XPN-80K	IVD	A99839
Optima 90K Preparative Ultracentrifuge	Status	Part #
XPN-90K	nMD	A94468
XPN-90K	IVD	A99842
Optima 100K Preparative Ultracentrifuge	Status	Part #
XPN-100K	nMD	A94469
XPN-100K	IVD	A99846



INSTRUMENTATION

Instrument Accessories

Cell Culture Flask Adapters

	Description	Status	Part #
Corning* T-25 cm ²	2 adapters for canted-neck flask, 25 cm ²	nMD	369295
Corning* T-75 cm ²	2 adapters for canted-neck flask, 75 cm ²	nMD	369292

For AQUIOS CL

	Description	Status	Part #
Cassette Type 1	For tubes: 13mm X 75mm	nMD	B25218
Cassette Type 2	For tubes: 13mm X 100mm	nMD	B25219
Cassette Type 3	For tubes: 16mm X 100mm	nMD	B25220
Cassette Type 4	For tubes: 10.25mm X 50mm	nMD	B25221
Cassette Type 5	For tubes: AQUIOS IMMUNO-TROL Control Tube	nMD	B25318
Cassette Type 6	For tubes: Sarstedt 13mm X 75mm	nMD	B25918
Cassette Type 7	For tubes: Sarstedt 13mm x 90mm	nMD	B52994
Cassette Type 8	For tubes: Sarstedt 11mm X 66mm	nMD	B53022
Cassette Type 9	For tubes: Sarstedt 15mm X 92mm	nMD	B53031
Cassette Type 10	For tubes: Sarstedt 13mm X 65mm	nMD	B53808
Waste Collection Container	10 L	nMD	7547155
AQUIOS Deep Well Plate	Case of 50 plates	nMD	B23502
AQUIOS Stand-Alone Workstation with Software	1 unit	nMD	B49616
Color Laser Printer	1 unit (120v only)	nMD	B31892

For Biomek 4000

	Description	Status	Part #
24-Position Tube rack	1 unit	nMD	373661
Amber vials, 5 mL	12/case	nMD	B08859
Biomek 4000 ACPrep Accessory Kit Integrated Solutions -Class 7	1 unit	nMD	969126
Enclosure	Field Install Kit for B4K Base	nMD	B22634
Handheld Barcode Scanner	1 unit	nMD	A47300
Inserts Tube 11mm	25/case	nMD	373696
MCL	1 molded carousel	nMD	6806734
P20 Tips	10 racks/case	nMD	717254
P1000 Tips	5 racks/case	nMD	B01123

For CyAn ADP Series

	Description	Status	Part #
CyAn ADP Windows 7 Upgrade	1 unit	RUO	Please call

For other product accessories please visit www.beckmancoulter.com.



INSTRUMENTATION

Instrument Accessories

For CytoFlex

	Description	Status	Part #
405nm Bandpass module kits	BP 405	nMD	A01-1-0048
450nm Bandpass module kits	BP 450/45 Pacific Blue	nMD	A01-1-0049
488nm Bandpass module kits	BP 488	nMD	A01-1-0050
510nm Bandpass module kits	BP 510/20 GFP	nMD	B76128
515nm Bandpass module kits	BP 515/20 eGFP	nMD	B76124
525nm Bandpass module kits	BP 525/40 Krome Orange	nMD	A01-1-0051
550nm Bandpass module kits	BP 550/30 YFP	nMD	B76139
585nm Bandpass module kits	BP 585/15 dTomato	nMD	B76121
585nm Bandpass module kits	BP 585/42 PE	nMD	A01-1-0052
595nm Bandpass module kits	BP 595/20 DsRed	nMD	B76117
610nm Bandpass module kits	BP 610/20 ECD/mCheery	nMD	A01-1-0053
638nm Bandpass module kits	BP 638	nMD	A01-1-0054
660nm Bandpass module kits	BP 660/20 Violet 660	nMD	A01-1-0055
690nm Bandpass module kits	BP 690/50 PV5.5	nMD	A01-1-0056
712nm Bandpass module kits	BP 712/25 APC-A700	nMD	A01-1-0057
780nm Bandpass module kits	BP 780/60 APC-A750	nMD	A01-1-0058
NUV 496nm Bandpass module kits	BP 525/40 BUV 496	nMD	A01-1-0031
NUV 661nm Bandpass module kits	BP 675/30 BUV 661	nMD	B77545
NUV 737nm Bandpass module kits	BP 740/35 BUV 737	nMD	B78217
NUV 805nm Bandpass module kits	BP 819/44 BUV 805	nMD	B78220
Peek tube kits	with flow cell needle	nMD	A04-1-0033
Pump tube kits	sample pump	nMD	A04-1-0048
Sample needles	per packaging	nMD	A04-1-0034
Sheath bottle kits		nMD	A04-1-0036
Sheath Sensor kits	with bottle	nMD	A04-1-0030
Waste bottle kits		nMD	A04-1-0037
Waste Sensor kits		nMD	A04-1-0031
Cleaning bottle kits		nMD	A04-1-0038

For EPICS XL

	Description	Status	Part #
EPICS XL PSC Quick Scan Bar Code Gun	1 unit	nMD	6913337
EPICS XL-MCL Upgrade Kit	1 unit	nMD	Please call
EPICS XL 4th Color Upgrade Kit	1 unit	nMD	6912932

For other product accessories please visit www.beckmancoulter.com.



INSTRUMENTATION

Instrument Accessories

For FC 500 Series

	Description	Status	Part #
CXP Analysis Software 2.2 Single User License	Version 2.2 - 1 user - WIN 7	nMD	B27031
CXP Analysis Software 2.2 Three User License	Version 2.2 - 3 user - WIN 7	nMD	B27032
CXP Analysis Software 2.2 Five User License	Version 2.2 - 5 user - WIN 7	nMD	B27033
MPL Upgrade	1 unit	IVD & CE	733321
Offline Analysis Workstation	1 unit	nMD	B22394
Optional 22" LCD Monitor	1 unit	nMD	A56136
Red Diode Laser Upgrade	15 mW solid state laser - 635 µm laser line	nMD	623101
stemCXP SYSTEM Software	1 unit	IVD & CE	Please call
stemONE SYSTEM Software	1 unit	IVD & CE	Please call
tetraCXP SYSTEM Software	1 unit	IVD & CE	Please call
tetraONE SYSTEM Software	1 unit	IVD & CE	Please call
WIN 7 Upgrade Kit (Computer, CXP 2.2, 22" Monitor)	1 unit	nMD	B28946

For FC 500, EPICS XL and Navios

	Description	Status	Part #
Sample Tubes	250 tubes, 12mm x 75mm	nMD	2523749

For MoFlo Astrios EQ Sorter Family

	Description	Status	Part #
Baker SterilGARD BSL2 Cabinet	1 unit	RUO	B10300
Baker SterilGARD BSL2 Cabinet	1 unit	RUO	B10302
Baker SterilGARD BSL2 Cabinet	1 unit	RUO	B10301

For MoFlo XDP

	Description	Status	Part #
Class I Biosafety Cabinet	1 unit	RUO	ML23330
Class I Biosafety Cabinet	1 unit	RUO	ML23230
Class II Biosafety Cabinet	1 unit	RUO	ML23530
Class II Biosafety Cabinet	1 unit	RUO	ML23430
Class II Biosafety Cabinet	1 unit	RUO	A70400

For other product accessories please visit www.beckmancoulter.com.



INSTRUMENTATION

Instrument Accessories

For Navios and FC 500

	Description	Status	Part #
Data Innovations Additional Connection, Licence and Service	1 unit	nMD	Please call
Data Innovations Hardware Computer System	1 unit	nMD	B35622
Data Innovations Instrument Manager Software, Licenses and Service	1 unit	nMD	Please call

For PrepPlus Workstation

	Description	Status	Part #
PrepPlus 2 Accessory Kit	1 unit	nMD	6915549

For Quanta Series

	Description	Status	Part #
24-Position Tube rack	1 unit	nMD	373661
Flow-Check Fluorospheres	3 x 10 mL	IVD & CE	6605359

For TQ-Prep

	Description	Status	Part #
Low Angle Light Scatter (LALS)	1 kit	RUO	6915116

For Vi-Cell Counter

	Description	Status	Part #
Vi-CELL XR Quad Pack	8 x 120 vials	LUO	383722
Vi-CELL Concentration Control	-	LUO	175478
Vi-Cell Focus Control	-	LUO	175474
Vi-CELL Sample Cups	4 bags, 120 vials per bag	LUO	383721
Vi-CELL XR Single Pack	One reagent pack and one bag of 120 sample cups	LUO	383260

For other product accessories please visit www.beckmancoulter.com.



INSTRUMENTATION

Instrument Accessories

For Z Series Coulter Counter

	Description	Status	Part #
Accuvettes ST	Pack of 200 vials and caps	LUO	A35473
Aperture Concentration Control	1 x 20 mL	LUO	177495
Aperture Tube, 100 µm	Range: 2.0 - 60 µm	LUO	9912786
Aperture Tube, 100 µm Ampoule	Range: 2.0 - 60 µm	LUO	9913157
Aperture Tube, 140 µm	Range: 2.8 - 84 µm	LUO	9912787
Aperture Tube, 200 µm	Range: 4.0 - 120 µm	LUO	9912788
Aperture Tube, 50 µm	Range: 1.0 - 30 µm	LUO	9912784
Aperture Tube, 50 µm Ampoule	Range: 1.0 - 30 µm	LUO	9913155
Aperture Tube, 70 µm	Range: 1.4 - 42 µm	LUO	9912785
Aperture Tube, 70 µm Ampoule	Range: 1.4 - 42 µm	LUO	9913156
L10 Standard	nominal 10 µm, Latex Particle (NIST Traceable)	LUO	6602796
N4 accuvettes	200 per pack with Caps	LUO	7800091
Z2 AccuComp Software	1 unit	LUO	383550
Z-Series Starter Kit	Tri-Pak, 200 Cuvettes, Sensors, Calibrator, Clenz, Dispenser	LUO	8320310
Z-Series Tri-Pak	1 unit	LUO	8320312

For other product accessories please visit www.beckmancoulter.com.

INSTRUMENTATION

Consumables (non-reagent)

Biomek Tips and Labware

Fundamental elements of the Biomek Series.

The Biomek Series of liquid handling systems helps your laboratory achieve new discoveries across a vast array of applications. But these discoveries aren't possible without the tips and labware that protect and transfer your samples. From disposable pipette tips to microplates and everything in between, we provide a full suite of accurate, precise performance you can depend upon to take your research further.



Biomek tips from Beckman Coulter are manufactured under a controlled environment to incredibly stringent specifications. Our tips and racks are molded from premium-grade virgin polypropylene to provide chemical resistance during sample transfer and to ensure the highest quality product. Additionally, Biomek tips from Beckman Coulter are certified to be free of RNase, DNase, DNA (human and mouse), pyrogens/endotoxins, and trace metals, preserving the integrity of your samples.

With Beckman Coulter, you are assured that extensive verification and validation testing have been performed on Biomek tips to assess both product- and system-level performance. If that's not enough, we'll stand by our products in writing. We guarantee that your Biomek system will deliver consistent and accurate results, time after time.

Biomek 4000 and 3000 Pipette Tips

For use with Biomek 4000 and 3000 workstations



FOR USE WITH P20 AND MP20 PIPETTE TOOLS



Part #	Description		Max Volume	Packaging
717254	Biomek AP96 P20 Tips	non-sterile	100 µL	96 tips/rack ; 10 racks/case
717255	Biomek AP96 P20 Tips	pre-sterile	100 µL	96 tips/rack ; 10 racks/case
717256	Biomek AP96 P20 Tips	pre-sterile with barrier	20 µL	96 tips/rack ; 10 racks/case
A21578	Biomek P50 Tips	non-sterile	90 µL	96 tips/rack ; 10 racks/case
A21582	Biomek P50 Tips	pre-sterile	90 µL	96 tips/rack ; 10 racks/case
A21586	Biomek P50 Tips	pre-sterile with barrier	50 µL	96 tips/rack ; 10 racks/case



FOR USE WITH P200L AND MP200 PIPETTE TOOLS



Part #	Description		Max Volume	Packaging
A21578	Biomek P50 Tips	non-sterile	90 µL	96 tips/rack ; 10 racks/case
A21582	Biomek P50 Tips	pre-sterile	90 µL	96 tips/rack ; 10 racks/case
A21586	Biomek P50 Tips	pre-sterile with barrier	50 µL	96 tips/rack ; 10 racks/case
717251	Biomek AP96 P250 Tips	non-sterile	220 µL	96 tips/rack ; 10 racks/case
717252	Biomek AP96 P250 Tips	pre-sterile	220 µL	96 tips/rack ; 10 racks/case
717253	Biomek AP96 P250 Tips	pre-sterile with barrier	125 µL	96 tips/rack ; 10 racks/case
B01101	Biomek P250 Wide Bore Tips	non-sterile	220 µL	96 tips/rack ; 10 racks/case
B01102	Biomek P250 Wide Bore Tips	pre-sterile	220 µL	96 tips/rack ; 10 racks/case
B01103	Biomek P250 Wide Bore Tips	pre-sterile with barrier	170 µL	96 tips/rack ; 10 racks/case

For other product accessories please visit www.beckmancoulter.com.

INSTRUMENTATION

Consumables (non-reagent)



FOR USE WITH P1000L PIPETTE TOOLS (BIOMEK 3000)

Part #	Description		Max Volume	Packaging
373688	Biomek P1000 Tips	non-sterile	1000 µL	72 tips/rack ; 5 racks/case
609899	Biomek P1000 Tips	non-sterile, Bulk	1000 µL	1000 tips/bag ; 1 bag
373687	Biomek P1000 Tips	pre-sterile	1000 µL	72 tips/rack ; 5 racks/case



FOR USE WITH P1000SL AND MP1000 PIPETTE TOOLS (BIOMEK 4000)

Part #	Description		Max Volume	Packaging
B01122	Biomek P1000 Tips	non-sterile	1050 µL	96 tips/rack ; 5 racks/case
B01123	Biomek P1000 tips	pre-sterile	1050 µL	96 tips/rack ; 5 racks/case
B01124	Biomek P1000 Tips	pre-sterile with barrier	1025 µL	96 tips/rack ; 5 racks/case
B01112	Biomek P1000 wide bore Tips	non-sterile	1050 µL	96 tips/rack ; 5 racks/case
B01113	Biomek P1000 wide bore Tips	pre-sterile	1050 µL	96 tips/rack ; 5 racks/case
B01114	Biomek P1000 wide bore Tips	pre-sterile with barrier	1025 µL	96 tips/rack ; 5 racks/case

Biomek 96-well microplates

For use with the Biomek FX^P, NX^P, 4000 and 3000 workstations



BIOMEK 96 ROUND DEEP-WELL PLATES

Part #	Description		Max Volume	Packaging
267001	96-well polystyrene	non-sterile	1 mL	24/case
267004	96-well polystyrene	pre-sterile	1 mL	24/case
267006	96-well polypropylene	non-sterile	1 mL	24/case
267007	96-well polypropylene	pre-sterile	1 mL	24/case



BIOMEK 96 SQUARE DEEP-WELL PLATES

Part #	Description		Max Volume	Packaging
140504	Biomek 96-well microplate	non-sterile	2 mL	24/case
609681	96-well polypropylene	pre-sterile	2 mL	24/case



BIOMEK 96-WELL MICROPLATES

Part #	Description		Max Volume	Packaging
609844	96-well microplate polystyrene	non-sterile	300 µL	100/case
609801	96-Well Thermocycler Plate Polypropylene	non-sterile	200 µL	25/case

For other product accessories please visit www.beckmancoulter.com.



INSTRUMENTATION

Consumables (non-reagent)

Biomek Modular Reservoir System

For use with the Biomek FX^P, NX^P, 4000 and 3000 workstations



FULL RESERVOIRS

Part #	Description		Max Volume	Packaging
372784	Full Reservoir polypropylene	Sterile	150 mL	12/case
534678	Full Reservoir polypropylene	Sterile, nonpyrogenic	150 mL	12/case



HALF RESERVOIRS

Part #	Description		Max Volume	Packaging
372786	Half Reservoir polypropylene	Sterile	75 mL	24/case
372794	Half Reservoir polypropylene	Sterile, divided by width	37 mL/section	24/case
534681	Half Reservoir polypropylene	Sterile, nonpyrogenic	75 mL	24/case



QUARTER RESERVOIRS

Part #	Description		Max Volume	Packaging
372790	Quarter Reservoir polypropylene	Sterile	40 mL	48/case
372792	Quarter Reservoir polypropylene	Sterile, divided by width	19 mL/section	48/case
534680	Quarter Reservoir polypropylene	Sterile, nonpyrogenic	40 mL	48/case
372788	Quarter Reservoir polypropylene	Sterile, divided by length	19 mL/section	48/case



OTHER

Part #	Description		Max Volume	Packaging
372795	Frame for Reservoirs		-	1 unit

Each frame can accommodate up to two half reservoirs or four quarter reservoirs. Full reservoirs do not require a reservoir frame.

For other product accessories please visit www.beckmancoulter.com.

INSTRUMENTATION

Consumables (non-reagent)

Biomek Labware and Accessories

For use with the Biomek FX^P, NX^P, 4000 and 3000 workstations



BIOMEK TUBE RACK

Part #	Description	Packaging
373661	24-Position tube rack	Black 1 unit



BIOMEK TUBE RACK INSERTS

Part #	Description	Packaging
373699	10 mm diameter insert	Black 25/case
373696	11mm diameter Insert	White 25/case
373698	12 mm diameter insert	Red 25/case
373697	13 mm diameter insert	Blue 25/case



MICROCENTRIFUGE TUBES

Part #	Description	Packaging
356090	1.5 mL Tube, Polypropylene	Clear 500/case
356091	1.5 mL Tube, Polypropylene	Blue 500/case
356093	1.5 mL Tube, Polypropylene	Yellow 500/case
356094	1.5 mL Tube, Polypropylene	Orange 500/case
357448	1.5 mL Tube, Polypropylene	Natural 500/case



BIOMEK CAP MATS

Part #	Description	Packaging
267002	Biomek Cap Mats	non-sterile 12/case
267005	Biomek Cap Mats	Sterile 12/case



BIOMEK ALUMINIUM FOIL SEALS

Part #	Description	Packaging
538619	Aluminium Foil Seals	100/case
267691	Aluminium Foil Seals	50 cases ; 100/case
538618	Roller for Aluminium Foil Seals	1 unit

Use roller to ensure complete plate sealing

For other product accessories please visit www.beckmancoulter.com.



INSTRUMENTATION

Support Reagents

Buffer

PBS Buffer

This package contains 15 foil-wrapped packets of PBS Buffer reagent. Each package is brought up to a 500 mL volume with distilled water to yield a 0.01 M potassium phosphate, 0.15 M sodium chloride at a pH of 7.2 ± 0.2 .

Size	Format	Status	Part #
15 packets	Powder	LUO	6603369

Cleaning Agent

AQUIOS Cleaning Agent

AQUIOS Cleaning Agent is a cleaning agent for use on the AQUIOS flow cytometer components that come in contact with blood samples.

Size	Format	Status	Part #
500 mL	Liquid	IVD & CE	B25698

AQUIOS Sodium Hypochlorite Solution

AQUIOS Sodium Hypochlorite Solution is a cleaning agent used as part of an AQUIOS flow cytometer system. The solution maintains AQUIOS instruments in optimal condition.

Size	Format	Status	Part #
4 x 50 mL	Liquid	IVD & CE	B23536

Contrad 70 Cleaning Solution

Size	Format	Status	Part #
1 L	Liquid	nMD	81911

COULTER CLENZ

COULTER CLENZ Cleaning Agent is an all-purpose cleaning reagent. It contains agents that strip away protein build-up and lysed red blood cells in instrument fluidics. It should be used routinely as part of regular instrument maintenance, such as shutdown. Additionally, it should be included in a schedule of routine preventive maintenance procedures designed to maintain high performance.

Size	Format	Status	Part #
1 x 5 L	Liquid	CE	8448222
1 L	Liquid	CE	8448188

Flow-Clean Cleaning Agent

For use as a cleaning agent for flow cytometer components that come in contact with blood samples.

Size	Format	Status	Part #
500 mL	Liquid	IVD & CE	A64669

Diluent

ISOTON II

Size	Format	Status	Part #
1 x 20 L	Liquid	LUO	8448011

Lysing Reagent

AQUIOS Lysing Reagent Kit

AQUIOS Lysing Reagent Kit is used as part of the AQUIOS flow cytometer system. The kit consists of two reagents used by AQUIOS flow cytometers to prepare whole blood samples for analysis of white blood cells.

Size	Format	Status	Part #
100 tests	Liquid	IVD & CE	B23538

Sheath Fluid

AQUIOS Sheath Solution

AQUIOS Sheath Solution is a non-fluorescent, azide-free balanced electrolyte solution for use on AQUIOS flow cytometers with light scatter and fluorescent applications.

Size	Format	Status	Part #
1 x 10 L	Liquid	IVD & CE	B25697

CytoFLEX Sheath Fluid

Size	Format	Status	Part #
10 L	Liquid	RUO	B51503



INSTRUMENTATION

Support Reagents

IsoFlow Sheath Fluid

This isotonic fluid is specifically formulated for use in flow cytometers. IsoFlow Sheath Fluid is carefully manufactured for low particulate and fluorescence backgrounds to ensure superior signal to noise ratio measurements.

Size	Format	Status	Part #
4 x 1.8 L	Liquid	IVD & CE	8547008
1 x 10 L	Liquid	IVD & CE	8546859

PuraFlow Sheath Fluid

Size	Format	Status	Part #
20 L	Liquid, 1X	RUO	A70188
4 x 6 L	Liquid, 8X	RUO	CY30230



INSTRUMENTATION

Fluorospheres and Quality Controls

Beckman Coulter provides a complete comprehensive workflow solution for all your flow cytometry needs.

Description	Utility	Emission Range	Excitation
Fluorospheres			
Flow-Check Fluorospheres	Used for daily verification of a flow cytometer's optical alignment and fluidics system	525 nm - 700 nm	488 nm
Flow-Check Pro Fluorospheres	Used for daily verification of optical alignment and fluidics of flow cytometers configured with multiple laser (Blue, Red, and Violet)	515 nm - 800 nm 640 nm - 800 nm 400 nm - 500 nm	488 nm 635 nm 405 nm
Flow-Set Fluorospheres	Used for standardization of flow cytometers for analysis of human leukocytes	525 nm - 700 nm	488 nm
Flow-Set Pro Fluorospheres	Used for standardization of flow cytometers configured with Multiple laser (Blue, Red, and Violet), for quantitative analysis of human leukocytes	515 nm - 800 nm 640 nm - 800 nm 400 nm - 500 nm	488 nm 635 nm 405 nm
IMMUNO-BRITE Fluorospheres	Used to monitor instrument linearity. Fluorospheres uniform in size, with varying fluorescent intensities.	525 nm - 700 nm	488 nm
Flow-Count Fluorospheres	Used to determine absolute counts on the flow cytometer	525 nm - 700 nm	488 nm
CytoFlex Daily QC Fluorospheres	Used for daily verification of the flow cytometer's optical alignment and fluidics system		
APC (675/633) Set-Up Kit	Daily verification of optical alignment/fluidic stability	675 nm	633 nm
PC7 (770/488) Set-Up Kit	Daily verification of optical alignment/fluidic stability	770 nm	488 nm
VersaComp Antibody Capture Beads	Set compensation to account for spectral overlap in multicolor flow cytometry assays		
Quality Controls			
CYTO-COMP Cell Kit	Lyophilized human lymphocytes used in conjunction with Cyto-Comp Reagent kit or the Quick Comp Reagent kits to establish and monitor compensation settings for multicolor analysis		
CYTO-COMP Reagent Kit	Preparation of 4 vials of 2-Color reagents. Used to establish and monitor color compensation settings in conjunction with the Cyto-COMP cell kit, for multicolor analysis		
CYTO-TROL Control Cells	Lyophilized human lymphocytes used to assess activity of monoclonal antibodies		
IMMUNO-TROL Cells	Whole blood based lysable positive process control for immunophenotyping analysis using monoclonal antibody reagents and flow cytometry		
IMMUNO-TROL Low Cells	Whole blood based lysable positive process control for immunophenotyping analysis using monoclonal antibody reagents and flow cytometry, targeted for low level CD4 counts		
AQUIDS IMMUNO-TROL Cells	Verification of instrument and reagent performance.		
AQUIDS IMMUNO-TROL Low Cells	Allows verification of instrument and reagent performance.		
QuickCOMP 2 Kit	2 single-color reagents comprised of one monoclonal antibody each labeled with FITC or PE conjugated antibodies for adjusting color compensation with flow cytometers performing full matrix compensation		
QuickCOMP 4 Kit	4 single-color fluorescent reagents comprised of one monoclonal antibody each labeled with FITC, PE, ECD, or PC5 conjugated antibodies for adjusting color compensation equipped with flow cytometers performing full matrix compensation		
Stem Comp Reagent	2 color fluorescent reagents implementing two monoclonal antibodies conjugated to FITC and PE, set to adjust color compensation for automated or manual analysis with the Stem kit reagent		
Stem-Trol Control Cells	Ready-to-use highly calibrated control cells providing antibody-to-antigen positive control for absolute counting of CD34 ⁺ CD45 ^{dim} cells		
ClearLab Compensation Kit	Used to adjust color compensation settings on a Navios flow cytometer		





INSTRUMENTATION

Fluorospheres and Quality Controls

Fluorospheres

Flow-Check Fluorospheres

Flow-Check Fluorospheres consist of 10 µm (nominal diameter) polystyrene fluorescent microspheres suspended in an aqueous medium containing surfactants and preservatives at 1 x 10⁶ fluorospheres/mL (nominal concentration). The fluorescence emission of the dye contained within the fluorospheres ranges from 525 nm to 700 nm when excited at 488 nm. Flow-Check Fluorospheres are used to verify instrument optical alignment and fluidics.

	Size	Presentation
Fluorospheres (10 µm)	10 mL/vial	3 vials
Size	Status	Part #
3 x 10 mL	IVD & CE	6605359

Flow-Check Pro Fluorospheres

Flow-Check Pro Fluorospheres is a suspension of fluorescent microspheres which may be used for daily verification of optical alignment and fluidics of flow cytometer's configured with multiple lasers (Blue, Red, and Violet). The Fluorosphere suspension consists of a mixture of 10 µm fluorescent microbeads with a fluorescence emission of 515 nm to 800 nm when excited at 488nm, 6 µm fluorospheres with a fluorescence emission of 640 nm to 800 nm when excited at 635 nm, and 3 µm fluorospheres with a fluorescence emission of 400 nm to 500 nm when excited at 405 nm, respectively.



	Size	Presentation
Fluorospheres (10 µm; 6 µm; 3 µm)	10 mL/vial	3 vials
Size	Status	Part #
3 x 10 mL	IVD & CE	A63493
3 x 10 mL	RUO	A69183

Flow-Set Fluorospheres

Flow-Set Fluorospheres are a suspension of fluorospheres (fluorescent microbeads) used as an aid in optimizing a flow cytometer for quantitative analysis of human leukocytes. Each fluorosphere contains a dye which has a fluorescent emission range of 525 nm to 700 nm when excited at 488 nm. They have a uniform size and fluorescence intensity allowing the standardization of light scatter, fluorescence intensity and optimal hydrodynamic focusing instrument settings.

	Size	Presentation
Fluorospheres (3.6 µm)	10 mL/vial	3 vials
Size	Status	Part #
3 x 10 mL	IVD & CE	6607007

Flow-Set Pro Fluorospheres

Flow-Set Pro Fluorospheres is a suspension of fluorescent microspheres which may be used as an aid in standardizing a flow cytometer configured with multiple lasers (Blue, Red, and Violet). The suspension contains 3 µm (nominal diameter) polystyrene fluorospheres suspended in an aqueous medium containing surfactants and preservatives.



	Size	Presentation
Fluorospheres (3 µm)	10 mL/vial	3 vials
Size	Status	Part #
3 x 10 mL	IVD & CE	A63492
3 x 10 mL	RUO	A69184



INSTRUMENTATION

Fluorospheres and Quality Controls

Fluorospheres

IMMUNO-BRITE Fluorospheres

IMMUNO-BRITE Fluorospheres are a suspension of fluorescent microbeads uniform in size with varying fluorescence intensities. The set contains one vial of non-fluorescent fluorospheres and four vials of fluorospheres of increasing intensity. They may be used to monitor instrument linearity.

	Size	Presentation
Fluorospheres	10 mL/vial	5 vials
	Size	Status
	5 x 10 mL	IVD & CE
		Part #
		6603473

Flow-Count Fluorospheres

Flow-Count Fluorospheres are a suspension of fluorescent microbeads used to determine absolute counts on the flow cytometer. Each fluorosphere contains a dye which has a fluorescent emission range of 525 nm to 700 nm when excited at 488 nm. They have uniform size and fluorescence intensity, and an assayed concentration allowing a direct determination of absolute counts.

	Size	Presentation
Fluorospheres (10 μ m)	20 mL/vial	1 vial
	Size	Status
	200 tests	IVD & CE
		Part #
		7547053



CytoFLEX Daily QC Fluorospheres

CytoFLEX Daily QC Fluorospheres consists of a suspension of \sim 3 μ m fluorospheres with a fluorescence emission of 410 nm to 800 nm when excited at 405 nm, 488 nm or 635 nm. CytoFLEX Daily QC Fluorospheres may be used for daily verification of the CytoFLEX flow cytometer's optical alignment and fluidics system.

	Size	Presentation
Fluorospheres (3 μ m)	2 mL/vial	1 vial
	Size	Status
	1 vial	RUO
		Part #
		B53230



APC (675/633) Set-up Kit

The APC (675/633) Setup Kit is a set of fluorospheres (fluorescent microbeads) used for daily verification of a flow cytometer's optical alignment and fluidic stability and as an aid in standardizing the detectors on a flow cytometer for the quantitative analysis of human leukocytes. Data from each fluorosphere is collected with the 675 nm detector when excited with a 633 nm light source. The kit is comprised of two vials: one vial of Flow-Check 675 fluorospheres and one vial of Flow-Set 675 fluorospheres.

	Size	Presentation
Flow-Set 675 Fluorospheres	1 x 10 mL	1 vial
Flow-Check 675 Fluorospheres	1 x 10 mL	1 vial
	Size	Status
	2 vials	CE
		Part #
		737663
	2 vials	RUO
		Part #
		6607120



INSTRUMENTATION

Fluorospheres and Quality Controls

Fluorospheres

PC7 (770/488) Set-up Kit

The PC7 (770/488) Setup Kit is used for daily verification of a flow cytometer's optical alignment and fluidic stability and as an aid in standardizing the detectors on a flow cytometer for the quantitative analysis of human leukocytes. Data from each fluorosphere is collected with the 770 nm detector when excited with a 488 nm light source. The kit is comprised of two vials: one vial of Flow-Check 770 fluorospheres and one vial of Flow-Set 770 fluorospheres.

	Size	Presentation
Flow-Set 770 Fluorospheres	1 x 10 mL	1 vial
Flow-Check 770 Fluorospheres	1 x 10 mL	1 vial

Size	Status	Part #
2 vials	CE	737664
2 vials	RUO	6607121

VersaComp Antibody Capture Kit

VersaComp Antibody Capture Bead kit provides both positive and negative microspheres that can be used to set compensation for multicolor flow cytometry experiments. The positive population captures conjugates in single color stains and recognizes all mouse and rat isotypes, most hamster isotypes and rabbit polyclonal IgG. The negative population provides fluorescence similar to unstained cells across the different excitation/emission wavelength combinations. This combination can be used to set up compensation to correct for spectral overlap.



	Size	Presentation
Positive microspheres	5 mL	1 vial
Negative microspheres	5 mL	1 vial

Size	Status	Part #
2 vials	LUO	B22804



INSTRUMENTATION

Fluorospheres and Quality Controls

Quality Control

CYTO-COMP Cell Kit

CYTO-COMP Cell Kit is a preparation of lyophilized human lymphocytes and reconstitution buffer used in conjunction with the CYTO-COMP Reagent Kit to establish and monitor color compensation settings for multicolor analysis.



	Size	Presentation
Cells ($\geq 3.5 \times 10^6$ cells/vial)	Lyophilized	5 vials
Reconstitution buffer	1 mL/vial	5 vials
	Size	Status
	Part #	
50 tests	IVD & CE	6607023

CYTO-COMP Reagent Kit

CYTO-COMP Reagent Kit is comprised of four sets of two-color reagents used in conjunction with the CYTO-COMP Cell Kit to establish and monitor color compensation settings for multicolor analysis.



	Size	Presentation
COMP 1 (FITC/PE)	50 tests	1 vial
COMP 2 (PE/ECD)	50 tests	1 vial
COMP 3 (PE/PC5)	50 tests	1 vial
COMP 4 (ECD/PC5)	50 tests	1 vial
	Size	Status
	Part #	
50 tests	IVD & CE	6607021

CYTO-TROL Control Cells

CYTO-TROL Control Cells are used to assess the activity of monoclonal antibodies by flow cytometry. They are a lyophilized preparation of human lymphocytes that exhibit surface antigens detectable with monoclonal antibodies. These cells are isolated from peripheral blood and express antigens that are representative of those found on normal lymphocytes. They may be used with directly-conjugated monoclonal antibodies.



	Size	Presentation
Cells ($\geq 3.5 \times 10^6$ cells/vial)	Lyophilized	5 vials
Reconstitution buffer	1 mL/vial	5 vials
	Size	Status
	Part #	
50 tests	IVD & CE	6604248

IMMUNO-TROL Cells

IMMUNO-TROL Cells are a positive process control for flow cytometry. They are assayed for lymphocyte, granulocyte and monocyte specific antigens and single platform absolute counts. Light scatter, population distribution, fluorescence intensity, and antigen density mimic those of whole blood.



	Size	Presentation
Quality Control Product	3 mL/vial	2 vials
	Size	Status
	Part #	
60 tests	IVD & CE	6607077



INSTRUMENTATION

Fluorospheres and Quality Controls

Quality Control

IMMUNO-TROL Low Cells

IMMUNO-TROL Low Cells provide the same quality and reproducibility as IMMUNO-TROL Cells in a quality control product for low-level CD4 counts. IMMUNO-TROL Low Cells also provide open vial stability of 90 days for decreased waste.



	Size	Presentation	
Quality Control Product	3 mL/vial	2 vials	
	Size	Status	Part #

60 tests	IVD & CE	6607098
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AQUIOS IMMUNO-TROL Cells

AQUIOS IMMUNO-TROL Cells are assayed, lysable whole blood quality control product for immunophenotyping analysis using monoclonal antibody reagents and flow cytometry. It provides a positive cell control that is processed in the same manner as a whole blood sample. This allows verification of instrument and reagent performance. It also verifies the methods used for staining targeted cells, lysing erythrocytes, and analyzing samples by the AQUIOS CL Flow Cytometer.

Size	Status	Part #
2 x 3 mL	IVD & CE	B23535

AQUIOS IMMUNO-TROL Low Cells

AQUIOS IMMUNO-TROL Low Cells are assayed, lysable whole blood quality control product for immunophenotyping analysis using monoclonal antibody reagents and flow cytometry. It provides a positive cell control that is processed in the same manner as a whole blood sample. This allows verification of instrument and reagent performance. It also verifies the methods used for staining targeted cells, lysing erythrocytes, and analyzing samples by the AQUIOS CL Flow Cytometer.

Size	Status	Part #
2 x 3 mL	IVD & CE	B25700

QuickCOMP 2 Kit

The QuickCOMP 2 Kit consists of two single-color fluorescent reagents comprised of one monoclonal antibody each. Each antibody is labeled with either FITC or PE. It may be used with the CYTO-COMP Cell Kit to adjust color compensation settings on a flow cytometer equipped with AutoSetup Software.



	Size	Presentation	
CD45-FITC	50 tests	1 vial	
CD45-PE	50 tests	1 vial	
	Size	Status	Part #

50 tests	IVD & CE	177018
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INSTRUMENTATION

Fluorospheres and Quality Controls

Quality Control

QuickCOMP 4 Kit

The QuickCOMP 4 Kit consists of four single-color fluorescent reagents comprised of one monoclonal antibody each. Each antibody is labeled with one or four fluorochromes: FITC, PE, ECD or PC5. It may be used with the CYTO-COMP Cell Kit to adjust color compensation settings on a flow cytometer equipped with AutoSetup Software.



	Size	Presentation
CD45-FITC	50 tests	1 vial
CD45-PE	50 tests	1 vial
CD45-ECD	50 tests	1 vial
CD45-PC5	50 tests	1 vial
	Size	Status
	50 tests	IVD & CE
		Part #
		177017

Stem-Comp Reagent

The Stem-Comp Reagent consists of a two color fluorescent reagent implementing two monoclonal antibodies. The antibodies are conjugated to fluorescein isothiocyanate (FITC) for the fluorescence 1 channel (FL1) of a flow cytometer and R Phycoerythrin (PE) for the fluorescence 2 channel (FL2). The Stem-Comp Reagent is used to adjust color compensations for automated or manual analysis with the Stem-Kit Reagents (Part# IM3630).



	Size	Presentation
Stem-Comp Reagent	50 tests	1 vial
	Size	Status
	50 tests	IVD & CE
		Part #
		IM3631

Stem-Trol Control Cells

COULTER Stem-Trol Control Cells are preserved KG-1a cells, that have been modified and stabilized (patent pending) to express the CD34 Class III epitopes and the CD45 leucocyte common antigen at densities that approximate normal human hematopoietic progenitor cells (HPC). This product is a ready-to-use cell suspension. COULTER Stem-Trol Control Cells provide an antibody-to-antigen positive control for CD34 and CD45 staining in flow cytometry studies. The concentration of this cell suspension is precisely calibrated. Therefore it is also designed as an internal control for absolute count verification procedures in CD34⁺ HPC absolute counting process.

	Size	Presentation
HPC Control Cells 0.2 mL/vial	10 tests	1 vial
	Size	Status
	10 tests	IVD & CE
		Part #
		IM3632



INSTRUMENTATION

Fluorospheres and Quality Controls

Quality Control

ClearLLab Compensation Kit

The ClearLLab Compensation kit consists of ten single-color fluorescent reagent tubes comprised of one monoclonal antibody : CD3 or CD4 or CD8. Each antibody is labelled with one of ten fluorochromes: FITC, PE, ECD, PC5.5, PC7, APC, APC A700, APC A750, Pacific Blue and Krome Orange.

The ClearLLab Compensation Kit may be used with the CYTO-COMP Cell Kit or with normal whole blood to adjust color compensation settings on a Navios flow cytometer with standard filter set and equipped with AutoSetup software, prior to multi-color analysis with ClearLLab LS reagent.



	Size	Presentation
CD4-FITC	5 tests	1 tube
CD4-PE	5 tests	1 tube
CD3-ECD	5 tests	1 tube
CD4-PC5.5	5 tests	1 tube
CD4-PC7	5 tests	1 tube
CD4-APC	5 tests	1 tube
CD4-APC-Alexa Fluor* 700	5 tests	1 tube
CD4-APC-Alexa Fluor* 750	5 tests	1 tube
CD4-Pacific Blue*	5 tests	1 tube
CD8-Krome Orange	5 tests	1 tube

Size	Status	Part #
5 tests	CE	B74074



REAGENTS

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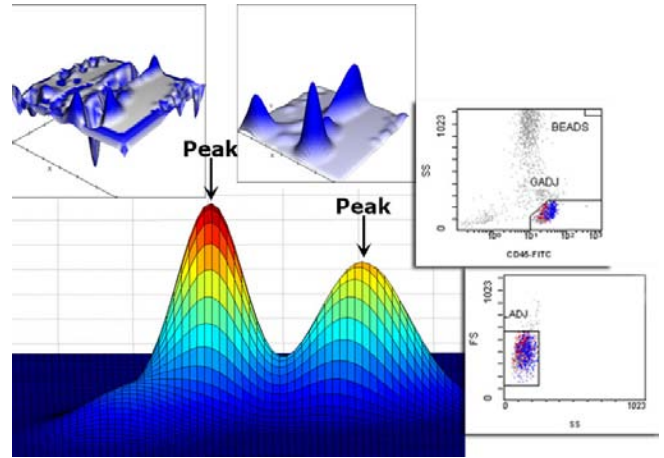
REAGENTS

SYSTEMS AND KITS

Navios tetra System

Get the fast answers you need for timely, confident treatment decisions with the proven reliability and precision of Beckman Coulter's Navios tetra system for simultaneous identification and enumeration of T, B and NK lymphocytes in whole blood. Now available for the Navios flow cytometer, Navios tetra system delivers an easy-to-use solution for multicolor flow cytometric analysis of lymphocyte subsets as well as CD4+ and CD8+ T cell subsets ratios. Navios tetra system's fully automated instrument set-up, easy sample preparation, innovative cluster tracking, and single platform standardization help streamline your workflow. At the same time, the absolute count robustness and on-board quality control tracking helps you make confident treatment decisions.

Fully automated instrument set-up using our Flow Check Pro and Flow Set Pro Fluorospheres provides fast automated instrument set up. Reduce sample processing time with ready-to-use pre-optimized reagents that make sample preparation easy and reduce sample handling with no wash protocol and improve laboratory safety.



Optional Bi-Directional LIS connectivity with Data Innovations Instrument Manager streamlines data entry and reporting.

	<i>Size</i>	<i>Status</i>	<i>Part #</i>
Flow-Check Pro Fluorospheres	3 x 10 mL	IVD & CE	A63493
Fluorospheres (10 µm; 6 µm; 3 µm)	-	3 vials	10 mL/vial
Flow-Set Pro Fluorospheres	3 x 10 mL	IVD & CE	A63492
Fluorospheres (3 µm)	-	3 vials	10 mL/vial
QuickCOMP 4 Kit	50 tests	IVD & CE	177017
CD45-FITC	J33 (IgG1 Mouse)	1 vial	50 tests
CD45-PE	J33 (IgG1 Mouse)	1 vial	50 tests
CD45-ECD	J33 (IgG1 Mouse)	1 vial	50 tests
CD45-PC5	J33 (IgG1 Mouse)	1 vial	50 tests
CYTO-COMP Cell Kit	50 tests	IVD & CE	6607023
Cells ($\geq 3.5 \times 10^6$ cells/vial)	-	5 vials	Lyophilized
Reconstitution buffer	-	5 vials	1 mL/vial
IMMUNO-TROL Cells	60 tests	IVD & CE	6607077
Quality Control Product	-	2 vials	3 mL/vial
IMMUNO-TROL Low Cells	60 tests	IVD & CE	6607098
Quality Control Product	-	2 vials	3 mL/vial
CYTO-TROL Control Cells	50 tests	IVD & CE	6604248
Cells ($\geq 3.5 \times 10^6$ cells/vial)	-	5 vials	Lyophilized
Reconstitution buffer	-	5 vials	1 mL/vial
tetraCHROME CD45-FITC/CD4-PE/CD8-ECD/CD3-PC5	50 tests	IVD & CE	6607013
tetraCHROME CD45-FITC/CD56-PE/CD19-ECD/CD3-PC5	50 tests	IVD & CE	6607073
Flow-Count Fluorospheres	200 tests	IVD & CE	7547053
Fluorospheres (10 µm)	-	1 vial	20 mL/vial
Navios Tetra Software		IVD & CE	775213



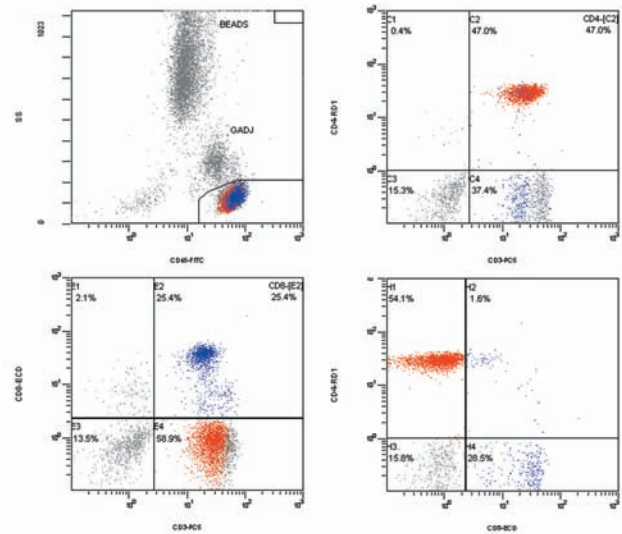
REAGENTS

SYSTEMS AND KITS

tetraCXP SYSTEM

The tetraCXP SYSTEM provides a fully automated Windows* based device for enumeration of CD3⁺CD4⁺ and CD3⁺CD8⁺ lymphocytes from whole blood in a single tube. This system, exclusively available on the FC 500 flow cytometer with CXP Software, consists of a set of reagents and the tetraCXP Software which features:

- all protocols required for cytometer set-up, standardization and verification for 4-color analysis.
- automated algorithm combines information from 4 parameters (Forward Scatter, Side Scatter and CD45 and CD3) to generate a 3 dimensional lymphocyte gate.
- direct display of total CD3⁺, CD3⁺CD4⁺, CD3⁺CD8⁺, CD19⁺ and CD3⁺CD56⁺ percentages and absolute counts as well as CD4/CD8 ratio and percentage of total lymphocytes in real time.
- automated cursor placement allows analysis of lymphocyte components.



	<i>Size</i>	<i>Status</i>	<i>Part #</i>
tetraCHROME CD45-FITC/CD4-PE/CD8-ECD/CD3-PC5	50 tests	IVD & CE	6607013
tetraCHROME CD45-FITC/CD56-PE/CD19-ECD/CD3-PC5	50 tests	IVD & CE	6607073
Flow-Check Fluorospheres	3 x 10 mL	IVD & CE	6605359
Fluorospheres (10 µm)	-	3 vials	10 mL/vial
Flow-Set Fluorospheres	3 x 10 mL	IVD & CE	6607007
Fluorospheres (3.6 µm)	-	3 vials	10 mL/vial
CYTO-COMP Cell Kit	50 tests	IVD & CE	6607023
Cells (≥ 3.5 x 10 ⁶ cells/vial)	-	5 vials	Lyophilized
Reconstitution buffer	-	5 vials	1 mL/vial
QuickCOMP 4 Kit	50 tests	IVD & CE	177017
CD45-FITC	J33 (IgG1 Mouse)	1 vial	50 tests
CD45-PE	J33 (IgG1 Mouse)	1 vial	50 tests
CD45-ECD	J33 (IgG1 Mouse)	1 vial	50 tests
CD45-PC5	J33 (IgG1 Mouse)	1 vial	50 tests
Flow-Count Fluorospheres	200 tests	IVD & CE	7547053
Fluorospheres (10 µm)	-	1 vial	20 mL/vial
CYTO-TROL Control Cells	50 tests	IVD & CE	6604248
Cells (≥ 3.5 x 10 ⁶ cells/vial)	-	5 vials	Lyophilized
Reconstitution buffer	-	5 vials	1 mL/vial
IMMUNO-TROL Cells	60 tests	IVD & CE	6607077
Quality Control Product	-	2 vials	3 mL/vial
IMMUNO-TROL Low Cells	60 tests	IVD & CE	6607098
Quality Control Product	-	2 vials	3 mL/vial
tetraCXP SYSTEM Software	-	IVD & CE	Please call



REAGENTS

SYSTEMS AND KITS

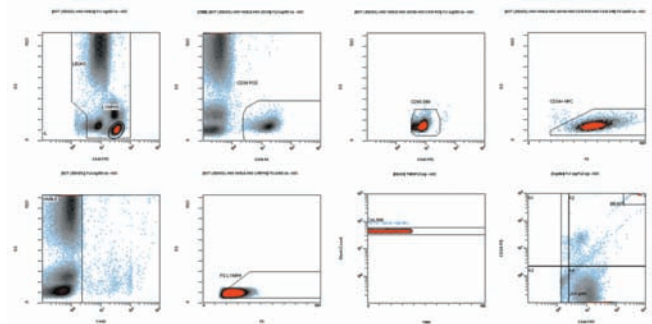
Stem-Kit Reagents

Stem-Kit Reagents is intended for the simultaneous identification and enumeration of CD45+ and dual-positive CD45+ CD34+ cell population percentages and absolute counts in biological specimens by flow cytometry. Biological specimens include fresh normal or mobilized peripheral whole blood, and fresh or thawed apheresis products, cord blood and bone marrow. Cell population measurements may be obtained using either an automated method or a manual method for gating and analysis.

	<i>Size</i>	<i>Status</i>	<i>Part #</i>
Stem-Kit Reagents	50 tests	IVD & CE	IM3630
CD45-FITC/CD34-PE	-	1 vial	
CD45-FITC/IsoClonic Control-PE	-	1 vial	
7-AAD Viability Dye	-	1 vial	
10X NH ₄ Cl Lysing Solution	-	2 vials	
Stem-Count Fluorospheres	-	1 vial	

stemCXP SYSTEM

The stemCXP SYSTEM provides the first fully automated Windows*-based device for the simultaneous identification and enumeration of CD45+ and CD45+/CD34+ hematopoietic progenitor cell (HPC) populations from fresh peripheral or mobilized peripheral whole blood, fresh bone marrow, fresh and thawed apheresis products and cord blood. The stemCXP SYSTEM follows the ISCT (International Society for Cellular Therapy, formerly ISHAGE) guidelines. The stemCXP Software provides all protocols required for automated standardization of light scatter and fluorescence intensities, and automated adjustment of color compensation settings.



	<i>Size</i>	<i>Status</i>	<i>Part #</i>
Flow-Check Fluorospheres	3 x 10 mL	IVD & CE	6605359
Fluorospheres (10 µm)	-	3 vials	10 mL/vial
Flow-Set Fluorospheres	3 x 10 mL	IVD & CE	6607007
Fluorospheres (3.6 µm)	-	3 vials	10 mL/vial
CYTO-COMP Cell Kit	50 tests	IVD & CE	6607023
Cells (≥ 3.5 x 10 ⁶ cells/vial)	-	5 vials	Lyophilized
Reconstitution buffer	-	5 vials	1 mL/vial
QuickCOMP 2 Kit	50 tests	IVD & CE	177018
CD45-FITC	-	1 vial	50 tests
CD45-PE	-	1 vial	50 tests
Stem-Kit Reagents	50 tests	IVD & CE	IM3630
CD45-FITC/CD34-PE	-	1 vial	
CD45-FITC/IsoClonic Control-PE	-	1 vial	
7-AAD Viability Dye	-	1 vial	
10X NH ₄ Cl Lysing Solution	-	2 vials	
Stem-Count Fluorospheres	-	1 vial	
Stem-Trol Control Cells	10 tests	IVD & CE	IM3632
HPC Control Cells 0.2 mL/vial	-	1 vial	10 tests
stemCXP SYSTEM Software	-	IVD & CE	Please call



REAGENTS

SYSTEMS AND KITS

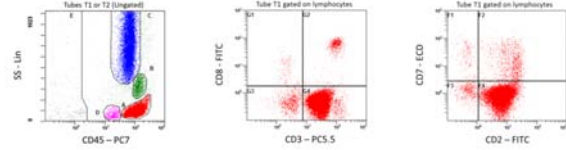
ClearLLab Reagents

The ClearLLab reagents are intended for in vitro diagnostic use as a screening panel for identification of various cell populations by immunophenotyping on an FC 500 flow cytometer. These reagents are used as an aid in the differential diagnosis of hematologically abnormal patients having, or suspected of having hematopoietic neoplasia including chronic leukemia, acute leukemia, non-Hodgkin lymphoma, myeloma, myelodysplastic syndrome (MDS), and/or myeloproliferative neoplasms (MPN). The reagents can be used with peripheral whole blood (collected in K2EDTA, ACD or Heparin), bone marrow (collected in K2EDTA, ACD or Heparin) and lymph node specimens for immunophenotyping. The results should be interpreted along with additional clinical and laboratory findings. These reagents provide qualitative results for the parameters listed below:

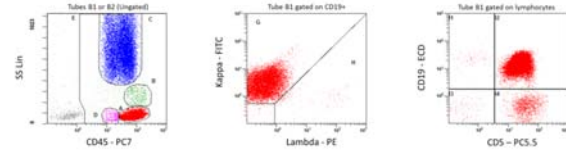
- ClearLLab T1: CD2, CD56, CD7, CD5, CD45
- ClearLLab T2: CD8, CD4, CD3, CD45
- ClearLLab B1: Kappa, Lambda, CD19, CD5, CD45
- ClearLLab B2: CD20, CD10, CD19, CD38, CD45
- ClearLLab M: CD7, CD13, CD34, CD33, CD45

- CE marked: Minimize your lab's validation work.
- Enhanced workflow: No manual antibody cocktail preparation.
- Consensus aligned: Ensures you work according to international guidelines.
- Small kit size: Adapt your inventory to actual demand with the 25 tests/vial.
- Versatile: ClearLLab can be used with peripheral blood, bone marrow and lymph node specimens.
- Identify major cell populations with ClearLLab's 5-combination, 18-marker panels.

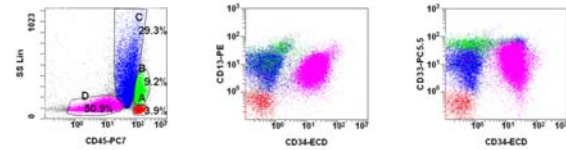
T-Cell Tube 1 and 2



B-Cell Tube 1 and 2



Myeloid Tube



Not all histograms shown.

	Size	Status	Part #
ClearLLab T1	25 tests	CE	B66807
CD2-FITC/CD56-PE/CD7-ECD/CD5-PC5.5/CD45-PC7	-	Liquid	25 tests

The antigen specificity of the CD45, CD2, CD56, CD7, and CD5 monoclonal antibodies comprising the ClearLLab T-cell Tube 1 reagent has been previously established by the Second (CD2 and CD7), Third (CD5 and CD45), Fourth (CD56) International Workshop for Leukocyte Typing.

ClearLLab T2	25 tests	CE	B66808
CD8-FITC/CD4-PE/CD3-PC5.5/CD45-PC7	-	Liquid	25 tests

The antigen specificity of the CD45, CD3, CD4, and CD8 monoclonal antibodies comprising ClearLLab T-cell Tube 2 reagent has been previously established by the First (CD4, CD8 and CD3) and the Third (CD45) International Workshop for Leukocyte Typing.

ClearLLab B1	25 tests	CE	B66809
Kappa-FITC/Lambda-PE/CD19-ECD/CD5-PC5.5/CD45-PC7	-	Liquid	25 tests

The application of Kappa and Lambda light chain analysis for immunophenotyping B lymphopoetic malignancies comprising the ClearLLab B-cell Tube 1 reagent has been previously described in the flow cytometric immunophenotyping for hematologic neoplasms.

ClearLLab B2	25 tests	CE	B66810
CD20-FITC/CD10-PE/CD19-ECD/CD38-PC5.5/CD45-PC7	-	Liquid	25 tests

The antigen specificity of the CD45, CD20, CD19, CD10 and CD38 monoclonal antibodies comprising the ClearLLab B2 CD20-FITC/CD10-PE/CD19-ECD/CD38-PC5.5/CD45-PC7 reagent has been previously established by the Human Leukocyte Differentiation Antigen Workshops.

ClearLLab M	25 tests	CE	B66812
CD7-FITC/CD13-PE/CD34-ECD/CD33-PC5.5/CD45-PC7	-	Liquid	25 tests

The antigen specificity of the CD7, CD13, CD33, CD34 and CD45 monoclonal antibodies comprising the ClearLLab Myeloid reagent has been previously established by the Human Leukocyte Differentiation Antigen Workshops.



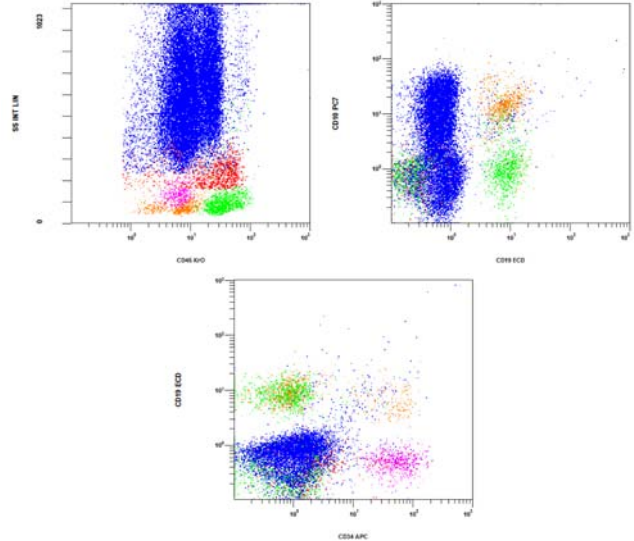
REAGENTS

SYSTEMS AND KITS

ClearLlab LS Lymphoid Screen Reagent

The ClearLlab LS (Lymphoid Screen) reagent is intended for in vitro diagnostic use as a screening panel for identification of various hematolymphoid cell populations by immunophenotyping on an Navios flow cytometer. The reagent is used as an aid in the differential diagnosis of patients with signs and/or symptoms of hematolymphoid malignancies. The reagent can be used with peripheral whole blood (collected in EDTA, ACD and Heparin), bone marrow specimens (collected in EDTA, ACD and Heparin) and lymph node specimens for immunophenotyping. The results should be interpreted along with additional clinical and laboratory findings. The reagents provide qualitative results for B, T, and NK lineages. The antigen specificity of the CD45, CD3, CD4, CD8, CD56 and CD5 monoclonal antibodies has been previously established by the First (CD4, CD8 and CD3), Third (CD5 and CD45), and Fourth (CD56) International Workshop for Leukocyte Typing.

The antigen specificity of the CD20, CD19, CD10 and CD34 monoclonal antibodies has been previously established by the Human Leukocyte Differentiation Antigen Workshops. The application of Kappa and Lambda light chain analysis for immunophenotyping B lymphopoetic malignancies has been previously described in the flow cytometric immunophenotyping for hematologic neoplasms.



Normal Bone Marrow

			Size	Status	Part #
ClearLlab LS Lymphoid Screen Reagent			25 tests	CE	B74073
	κ Chain	FITC	Polyclonal-kappa-2 (F(ab') ₂ Rabbit)		
	CD8	FITC	B9.11 (IgG1 Mouse)		
	λ Chain	PE	Polyclonal-lambda-2 (F(ab') ₂ Rabbit)		
	CD4	PE	13B8.2 (IgG1 Mouse)		
	CD19	ECD	J3-119 (IgG1 Mouse)		
	CD56	PC5.5	N901 (IgG1 Mouse)		
	CD10	PC7	ALB1 (IgG1 Mouse)		
	CD34	APC	581 (IgG1 Mouse)		
	CD5	APC-Alexa Fluor* 700	BL1a (IgG2a Mouse)		
	CD20	APC-Alexa Fluor* 750	B9E9 (IgG2a Mouse)		
	CD3	Pacific Blue*	UCHT1 (IgG1 Mouse)		
	CD45	Krome Orange	J33 (IgG1 Mouse)		
ClearLlab Compensation Kit			5 tests	CE	B74074
	CD4	FITC	13B8.2 (IgG1 Mouse)	1 tube	5 tests
	CD4	PE	13B8.2 (IgG1 Mouse)	1 tube	5 tests
	CD3	ECD	UCHT1 (IgG1 Mouse)	1 tube	5 tests
	CD4	PC5.5	13B8.2 (IgG1 Mouse)	1 tube	5 tests
	CD4	PC7	13B8.2 (IgG1 Mouse)	1 tube	5 tests
	CD4	APC	13B8.2 (IgG1 Mouse)	1 tube	5 tests
	CD4	APC-Alexa Fluor* 700	13B8.2 (IgG1 Mouse)	1 tube	5 tests
	CD4	APC-Alexa Fluor* 750	13B8.2 (IgG1 Mouse)	1 tube	5 tests
	CD4	Pacific Blue*	13B8.2 (IgG1 Mouse)	1 tube	5 tests
	CD8	Krome Orange	B9.11 (IgG1 Mouse)	1 tube	5 tests



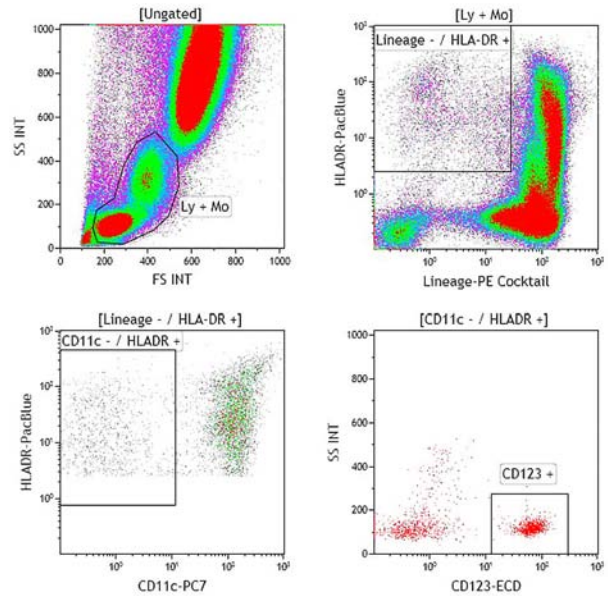
REAGENTS

SYSTEMS AND KITS

Lineage-PE Cocktail

The Lineage-PE Cocktail is comprised of PE-conjugated CD3, CD14, CD19, CD20 and CD56 antibodies. It enables the positive staining of five immune cell populations (T and B Lymphocytes, NK cells Monocytes/Macrophages) together, without distinction, in the PE channel using flow cytometry. When combined with fluorescently-labeled antibodies, other than PE, the gating on PE negative cells allows the phenotypical identification of Dendritic cells.

- The CD3 molecule is expressed only on cells of T lineage such as mature T cells and a subset of thymocytes. Approximately 65-75% of lymphocytes in peripheral blood are CD3+, although the percentage in children is lower and is age-related.
- The CD14 molecule is found on cells of myelomonocytic lineage. It is strongly expressed on monocytes, macrophages, and weakly on neutrophils. CD14 is not expressed on B lymphocytes, T lymphocytes, NK cells, red blood cells and platelets.
- The CD19 molecule is expressed on all B cells, including early progenitor B cells. Expression of CD19 persists during all stages of maturation and is lost only upon terminal differentiation to plasma cells. The CD19 molecule is not expressed on T lymphocytes, NK cells, Monocytes and Granulocytes.



- The CD20 molecule is expressed on B lineage cells. Its CD20 expression occurs early in pre-B lymphocyte development, persists throughout B lymphocyte ontogeny and is lost upon ultimate plasma cells differentiation. The CD20 molecule is present on all B lymphocytes whatever the hematopoietic tissue where they are found (peripheral blood, lymph nodes, spleen, tonsil, or bone marrow). CD20 is also expressed, but at low density, on a subset of peripheral blood T lymphocytes.
- The CD56 molecule, known as NCAM (Neural Cell Adhesion Molecule) antigen, is expressed on a subpopulation of peripheral blood large granular lymphocytes and on all cells with natural killer (NK) activity. It is also expressed by a minor subpopulation of CD3+ T cells that mediates reduced cytotoxic activity. It is not found on monocytes, granulocytes, erythrocytes or B lymphocytes.

			<i>Size</i>	<i>Status</i>	<i>Part #</i>
Lineage-PE Cocktail			100 tests	RUO	B29559
	CD3	PE	UCHT1 (IgG1 Mouse)		
	CD14	PE	RMO52 (IgG2a Mouse)		
	CD19	PE	J3-119 (IgG1 Mouse)		
	CD20	PE	B9E9 (IgG2a Mouse)		
	CD56	PE	N901 (IgG1 Mouse)		



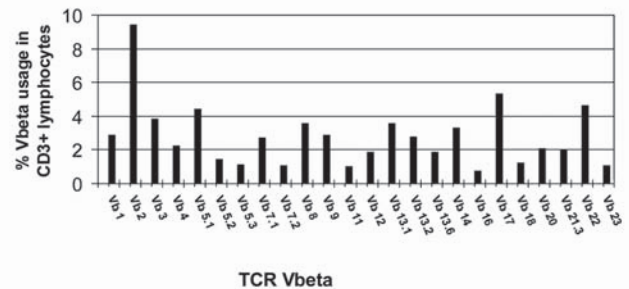
REAGENTS

SYSTEMS AND KITS

IOtest Beta Mark TCR Vβ Repertoire Kit

The IOtest Beta Mark Kit is a multi parametric analysis tool designed for quantitative determination of the TCR Vβ repertoire of human T lymphocytes by flow cytometry. Taking advantage of the fact that Vβ specificities may be grouped into mutually exclusive combinations, the detection of 3 Vβ expressions in the same tube is possible with the use of an innovative staining strategy combining three monoclonal antibodies (mAb) with only two fluorophores. A first mAb is FITC-conjugated, a second one is PE-conjugated and a third one is a carefully balanced mixture of a PE- and a FITC-conjugated form. This kit simplifies the TCR Vβ repertoire analysis by reducing the number of tubes to analyze (8 instead of 24) and consequently the time required for obtaining the results. Moreover, this kit makes it possible to study the repertoire on T cell subsets, using additional T-cell markers, such as CD3, CD4, and CD8, conjugated to a third fluorophore. The kit is composed of 8 vials containing mixtures of conjugated TCR Vβ antibodies corresponding to 24 different specificities (about 70% coverage of normal human TCR Vβ repertoire).

The test is intended for use on whole blood samples. The staining protocol includes a one-step procedure with directly conjugated antibody mixes (test volume of 20 μL) and a wash step after staining. A third color T-cell marker (preferentially as PC5-conjugate; not included) is used to gate the specific population. The kit can be used in a multi parametric environment employing at least three-color flow cytometric analysis. The test is compatible with different methods of red blood cell lysis and can be run on Beckman Coulter as well as BD Biosciences cytometers. The IOtest Beta Mark kit includes a control for PMT setting and fluorescence compensation adjustments. Since the reagent in vial A is used as to prepare this control, the kit contains 50 tests of reagent A instead of 25.



IOtest β Mark TCR Vβ Repertoire Kit			Size	Status	Part #
			25 tests	RUO	IM3497
Vial A	Vβ5.3	PE	3D11 (IgG1 Mouse)		
	Vβ7.1	PE+FITC	ZOE (IgG2a Mouse)		
	Vβ3	FITC	CH92 (IgM Mouse)		
Vial B	Vβ9	PE	FIN9 (IgG2a Mouse)		
	Vβ17	PE+FITC	E17.5F3.15.13 (IgG1 Mouse)		
	Vβ16	FITC	TAMAYA1.2 (IgG1 Mouse)		
Vial C	Vβ18	PE	BA62.6 (IgG1 Mouse)		
	Vβ5.1	PE+FITC	IMMU 157 (IgG2a Mouse)		
	Vβ20	FITC	ELL1.4 (IgG2a Mouse)		
Vial D	Vβ13.1	PE	IMMU 222 (IgG2b Mouse)		
	Vβ13.6	PE+FITC	JU74.3 (IgG1 Mouse)		
	Vβ8	FITC	56C5.2 (IgG2a Mouse)		
Vial E	Vβ5.2	PE	36213 (IgG1 Mouse)		
	Vβ2	PE+FITC	MPB2D5 (IgG1 Mouse)		
	Vβ12	FITC	VER2.32.1 (IgG2a Mouse)		
Vial F	Vβ23	PE	AF23 (IgG1 Mouse)		
	Vβ1	PE+FITC	BL37.2 (IgG1 Rat)		
	Vβ21.3	FITC	IG125 (IgG2a Mouse)		
Vial G	Vβ11	PE	C21 (IgG2a Mouse)		
	Vβ22	PE+FITC	IMMU 546 (IgG1 Mouse)		
	Vβ14	FITC	CAS1.1.3 (IgG1 Mouse)		
Vial H	Vβ13.2	PE	H132 (IgG1 Mouse)		
	Vβ4	PE+FITC	WJF24 (IgM Rat)		
	Vβ7.2	FITC	ZIZOU4 (IgG2a Mouse)		



REAGENTS

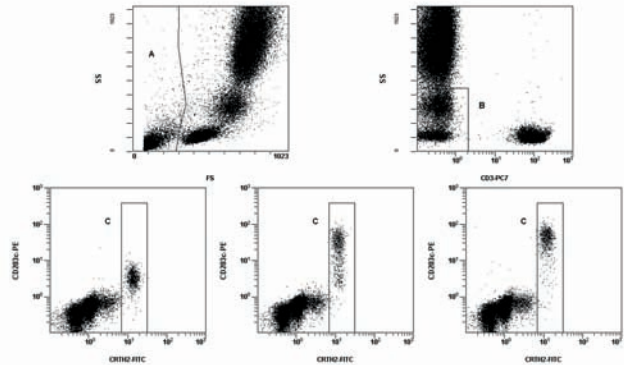
SYSTEMS AND KITS

Allergenicity Kit - Cellular Analysis of Allergy

Allergenicity Kit, Cellular Analysis of Allergy consists of an optimized three-color combination of fluorescent monoclonal antibodies, an activation solution, a positive control for IgE-mediated basophil activation, a stop solution, a lysing solution and a fixative solution.

The Allergenicity Kit is intended for the identification of resting and activated basophils based on an accurate basophils gating tool (utilizing CRTH2^{pos}CD203c^{pos}CD3^{neg}). The analysis is performed on whole blood specimens. The cell population of interest is stained with monoclonal antibodies in the presence of the allergen or controls. Erythrocytes are then lysed prior to flow cytometry analysis. Once T lymphocytes (CD3⁺ cells) are excluded, basophils are identified using CRTH2 and CD203c expression. Non-activated and resting basophils are CRTH2^{pos}CD203c^{dim}CD3^{neg}, whereas in vitro activated basophils are CRTH2^{pos}CD203c^{bright}CD3^{neg}.

The flow cytometer must be equipped to detect forward scatter, side scatter and three fluorescence channels allowing the analysis of FITC-, PE-, and PC7- conjugated antibodies.



	<i>Size</i>	<i>Status</i>	<i>Part #</i>
Allergenicity Kit	100 tests	CE	A17116
CRTH2-FITC / CD203c-PE / CD3-PC7	-	1 vial	2 mL
Positive Control	-	1 vial	0.2 mg
Activation Solution	-	2 vials	5 mL/vial
Stop Solution	-	1 vial	10 mL
Lysing Solution	-	3 vials	100 mL/vial
Fixative Solution	-	1 vial	10 mL

Residual Leukocyte Enumeration

The LeukoSure Enumeration Kit is comprised of a set of reagents used to prepare and enumerate white blood cells in leukoreduced red blood cell and platelet products by flow cytometry. The LeukoSure Enumeration Kit is configured to utilize the sensitivity of flow cytometry to enumerate residual leukocytes at the levels necessary to ensure the quality control of leukoreduced blood.

The enumeration method depends upon mixing a known volume (100 µL) of LeukoSure Fluorospheres with an identical volume of sample to be tested. After analysis the absolute count for the specimen is calculated. This represents the absolute number of leukocytes in the specimen.

The specimen is lysed and permeabilized using the LeukoSure Lyse Reagent to eliminate RBCs and prepare the cells for subsequent addition of the LeukoSure Stain Reagent which contains propidium iodide and RNase (enzyme used to remove ribonucleic acid, or RNA). In the absence of RNA, propidium iodide binds only to double stranded deoxyribonucleic acid (DNA) so that nucleated cells in the sample emit fluorescence in proportion to their DNA content. The flow cytometer measures the fluorescence from each stained cell as it passes through the laser beam. Since mature platelets and red blood cells do not contain DNA, the stained cells represent the leukocyte component of the blood.

	<i>Size</i>	<i>Status</i>	<i>Part #</i>
LeukoSure Enumeration Kit	200 tests	IVD & CE	175621
Leuko-Trol Platelet Control Kit	200 tests	IVD & CE	175651
Leuko-Trol RBC Control Kit	200 tests	IVD & CE	175658



REAGENTS

SYSTEMS AND KITS

Annexin V Kits

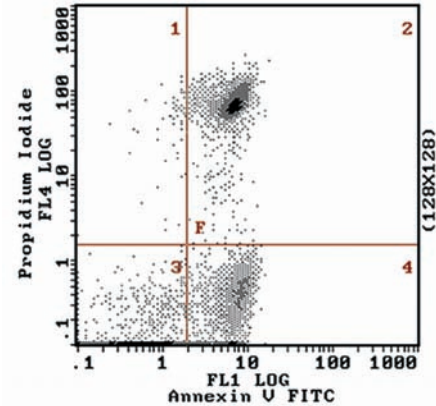
In early apoptosis, cells lose membrane phospholipid asymmetry, whilst the integrity of the cell membrane is maintained. The Annexin-V kits contain a viability dye to evaluate membrane integrity as well as annexin-V to assess membrane asymmetry.

In fact, phosphatidylserine (PS), a negatively charged phospholipid located in the inner surface of the plasma membrane, appears very early in apoptosis at the external cell surface. Annexin V, a calcium and phospholipid binding protein, binds preferentially to PS. The Annexin V kits employ recombinant annexin V labeled with biotin, fluorescein or R-phycoerythrin in together with the viability dyes propidium iodide (PI) or 7-amino actinomycin D (7-AAD).

Apoptotic cells are easily identified utilizing a rapid and simple staining procedure. Fixation of the cells is not necessary.

When cells are double-stained with annexin V and a viability dye, three different cell populations may be observed (see figure below): (i) live cells that do not stain either with annexin V or with the vital dye, (ii) necrotic or late apoptotic cells that stain with both annexin V and the vital dye, and (iii) early apoptotic cells that stain with annexin V only.

Analysis may be performed on any flow cytometer equipped with a 488nm laser or Arc Lamp depending on the reagent kit chosen. Alternatively, the cells may be examined with a fluorescent microscope or cell imaging system equipped with the appropriate filters.



	<i>Size</i>	<i>Status</i>	<i>Part #</i>
Annexin V-FITC Kit (20 tests)	20 tests	RUO	IM2375
Annexin V-FITC	-	1 vial	0.1 mL
Binding Buffer	-	1 vial - 10X	1.7 mL
Propidium Iodide	-	1 vial	Lyophilized
Annexin V-FITC Kit (200 tests)	200 tests	RUO	IM3546
Annexin V-FITC	-	1 vial	0.2 mL
Binding Buffer	-	6 vials - 10X	1.7 mL
Propidium Iodide	-	1 vial	Lyophilized
Annexin V-FITC/7-AAD kit	150 tests	RUO	IM3614
Annexin V-FITC	-	1 vial	1.7 mL
Binding Buffer	-	5 vials - 10X	1.7 mL
7-AAD	-	1 vial	3 mL



REAGENTS

Lysing, Fixative and Permeabilizing Solutions

Beckman Coulter provides a complete comprehensive workflow solution for all your flow cytometry needs.

Product	Principle	Sample	Fixation in lysis step	Wash / No-wash	Fixation after lysis	Applications
Lysis without permeabilization						
Versalyse	Enzyme-based erythrocytes lysis	Venous blood, bone marrow	Optional (IOtest3 Fixative Solution)	Can be used both washed and no-wash	Yes	Extracellular staining. Low stringency, Gentle to cells
IOtest 3 Lysing Solution	Ammonium Chloride based erythrocyte lysis	Venous blood, bone marrow	No	Wash after lysis	Optional (IOtest3 Fixative)	Classical Reference Method for extracellular staining
OptiLyse C	Formaldehyde-glycerol-based erythrocytes lysis.	Venous blood, bone marrow	Yes	Designed for no-wash	Yes	Extracellular staining on Beckman Coulter instruments
OptiLyse B	Fixation and protection of cells and hypotonic shock to lyse	Venous blood	Yes	Designed for no-wash	Yes	Extracellular staining on Beckman Dickinson instruments (low angle forward scatter)
Whole Blood Lysing Reagents	Amphipathic glycoside based lysis	Venous blood	No	Wash	Yes	Extracellular staining Optimized for use with COULTER CLONE and CYTO-STAT COULTER CLONE antibodies
IMMUNOPREP	Formic acid based lysis targeted for immunofluorescence measurements on flow cytometers	Venous blood	Yes	No-wash	Yes	Extracellular staining Automation only Used on Q-PREP, EP1000, Multi-Q-prep and TQ-prep
Lysis with permeabilization						
IntraPrep Permeabilization Reagent	Formaldehyde/saponin-based Permeabilization	Venous blood, bone marrow	Yes	Wash	Yes	Classical Reference Method for intracellular staining
PerFix-nc	Low Formaldehyde/Low detergent-based permeabilisation	Venous blood, peripheral blood mononuclear cells, mouse blood, bone marrow	Yes	Optional	Yes	Allows simultaneous staining of both extracellular and intracellular markers. No wash procedure providing high resolution.
PerFix EXPOSE	Detection of phospho epitopes by fixation, erythrocyte lysis, and permeabilization	Venous blood, bone marrow, peripheral blood mononuclear cells	Yes	Wash	Yes	High Stringency reagent. Phospho epitope detection. Allows the simultaneous staining of both extracellular markers, intracellular markers and phospho epitopes.
Fixation						
ThromboFix Platelet Stabilizer	Two part liquid preparation containing buffered reagents that when combined in equal volumes is used for the stabilization of platelets.	Venous blood	Yes	Not Applicable	Yes	Preserves platelets in their current state at the time of preparation up to 7 days.
IOtest 3 Fixative Solution	Formaldehyde-based fixative, provided as 10X concentrate.	Venous blood, bone marrow	Yes	Not Applicable	Yes	Optimized to work in combination with IOtest 3 Lysing Solution, Versalyse Lysing Solution and other systems.



REAGENTS

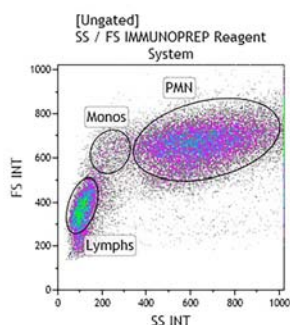
Lysing, Fixative and Permeabilizing Solutions

IMMUNOPREP Reagent System

The IMMUNOPREP Reagent System is a rapid, no-wash, standardized, whole blood preparation procedure maximizing sample to sample, and laboratory to laboratory reproducibility. The IMMUNOPREP reagent lysing action reduces cell stress and minimizes cell shrinkage while maintaining cellular integrity and morphology. Separation of leukocyte cell populations of interest from red blood cell ghosts and debris is maximized. Scatter characteristics are optimized for superior cell type resolution. The IMMUNOPREP Reagent Kit is comprised of 3 ready-to-use reagents:

- Reagent A lyses the red blood cells.
- Reagent B buffers the solution and stops the lysing process.
- Reagent C fixes the cells.

	Size	Status	Part #
For Q-PREP Workstation	100 tests	IVD & CE	7546946
For TQ-Prep Workstation	300 tests	IVD & CE	7546999

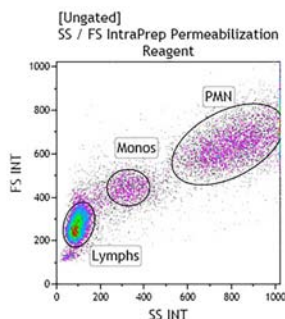


IMMUNOPREP on venous blood. Acquisition with a Navios cytometer.

IntraPrep Permeabilization Reagent

IntraPrep Permeabilization Reagent is a set of two ready-to-use reagents designed for the immunological detection of intracellular leucocyte antigens by flow cytometry. It uses a formaldehyde / saponin-based permeabilization procedure. IntraPrep Permeabilization Reagent can be used for detection of most cytoplasmic and nuclear antigens in whole blood samples. It creates apertures in the membrane without affecting the gross morphology of the cell. The resolution of each cell type on a dual light scatter histogram is well preserved during processing with this reagent system. The standard procedure consists of first, fixing cells with Reagent 1, and second, permeabilizing the white cells and lysing red cells using Reagent 2. The reagent formulation is optimized to minimize non-specific intracellular staining. The IntraPrep Permeabilization Reagent can be used for simultaneous detection of cell surface and cytoplasmic antigens by flow cytometry.

	Size	Status	Part #
Fixative + Permeabilizer (5 mL + 5 mL)	50 tests	IVD & CE	A07802
Fixative + Permeabilizer (15 mL + 15 mL)	150 tests	IVD & CE	A07803
Fixative + Permeabilizer (5 mL + 5 mL)	50 tests	RUO	IM2388
Fixative + Permeabilizer (15 mL + 15 mL)	150 tests	RUO	IM2389



IntraPrep on venous blood. Acquisition with a Navios cytometer.



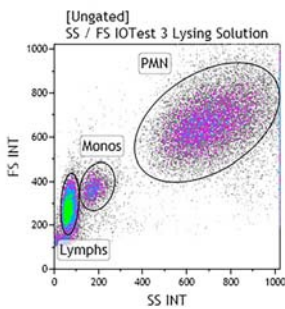
REAGENTS

Lysing, Fixative and Permeabilizing Solutions

IOTest 3 Lysing Solution

IOTest3 Lysing Solution is an ammonium chloride-based erythrocyte lysing solution designed for flow cytometry. This reagent is provided as a 10X-concentrated mixture of ammonium chloride, potassium bicarbonate and ethylenediamine tetraacetic acid (EDTA). IOTest3 Lysing Solution allows whole blood or bone marrow specimen preparation by erythrolysis during immunophenotyping procedures. A wash post lysis is required to yield optimal results.

	<i>Size</i>	<i>Status</i>	<i>Part #</i>
Lysing Solution	100 tests	IVD & CE	A07799
Lysing Solution	100 tests	RUO	IM3514



IOTest 3 on venous blood. Acquisition with a Navios cytometer.

IOTest 3 Fixative Solution

The IOTest3 Fixative Solution allows whole blood or bone marrow specimen preparation by fixing the cell suspension after erythrolysis during immunophenotyping procedures. At least one wash is required between the lysis and the fixation steps. The IOTest3 Fixative Solution is optimized to work in combination with the IOTest3 Lysing Solution. IOTest Fixative Solution is a formaldehyde-based fixative solution designed for flow cytometry. This reagent is provided as a concentrated solution in PBS.

	<i>Size</i>	<i>Status</i>	<i>Part #</i>
Fixative Solution	100 - 200 tests	IVD & CE	A07800
Fixative Solution	100 - 200 tests	RUO	IM3515



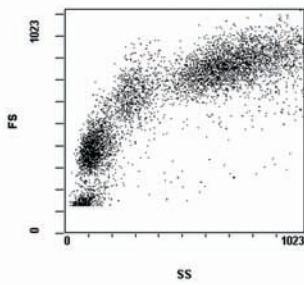
REAGENTS

Lysing, Fixative and Permeabilizing Solutions

OptiLyse No-Wash Lysing Solutions

Both OptiLyse C and B are erythrolytic reagents intended for lysing human red blood cells following direct immunofluorescence staining of whole blood for flow cytometry. OptiLyse C is a ready-to-use lysing solution optimized for use on Beckman Coulter instruments. OptiLyse B is a ready-to-use lysing solution optimized for use on BD Biosciences* instruments.

	<i>Size</i>	<i>Status</i>	<i>Part #</i>
OptiLyse C	200 tests	IVD & CE	A11895
OptiLyse C	200 tests	RUO	A11894
OptiLyse B	250 tests	RUO	IM1400



This dual-parameter light scatter histogram illustrates the expected spatial separation of leucocyte subsets after red blood cell lysis of normal peripheral blood with OptiLyse C.



REAGENTS

Lysing, Fixative and Permeabilizing Solutions

PerFix EXPOSE

Fast and Easy Procedure for Cell Signaling

The PerFix EXPOSE kit has been developed to enhance the signal-to-noise ratio of phospho-epitopes staining and to strongly reduce the workload necessary for the sample preparation.

Accurate detection of both intracellular and extracellular epitopes is obtained, while:

- There are only two washing steps through the procedure.
- There is no methanol treatment, and therefore no ice incubation required.
- A unique procedure can be applied to all phospho-epitopes.
- Several surface markers can be added together with the intracellular markers and incubated simultaneously.
- Total duration of the procedure and total workload are similar to current procedures for surface staining (about 1 hour).

	Size	Status	Part #
Fixative Reagent : 1 vial Permeabilizing Reagent : 3 vials Staining Reagent : 2 vials Final 20X Solution : 1 vial	75 tests	RUO	B26976

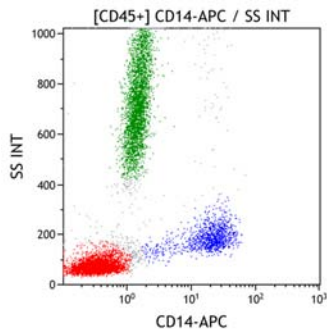


Illustration of leucocyte pattern and surface CD14 staining on a normal whole blood sample, implementing the STRAIGHT procedure (Surface and Phospho-epitopes markers incubated simultaneously).

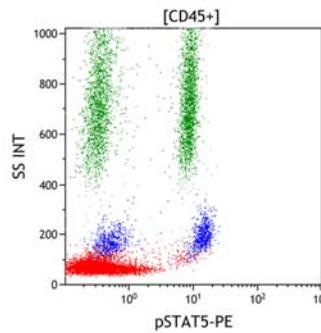


Illustration of leucocyte pattern and Phospho-STAT5 staining on the same normal sample (50/50 mix of GM-CSF activated and non-activated leucocytes), showing a pSTAT5-PE Relative Mean Fluorescence Intensity of more than 30 for both monocytes and granulocytes.



REAGENTS

Lysing, Fixative and Permeabilizing Solutions

PerFix-nc

For Intra- and Extra- Cellular Staining Preparation

The PerFix-nc Kit (no centrifuge assay Kit) has been developed to enhance the signal-to-noise ratio of intracellular staining and simplify the workload necessary for the sample preparation.

Accurate detection of both intracellular and extracellular epitopes are obtained, while:

- There are no washing steps through the whole STRAIGHT procedure (only a final wash step is described as optional).
- Several surface markers can be added together with the intracellular markers and incubated simultaneously during the permeabilization step.
- Total duration of the procedure and total workload are similar to current procedures for surface staining (e.g. VersaLyse + Fix No Wash), and much shorter than common permeabilization procedures.
- Potential automation of the PerFix-nc STRAIGHT procedure is rendered possible thanks to the removal of the washing steps.

	Size	Status	Part #
Fixative Buffer : 1 vial Permeabilizing Buffer : 1 vial Final 10X Solution : 1 vial	75 tests	IVD & CE	B31167
Fixative Buffer : 1 vial Permeabilizing Buffer : 1 vial Final 10X Solution : 1 vial	75 tests	RUO	B10825
Fixative Buffer : 2 vials Permeabilizing Buffer : 2 vials Final 10X Solution : 2 vials	150 tests	IVD & CE	B31168
Fixative Buffer : 2 vials Permeabilizing Buffer : 2 vials Final 10X Solution : 2 vials	150 tests	RUO	B10826

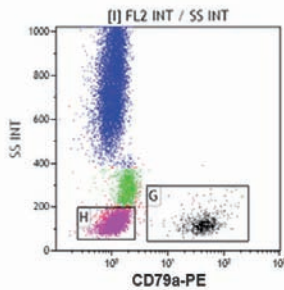
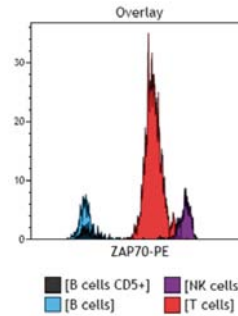


Illustration of leucocyte pattern and intracytoplasmic B-Cell staining on normal sample, implementing the PerFix-nc STRAIGHT protocol.



ZAP-70-PE staining on lymphocytes of another normal sample, implementing the PerFix-nc + wash protocol.

ThromboFix Platelet Stabilizer

The ThromboFix Platelet stabilizer extends the window for platelet analysis by ensuring that the platelets cannot be induced to a new functional state, for example, activated. Platelet Stabilizer preserves platelets in their current state at the time of preparation. The ThromboFix Platelet stabilizer may be used in conjunction with platelet monoclonal antibody-dye conjugates for flow cytometric analysis.

	Size	Status	Part #
Platelet Stabilizer	100 tests	RUO	6607130



REAGENTS

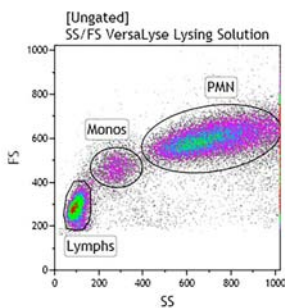
Lysing, Fixative and Permeabilizing Solutions

VersaLyse Lysing Solution

VersaLyse Lysing Solution is a reagent used to lyse red blood cells from any biological fluid and, in particular, to lyse erythrocytes from whole blood. VersaLyse is a highly specific, very gentle lysing solution, suitable for applications such as immunophenotyping, cell sorting, activation or cell culture. It is designed for use in flow cytometry and facilitates obtaining highly discriminative scattergrams whatever the type of flow cytometer used. VersaLyse is a versatile reagent which may be used in lyse / wash, wash / lyse and lyse / no-wash procedures with undiluted or diluted samples.

The histograms are dual-parameter light scatter histograms (FS versus SS) of a normal K₃EDTA anticoagulated blood sample lysed with VersaLyse Lysing Solution (No-wash procedure).

	Size	Status	Part #
Lysing Solution	100 tests	IVD & CE	A09777
Lysing Solution	100 tests	RUO	IM3648

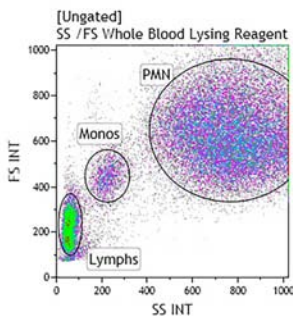


*VersaLyse Wash on venous blood.
Acquisition with a Navios cytometer.*

Whole Blood Lysing Reagents

The 100-test lysing kit (part number 6602764) provides Immuno-Lyse, Fixative and Stabilizer for preparation of whole blood for analysis by fluorescence microscopy or flow cytometry. The 300-test lysing kit (part number 6603152) provides Immuno-Lyse and Fixative for preparation of whole blood for analysis by flow cytometry only.

	Size	Status	Part #
Lysing Kit	100 tests	IVD & CE	6602764
Lysing Kit	300 tests	IVD & CE	6603152



*Whole Blood on venous blood.
Acquisition with a Navios cytometer.*



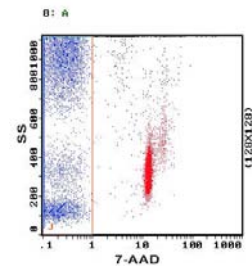
REAGENTS

Viability Dyes

Description	Utility
7-AAD Viability Dye	Ready-to-use reagent allowing discrimination of viable from non viable cells
DRAQ7 Far-Red Fluorescent Live-Cell Impermeant DNA Dye	Membrane impermeant fluorescent dye for the rapid and convenient staining of the dsDNA/nuclei of cells, tissues and organisms including dead, permeabilized or fixed mammalian cells
DAPI Viability Dye	Blue fluorescent nucleic acid stain that binds to double stranded DNA and appears to associate with AT clusters in the minor groove of the DNA molecule.

7-AAD Viability Dye

7-AAD Viability Dye is a ready-to-use reagent allowing discrimination of viable from non viable cells using flow cytometry. It is composed of 7-Amino-Actinomycin D (7-AAD) which intercalates between cytosine and guanine bases of the DNA. The maximum absorption of the 7-AAD / DNA complex is situated in the green spectral region, compatible with argon laser equipped-cytometer (excitation wavelength of 488 nm). The deep red fluorescence emission of 7-AAD (635 to 675 nm) makes the use of this probe easier in combination with fluorescein isothiocyanate (FITC) and phycoerythrin (PE) conjugated antibodies because, in contrast to propidium iodide (PI), the 7-AAD / DNA complex shows lower spectral overlap with FITC and PE.

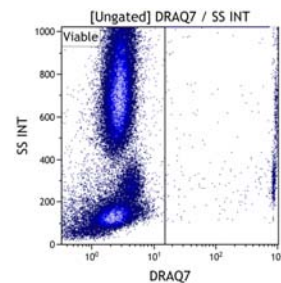


Size	Status	Part #
150 tests	CE	A07704
150 tests	RUO	IM3422
200 tests	RUO	B88526

NEW

DRAQ7 dye

DRAQ7 is a novel far-red emitting viability dye (e.g. 725nm/20nm bandpass) that can be used as a membrane impermeant fluorescent dye for the rapid and convenient staining of the dsDNA/nuclei of cells, tissues and organisms including dead, permeabilized or fixed mammalian cells with minimal RNA-associated fluorescence. It does not enter intact live cells, reducing the potential for false-positives, and making it an ideal reporter for real-time viability/toxicity studies by HCS imaging, flow or microplate-based cytometry.



Size	Status	Part #
200 tests	RUO	B25595

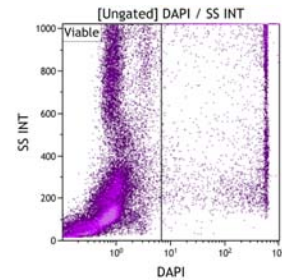


REAGENTS

Viability Dyes

DAPI

4',6-diamidino-2-phenylindole (DAPI) is a blue fluorescent nucleic acid stain that binds to double stranded DNA and appears to associate with AT clusters in the minor groove of the DNA molecule. DAPI undergoes approximately 20-fold enhancement of fluorescence when associated with DNA, having an excitation maximum of 358 nm and an emission maximum of 461 nm. The spectral properties of DAPI make it very suitable for detecting viability on a flow cytometer equipped with an ultraviolet or a violet laser. DAPI is an impermeant DNA dye; it is largely excluded from live cells by competent plasma membranes, but can enter a compromised membrane where the dye can interact with DNA in the cell. Under recommended conditions, dead cells produce a bright fluorescent signal when excited with a violet laser and detected in the wavelength range of 425-475 nm. It can be readily used with dyes excited by other laser lines. Apoptotic, necrotic cells and / or damaged cells are source of interference in the analysis of viable cells by flow cytometry. Non-viable cells can be evaluated and discriminated following DAPI positive labeling when viable cells remain unstained (negative).



Size	Status	Part #
200 tests	LUO	B30437



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Dry Reagents

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REAGENTS

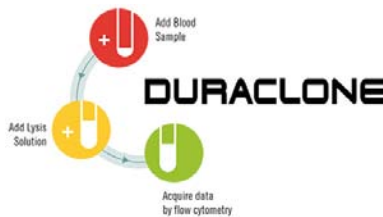
ANTIBODIES TO HUMAN ANTIGENS

DuraClone Multi-color Dry Reagent kits

Beckman Coulter takes flow cytometry innovation to the next level with the DuraClone line of dry reagents. DuraClone Reagents simplify your workflow and minimize your hands-on time.

DuraClone Dry Reagents come in a format that ensures stability for long periods of time without the need for refrigerated shipping or storage. Beckman Coulter new DuraClone line of dry reagents enables you to simplify and expedite sample preparation and handling while delivering the same performance as liquid reagents.

The DuraLyse solution is provided with DuraClone products (except where indicated). It is a lysing solution which results in simultaneous lysis of red blood cells under gentle hypotonic conditions and fixation of the leukocytes resulting in a leukocyte suspension substantially free of red blood cells and suitable for flow cytometric analysis.



ACCURATE AND REPRODUCIBLE

- Clones have been studied and clustered during an International Workshop on Human Leucocyte Differentiation Antigens (HLDA)
- No titration of antibodies
- No risk of aggregation in dried form

STABLE AND CONVENIENT

- Stable at room temperature
- Pre-dispensed reagents in unitized form standardizes testing, reduces hands-on time
- Dried down reagents - No refrigeration

	Size	Status	Part #
DuraClone S34 Reagent Kit	50 tests	CE	B36863

The DuraClone S34 Reagent Kit uses the principle of immunofluorescence to enumerate hematopoietic stem cells in cell preparations. It is available in a unitized, dried-down format and is ideal for enumerating viable CD34⁺ cells in cord blood samples on a flow cytometry platform. This reagent is intended for use on open flow cytometers.

The DuraClone S34 Reagent Kit allows for flow cytometry based rapid and accurate assessment of live hematopoietic progenitor cell in accordance with the International Society of Hematotherapy and Graft Engineering (ISHAGE) guidelines. The success of hematopoietic transplantations and hematopoietic progenitor cell storage is relative to the absolute live CD34⁺ hematopoietic progenitor cells (HPC's).

The DuraClone S34 Reagent Kit facilitates a robust, single platform method of enumerating viable human CD34⁺ cells. The CD34 antigen is a 110 kDa single chain type1 trans-membrane glycoprotein, associated with human hematopoietic progenitor cell. The reagent contains workshop approved anti-mouse, anti-human monoclonal antibodies specific to the CD45 antigen, CD34 specific class III mouse anti-human monoclonal antibody, and 7-Amino Actinomycin-D (7-AAD) dye.

Viability dye 7-AAD is a DNA intercalating agent that stains only cells in the late phases of cell death when the integrity of both the cell and nuclear membranes is lost. It is important to exclude CD34 dead cells to assist in counting true live CD34⁺ cells. Investigators have demonstrated that graft containing 4-5 X 10⁶ CD34⁺ cells /kg recipient ideal body weight (IBW) will result in rapid, durable, tri-lineage engraftment.

Components	Size	Specificity	Fluorochrome	Clone (Isotype)
CD45-Atto488/CD34-PE/7-AAD	50 tubes	CD34	PE	581 (IgG1 Mouse)
		CD45	Atto488	H130 (IgG1 Mouse)
		-	7-AAD	-
DuraLyse Solution	1 x 25 mL	-	-	-

Not available in all geographies. DuraClone Dry Reagents are available for IVD use only in those markets for which they have been registered per applicable regulations.



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

DuraClone Multi-color Dry Reagent kits

	Size	Status	Part #
DuraClone Tri T-STAT CD3/CD4/CD8 Reagent Kit	50 tests	CE	B39492

The DuraClone Tri T-STAT CD3/CD4/CD8 Reagent Kit is a three color immunofluorescence stain for the identification and enumeration of helper/inducer (CD4⁺) cytotoxic/suppressor (CD8⁺) and total T-lymphocytes (CD3⁺) combined with a precise number of fluorescent counting beads for absolute CD3⁺, CD4⁺, CD8⁺, T-Cells counts. This reagent is intended for flow cytometry based analysis in lysed human whole blood samples.

The reagent contains fluorescently labeled antibodies that bind to CD3, CD4 and CD8 antigens found on the surface of circulating leukocytes. The CD3 antigen is a complex of at least six proteins, known collectively as the T-cell receptor (TCR) complex. The antibody used in this reagent binds to the 20 kDa ϵ chain of this complex.

The CD4 antigen is a 59 kDa protein which interacts with class II molecules of the major histocompatibility complex and is the primary receptor for the Human Immunodeficiency Virus (HIV). The CD8 antigen is a complex consisting of two disulfide linked subunits. The antibody used in this reagent binds to the 32 kDa α subunit of the complex. CD8 interacts with class I major histocompatibility complex molecules.

Components	Size	Specificity	Fluorochrome	Clone (Isotype)
CD4-Atto488/CD8-PE/CD3-PE-Dy649	50 tubes	CD4	Atto488	RPA-T4 (IgG1 Mouse)
		CD8	PE	LT8 (IgG Mouse)
		CD3	PE-Dy649	UCHT1 (IgG1 Mouse)
DuraLyse Solution	1 x 25 mL	-	-	-

	Size	Status	Part #
DuraClone 34845 Reagent Kit	50 tests	CE	B36855

The DuraClone 34845 Reagent Kit is a four color immunofluorescence stain for the identification and enumeration of helper/inducer (CD4⁺) cytotoxic/suppressor (CD8⁺) and total T-lymphocytes (CD3⁺) combined with a precise number of fluorescent counting beads for absolute CD3⁺, CD4⁺, CD8⁺, T-Cells and absolute lymphocyte counts. This reagent is intended for flow cytometry based analysis in lysed human whole blood samples.

The reagent contains fluorescently labeled antibodies that bind to CD45, CD3, CD4 and CD8 antigens found on the surface of circulating leukocytes. The CD3 antigen is a complex of at least six proteins, known collectively as the T-cell receptor (TCR) complex. The antibody used in this reagent binds to the 20 kDa ϵ chain of this complex. The CD4 antigen is a 59 kDa protein which interacts with class II molecules of the major histocompatibility complex and is the primary receptor for the Human Immunodeficiency Virus (HIV). The CD8 antigen is a complex consisting of two disulfide linked subunits. The antibody used in this reagent binds to the 32 kDa α subunit of the complex. CD8 interacts with class I major histocompatibility complex molecules. The CD45 antigen is a complex 180-220 kDa transmembrane glycoprotein which is expressed in high levels on leukocyte cell surfaces and its presence distinguishes leukocytes from non-haematopoietic cells.

Components	Size	Specificity	Fluorochrome	Clone (Isotype)
CD3-Atto488/CD8-PE/CD4-APC/CD45-PerCP	50 tubes	CD3	Atto488	UCHT1 (IgG1 Mouse)
		CD8	PE	LT8 (IgG Mouse)
		CD4	APC	RPA-T4 (IgG1 Mouse)
		CD45	PerCP	HI30 (IgG1 Mouse)
DuraLyse Solution	1 x 25 mL	-	-	-

Not available in all geographies. DuraClone Dry Reagents are available for IVD use only in those markets for which they have been registered per applicable regulations.



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

DuraClone Multi-color Dry Reagent kits

	Size	Status	Part #
DuraClone 3 4 G Reagent Kit	50 tests	IVD	B36860

for India only

The DuraClone 3 4 G Reagent Kit is a two color immunofluorescence staining reagent for the enumeration of the absolute counts of the total T-lymphocytes (CD3⁺) and helper/inducer (CD4⁺) T-Cells. This reagent is intended for flow cytometry based analysis in lysed human whole blood samples, and is recommended for use on the Guava* Personal Cell Analysis (PCA) System.

The DuraClone 3 4 G Reagent Kit contains fluorescently labeled antibodies that bind to CD3 and CD4 antigens found on the surface of circulating leukocytes in peripheral blood samples. The CD3 antigen is a complex of six proteins known collectively as the T-cell receptor (TCR) complex. The antibody used in this reagent binds to the 20 kDa ϵ chain of this complex. The CD4 antigen is a 59 kDa protein. It interacts with class II molecules of the Major Histocompatibility Complex (MHC) and is the primary receptor for the Human Immunodeficiency Virus (HIV). Cells that are CD3⁺ and CD4⁺ are identified as helper/inducer lymphocytes. Decreased CD4⁺CD3⁺ cell counts have been associated with some forms of immunodeficiency.

Components	Size	Specificity	Fluorochrome	Clone (Isotype)
CD3-PE-Dy649/CD4-PE	50 tubes	CD3	PE-Dy649	UCHT1 (IgG1 Mouse)
		CD4	PE	RPA-T4 (IgG1 Mouse)
DuraLyse Solution	1 x 25 mL	-	-	-

	Size	Status	Part #
DuraClone 3 8 G Reagent Kit	50 tests	IVD	B36861

for India only

The DuraClone 3 8 G Reagent Kit is a two color immunofluorescence staining reagent for the enumeration of absolute counts of total T-lymphocytes (CD3⁺) and suppressor/cytotoxic (CD8⁺) T-Cells. This reagent is intended for flow cytometry based analysis in lysed human whole blood samples, and is recommended for use on the Guava® Personal Cell Analysis (PCA) System.

The DuraClone 3 8 G Reagent Kit contains fluorescently labeled antibodies that bind to CD3 and CD8 antigens found on the surface of circulating leukocytes in peripheral blood samples. The CD3 antigen is a complex of six proteins known collectively as the T-cell receptor (TCR) complex. The antibody used in this reagent binds to the 20 kDa ϵ chain of this complex. The CD8 antigen is a complex consisting of two disulfide linked subunits. The antibody used in this reagent binds to the 32 kDa α subunit of the complex. CD8 interacts with class I major histocompatibility complex molecules. Cells that are CD3⁺ and CD8⁺ are identified as suppressor/cytotoxic T lymphocytes.

Decreased CD8⁺CD3⁺ cell counts have been associated with some forms of immunodeficiency.

Components	Size	Specificity	Fluorochrome	Clone (Isotype)
CD3-PE-Dy649/CD8-PE	50 tubes	CD3	PE-Dy649	UCHT1 (IgG1 Mouse)
		CD8	PE	LT8 (IgG Mouse)
DuraLyse Solution	1 x 25 mL	-	-	-

Not available in all geographies. DuraClone Dry Reagents are available for IVD use only in those markets for which they have been registered per applicable regulations.



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

DuraClone Multi-color Dry Reagent kits

	Size	Status	Part #
DuraClone B27 Reagent Kit	50 tests	CE	B36862

The DuraClone B27 Reagent Kit comprises a two-color, immunofluorescence stain, suitable for detecting the HLA-B27 antigen expression in erythrocyte-lysed, human whole blood samples (for example, a lyse and no wash protocol), using a flow cytometer. This reagent is not intended to be used to determine the HLA-B27 tissue group.

The Human Leukocyte Antigen (HLA) B27 is a Class I surface antigen encoded by the B locus in the major histocompatibility complex (MHC) that presents microbial antigens to T-lymphocytes. The onset of seronegative spondyloarthropathies that include ankylosing spondylitis, Reiter's disease, psoriatic arthritis and inflammatory bowel disease are associated with the expression of HLA-B27 antigen on T-lymphocytes. Screening for HLA-B27 is thus of clinical relevance in conjunction with the symptomatic presentation of the disorder. Micro-lymphotoxicity tests are conventionally used in HLA-typing but are time-consuming and expensive. Flow cytometry has gradually evolved into a faster and reliable method for screening samples for HLA-B27 antigen.

T-lymphocytes selected through gating of the CD3⁺ specific population are analyzed for staining by HLA-B27 conjugates. It has been demonstrated that this pre-selection of T-lymphocytes increases the specificity of the test by eliminating the background attributed to other leukocyte populations. Another method of lowering the risk of false-positives is by the addition of an Anti-B7 antibody to the reagent cocktail. The Anti-B7 antibody competes with the Anti-B27 antibody for the B7 antigen and in this manner, suppressing the incidence of cross-reactivity of Anti-B27 antibodies to B7 antigens.

The DuraClone B27 Reagent Kit contains two clones of the Anti-HLA-B27 antibody and an Anti-B7 antibody. The presence of these antibodies improves the specificity of the reagent. The Anti-B7 antibody binds preferentially to the B7 antigen, thus reducing cross-reactivity. The test result is a direct extrapolation of the fluorescent staining intensity of the HLA-B27 conjugates with respect to a cutoff value.

A protocol, specific to BD Biosciences* instruments, is detailed in the B27 Reagent Kit IFU (Instruction for Use).

Components	Size	Specificity	Fluorochrome	Clone (Isotype)
CD3-PE-Dy649/HLA-B27-PE/HLA-B7	50 tubes	CD3	PE-Dy649	UCHT1 (IgG1 Mouse)
		HLA-B27	PE	HLA-ABC-m3 (IgG2a Mouse)
		HLA-B27	PE	FD705 (IgG2b Mouse)
		HLA-B7	-	BB7.1 (IgG1 Mouse)
DuraLyse Solution	1 x 25 mL	-	-	-

Not available in all geographies. DuraClone Dry Reagents are available for IVD use only in those markets for which they have been registered per applicable regulations.



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

DuraClone IM Dry Panels

DuraClone IM Panels are premixed, dried reagent cocktails to standardize and streamline flow cytometry workflow for clinical research studies involving the identification of principal populations of the human immune system.

DuraClone IM panels are provided with a robust compensation solution which delivers the level of standardization and workflow efficiency required for clinical research studies.

Three dried reagent single color compensation kits are provided with each package of 25 assay tubes. DuraClone IM single color conjugate compensation tubes are color-coded with lot-matched dyes, specific for each panel.

- Simplified detection of immune sub-populations
- Standardized for use in clinical research studies
- Designed and optimized by expert labs from The ONE Study.

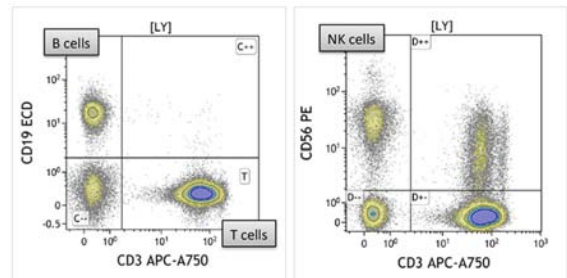


	Size	Status	Part #
DuraClone IM Phenotyping BASIC Tube	25 tests	RUO	B53309

The IM Phenotyping BASIC Tube is an 8-color, 8-monoclonal antibody reagent that allows the identification of common extracellular markers of different subpopulations of lymphocytes, present in whole blood specimens.

It contains 3 Compensation Kits, each kit containing eight tubes, each of a single color: CD4-FITC; CD4-PE; CD19-ECD; CD14-PC7; CD4-APC; CD8-A700; CD3-APC-A750; CD8-Krome Orange.

Specificity	Fluorochrome	Clone (Isotype)
CD16	FITC	3G8 (IgG1 Mouse)
CD56	PE	N901 (IgG1 Mouse)
CD19	ECD	J3-119 (IgG1 Mouse)
CD14	PC7	RM052 (IgG2a Mouse)
CD4	APC	13B8.2 (IgG1 Mouse)
CD8	Alexa Fluor* 700	B9.11 (IgG1 Mouse)
CD3	APC-Alexa Fluor* 750	UCHT1 (IgG1 Mouse)
CD45	Krome Orange	J33 (IgG1 Mouse)



Not available in all geographies. DuraClone IM Panels are available for Research Use Only. Not for use in diagnostics procedures.



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

DuraClone IM Dry Panels

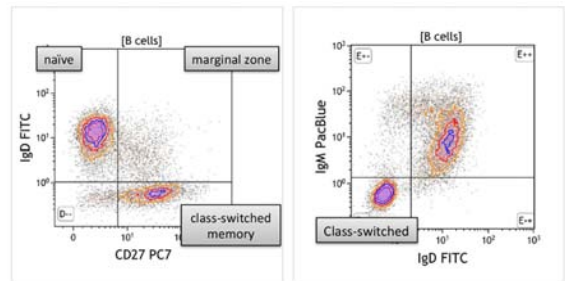
	Size	Status	Part #
DuraClone IM B cell Tube	25 tests	RUO	B53318

The major function of B cells (CD45+CD19+) in the human immune system is to recognize and memorize immunogenic structures and to terminally differentiate into plasma cells that produce antibodies against these recognized or memorized antigens. Late maturation stages of B cells are confined to peripheral compartments and can be described based on a previously published classification. The passage from bone marrow into peripheral compartments is associated with surface expression of immunoglobulin of the isotype classes M and D (IgM, IgD). Among IgM+ B cells high expression of CD24 along with absence of CD27 identifies transitional B cells, the earliest stage of maturation in peripheral compartments. Acquisition of CD27 expression identifies transition from a naïve to a marginal zone phenotype, further acquisition of low CD38 expression reveals memory identity (non-isotype -class switched). Loss of IgM and IgD surface expression is indicative of immunoglobulin isotype class switching giving rise to CD27+CD38- class-switched memory cells or CD27+CD38++ plasmablasts.

The DuraClone IM B cells Tube is an 8-color, 8- monoclonal antibody reagent that allows the identification of B lymphocyte subpopulations present in whole blood samples.

It contains 3 compensation kits; each kit containing eight tubes, each containing a single color:
 CD4-FITC; CD4-PE; CD19-ECD; CD27-PC7; CD4-APC; CD38-APC-A750; CD4-Pacific Blue; CD8-Krome Orange.

Specificity	Fluorochrome	Clone (Isotype)
IgD	FITC	IA6-2 (IgG2a Mouse)
CD21	PE	BL13 (IgG1 Mouse)
CD19	ECD	J3-119 (IgG1 Mouse)
CD27	PC7	1A4CD27 (IgG1 Mouse)
CD24	APC	ALB9 (IgG1 Mouse)
CD38	APC-Alexa Fluor* 750	LS198-4-3 (IgG1 Mouse)
IgM	Pacific Blue*	SA-DA4 (IgG1 Mouse)
CD45	Krome Orange	J33 (IgG1 Mouse)



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REAGENTS

ANTIBODIES TO HUMAN ANTIGENS DuraClone IM Dry Panels

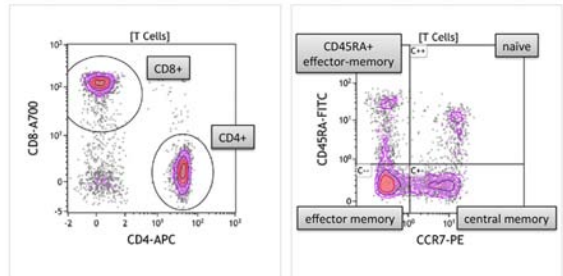
	Size	Status	Part #
DuraClone IM T cell subsets Tube	25 tests	RUO	B53328

When studying the immune response, T cell-mediated immunity is the central component. After their maturation in the thymus, T cells circulate in blood and in the lymphatic system as naive T cells expressing lymph node homing antigens such as CD197/ CCR7. Upon exposure to foreign antigens through encounter with specialized, antigen-presenting cells in secondary lymphoid tissues, T cells become antigen-specific effector cells associated with loss of CD27 and CD28 expression. Along with the effector cells, long-living central memory (CD45RA-CCR7+) and effector memory T cells (CD45RACCR7-) are generated to achieve and preserve the ability of rapid antigen-specific immune response. Terminal effector stages of T cell differentiation are indicated by upregulation of CD57 (effector phenotype) and CD279/PD-1 (co-inhibitory molecule, exhausted phenotype) expression.

The IM T cell subsets Tube is a 10-color, 10-monoclonal antibody reagent that allows the identification of common extracellular markers of different cell subsets, present in whole blood specimens.

It contains 3 Compensation Kits, each kit containing ten tubes, each of a single color: CD4-FITC, CD4-PE, CD28-ECD, CD279-PC5.5, CD27-PC7, CD4-APC, CD8-A700, CD3-APC-A750, CD4-Pacific Blue, CD8-Krome Orange

Specificity	Fluorochrome	Clone (Isotype)
CD45RA	FITC	2H4LDH11LDB9 (IgG1 Mouse)
CD197	PE	G043H7 (IgG2a Mouse)
CD28	ECD	CD28.2 (IgG1 Mouse)
CD279	PC5.5	PD1.3 (IgG2b Mouse)
CD27	PC7	1A4CD27 (IgG1 Mouse)
CD4	APC	13B8.2 (IgG1 Mouse)
CD8	Alexa Fluor* 700	B9.11 (IgG1 Mouse)
CD3	APC-Alexa Fluor* 750	UCHT1 (IgG1 Mouse)
CD57	Pacific Blue*	NC1 (IgM Mouse)
CD45	Krome Orange	J33 (IgG1 Mouse)



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REAGENTS

ANTIBODIES TO HUMAN ANTIGENS DuraClone IM Dry Panels

	Size	Status	Part #
DuraClone IM Dendritic cell Tube	25 tests	RUO	B53351

In human blood, DC can be separated in two main subsets, namely the myeloid DCs (mDCs) and the plasmacytoid DCs (pDCs). Both subsets share the lack of expression of classical mature lymphocytes lineage markers, CD3, CD19, CD20 and CD56 as well as the monocytic CD14 and a high expression level of HLA-DR. mDCs and pDCs differ by their CD11c expression, with mDCs expressing high level of CD11c while pDCs do not express CD11c.

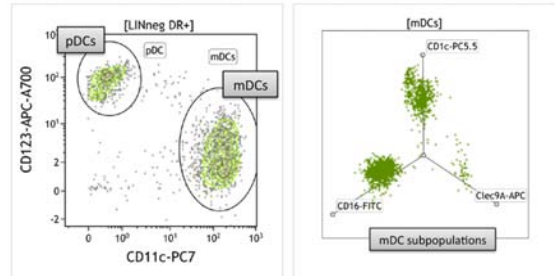
pDCs, which are distinguished by the expression of CD123, are less potent to present antigen but constitute the 1st barrier in anti-viral immunity. Upon virus exposure, pDCs produce large amount of Type I interferons.

mDCs are highly efficient in antigen presentation. In blood, 3 subsets of mDCs are identified: CD1c+ mDCs (MDC1), CD141+ mDCs (MDC2), and CD16+ mDCs. MDC1 have been described as key players in the induction of immunity towards extracellular pathogens. MDC2 are suggested to drive the CD8+ T cell-mediated immune response. Recently, it has been shown that MDC2 express CLEC9A, a C-type lectin domain family. As opposed to CD141, CLEC9A presents the advantage of being expressed in both human and mouse DCs. Thus, it can serve as a DC marker crossing species barriers and may help in the translation from the mouse DC system to human immunobiology. CD16+ mDCs have been described as inflammatory dendritic cells.

The DuraClone IM Dendritic cells Tube is an 8-color, 12-monoclonal antibody reagent that allows the identification of common extracellular markers of different DC Subsets, present in whole blood specimens.

It contains 3 Compensation Kits, each kit containing eight tubes, each of a single color:
 CD4-FITC; CD4-PE; CD1c-PC5.5; CD11c-PC7; CD4-APC; CD123-APCA700; CD4-Pacific Blue; CD8-Krome Orange

Specificity	Fluorochrome	Clone (Isotype)
CD16	FITC	3G8 (IgG1 Mouse)
Lineage (CD3/CD14/CD19/CD20/CD56)	PE	-
CD1c	PC5.5	L161 (IgG1 Mouse)
CD11c	PC7	BU15 (IgG1 Mouse)
Clec9A	APC	8F9 (IgG2a Mouse)
CD123	APC-Alexa Fluor* 700	SSDCLY107D2 (IgG1 Mouse)
HLA-DR	Pacific Blue*	Immu-357 (IgG1 Mouse)
CD45	Krome Orange	J33 (IgG1 Mouse)



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REAGENTS

ANTIBODIES TO HUMAN ANTIGENS DuraClone IM Dry Panels

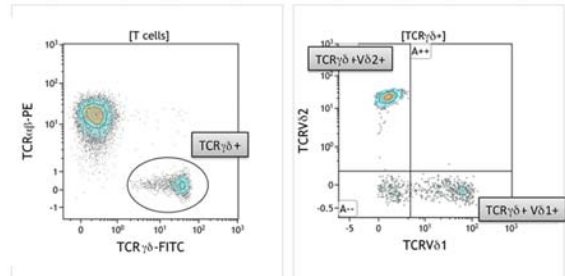
	Size	Status	Part #
DuraClone IM TCRs Tube	25 tests	RUO	B53340

Mature T cells - as identified by positive surface CD3 staining - express T cell receptors (TCRs) that enable low affinity-recognition of antigens bound to major histocompatibility complex (MHC) molecules. MHC co-binding of either CD4 (MHC class II) or CD8 (MHC class I) enhances and prolongs the engagement with the antigen-presenting cells. Two forms of TCRs are known either consisting of heterodimers of variable α and β protein chains or γ and δ protein chains. Proportions of 95% $\alpha\beta$ T cells and 5% $\gamma\delta$ T cells are commonly found in blood. The largest subset of $\gamma\delta$ T cells can be identified by the IMMU 389 antibody clone recognizing the $\gamma\delta$ complex from the V δ 2+ T cell receptor (TCR $\gamma\delta$ V δ 2+), being mostly associated with V γ 9. A smaller subset of $\gamma\delta$ T cells is staining positive with the R9.12 antibody clone that binds to the V δ 1 segment of $\gamma\delta$ T cells (TCR $\gamma\delta$ V δ 1+). The relative sizes of these two subsets have been assigned a role in fetomaternal and allograft tolerance.

The DuraClone IM TCRs Tube is a 9-color, 9-monoclonal antibody reagent that allows the identification of the TCRs on the surface of mature T cells.

It contains 3 Compensation Kits, each kit containing 9 tubes, each of a single color: CD4-FITC, CD4-PE, HLA DR-ECD, V δ 1-PC7, CD4-APC, CD8-A700, CD3-APC-A750, CD4-Pacific Blue, CD8-Krome Orange.

Specificity	Fluorochrome	Clone (Isotype)
TCR $\gamma\delta$	FITC	IMMU510 (IgG1 Mouse)
TCR $\alpha\beta$	PE	IP26A (IgG1 Mouse)
HLA-DR	ECD	Immu-357 (IgG1 Mouse)
TCRV δ 1	PC7	R9.12 (IgG1 Mouse)
CD4	APC	13B8.2 (IgG1 Mouse)
CD8	Alexa Fluor* 700	B9.11 (IgG1 Mouse)
CD3	APC-Alexa Fluor* 750	UCHT1 (IgG1 Mouse)
TCRV δ 2	Pacific Blue*	IMMU 389 (IgG1 Mouse)
CD45	Krome Orange	J33 (IgG1 Mouse)



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REAGENTS

ANTIBODIES TO HUMAN ANTIGENS DuraClone IM Dry Panels

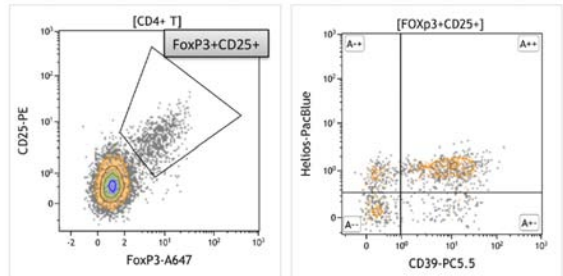
	Size	Status	Part #
DuraClone IM Treg Tube	25 tests	RUO	B53346

Regulatory T cells (Tregs) play a crucial role in the induction and maintenance of immunological tolerance. Together with CD4 and CD25, the expression of the transcription factor FoxP3 is considered the hallmark of human regulatory T cells (CD3+ CD4+ CD25+ FoxP3+). Helios, a transcription factor of the Ikaros family, has been described as a marker identifying thymus-derived nTregs - as opposed to Tregs induced in peripheral tissues (iTregs). Additionally, Helios acts as an enhancer of regulatory function. Surface expression of ectoenzyme CD39 exerts a suppressive function by its ATPase activity and is restricted to an effector/memory-like subpopulation of Tregs. CD45RA surface expression indicates a naïve or unprimed subpopulation of Tregs.

The DuraClone IM Treg Tube is an 8-color, 8-monoclonal antibody reagent that allows the identification of subpopulations of regulatory T cells in human whole blood samples by eight color flow cytometry.

It contains 3 Compensation Kits, each kit containing eight tubes, each of a single color:
 CD4-FITC; CD4-PE; CD39-PC5.5; CD4-PC7; FoxP3-A647; CD3-APC-A750; CD4-Pacific Blue; CD8-Krome Orange

Specificity	Fluorochrome	Clone (Isotype)
CD45RA	FITC	2H4LDH11LDB9 (IgG1 Mouse)
CD25	PE	B1.49.9 (IgG2a Mouse)
CD39	PC5.5	BA54 (IgG1 Mouse)
CD4	PC7	SFC112T4D11 (IgG1 Mouse)
FoxP3	Alexa Fluor* 647	259D (IgG1 Mouse)
CD3	APC-Alexa Fluor* 750	UCHT1 (IgG1 Mouse)
Helios	Pacific Blue*	22F6 (IgG Hamster)
CD45	Krome Orange	J33 (IgG1 Mouse)



Not available in all geographies. DuraClone IM Panels are available for Research Use Only. Not for use in diagnostics procedures.



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

DuraClone IM Dry Panels

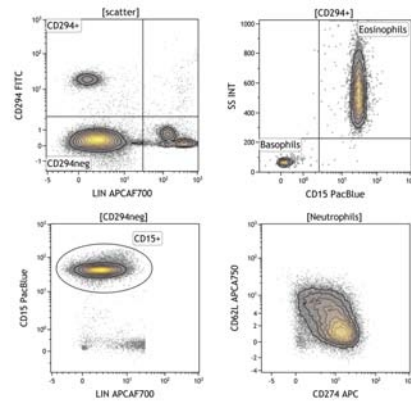
	Size	Status	Part #
DuraClone IM Granulocytes Tube	25 tests	RUO	B88651

Granulocytes are part of the human innate immune system. Recent findings suggest that granulocytes besides providing anti-microbial host defense may play an important immune-modulatory role leading to an increasing interest in studying granulocytes in the context of autoimmunity and tolerance.

The DuraClone IM Granulocytes Tube is a 9-color antibody reagent that allows the identification of major granulocyte subpopulations including assessment of CD11b, CD16, CD62L and PD-1L (CD274) co-expression.

It contains 3 Compensation Kits, each kit containing 9 tubes, each of a single color: CD4-FITC; CD16-ECD; CD33-PC5.5; CD11b-PC7; CD4-APC; CD19-APC-A700; CD62L-APC-A750; CD4-Pacific Blue; CD8-Krome Orange.

Specificity	Fluorochrome	Clone (Isotype)
CD15	Pacific Blue*	80H5 (IgM Mouse)
CD45	Krome Orange	J33 (IgG1 Mouse)
CD294	FITC	BM16 (IgG2a Rat)
CD16	ECD	3G8 (IgG1 Mouse)
CD33	PC5.5	D3HL60.251 (IgG1 Mouse)
CD11b	PC7	Bear1 (IgG1 Mouse)
CD274	APC	PD-L1 (IgG1 Mouse)
Lineage (CD3/CD14/CD19/CD56)	APC-Alexa Fluor* 700	-
CD62L	APC-Alexa Fluor* 750	DREG56 (IgG1 Mouse)



Not available in all geographies. DuraClone IM Panels are available for Research Use Only. Not for use in diagnostics procedures.



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

DuraClone IM Dry Panels

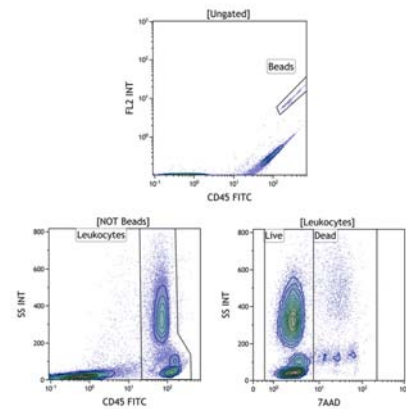
	Size	Status	Part #
DuraClone IM Count	25 tests	RUO	CO0162

The enumeration of leukocyte populations in human blood is typically performed using a hematology analyzer. Although flow cytometry only provides relative quantitation of cell number, it is possible to determine the absolute cell number using reference beads of known concentration mixed with the human whole blood sample of interest.

This test is based on the ability of specific monoclonal antibodies to bind to the antigenic determinants expressed by lineage committed cells and the binding of membrane-impermeant 7-aminoactinomycin D to the DNA of dead cells due to their lost membrane integrity. Additionally, the mixing of a known number of beads with a known volume of a whole blood can be used to determine the number of cells in the whole blood per unit volume.

The DuraClone IM Count is used for enumeration of CD45+ cells in whole blood while simultaneously differentiating live and dead cells.

Specificity	Fluorochrome	Clone (Isotype)
CD45	FITC	J33 (IgG1 Mouse)
7-AAD	-	-
Fluorescent Beads	-	-



Not available in all geographies. DuraClone IM Panels are available for Research Use Only. Not for use in diagnostics procedures.

REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

DuraClone RE Dry Panels

The DuraClone RE tubes are optimized sensitive antibody panels for rare event cytometry in clinical research studies of blood disorders.

DuraClone tubes contain a coating of dry ready-to-use antibody panel stable at room temperature for worry-free storage and shipping. The complete elimination of antibody pipetting minimizes human error sources and purges the workflow from repetitive actions that are expensive to automate. Reagent inventory management and cumbersome lot-to-lot equivalence testing are reduced to a minimum.

Three dried reagent single color compensation kits are provided with each package of 25 assay tubes.

- Solutions for rare event cytometry.
- Designed and optimized together with key experts.
- Standardized for use in clinical research studies.



	Size	Status	Part #
DuraClone RE CLB Tube	25 tests	RUO	B80393

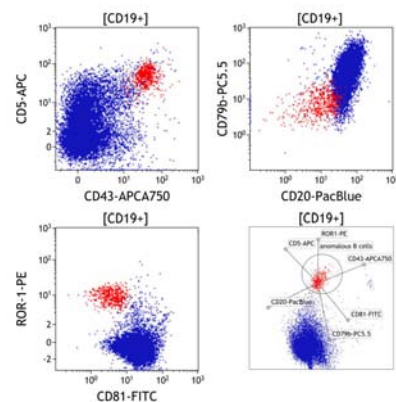
Detection of CD45⁺CD19⁺ROR1⁺CD5⁺⁺CD43⁺⁺CD81⁻CD20⁻CD79b⁻ B cells.

Mature human peripheral B cells (CD45+CD19+ lymphocytes) express high density levels of the antigens CD20, CD79b and CD81 on their surface. In contrast, the antigens CD5, CD43 and ROR1 are expressed at low density levels limited to a small fraction of these cells. Deviation from these patterns involving high expression of CD5, CD43 and ROR1 accompanied by reduced expression densities of CD20, CD79b, and CD81 can be utilized to identify abnormal B cells even at very low frequencies.

The DuraClone RE CLB tube is an 8-color, 8-mono monoclonal antibody reagent that allows the identification of abnormal B cells in human whole blood samples by eight color flow cytometry.

It contains 3 Compensation Kits, each kit containing eight tubes, each of a single color: CD4-FITC; CD4-PE; CD79b-PC5.5; CD19-PC7; CD4-APC; CD43-APC-A750; CD4-PB; CD8-Krome Orange.

Specificity	Fluorochrome	Clone (Isotype)
CD20	Pacific Blue*	B9E9 (IgG2a Mouse)
CD45	Krome Orange	J33 (IgG1 Mouse)
CD81	FITC	JS64 (IgG2a Mouse)
ROR1	PE	2A2 (IgG1 Mouse)
CD79b	PC5.5	CB3-1 (IgG1 Mouse)
CD19	PC7	J3-119 (IgG1 Mouse)
CD5	APC	CLB-T1/1 (IgG1 Mouse)
CD43	APC-Alexa Fluor* 750	DFT1 (IgG1 Mouse)



Data was obtained from a whole blood sample using a Navios flow cytometer.

Not available in all geographies. DuraClone RE Panels are available for Research Use Only. Not for use in diagnostics procedures.



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

DuraClone RE Dry Panels

	Size	Status	Part #
DuraClone RE PC Tube	25 tests	RUO	B80394

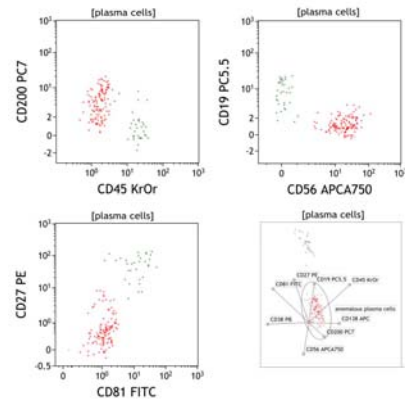
Detection of CD45⁺CD38⁺CD138⁺CD56⁺CD200⁺CD19⁺CD27⁺CD81⁺ plasma cells.

Human plasma cells (CD45+CD38+CD138+) express high density levels of the antigens CD19, CD27 and CD81 on their surface. In contrast, the antigens CD56 and CD200 are expressed at low density levels or are even completely absent. Deviation from these patterns involving high expression of CD56 and/or elevated expression of CD200 often accompanied by reduced expression densities or even absence of CD19 and/or CD27 and/or CD81 and/or CD45 can be utilized to identify abnormal plasma cells even at very low frequencies.

The DuraClone RE PC tube is an 8-color, 8-monoclonal antibody reagent that allows the identification of abnormal plasma cells in human bone marrow samples post red blood cell lysis.

It contains 3 Compensation Kits, each kit containing eight tubes, each of a single color: CD4-FITC; CD4-PE; CD19-PC5.5; CD200-PC7; CD4-APC; CD56-APC-A750; CD4-PB; CD8-Krome Orange.

Specificity	Fluorochrome	Clone (Isotype)
CD38	Pacific Blue*	LS198-4-3 (IgG1 Mouse)
CD45	Krome Orange	J33 (IgG1 Mouse)
CD81	FITC	JS64 (IgG2a Mouse)
CD27	PE	1A4CD27 (IgG1 Mouse)
CD19	PC5.5	J3-119 (IgG1 Mouse)
CD200	PC7	OX-104 (IgG1 Mouse)
CD138	APC	B-A38 (IgG1 Mouse)
CD56	APC-Alexa Fluor* 750	N901 (IgG1 Mouse)



Data was obtained from a whole blood sample using a Navios flow cytometer.

Not available in all geographies. DuraClone RE Panels are available for Research Use Only. Not for use in diagnostics procedures.



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

DuraClone RE Dry Panels

	Size	Status	Part #
DuraClone RE ALB Tube	25 tests	RUO	CO0163

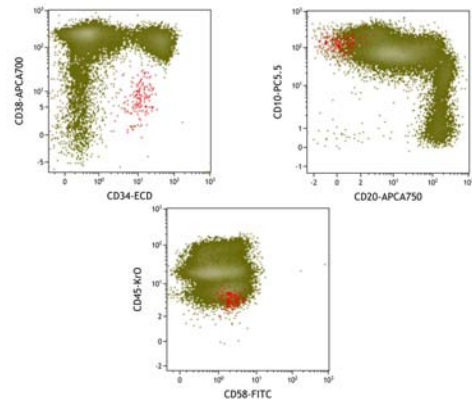
Detection of immature B cells with anomalous pattern of CD10, CD20, CD34, CD38, CD58.

Discrimination of abnormal from normal B cells during early stages of B cell development in human bone marrow can be realized through precise assessment of B cell surface antigen expression patterns. Normal and abnormal patterns in B cells can be defined by differential densities of CD10, CD19, CD20, CD34, CD38, CD45 and CD58 expression on the surface of B cells.

The DuraClone RE ALB Tube is a 7-color, 7 monoclonal antibody reagent that allows the identification of abnormal precursor B cells in human bone marrow samples post red blood cell lysis.

It contains 3 Compensation Kits, each kit containing seven tubes, each of a single color: CD4-FITC; CD34-ECD; CD10-PC5.5; CD19-PC7; CD38-APC-A700; CD20-APC-A750; CD8-Krome Orange.

Specificity	Fluorochrome	Clone (Isotype)
CD58	FITC	AICD58 (IgG2a Mouse)
CD34	ECD	581 (IgG1 Mouse)
CD10	PC5.5	ALB1 (IgG1 Mouse)
CD19	PC7	J3-119 (IgG1 Mouse)
CD38	APC-Alexa Fluor* 700	LS198-4-3 (IgG1 Mouse)
CD20	APC-Alexa Fluor* 750	B9E9 (IgG2a Mouse)
CD45	Krome Orange	J33 (IgG1 Mouse)



Data was obtained and merged from two different bone marrow samples using a Navios flow cytometer.

Not available in all geographies. DuraClone RE Panels are available for Research Use Only. Not for use in diagnostics procedures.

REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

DuraClone IF Dry Panels

The DuraClone IF T Activation tube offers solutions for Immune Functional cytometry.

Sensitive cytokine detection at the single cell level can now be assessed through a simple and efficient workflow. The dry ready-to-use DuraClone IF T Activation panel eliminates error-prone antibody pipetting and runs with the simple and fast PerFix-nc permeabilization protocol. Make up your mind about functional cellular assays - consider it now a standardized assay with a streamlined workflow!

Three dried reagent single color compensation kits, each kit containing six tubes, are provided with each package of 25 assay tubes.

- Open slots for additional drop-in markers
- Designed for minimal spillover assure flexibility and sensitivity
- Standardized for use in clinical research studies



DuraClone IF T Activation Tube	Size	Status	Part #
	25 tests	RUO	B88649

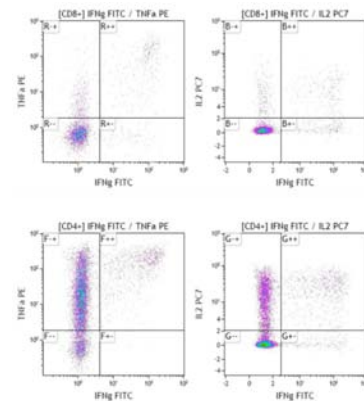
Detection of proinflammatory cytokines in T cells

T cells represent a central subset of the adaptive immune system. Upon recognition of specific antigens T cells - among other responses - secrete inflammatory cytokines such as IFN- γ , TNF- α and IL-2 which stimulate complementary parts of the immune system to defend the host against the provoking pathogens. Identification of cytokine-secreting T cells subsets is an important tool in studying and understanding T cell function in immune activation and suppression.

The DuraClone IT T Activation tube is a 6-color reagent that allows the identification of IFN γ , TNF α and IL2 secreting CD4 and CD8 T cells.

It contains 3 Compensation Kits, each kit containing six tubes, each of a single color: CD4-FITC; CD4-PE; IL2-PC7; CD8-AF700; CD3-AF750; CD4-PB.

Specificity	Fluorochrome	Clone (Isotype)
CD4	Pacific Blue*	13B8.2 (IgG1 Mouse)
IFN- γ	FITC	45.15 (IgG1 Mouse)
TNF α	PE	IPM2 (IgG1 Mouse)
IL-2	PC7	MQ1-17H12 (IgG2a Rat)
CD8	Alexa Fluor* 700	B9.11 (IgG1 Mouse)
CD3	Alexa Fluor* 750	UCHT1 (IgG1 Mouse)



Data was obtained from a whole blood sample using a Navios flow cytometer.

Not available in all geographies. DuraClone IF Panels are available for Research Use Only. Not for use in diagnostics procedures.



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Table of Multi-Color Reagents

	FITC	PE / RD1	ECD	PC5	PC5.5	PC7	Part Number				Page
							RUO	ASR	CE	IVD & CE	
CD2											
5-color											
	CD2	CD56	CD7	-	CD5	CD45			B66807		70, 117
2-color											
	CD2	CD7	-	-	-	-		6604239			119
	CD2	CD19	-	-	-	-	M1289U				120
	CD19	CD2	-	-	-	-			6603801		120
CD3											
4-color											
	CD8	CD4	-	-	CD3	CD45			B66808		70, 117
	CD45	CD4	CD8	CD3	-	-			6607013		67, 68, 118
	CD45	CD56	CD19	CD3	-	-			6607073		67, 68, 118
3-color											
	CD3	CD4	-	CD45	-	-	M1651				126
	CD3	CD8	-	CD45	-	-	M1670				126
	CD3	CD19	-	CD45	-	-	M1671				126
	CD4	CD8	-	CD3	-	-	M1650				126
	CD5	CD7	CD3	-	-	-		A07725			123
	CD8	CD4	CD3	-	-	-		A07726			123
	CD8	CD4	-	CD3	-	-			6607053		118
	CD8	CD4	-	-	-	CD3	6607103				120
	CD16	CD56	CD3	-	-	-		A07728			123
	CD25	CD4	CD3	-	-	-		A07727			124
	CD45	CD4	-	CD3	-	-			6607015		118
	CD45	CD8	-	CD3	-	-			6607017		118
	CD45	CD19	-	CD3	-	-			6607072		118
	CD45	CD56	-	CD3	-	-			6607071		118
	MPO	CD79a	CD3	-	-	-		A07705			125
	Neg.Ctrl.	Neg.Ctrl.	CD3	-	-	-		A07731			125
2-color											
	CD3	CD4	-	-	-	-		A07733			121
	CD3	CD4	-	-	-	-	M1332				126
	CD3	CD4	-	-	-	-			6604929		119
	CD3	CD8	-	-	-	-		A07734			121
	CD3	CD8	-	-	-	-	M1333				126
	CD3	CD8	-	-	-	-			6604930		119
	CD3	CD(16+56)	-	-	-	-	M2076	A07735			121
	CD3	CD19	-	-	-	-		A07736			121
	CD3	CD19	-	-	-	-	M1334				126
	CD3	CD19	-	-	-	-			6605015		119
	CD3	CD25	-	-	-	-	M2667U				121
	CD3	CD56	-	-	-	-			6607068		119
	CD3	-	-	CD56	-	-	A07415				121
	CD3	HLA-DR	-	-	-	-	M1295U				121
	CD3	HLA-DR	-	-	-	-		A07737			121
	HLA-DR	CD3	-	-	-	-	M1300				122
12-color											
	kappa	-	CD19	-	CD56	CD10			B74073		71, 117



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Table of Multi-Color Reagents

	FITC	PE / RD1	ECD	PC5	PC5.5	PC7	Part Number				Page
							RUO	ASR	CE	IVD & CE	
CD4											
4-color											
	CD8	CD4	-	-	CD3	CD45			B66808		70, 117
	CD45	CD4	CD8	CD3	-	-				6607013	67, 68, 118
3-color											
	CD3	CD4	-	CD45	-	-	M1651				126
	CD4	CD8	-	CD3	-	-	M1650				126
	CD8	CD4	CD3	-	-	-			A07726		123
	CD8	CD4	-	CD3	-	-				6607053	118
	CD8	CD4	-	-	-	CD3	6607103				120
	CD25	CD4	CD3	-	-	-			A07727		124
	CD45	CD4	-	CD3	-	-				6607015	118
2-color											
	CD3	CD4	-	-	-	-			A07733		121
	CD3	CD4	-	-	-	-	M1332				126
	CD3	CD4	-	-	-	-				6604929	119
	CD4	CD8	-	-	-	-		M0747U			121
	CD4	CD8	-	-	-	-				6604614	119
	CD4	CD29	-	-	-	-		6603799			119
	CD4	CD45RA	-	-	-	-		6603800			119
	CD8	CD4	-	-	-	-		M1379U			121
	CD8	CD4	-	-	-	-				6603802	119
	CD45RA	CD4	-	-	-	-	M2762				122
12-color											
	kappa	-	CD19	-	CD56	CD10			B74073		71, 117
CD5											
5-color											
	CD2	CD56	CD7	-	CD5	CD45			B66807		70, 117
	Kappa	Lambda	CD19	-	CD5	CD45			B66809		70, 117
3-color											
	CD5	CD7	CD3	-	-	-			A07725		123
	CD5	CD10	CD19	-	-	-			A07707		123
	CD5	CD23	CD19	-	-	-			A07710		123
2-color											
	CD19	CD5	-	-	-	-	M1346U				121
12-color											
	kappa	-	CD19	-	CD56	CD10			B74073		71, 117
CD7											
5-color											
	CD2	CD56	CD7	-	CD5	CD45			B66807		70, 117
	CD7	CD13	CD34	-	CD33	CD45			B66812		70, 117
3-color											
	CD5	CD7	CD3	-	-	-			A07725		123
	HLA-DR	CD7	CD45	-	-	-			A07724		125
2-color											
	CD2	CD7	-	-	-	-		6604239			119



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Table of Multi-Color Reagents

	FITC	PE / RD1	ECD	PC5	PC5.5	PC7	Part Number				Page
							RUO	ASR	CE	IVD & CE	
CD8											
4-color											
	CD8	CD4	-	-	CD3	CD45			B66808		70, 117
	CD45	CD4	CD8	CD3	-	-				6607013	67, 68, 118
3-color											
	CD3	CD8	-	CD45	-	-	M1670				126
	CD4	CD8	-	CD3	-	-	M1650				126
	CD8	CD4	CD3	-	-	-			A07726		123
	CD8	CD4	-	CD3	-	-				6607053	118
	CD8	CD4	-	-	-	CD3	6607103				120
	CD45	CD8	-	CD3	-	-				6607017	118
2-color											
	CD3	CD8	-	-	-	-			A07734		121
	CD3	CD8	-	-	-	-	M1333				126
	CD3	CD8	-	-	-	-				6604930	119
	CD4	CD8	-	-	-	-		M0747U			121
	CD4	CD8	-	-	-	-				6604614	119
	CD8	CD4	-	-	-	-		M1379U			121
	CD8	CD4	-	-	-	-				6603802	119
	CD8	CD38	-	-	-	-	M2695U				121
	CD8	CD56	-	-	-	-		6603798			119
	CD57	CD8	-	-	-	-	M1198				122
	HLA-DR	CD8	-	-	-	-	M1199U				122
12-color											
	kappa	-	CD19	-	CD56	CD10			B74073		71, 117
CD10											
5-color											
	CD20	CD10	CD19	-	CD38	CD45			B66810		70, 117
3-color											
	CD5	CD10	CD19	-	-	-			A07707		123
	CD19	CD10	CD45	-	-	-			A07713		123
	CD20	CD10	CD19	-	-	-			A07708		123
2-color											
	CD10	CD19	-	-	-	-		6604241			119
12-color											
	kappa	-	CD19	-	CD56	CD10			B74073		71, 117
CD11c											
3-color											
	CD25	CD11c	CD19	-	-	-			A07711		124
	CD103	CD11c	CD19	-	-	-			A07712		124
CD13											
5-color											
	CD7	CD13	CD34	-	CD33	CD45			B66812		70, 117
3-color											
	CD14	CD13	CD45	-	-	-			A07722		123
	HLA-DR	CD13	CD45	-	-	-			A07720		124



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Table of Multi-Color Reagents

	FITC	PE / RD1	ECD	PC5	PC5.5	PC7	Part Number				Page
							RUO	ASR	CE	IVD & CE	
CD14											
3-color											
	CD14	CD13	CD45	-	-	-			A07722		123
	CD14	CD16	CD45	-	-	-			A07715		123
2-color											
	CD45	CD14	-	-	-	-			A07738		122
	CD45	CD14	-	-	-	-	M1387				126
	CD45	CD14	-	-	-	-			6603909		120
CD(14+16)											
3-color											
	CD(14+16)	CD85k	-	CD33	-	-			A23413		120
	CD(14+16)	CD85k	-	CD123	-	-			A23416		120
CD15											
3-color											
	CD15	CD33	CD45	-	-	-			A07721		123
CD16											
3-color											
	CD14	CD16	CD45	-	-	-			A07715		123
	CD16	CD56	CD3	-	-	-			A07728		123
CD(16+56)											
2-color											
	CD3	CD(16+56)	-	-	-	-	M2076		A07735		121
CD19											
5-color											
	CD20	CD10	CD19	-	CD38	CD45			B66810		70, 117
	Kappa	Lambda	CD19	-	CD5	CD45			B66809		70, 117
4-color											
	CD45	CD56	CD19	CD3	-	-				6607073	67, 68, 118
3-color											
	CD3	CD19	-	CD45	-	-	M1671				126
	CD5	CD10	CD19	-	-	-			A07707		123
	CD5	CD23	CD19	-	-	-			A07710		123
	CD19	CD10	CD45	-	-	-			A07713		123
	CD20	CD10	CD19	-	-	-			A07708		123
	CD25	CD11c	CD19	-	-	-			A07711		124
	CD45	CD19	-	CD3	-	-				6607072	118
	CD103	CD11c	CD19	-	-	-			A07712		124
	Kappa	Lambda	CD19	-	-	-			A07706		125
	FMC7	CD23	CD19	-	-	-			A07709		124
	Neg.Ctrl.	Neg.Ctrl.	CD19	-	-	-			A07730		125
2-color											
	CD2	CD19	-	-	-	-	M289U				120
	CD3	CD19	-	-	-	-			A07736		121
	CD3	CD19	-	-	-	-	M1384				126
	CD3	CD19	-	-	-	-				6605015	119
	CD10	CD19	-	-	-	-		6604241			119
	CD19	CD2	-	-	-	-				6603801	120
	CD19	CD5	-	-	-	-	M1346U				121
12-color											
	kappa	-	CD19	-	CD56	CD10			B74073		71, 117



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Table of Multi-Color Reagents

	FITC	PE / RD1	ECD	PC5	PC5.5	PC7	Part Number				Page
							RUO	ASR	CE	IVD & CE	
CD20											
5-color											
	CD20	CD10	CD19	-	CD38	CD45			B66810		70, 117
3-color											
	CD20	CD10	CD19	-	-	-			A07708		123
12-color											
	kappa	-	CD19	-	CD56	CD10			B74073		71, 117
CD23											
3-color											
	CD5	CD23	CD19	-	-	-			A07710		123
	FMC7	CD23	CD19	-	-	-			A07709		124
CD25											
3-color											
	CD25	CD4	CD3	-	-	-			A07727		124
	CD25	CD11c	CD19	-	-	-			A07711		124
2-color											
	CD3	CD25	-	-	-	-	IM2667U				121
CD29											
2-color											
	CD4	CD29	-	-	-	-		6603799			119
CD33											
5-color											
	CD7	CD13	CD34	-	CD33	CD45			B66812		70, 117
3-color											
	CD(14+16)	CD85k	-	CD33	-	-			A23413		120
	CD15	CD33	CD45	-	-	-			A07721		123
	CD34	CD33	CD45	-	-	-			A07717		124
	CD71	CD33	CD45	-	-	-			A07716		124
CD34											
5-color											
	CD7	CD13	CD34	-	CD33	CD45			B66812		70, 117
3-color											
	CD34	CD33	CD45	-	-	-			A07717		124
	CD34	CD117	CD45	-	-	-			A07718		124
	HLA-DR	CD34	CD45	-	-	-			A07719		125
12-color											
	kappa	-	CD19	-	CD56	CD10			B74073		71, 117
CD36											
2-color											
	CD36	CD235a	-	-	-	-	IM2279U				122
CD38											
5-color											
	CD20	CD10	CD19	-	CD38	CD45			B66810		70, 117
3-color											
	CD38	CD56	CD45	-	-	-			A07714		124
2-color											
	CD8	CD38	-	-	-	-	IM2695U				121



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Table of Multi-Color Reagents

	FITC	PE / RD1	ECD	PC5	PC5.5	PC7	Part Number				Page
							RUO	ASR	CE	IVD & CE	
CD41											
3-color											
	CD41	CD235a	CD45	-	-	-			A07723		124
CD45											
5-color											
	CD2	CD56	CD7	-	CD5	CD45			B66807		70, 117
	CD7	CD13	CD34	-	CD33	CD45			B66812		70, 117
	CD20	CD10	CD19	-	CD38	CD45			B66810		70, 117
	Kappa	Lambda	CD19	-	CD5	CD45			B66809		70, 117
4-color											
	CD8	CD4	-	-	CD3	CD45			B66808		70, 117
	CD45	CD4	CD8	CD3	-	-				6607013	67, 68, 118
	CD45	CD56	CD19	CD3	-	-				6607073	67, 68, 118
3-color											
	CD3	CD4	-	CD45	-	-			M1651		126
	CD3	CD8	-	CD45	-	-			M1670		126
	CD3	CD19	-	CD45	-	-			M1671		126
	CD14	CD13	CD45	-	-	-			A07722		123
	CD14	CD16	CD45	-	-	-			A07715		123
	CD15	CD33	CD45	-	-	-			A07721		123
	CD19	CD10	CD45	-	-	-			A07713		123
	CD34	CD33	CD45	-	-	-			A07717		124
	CD34	CD117	CD45	-	-	-			A07718		124
	CD38	CD56	CD45	-	-	-			A07714		124
	CD41	CD235a	CD45	-	-	-			A07723		124
	CD45	CD4	-	CD3	-	-				6607015	118
	CD45	CD8	-	CD3	-	-				6607017	118
	CD45	CD19	-	CD3	-	-				6607072	118
	CD45	CD56	-	CD3	-	-				6607071	118
	CD45	IgG1	-	IgG1	-	-				6607019	118
	CD71	CD33	CD45	-	-	-			A07716		124
	HLA-DR	CD13	CD45	-	-	-			A07720		124
	HLA-DR	CD34	CD45	-	-	-			A07719		125
	HLA-DR	CD7	CD45	-	-	-			A07724		125
	IgG1	IgG1	-	CD45	-	-			M1673		126
	Neg.Ctrl.	Neg.Ctrl.	CD45	-	-	-			A07729		125
2-color											
	CD45	CD14	-	-	-	-			A07738		122
	CD45	CD14	-	-	-	-			M1337		126
	CD45	CD14	-	-	-	-				6603909	120
	CD45	CD235a	-	-	-	-			M2280U		122
12-color											
	kappa	-	CD19	-	CD56	CD10			B74073		71, 117
CD45RA											
2-color											
	CD4	CD45RA	-	-	-	-			6603800		119
	CD45RA	CD4	-	-	-	-			M2762		122



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ANTIBODIES TO HUMAN ANTIGENS

Table of Multi-Color Reagents

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CD56												
5-color												
	CD2	CD56	CD7	-	CD5	CD45				B66807		70, 117
4-color												
	CD45	CD56	CD19	CD3	-	-					6607073	67, 68, 118
3-color												
	CD16	CD56	CD3	-	-	-				A07728		123
	CD38	CD56	CD45	-	-	-				A07714		124
	CD45	CD56	-	CD3	-	-					6607071	118
2-color												
	CD3	CD56	-	-	-	-					6607068	119
	CD3	-	-	CD56	-	-	A07415					121
	CD8	CD56	-	-	-	-			6603798			119
12-color												
	kappa	-	CD19	-	CD56	CD10				B74073		71, 117
CD57												
2-color												
	CD57	CD8	-	-	-	-	M198					122
CD71												
3-color												
	CD71	CD33	CD45	-	-	-				A07716		124
CD79a												
3-color												
	MPO	CD79a	CD3	-	-	-				A07705		125
CD85k												
3-color												
	CD(14+16)	CD85k	-	CD33	-	-				A23413		120
	CD(14+16)	CD85k	-	CD123	-	-				A23416		120
CD103												
3-color												
	CD103	CD11c	CD19	-	-	-				A07712		124
CD117												
3-color												
	CD34	CD117	CD45	-	-	-				A07718		124
CD123												
3-color												
	CD(14+16)	CD85k	-	CD123	-	-				A23416		120
CD235a												
3-color												
	CD41	CD235a	CD45	-	-	-				A07723		124
2-color												
	CD36	CD235a	-	-	-	-	M2279U					122
	CD45	CD235a	-	-	-	-	M2280U					122
FMC7												
3-color												
	FMC7	CD23	CD19	-	-	-				A07709		124



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Table of Multi-Color Reagents

	FITC	PE / RD1	ECD	PC5	PC5.5	PC7	Part Number				Page
							RUO	ASR	CE	IVD & CE	
HLA-B7											
2-color											
	HLA-B27	HLA-B7	-	-	-	-	M502		A07739		122
HLA-B27											
2-color											
	HLA-B27	HLA-B7	-	-	-	-	M502		A07739		122
HLA-DR											
3-color											
	HLA-DR	CD13	CD45	-	-	-			A07720		124
	HLA-DR	CD34	CD45	-	-	-			A07719		125
	HLA-DR	CD7	CD45	-	-	-			A07724		125
2-color											
	CD3	HLA-DR	-	-	-	-	M295U				121
	CD3	HLA-DR	-	-	-	-			A07737		121
	HLA-DR	CD3	-	-	-	-	M300				122
	HLA-DR	CD8	-	-	-	-	M199U				122
Kappa											
5-color											
	Kappa	Lambda	CD19	-	CD5	CD45			B66809		70, 117
3-color											
	Kappa	Lambda	CD19	-	-	-			A07706		125
12-color											
	kappa	-	CD19	-	CD56	CD10			B74073		71, 117
Lactoferrin											
2-color											
	MPO	Lactoferrin	-	-	-	-	M2743				122
Lambda											
5-color											
	Kappa	Lambda	CD19	-	CD5	CD45			B66809		70, 117
3-color											
	Kappa	Lambda	CD19	-	-	-			A07706		125
12-color											
	kappa	-	CD19	-	CD56	CD10			B74073		71, 117
MPO											
3-color											
	MPO	CD79a	CD3	-	-	-			A07705		125
2-color											
	MPO	Lactoferrin	-	-	-	-	M2743				122



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Table of Multi-Color Reagents

	FITC	PE / RD1	ECD	PC5	PC5.5	PC7	Part Number				Page	
							RUO	ASR	CE	IVD & CE		
Neg. Ctrl.												
3-color												
	Neg. Ctrl.	Neg. Ctrl.	CD3	-	-	-				A07731		125
	Neg. Ctrl.	Neg. Ctrl.	CD3	-	-	-				A07731		125
	Neg. Ctrl.	Neg. Ctrl.	CD19	-	-	-				A07730		125
	Neg. Ctrl.	Neg. Ctrl.	CD19	-	-	-				A07730		125
	Neg. Ctrl.	Neg. Ctrl.	CD45	-	-	-				A07729		125
	Neg. Ctrl.	Neg. Ctrl.	CD45	-	-	-				A07729		125
	Neg. Ctrl.	Neg. Ctrl.	Neg. Ctrl.	-	-	-				A07732		125
	Neg. Ctrl.	Neg. Ctrl.	Neg. Ctrl.	-	-	-				A07732		125
	Neg. Ctrl.	Neg. Ctrl.	Neg. Ctrl.	-	-	-				A07732		125
IgG1												
3-color												
	CD45	IgG1	-	IgG1	-	-					6607019	118
	CD45	IgG1	-	IgG1	-	-					6607019	118
	IgG1	IgG1	-	CD45	-	-	M1673					126
	IgG1	IgG1	-	CD45	-	-	M1673					126
	IgG1	IgG1	-	IgG1	-	-	M1672					126
	IgG1	IgG1	-	IgG1	-	-	M1672					126
	IgG1	IgG1	-	IgG1	-	-	M1672					126
	IgG1	IgG1	-	IgG1	-	-					6607054	118
	IgG1	IgG1	-	IgG1	-	-					6607054	118
	IgG1	IgG1	-	IgG1	-	-					6607054	118
2-color												
	IgG1	IgG1	-	-	-	-				A07794		122
	IgG1	IgG1	-	-	-	-				A07794		122
	IgG1	IgG1	-	-	-	-	M1388					127
	IgG1	IgG1	-	-	-	-	M1388					127
	IgG1	IgG1	-	-	-	-					6603796	120
	IgG1	IgG1	-	-	-	-					6603796	120
	IgG1	IgG2a	-	-	-	-	A10974					122
	IgG1	IgG2a	-	-	-	-	A17599		B49179			127
	IgG2a	IgG1	-	-	-	-					6603795	120
	IgG2a	IgG1	-	-	-	-	B09981					122
IgG2a												
2-color												
	IgG1	IgG2a	-	-	-	-	A10974					122
	IgG1	IgG2a	-	-	-	-	A17599		B49179			127
	IgG2a	IgG1	-	-	-	-					6603795	120
	IgG2a	IgG1	-	-	-	-	B09981					122



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Multi-Color Reagents

ClearLLab

ClearLLab T1

CD2-FITC/CD56-PE/CD7-ECD/CD5-PC5.5/CD45-PC7

Combination	Clone	Isotype		
CD2-FITC	39C1.5	IgG2a (rat)		
CD56-PE	N901	IgG1 (mouse)		
CD7-ECD	8H8.1	IgG2a (mouse)		
CD5-PC5.5	BL1a	IgG2a (mouse)		
CD45-PC7	J33	IgG1 (mouse)		
Size	Format	Line	Status	Part #
25 tests	Liquid	ClearLLab	CE	B66807

ClearLLab T2

CD8-FITC/CD4-PE/CD3-PC5.5/CD45-PC7

Combination	Clone	Isotype		
CD8-FITC	B9.11	IgG1 (mouse)		
CD4-PE	SFC112T4D11	IgG1 (mouse)		
CD3-PC5.5	UCHT1	IgG1 (mouse)		
CD45-PC7	J33	IgG1 (mouse)		
Size	Format	Line	Status	Part #
25 tests	Liquid	ClearLLab	CE	B66808

ClearLLab B1

k Chain-FITC/λ Chain-PE/CD19-ECD/CD5-PC5.5/CD45-PC7

Combination	Clone	Isotype		
Kappa-FITC	Polyclonal	F(ab') ₂ (rabbit)		
Lambda-PE	Polyclonal	F(ab') ₂ (rabbit)		
CD19-ECD	J3-119	IgG1 (mouse)		
CD5-PC5.5	BL1a	IgG2a (mouse)		
CD45-PC7	J33	IgG1 (mouse)		
Size	Format	Line	Status	Part #
25 tests	Liquid	ClearLLab	CE	B66809

ClearLLab B2

CD20-FITC/CD10-PE/CD19-ECD/CD38-PC5.5/CD45-PC7

Combination	Clone	Isotype		
CD20-FITC	B9E9	IgG2a (mouse)		
CD10-PE	ALB1	IgG1 (mouse)		
CD19-ECD	J3-119	IgG1 (mouse)		
CD38-PC5.5	LS198-4-3	IgG1 (mouse)		
CD45-PC7	J33	IgG1 (mouse)		
Size	Format	Line	Status	Part #
25 tests	Liquid	ClearLLab	CE	B66810

ClearLLab M

CD7-FITC/CD13-PE/CD34-ECD/CD33-PC5.5/CD45-PC7

Combination	Clone	Isotype		
CD7-FITC	8H8.1	IgG2a (mouse)		
CD13-PE	366	IgG1 (mouse)		
CD34-ECD	581	IgG1 (mouse)		
CD33-PC5.5	D3HL60.251	IgG1 (mouse)		
CD45-PC7	J33	IgG1 (mouse)		
Size	Format	Line	Status	Part #
25 tests	Liquid	ClearLLab	CE	B66812

ClearLLab LS

k Chain+CD8-FITC/λ Chain+CD4-PE/CD19-ECD/CD56-PC5.5/CD10-PC7/CD34-APC/CD5-APC-A700/CD20-APC-A750/CD3-PB/CD45KrO

Combination	Clone	Isotype		
kappa-FITC	Polyclonal	F(ab') ₂ (rabbit)		
CD8-FITC	B9.11	IgG1 (mouse)		
lambda-PE	Polyclonal	F(ab') ₂ (rabbit)		
CD4-PE	13B8.2	IgG1 (mouse)		
CD19-ECD	J3-119	IgG1 (mouse)		
CD56-PC5.5	N901	IgG1 (mouse)		
CD10-PC7	ALB1	IgG1 (mouse)		
CD34-APC	581	IgG1 (mouse)		
CD5-AF700	BL1a	IgG2a (mouse)		
CD20-APC-A750	B9E9	IgG2a (mouse)		
CD3-PB	UCHT1	IgG1 (mouse)		
CD45-KrO	J33	IgG1 (mouse)		
Size	Format	Line	Status	Part #
NEW 25 tests	Dry	ClearLLab	CE	B74073



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Multi-Color Reagents

CYTO-STAT

4 color

CD45-FITC/CD4-PE/CD8-ECD/CD3-PC5

Combination		Clone	Isotype		
	CD45-FITC	B3821F4A	IgG2b (mouse)		
	CD4-RD1	SFCI12T4D11	IgG1 (mouse)		
	CD8-ECD	SFCI21Thy2D3	IgG1 (mouse)		
	CD3-PC5	UCHT1	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	CYTO-STAT	IVD & CE	6607013	

CD45-FITC/CD56-PE/CD19-ECD/CD3-PC5

Combination		Clone	Isotype		
	CD45-FITC	B3821F4A	IgG2b (mouse)		
	CD56-RD1	N901	IgG1 (mouse)		
	CD19-ECD	J3-119	IgG1 (mouse)		
	CD3-PC5	UCHT1	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	CYTO-STAT	IVD & CE	6607073	

3 color

CD8-FITC/CD4-PE/CD3-PC5

Combination		Clone	Isotype		
	CD8-FITC	SFCI21Thy2D3	IgG1 (mouse)		
	CD4-RD1	SFCI12T4D11	IgG1 (mouse)		
	CD3-PC5	UCHT1	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	CYTO-STAT	IVD & CE	6607053	

CD45-FITC/CD4-PE/CD3-PC5

Combination		Clone	Isotype		
	CD45-FITC	B3821F4A	IgG2b (mouse)		
	CD4-RD1	SFCI12T4D11	IgG1 (mouse)		
	CD3-PC5	UCHT1	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	CYTO-STAT	IVD & CE	6607015	

CD45-FITC/CD8-PE/CD3-PC5

Combination		Clone	Isotype		
	CD45-FITC	B3821F4A	IgG2b (mouse)		
	CD8-RD1	SFCI21Thy2D3	IgG1 (mouse)		
	CD3-PC5	UCHT1	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	CYTO-STAT	IVD & CE	6607017	

CD45-FITC/CD19-PE/CD3-PC5

Combination		Clone	Isotype		
	CD45-FITC	B3821F4A	IgG2b (mouse)		
	CD19-RD1	J3-119	IgG1 (mouse)		
	CD3-PC5	UCHT1	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	CYTO-STAT	IVD & CE	6607072	

CD45-FITC/CD56-PE/CD3-PC5

Combination		Clone	Isotype		
	CD45-FITC	B3821F4A	IgG2b (mouse)		
	CD56-RD1	N901	IgG1 (mouse)		
	CD3-PC5	UCHT1	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	CYTO-STAT	IVD & CE	6607071	

CD45-FITC/IgG1-PE/IgG1-PC5

Combination		Clone	Isotype		
	CD45-FITC	B3821F4A	IgG2b (mouse)		
	IgG1-RD1	2T8-2F5	IgG1 (mouse)		
	IgG1-PC5	2T8-2F5	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	CYTO-STAT	IVD & CE	6607019	

IgG1-FITC/IgG1-PE/IgG1-PC5

Combination		Clone	Isotype		
	IgG1-FITC	2T8-2F5	IgG1 (mouse)		
	IgG1-RD1	2T8-2F5	IgG1 (mouse)		
	IgG1-PC5	2T8-2F5	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	CYTO-STAT	IVD & CE	6607054	



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Multi-Color Reagents

2 color

CD2-FITC/CD7-PE

Combination		Clone	Isotype		
●	CD2-FITC	SFCI3Pt2H9	IgG1 (mouse)		
●	CD7-RD1	3A1E-12H7	IgG2b (mouse)		
Size	Format	Line	Status	Part #	
0.5 mL	Liquid	CYTO-STAT	ASR	6604239	

CD3-FITC/CD4-PE

Combination		Clone	Isotype		
●	CD3-FITC	UCHT1	IgG1 (mouse)		
●	CD4-RD1	SFCI12T4D11	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	CYTO-STAT	IVD & CE	6604929	

CD3-FITC/CD8-PE

Combination		Clone	Isotype		
●	CD3-FITC	UCHT1	IgG1 (mouse)		
●	CD8-RD1	SFCI21Thy2D3	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	CYTO-STAT	IVD & CE	6604930	

CD3-FITC/CD19-PE

Combination		Clone	Isotype		
●	CD3-FITC	UCHT1	IgG1 (mouse)		
●	CD19-RD1	89B	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	CYTO-STAT	IVD & CE	6605015	

CD3-FITC/CD56-PE

Combination		Clone	Isotype		
●	CD3-FITC	UCHT1	IgG1 (mouse)		
●	CD56-RD1	N901	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	CYTO-STAT	IVD & CE	6607068	

CD4-FITC/CD8-PE

Combination		Clone	Isotype		
●	CD4-FITC	SFCI12T4D11	IgG1 (mouse)		
●	CD8-RD1	SFCI21Thy2D3	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	CYTO-STAT	IVD & CE	6604614	

CD4-FITC/CD29-PE

Combination		Clone	Isotype		
●	CD4-FITC	SFCI12T4D11	IgG1 (mouse)		
●	CD29-RD1	4B4LDC9LDH8	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
0.5 mL	Liquid	CYTO-STAT	ASR	6603799	

CD4-FITC/CD45RA-PE

Combination		Clone	Isotype		
●	CD4-FITC	SFCI12T4D11	IgG1 (mouse)		
●	CD45RA-RD1	2H4LDH11LDB	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
0.5 mL	Liquid	CYTO-STAT	ASR	6603800	

CD8-FITC/CD4-PE

Combination		Clone	Isotype		
●	CD8-FITC	SFCI21Thy2D3	IgG1 (mouse)		
●	CD4-RD1	SFCI12T4D11	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	CYTO-STAT	IVD & CE	6603802	

CD8-FITC/CD56-PE

Combination		Clone	Isotype		
●	CD8-FITC	SFCI21Thy2D3	IgG1 (mouse)		
●	CD56-RD1	N901	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
0.5 mL	Liquid	CYTO-STAT	ASR	6603798	

CD10-FITC/CD19-PE

Combination		Clone	Isotype		
●	CD10-FITC	J5	IgG2a (mouse)		
●	CD19-RD1	HD237	IgG2b (mouse)		
Size	Format	Line	Status	Part #	
0.5 mL	Liquid	CYTO-STAT	ASR	6604241	





REAGENTS



ANTIBODIES TO HUMAN ANTIGENS

Multi-Color Reagents



CD19-FITC/CD2-PE

Combination		Clone	Isotype		
	CD19-FITC	89B	IgG1 (mouse)		
	CD2-RD1	SFCI3Pt2H9	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	CYTO-STAT	IVD & CE	6603801	



CD45-FITC/CD14-PE

Combination		Clone	Isotype		
	CD45-FITC	KC56	IgG1 (mouse)		
	CD14-RD1	116	IgM (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	CYTO-STAT	IVD & CE	6603909	

IgG1-FITC/IgG1-PE

Combination		Clone	Isotype		
	IgG1-FITC	2T8-2F5	IgG1 (mouse)		
	IgG1-RD1	2T8-2F5	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	CYTO-STAT	IVD & CE	6603796	




IgG2a-FITC/IgG1-PE

Combination		Clone	Isotype		
	IgG2a-FITC	7T4-1F5	IgG2a (mouse)		
	IgG1-RD1	2T8-2F5	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	CYTO-STAT	IVD & CE	6603795	




IOtest

3 color




CD8-FITC/CD4-PE/CD3-PC7

Combination		Clone	Isotype		
	CD8-FITC	SFCI21Thy2D3	IgG1 (mouse)		
	CD4-PE	SFCI12T4D11	IgG1 (mouse)		
	CD3-PC7	UCHT1	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	IOtest	RUO	6607103	

CD(14+16)-FITC/CD85k-PE/CD33-PC5



Combination		Clone	Isotype		
	CD(14+16)-FITC	RMO52+3G8	IgG2a+IgG1 (mouse)		
	CD85k-PE	ZM3.8	IgG1 (mouse)		
	CD33-PC5	D3HL60.251	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	IOtest	CE	A23413	

CD(14+16)-FITC/CD85k-PE/CD123-PC5

Combination		Clone	Isotype		
	CD(14+16)-FITC	RMO52+3G8	IgG2a+IgG1 (mouse)		
	CD85k-PE	ZM3.8	IgG1 (mouse)		
	CD123-PC5	SSDCLY107D2	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	IOtest	CE	A23416	

2 color

CD2-FITC/CD19-PE

Combination		Clone	Isotype		
	CD2-FITC	39C1.5	IgG2a (rat)		
	CD19-PE	J3-119	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	IOtest	RUO	IM1289U	



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Multi-Color Reagents

CD3-FITC/CD4-PE

Combination		Clone	Isotype		
●	CD3-FITC	UCHT1	IgG1 (mouse)		
●	CD4-PE	13B8.2	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	IOTest	CE	A07733	

CD3-FITC/CD8-PE

Combination		Clone	Isotype		
●	CD3-FITC	UCHT1	IgG1 (mouse)		
●	CD8-PE	B9.11	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	IOTest	CE	A07734	

CD3-FITC/CD(16+56)-PE

Combination		Clone	Isotype		
●	CD3-FITC	UCHT1	IgG1 (mouse)		
●	CD(16+56)-PE	3G8+N901	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	IOTest	CE	A07735	
50 tests	Liquid	IOTest	RUO	IM2076	

CD3-FITC/CD19-PE

Combination		Clone	Isotype		
●	CD3-FITC	UCHT1	IgG1 (mouse)		
●	CD19-PE	J3-119	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	IOTest	CE	A07736	

CD3-FITC/CD25-PE

Combination		Clone	Isotype		
●	CD3-FITC	UCHT1	IgG1 (mouse)		
●	CD25-PE	B1.49.9	IgG2a (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	IOTest	RUO	IM2667U	

CD3-FITC/CD56-PC5

Combination		Clone	Isotype		
●	CD3-FITC	UCHT1	IgG1 (mouse)		
●	CD56-PC5	N901	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	IOTest	RUO	A07415	

CD3-FITC/HLA-DR-PE

Combination		Clone	Isotype		
●	CD3-FITC	UCHT1	IgG1 (mouse)		
●	HLA-DR-PE	B8.12.2	IgG2b (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	IOTest	RUO	IM1295U	

CD3-FITC/HLA-DR-PE

Combination		Clone	Isotype		
●	CD3-FITC	UCHT1	IgG1 (mouse)		
●	HLA-DR-PE	Immu-357	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	IOTest	CE	A07737	

CD4-FITC/CD8-PE

Combination		Clone	Isotype		
●	CD4-FITC	13B8.2	IgG1 (mouse)		
●	CD8-PE	B9.11	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
1 mL	Liquid	IOTest	ASR	IM0747U	

CD8-FITC/CD4-PE

Combination		Clone	Isotype		
●	CD8-FITC	B9.11	IgG1 (mouse)		
●	CD4-PE	13B8.2	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
1 mL	Liquid	IOTest	ASR	IM1379U	

CD8-FITC/CD38-PE

Combination		Clone	Isotype		
●	CD8-FITC	B9.11	IgG1 (mouse)		
●	CD38-PE	LS198-4-3	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	IOTest	RUO	IM2695U	

CD19-FITC/CD5-PE

Combination		Clone	Isotype		
●	CD19-FITC	J3-119	IgG1 (mouse)		
●	CD5-PE	BL1a	IgG2a (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	IOTest	RUO	IM1346U	



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Multi-Color Reagents

CD36-FITC/CD235a-PE

Combination		Clone	Isotype		
●	CD36-FITC	FA6.152	IgG1 (mouse)		
●	CD235a-PE	11E4B-7-6	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	IOTest	RUO	IM2279U	

CD45-FITC/CD14-PE

Combination		Clone	Isotype		
●	CD45-FITC	Immu19.2	IgG1 (mouse)		
●	CD14-PE	RMO52	IgG2a (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	IOTest	CE	A07738	

CD45-FITC/CD235a-PE

Combination		Clone	Isotype		
●	CD45-FITC	J33	IgG1 (mouse)		
●	CD235a-PE	11E4B-7-6	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	IOTest	RUO	IM2280U	

CD45RA-FITC/CD4-PE

Combination		Clone	Isotype		
●	CD45RA-FITC	ALB11	IgG1 (mouse)		
●	CD4-PE	13B8.2	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	IOTest	RUO	IM2762	

CD57-FITC/CD8-PE

Combination		Clone	Isotype		
●	CD57-FITC	NC1	IgM (mouse)		
●	CD8-PE	B9.11	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	IOTest	RUO	IM1198	

HLA-B27-FITC/HLA-B7-PE

Combination		Clone	Isotype		
●	HLA-B27-FITC	HLA-ABC-m3	IgG2a (mouse)		
●	HLA-B7-PE	BB7.1	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	IOTest	CE	A07739	
50 tests	Liquid	IOTest	RUO	IM1502	

HLA-DR-FITC/CD3-PE

Combination		Clone	Isotype		
●	HLA-DR-FITC	B8.12.2	IgG2b (mouse)		
●	CD3-PE	UCHT1	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	IOTest	RUO	IM1300	

HLA-DR-FITC/CD8-PE

Combination		Clone	Isotype		
●	HLA-DR-FITC	B8.12.2	IgG2b (mouse)		
●	CD8-PE	B9.11	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	IOTest	RUO	IM1199U	

IgG1-FITC/IgG1-PE

Combination		Clone	Isotype		
●	IgG1-FITC	679.1Mc7	IgG1 (mouse)		
●	IgG1-PE	679.1Mc7	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	IOTest	CE	A07794	

IgG1-FITC/IgG2a-PE

Combination		Clone	Isotype		
●	IgG1-FITC	679.1Mc7	IgG1 (mouse)		
●	IgG2a-PE	7T4-1F5	IgG2a (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	IOTest	CE	B49179	
50 tests	Liquid	IOTest	RUO	A10974	

IgG2a-FITC/IgG1-PE

Combination		Clone	Isotype		
●	IgG2a-FITC	7T4-1F5	IgG2a (mouse)		
●	IgG1-PE	679.1Mc7	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	IOTest	RUO	B09981	

MPO-FITC/Lactoferrin-PE

Combination		Clone	Isotype		
●	MPO-FITC	CLB-MPO-1	IgG2a (mouse)		
●	Lactoferrin-PE	CLB13.17	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	IOTest	RUO	IM2743	



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS Multi-Color Reagents

IOTest 3

3 color

CD5-FITC/CD7-PE/CD3-ECD

Combination		Clone	Isotype		
●	CD5-FITC	BL1a	IgG2a (mouse)		
●	CD7-PE	8H8.1	IgG2a (mouse)		
●	CD3-ECD	UCHT1	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07725	

CD5-FITC/CD10-PE/CD19-ECD

Combination		Clone	Isotype		
●	CD5-FITC	BL1a	IgG2a (mouse)		
●	CD10-PE	ALB1	IgG1 (mouse)		
●	CD19-ECD	J3-119	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07707	

CD5-FITC/CD23-PE/CD19-ECD

Combination		Clone	Isotype		
●	CD5-FITC	BL1a	IgG2a (mouse)		
●	CD23-PE	9P25	IgG1 (mouse)		
●	CD19-ECD	J3-119	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07710	

CD8-FITC/CD4-PE/CD3-ECD

Combination		Clone	Isotype		
●	CD8-FITC	B9.11	IgG1 (mouse)		
●	CD4-PE	13B8.2	IgG1 (mouse)		
●	CD3-ECD	UCHT1	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07726	

CD14-FITC/CD13-PE/CD45-ECD

Combination		Clone	Isotype		
●	CD14-FITC	RMO52	IgG2a (mouse)		
●	CD13-PE	SJ1D1	IgG1 (mouse)		
●	CD45-ECD	J33	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07722	

CD14-FITC/CD16-PE/CD45-ECD

Combination		Clone	Isotype		
●	CD14-FITC	RMO52	IgG2a (mouse)		
●	CD16-PE	3G8	IgG1 (mouse)		
●	CD45-ECD	J33	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07715	

CD15-FITC/CD33-PE/CD45-ECD

Combination		Clone	Isotype		
●	CD15-FITC	80H5	IgM (mouse)		
●	CD33-PE	D3HL60.251	IgG1 (mouse)		
●	CD45-ECD	J33	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07721	

CD16-FITC/CD56-PE/CD3-ECD

Combination		Clone	Isotype		
●	CD16-FITC	3G8	IgG1 (mouse)		
●	CD56-PE	N901	IgG1 (mouse)		
●	CD3-ECD	UCHT1	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07728	

CD19-FITC/CD10-PE/CD45-ECD

Combination		Clone	Isotype		
●	CD19-FITC	J3-119	IgG1 (mouse)		
●	CD10-PE	ALB1	IgG1 (mouse)		
●	CD45-ECD	J33	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07713	

CD20-FITC/CD10-PE/CD19-ECD

Combination		Clone	Isotype		
●	CD20-FITC	B9E9	IgG2a (mouse)		
●	CD10-PE	ALB1	IgG1 (mouse)		
●	CD19-ECD	J3-119	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07708	



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Multi-Color Reagents

CD25-FITC/CD4-PE/CD3-ECD

Combination		Clone	Isotype		
●	CD25-FITC	B1.49.9	IgG2a (mouse)		
●	CD4-PE	13B8.2	IgG1 (mouse)		
●	CD3-ECD	UCHT1	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07727	

CD25-FITC/CD11c-PE/CD19-ECD

Combination		Clone	Isotype		
●	CD25-FITC	B1.49.9	IgG2a (mouse)		
●	CD11c-PE	BU15	IgG1 (mouse)		
●	CD19-ECD	J3-119	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07711	

CD34-FITC/CD33-PE/CD45-ECD

Combination		Clone	Isotype		
●	CD34-FITC	581	IgG1 (mouse)		
●	CD33-PE	D3HL60.251	IgG1 (mouse)		
●	CD45-ECD	J33	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07717	

CD34-FITC/CD117-PE/CD45-ECD

Combination		Clone	Isotype		
●	CD34-FITC	581	IgG1 (mouse)		
●	CD117-PE	104D2D1	IgG1 (mouse)		
●	CD45-ECD	J33	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07718	

CD38-FITC/CD56-PE/CD45-ECD

Combination		Clone	Isotype		
●	CD38-FITC	T16	IgG1 (mouse)		
●	CD56-PE	N901	IgG1 (mouse)		
●	CD45-ECD	J33	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07714	

CD41-FITC/CD235a-PE/CD45-ECD

Combination		Clone	Isotype		
●	CD41-FITC	P2	IgG1 (mouse)		
●	CD235a-PE	11E4B-7-6	IgG1 (mouse)		
●	CD45-ECD	J33	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07723	

CD71-FITC/CD33-PE/CD45-ECD

Combination		Clone	Isotype		
●	CD71-FITC	YDJ1.2.2	IgG1 (mouse)		
●	CD33-PE	D3HL60.251	IgG1 (mouse)		
●	CD45-ECD	J33	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07716	

CD103-FITC/CD11c-PE/CD19-ECD

Combination		Clone	Isotype		
●	CD103-FITC	2G5	IgG2a (mouse)		
●	CD11c-PE	BU15	IgG1 (mouse)		
●	CD19-ECD	J3-119	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07712	

FMC7-FITC/CD23-PE/CD19-ECD

Combination		Clone	Isotype		
●	FMC7-FITC	FMC7	IgM (mouse)		
●	CD23-PE	9P25	IgG1 (mouse)		
●	CD19-ECD	J3-119	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07709	

HLA-DR-FITC/CD13-PE/CD45-ECD

Combination		Clone	Isotype		
●	HLA-DR-FITC	Immu-357	IgG1 (mouse)		
●	CD13-PE	SJ1D1	IgG1 (mouse)		
●	CD45-ECD	J33	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07720	



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS Multi-Color Reagents

HLA-DR-FITC/CD34-PE/CD45-ECD

Combination		Clone	Isotype		
●	HLA-DR-FITC	Immu-357	IgG1 (mouse)		
●	CD34-PE	581	IgG1 (mouse)		
●	CD45-ECD	J33	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07719	

HLA-DR-FITC/CD7-PE/CD45-ECD

Combination		Clone	Isotype		
●	HLA-DR-FITC	Immu-357	IgG1 (mouse)		
●	CD7-PE	8H8.1	IgG2a (mouse)		
●	CD45-ECD	J33	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07724	

Kappa-FITC/Lambda-PE/CD19-ECD

Combination		Clone	Isotype		
●	Kappa-FITC	Polyclonal	F(ab') ₂ (rabbit)		
●	Lambda-PE	Polyclonal	F(ab') ₂ (rabbit)		
●	CD19-ECD	J3-119	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07706	

cMPO-FITC/cCD79a-PE/cCD3-ECD

Combination		Clone	Isotype		
●	MPO-FITC	CLB-MPO-1	IgG2a (mouse)		
●	CD79a-PE	HM47	IgG1 (mouse)		
●	CD3-ECD	UCHT1	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07705	

Neg.Ctrl.-FITC/Neg.Ctrl.-PE/CD3-ECD

Combination		Clone	Isotype		
●	Neg.Ctrl.-FITC	679.1Mc7	IgG1 (mouse)		
●	Neg.Ctrl.-PE	679.1Mc7	IgG1 (mouse)		
●	CD3-ECD	UCHT1	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07731	

Neg.Ctrl.-FITC/Neg.Ctrl.-PE/CD19-ECD

Combination		Clone	Isotype		
●	Neg.Ctrl.-FITC	679.1Mc7	IgG1 (mouse)		
●	Neg.Ctrl.-PE	679.1Mc7	IgG1 (mouse)		
●	CD19-ECD	J3-119	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07730	

Neg.Ctrl.-FITC/Neg.Ctrl.-PE/CD45-ECD

Combination		Clone	Isotype		
●	Neg.Ctrl.-FITC	679.1Mc7	IgG1 (mouse)		
●	Neg.Ctrl.-PE	679.1Mc7	IgG1 (mouse)		
●	CD45-ECD	J33	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07729	

Neg.Ctrl.-FITC/Neg.Ctrl.-PE/Neg.Ctrl.-ECD

Combination		Clone	Isotype		
●	Neg.Ctrl.-FITC	679.1Mc7	IgG1 (mouse)		
●	Neg.Ctrl.-PE	679.1Mc7	IgG1 (mouse)		
●	Neg.Ctrl.-ECD	679.1Mc7	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
25 tests	Liquid	IOTest 3	CE	A07732	



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Multi-Color Reagents

OptiClone

3 color

CD3-FITC/CD4-PE/CD45-PC5

Combination		Clone	Isotype		
	CD3-FITC	UCHT1	IgG1 (mouse)		
	CD4-PE	13B8.2	IgG1 (mouse)		
	CD45-PC5	Immu19.2	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	OptiClone	RUO	IM1651	

CD3-FITC/CD8-PE/CD45-PC5

Combination		Clone	Isotype		
	CD3-FITC	UCHT1	IgG1 (mouse)		
	CD8-PE	B9.11	IgG1 (mouse)		
	CD45-PC5	Immu19.2	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	OptiClone	RUO	IM1670	

CD3-FITC/CD19-PE/CD45-PC5

Combination		Clone	Isotype		
	CD3-FITC	UCHT1	IgG1 (mouse)		
	CD19-PE	J3-119	IgG1 (mouse)		
	CD45-PC5	Immu19.2	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	OptiClone	RUO	IM1671	

CD4-FITC/CD8-PE/CD3-PC5

Combination		Clone	Isotype		
	CD4-FITC	13B8.2	IgG1 (mouse)		
	CD8-PE	B9.11	IgG1 (mouse)		
	CD3-PC5	UCHT1	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	OptiClone	RUO	IM1650	

IgG1-FITC/IgG1-PE/CD45-PC5

Combination		Clone	Isotype		
	IgG1-FITC	679.1Mc7	IgG1 (mouse)		
	IgG1-PE	679.1Mc7	IgG1 (mouse)		
	CD45-PC5	Immu19.2	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	OptiClone	RUO	IM1673	

IgG1-FITC/IgG1-PE/IgG1-PC5

Combination		Clone	Isotype		
	IgG1-FITC	679.1Mc7	IgG1 (mouse)		
	IgG1-PE	679.1Mc7	IgG1 (mouse)		
	IgG1-PC5	679.1Mc7	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	OptiClone	RUO	IM1672	

2 color

CD3-FITC/CD4-PE

Combination		Clone	Isotype		
	CD3-FITC	UCHT1	IgG1 (mouse)		
	CD4-PE	13B8.2	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	OptiClone	RUO	IM1382	

CD3-FITC/CD8-PE

Combination		Clone	Isotype		
	CD3-FITC	UCHT1	IgG1 (mouse)		
	CD8-PE	B9.11	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	OptiClone	RUO	IM1383	

CD3-FITC/CD19-PE

Combination		Clone	Isotype		
	CD3-FITC	UCHT1	IgG1 (mouse)		
	CD19-PE	J3-119	IgG1 (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	OptiClone	RUO	IM1384	

CD45-FITC/CD14-PE

Combination		Clone	Isotype		
	CD45-FITC	Immu19.2	IgG1 (mouse)		
	CD14-PE	RMO52	IgG2a (mouse)		
Size	Format	Line	Status	Part #	
50 tests	Liquid	OptiClone	RUO	IM1387	



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Multi-Color Reagents

IgG1-FITC/IgG1-PE

Combination		Clone	Isotype	
●	IgG1-FITC	679.1Mc7	IgG1 (mouse)	
●	IgG1-PE	679.1Mc7	IgG1 (mouse)	
Size	Format	Line	Status	Part #
50 tests	Liquid	OptiClone	RUO	IM1388

IgG1-FITC/IgG2a-PE

Combination		Clone	Isotype	
●	IgG1-FITC	679.1Mc7	IgG1 (mouse)	
●	IgG2a-PE	7T4-1F5	IgG2a (mouse)	
Size	Format	Line	Status	Part #
50 tests	Liquid	OptiClone	RUO	A17599



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Table of Single-Color Reagents

	FITC	AF 700	AF 488	PE	ECD	PC5	PC 5.5	PC7	AF 647	APC	APC A700	APC A750	PB	KrO	Page
AP027				•											135
CD1a	•			•		•				•					136
CD1c							•								136
CD2	•			•	•	•		•		•	•	•	•		137
CD3	•			•	•	•	•	•		•	•	•	•	•	138
CD4	•			•	•	•	•	•		•	•	•	•	•	139
CD5	•			•	•	•	•	•		•	•	•	•		140
CD6	•														141
CD7	•			•	•	•		•		•	•	•	•		141
CD8	•	•		•	•	•	•	•		•	•	•	•	•	142
CD8β	•			•	•										143
CD9	•											•	•		143
CD10	•			•	•	•	•	•		•	•	•			144
CD11a	•			•											145
CD11b	•			•		•		•		•		•	•		145
CD11c				•		•	•	•		•	•				146
CD13	•			•	•	•	•	•		•					146
CD14	•			•	•	•	•	•		•	•	•	•	•	147
CD15	•			•		•							•	•	148
CD16	•			•	•	•		•		•	•	•	•	•	148
CD16b	•														149
CD18	•			•											149
CD19	•	•		•	•	•	•	•		•	•	•	•	•	150
CD20	•	•		•	•	•	•	•		•	•	•	•		151
CD21	•			•									•		152
CD22	•			•	•	•		•		•	•		•		152
CD23	•			•	•			•		•	•		•		153
CD24				•	•	•	•			•		•			153
CD25	•			•	•	•	•	•		•	•	•	•		154
CD26				•											154
CD27				•	•	•	•	•		•		•	•		155
CD28	•			•	•	•	•	•		•	•	•			155
CD29	•			•											156
CD30				•						•	•				156
CD31	•			•									•		157
CD32				•										•	157
CD33	•			•		•	•	•		•		•			158
CD34	•			•	•	•		•		•	•	•			159
CD35	•														160
CD36	•									•	•		•		160

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Table of Single-Color Reagents

	FITC	AF 700	AF 488	PE	ECD	PC5	PC 5.5	PC7	AF 647	APC	APC A700	APC A750	PB	KrO	Page
CD37	•			•											161
CD38	•			•	•	•	•	•		•	•	•	•		161
CD39				•			•								162
CD40				•			•			•					162
CD41	•			•	•	•		•		•					163
CD42a	•														163
CD42b	•			•						•					164
CD43	•			•								•			164
CD44	•			•								•	•		165
CD45	•			•	•	•	•	•	•	•	•	•	•	•	166
CD45RA	•	•		•	•			•		•		•	•		167
CD45RO	•			•	•		•	•							167
CD48	•				•										168
CD49b	•														168
CD49d	•									•		•			169
CD49e	•														169
CD52								•							169
CD54	•			•											170
CD55	•			•											170
CD56				•	•	•	•	•		•	•	•			171
CD57	•												•		171
CD58	•			•		•				•					172
CD59	•			•											172
CD61	•			•			•	•							173
CD62L	•			•	•	•		•		•		•	•		173
CD62P	•			•											174
CD63	•			•											174
CD64	•			•	•	•		•				•	•		175
CD65	•												•		175
CD66b	•									•		•			176
CD66c	•			•											176
CD69				•	•	•		•		•					176
CD71	•			•							•	•			177
CD73				•											177
CD73a				•		•	•			•					178
CD73b				•			•			•					178
CD80	•			•				•		•		•			179
CD81	•			•						•			•		179
CD83	•			•		•									180
CD85d				•											180

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Table of Single-Color Reagents

	FITC	AF 700	AF 488	PE	ECD	PC5	PC 5.5	PC7	AF 647	APC	APC A700	APC A750	PB	KrO	Page
CD85j				•						•					181
CD85k								•							181
CD86				•			•	•				•			182
CD90	•			•		•						•	•		182
CD94				•						•			•		183
CD95				•											183
CD99					•					•					183
CD103	•									•					184
CD105				•				•							184
CD106				•											184
CD107a										•			•		185
CD109				•											185
CD116				•											185
CD117				•	•	•	•	•		•		•			186
CD120b				•											186
CD122								•							187
CD123				•	•		•	•		•	•				187
CD126				•											188
CD127	•			•		•		•		•	•	•			188
CD134										•					189
CD135				•											189
CD137					•										189
CD138				•		•	•			•			•	•	190
CD141	•														190
CD144				•											190
CD146				•		•									191
CD152				•											191
CD154				•											191
CD157	•			•											192
CD158ah				•			•	•		•					192
CD158b1/b2,j				•			•	•		•					193
CD158e1/e2				•						•					193
CD158f				•						•					194
CD158i				•						•					194
CD159a				•				•		•					195
CD160				•											195
CD161				•				•				•			196
CD166				•											196
CD180				•											197
CD183			•												197

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Table of Single-Color Reagents

	FITC	AF 700	AF 488	PE	ECD	PC5	PC 5.5	PC7	AF 647	APC	APC A700	APC A750	PB	KrO	Page
CD184				•											198
CD196								•							198
CD197				•				•							199
CD200				•				•				•			199
CD203c				•				•							200
CD206				•				•					•		200
CD207				•											201
CD209				•											202
CD235a	•			•				•				•			202
CD243				•											203
CD244				•			•								203
CD274								•		•					203
CD278				•						•					204
CD279				•			•	•		•					204
CD294	•			•											205
CD300a				•											205
CD305				•											206
CD309				•				•							206
CD314				•						•					207
CD328				•											207
CD335				•		•		•							208
CD336				•		•									208
CD337				•		•									209
CD352				•											209
CD370										•					210
Cyclin A2	•			•											210
Cytokeratin	•														210
DAPI2				•											211
EMC7	•												•		211
FoxP3				•				•	•				•		212
Granzyme B	•														212
Helios													•		213
HIV-1 core antigen	•			•											213
HLA-ABC	•														213
HLA-DR	•			•	•	•	•	•		•		•	•	•	214
HLA-DR, DP, DQ	•			•											215
IFN-γ	•			•									•		215
IgD	•			•						•					215
IgM	•			•						•			•		216
IL-2				•											216

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Table of Single-Color Reagents

	FITC	AF 700	AF 488	PE	ECD	PC5	PC 5.5	PC7	AF 647	APC	APC A700	APC A750	PB	KrO	Page
L-4				•				•							217
L-17A		•											•		217
κ Chain	•														218
κ67			•												218
λ Chain				•											218
Lactoferrin				•											219
Myeloperoxidase	•			•			•								219
NG2				•											220
NKp80				•											220
OSCAR				•											221
Perforin													•		221
ROR1				•											221
TCR PAN α/β				•		•				•					222
TCR PAN γ/δ	•			•		•	•	•							222
TCR Vα7.2	•														223
TCR Vα24	•			•				•							223
TCR Vβ1	•			•											224
TCR Vβ2	•			•											224
TCR Vβ3	•														224
TCR Vβ4	•			•											225
TCR Vβ5.1	•			•											225
TCR Vβ5.2	•			•											225
TCR Vβ5.3				•											226
TCR Vβ7.1	•			•											226
TCR Vβ7.2	•			•											226
TCR Vβ8	•			•											227
TCR Vβ9				•											227
TCR Vβ11	•			•						•					227
TCR Vβ12	•			•											228
TCR Vβ13.1	•			•											228
TCR Vβ13.2				•											228
TCR Vβ13.6	•			•											229
TCR Vβ14	•			•											229
TCR Vβ16	•														229
TCR Vβ17	•			•											230
TCR Vβ18				•											230
TCR Vβ20	•			•											230
TCR Vβ21.3	•														231
TCR Vβ22	•			•											231
TCR Vβ23				•											231

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Table of Single-Color Reagents

	FITC	AF 700	AF 488	PE	ECD	PC5	PC 5.5	PC7	AF 647	APC	APC A700	APC A750	PB	KrO	Page
TCRVδ1								•							232
TCRVδ2	•												•		232
TCRVγ9	•					•									232
TCRζ				•											233
TdF	•														233
Thrombin receptor				•											234
TIA-1				•											234
TNFα		•		•											235
ZAP-70				•											235

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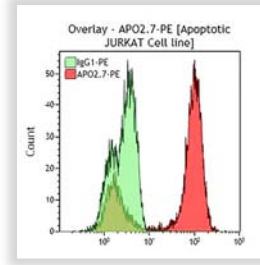
ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

The Beckman Coulter Flow Cytometry Antibody portfolio is manufactured under Good Manufacturing Practices (GMP) in facilities that adhere and are certified to the highest standards in the industry.

APO2.7 (7A6)

The APO2.7 antigen (also named 7A6 antigen) is a 38 kDa protein localized on the membrane of mitochondria whose expression appears to be restricted to cells undergoing apoptosis. The APO2.7 antigen can be detected after apoptosis induction via CD95/Fas ligation, irradiation or drug treatment. Expression of APO2.7 appears as an early event in the apoptosis process. Normal viable cells are negative or weakly positive for APO2.7. Research studies have shown that less than 2% of peripheral T cells from normal donors expressed the APO2.7 antigen. Some level of APO2.7 expression associated with an on-going apoptotic process has been demonstrated in activated T cells.



Apoptotic Jurkat cell line

Clone: 2.7A6A3 (APO2.7)

Isotype: IgG1 Mouse

The APO2.7 antibody can be used for the direct quantitation of apoptotic cells by flow cytometry, after permeabilization with digitonin. Use of APO2.7 allows for precise monitoring of the early and late cellular responses during apoptosis.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	IM2088U	ASR	IOTest	GMP

β 2-microglobulin

The β 2-microglobulin is the non-polymorphic non-covalently bound light chain (12 kDa) of the class I major histocompatibility complex (MHC-I) constitutively expressed on the surface of almost all nucleated cell. β 2-microglobulin structure, stabilized by a disulfide bound, is similar to an immunoglobulin like domain. β 2-microglobulin is required in the endoplasmic reticulum (ER) to associate with the MHC class I heavy molecule to form with other proteins (calreticulin, tapasin, etc.) the loading complex that exits the ER and is transported to the cell surface. After peptide presentation, β 2-microglobulin is actively released into circulation.

Clone: B1G6

Isotype: IgG2a Mouse

The B1G6 monoclonal antibody is specific for human β 2-microglobulin. It does not react with β 2-microglobulin from other species. It recognizes the β 2-microglobulin, free or associated with human HLA class I molecules.

Form	Size	Format	Part#	Status	Line	Quality Standard
UNLB	0.2 mg	Freeze-dried	IM0114	RUO	-	GMP



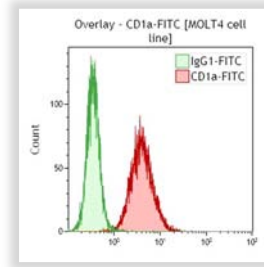
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD1a

CD1a is a member of the lipid antigen presenting molecules family. Like the other CD1 proteins (group 1: CD1a, CD1b, CD1c and group 2: CD1d, CD1e), CD1a is a transmembrane protein of 49 kDa, noncovalently associated with β 2-microglobulin. As other group 1 CD1 antigens, CD1a is found on professional antigen-presenting cells (APC) such as dendritic cells, particularly on Langerhans cells and their direct circulating precursors. It is expressed by those cells related to dermal dendritic cells, derived from monocytes cultured for 6 days in the presence of GM-CSF and IL-4. The CD1a antigen is also present on a B cell subset. It is also strongly expressed by cortical thymocytes. CD1a antibodies are useful in the definition of the thymic stage of T cells.



MOLT4 cell line

Clone: SFCl19Thy1A8 (T6)

Isotype: IgG1 Mouse

T6 (ref 6T-CD1.7) was used as a CD1a reference monoclonal antibody during HLDA 6.

Form	Size	Format	Part#	Status	Line	Quality Standard
RD1	100 tests	Liquid	6603185	RUO	COULTER CLONE	GMP

Clone: BL6

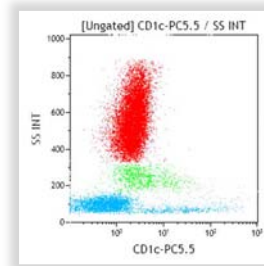
Isotype: IgG1 Mouse

The BL6 antibody recognizes the C epitope of the CD1a molecule.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	1 mL	Liquid	B25330	ASR	IOTest	GMP
PE	100 tests	Liquid	A07742	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM1942U	ASR	IOTest	GMP
PC5	1 mL	Liquid	IM3610	ASR	IOTest	GMP
APC	1 mL	Liquid	IM3645	ASR	IOTest	GMP

CD1c

The CD1c antigen is a membrane glycoprotein with a molecular weight of 43 kDa expressed in association with β 2-microglobulin. It is found on cortical thymocytes (weakly), Langerhans cells, dendritic cells and a subset of B cells, early during ontogeny.



Lysed normal whole blood sample

Clone: L161

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PC5.5	0.5 mL	Liquid	B46036	ASR	IOTest	GMP



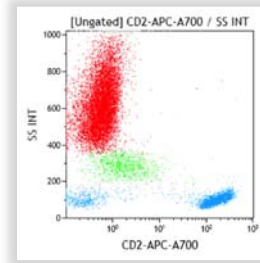
REAGENTS

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Single-Color Reagents

CD2

The CD2 antigen (LFA-2) is a monomeric 50 kDa glycoprotein. It was formerly described as the sheep red blood cell receptor, causing T-cell rosetting, and has been identified as the ligand for CD58 (LFA-3). It is also a receptor for CD48, CD59 and CD15, which binds to the multimeric form of CD2. CD2 is present on the majority of normal human peripheral blood T lymphocytes and a high percentage of NK cells. It is also expressed by all thymocytes.



Lysed normal whole blood sample.

Clone: SFC13Pt2H9 (T11)

Isotype: IgG1 Mouse

SFC13Pt2H9 inhibits sheep erythrocyte rosette formation. It has been used as a CD2 reference monoclonal antibody during HLDA 6 (ref.6T-CD2.6).

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	100 tests	Freeze-dried	6602389	IVD & CE	COULTER CLONE	GMP
FITC	50 tests	Liquid	6603863	IVD & CE	CYTO-STAT	GMP
RD1	100 tests	Liquid	6602868	IVD & CE	COULTER CLONE	GMP
RD1	50 tests	Liquid	6603849	IVD & CE	CYTO-STAT	GMP

Clone: 39C1.5

Isotype: IgG2a Rat

39C1.5 inhibits sheep erythrocyte rosette formation. It has been used as a CD2 reference monoclonal antibody during HLDA 6 (ref.6T-CD2.7).

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B09685	ASR	IOTest	GMP
FITC	100 tests	Liquid	A07743	CE	IOTest	98/79/EC
FITC	2 mL	Liquid	IM0442U	ASR	IOTest	GMP
PE	100 tests	Liquid	A07744	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM0443U	ASR	IOTest	GMP
ECD	0.5 mL	Liquid	B46023	ASR	IOTest	GMP
PC5	100 tests	Liquid	A07745	CE	IOTest	98/79/EC
PC5	1 mL	Liquid	IM2634U	ASR	IOTest	GMP
PC7	1 mL	Liquid	A51074	ASR	IOTest	GMP
PC7	100 tests	Liquid	A21689	CE	IOTest	98/79/EC
APC	1 mL	Liquid	A60794	ASR	IOTest	GMP
APC	100 tests	Liquid	B49210	CE	IOTest	98/79/EC
APC-A700	0.5 mL	Liquid	B12111	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	B01681	ASR	IOTest	GMP

NEW



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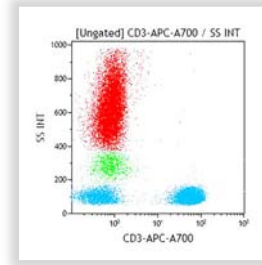
ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD3

CD3 ζ see TCR ζ in Human non-CD antigens section.

The CD3 antigen is a complex of 5 invariable polypeptidic chains, γ , δ , ϵ , ζ and η , whose molecular weights are respectively 25–28, 21, 20, 16 and 22 kDa. The ζ chain occurs in the CD3 complex as a disulphide linked homodimer or as a heterodimer with the η chain. CD3 is part of a bigger complex which includes the T Cell Receptor (TCR). This complex is expressed by mature T cells and by thymocytes. T cell activation may be induced when a foreign antigen is presented to the TCR through MHC complex.



Lysed normal whole blood sample.

Clone: UCHT1

Isotype: IgG1 Mouse

UCHT1 reacts with the ϵ -chain of the CD3 complex. It was used as a CD3 reference mAb (ref.6T-CD3.1) during HLDA 6. After permeabilization with saponin-based permeabilization reagent IntraPrep, it may be used to detect intracytoplasmic CD3 by flow cytometry.

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	A93687	ASR	IOTest	GMP
PB	50 tests	Liquid	B49204	CE	IOTest	98/79/EC NEW
KrO	0.5 mL	Liquid	B00068	ASR	IOTest	GMP
FITC	50 tests	Liquid	6604623	IVD & CE	CYTO-STAT	GMP
FITC	100 tests	Freeze-dried	6604625	IVD & CE	COULTER CLONE	GMP
FITC	100 tests	Liquid	A07746	CE	IOTest	98/79/EC
FITC	2 mL	Liquid	IM1281U	ASR	IOTest	GMP
PE	100 tests	Liquid	A07747	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM1282U	ASR	IOTest	GMP
RD1	50 tests	Liquid	6604621	IVD & CE	CYTO-STAT	GMP
RD1	100 tests	Liquid	6604627	IVD & CE	COULTER CLONE	GMP
ECD	100 tests	Liquid	A07748	CE	IOTest	98/79/EC
ECD	1 mL	Liquid	IM2705U	ASR	IOTest	GMP
PC5	0.5 mL	Liquid	6607010	ASR	CYTO-STAT	GMP
PC5	100 tests	Liquid	A07749	CE	IOTest	98/79/EC
PC5	1 mL	Liquid	IM2635U	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	A66327	ASR	IOTest	GMP
PC5.5	50 tests	Liquid	B49203	CE	IOTest	98/79/EC NEW
PC7	100 tests	Liquid	6607100	RUO	IOTest	GMP
PC7	100 tests	Liquid	737657	CE	IOTest	98/79/EC
APC	100 tests	Liquid	IM2467	CE	IOTest	98/79/EC
APC	1 mL	Liquid	IM2467U	ASR	IOTest	GMP
APC-A700	0.5 mL	Liquid	B10823	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	A66329	ASR	IOTest	GMP
APC-A750	50 tests	Liquid	A94680	CE	IOTest	98/79/EC
UNLB	2 mL	Liquid	IM1280	ASR	-	GMP
UNLB	0.2 mg	Freeze-dried	IM1304	ASR	-	GMP

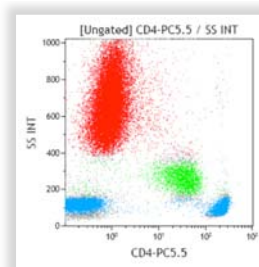
REAGENTS

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Single-Color Reagents

CD4

The CD4 antigen is a single-chain transmembrane glycoprotein with a 59 kDa molecular weight. CD4 binds to a non-polymorphic region of MHC Class II molecules and is a co-receptor in MHC Class II restricted antigen-induced activation. CD4 is expressed on the T "helper" lymphocytes. It is present on most thymocytes where it is frequently co-expressed with CD8. CD4 is also expressed on all monocytes, although with a lower density than on T lymphocytes. CD4⁺ T lymphocytes are active in inducing and helping the synthesis of immunoglobulins by B cells. CD4 is a receptor for the Human Immunodeficiency Virus type I (HIV-1) envelope protein gp120.



Lysed normal whole blood sample.

Clone: 13B8.2

Isotype: IgG1 Mouse

13B8.2 monoclonal antibody antagonizes HIV effects in vitro. 13B8.2 recognizes an epitope close to the amino-acid residues 88-89 within the CD4 molecule. 13B8.2 and BL4 recognize different epitopes. 13B8.2 and BL4 are not cross-blocking.

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	A82789	ASR	IOTest	GMP
PB	50 tests	Liquid	B49197	CE	IOTest	98/79/EC NEW
KrO	0.5 mL	Liquid	A96417	ASR	IOTest	GMP
FITC	100 tests	Liquid	A07750	CE	IOTest	98/79/EC
FITC	2 mL	Liquid	IM0448U	ASR	IOTest	GMP
PE	100 tests	Liquid	A07751	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM0449U	ASR	IOTest	GMP
PC5	100 tests	Liquid	A07752	CE	IOTest	98/79/EC
PC5	1 mL	Liquid	IM2636U	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	B16491	ASR	IOTest	GMP
APC	100 tests	Liquid	IM2468	CE	IOTest	98/79/EC
APC	1 mL	Liquid	IM2468U	ASR	IOTest	GMP
APC-A700	0.5 mL	Liquid	B10824	ASR	IOTest	GMP
APC-A750	50 tests	Liquid	A94682	CE	IOTest	98/79/EC
APC-A750	0.5 mL	Liquid	A94685	ASR	IOTest	GMP
Biot	0.2 mg	Freeze-dried	IM0704	ASR	-	GMP
UNLB	0.2 mg	Freeze-dried	IM0398	ASR	-	GMP

Clone: SFCI12T4D11 (T4)

Isotype: IgG1 Mouse

SFCI12T4D11 monoclonal antibody antagonizes HIV effects in vitro.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	100 tests	Freeze-dried	6602393	IVD & CE	COULTER CLONE	GMP
FITC	50 tests	Liquid	6603862	IVD & CE	CYTO-STAT	GMP
RD1	100 tests	Liquid	6602864	IVD & CE	COULTER CLONE	GMP
RD1	50 tests	Liquid	6603850	IVD & CE	CYTO-STAT	GMP
ECD	0.5 mL	Liquid	6604727	ASR	CYTO-STAT	GMP
PC7	100 tests	Liquid	6607101	RUO	IOTest	GMP
PC7	100 tests	Liquid	737660	CE	IOTest	98/79/EC



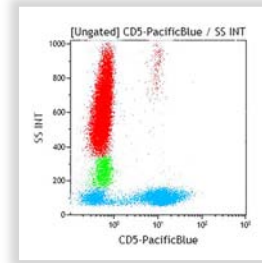
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD5

The CD5 antigen is a single-chain transmembrane glycoprotein with a molecular weight of 67 kDa. The extracellular domain consists of 3 scavenger receptor cysteine-rich (SRCR) domains of approximately 100 amino acids each. CD5 is found on all mature T lymphocytes and on most thymocytes. CD5 is also present on a B lymphocyte subset but is not found on granulocytes or monocytes. CD5 is a ligand for the CD72 antigen, which is present on B lymphocytes. The CD5⁺ B lymphocyte subset (known as B-1a lymphocytes) may arise from a non-conventional B lineage (independent of bone marrow).



Lysed normal whole blood sample.

Clone: BL1a

Isotype: IgG2a Mouse

BL1a monoclonal antibody (ref. 6T-CD5.5) was used as a CD5 reference monoclonal antibody during HLDA 6.

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	A82790	ASR	IOTest	GMP
FITC	100 tests	Liquid	A08932	CE	IOTest	98/79/EC
FITC	2 mL	Liquid	IM0468U	ASR	IOTest	GMP
PE	100 tests	Liquid	A07753	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM0469U	ASR	IOTest	GMP
ECD	1 mL	Liquid	A33096	ASR	IOTest	GMP
PC5	100 tests	Liquid	A07754	CE	IOTest	98/79/EC
PC5	1 mL	Liquid	IM2637U	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	A70203	ASR	IOTest	GMP
PC5.5	50 tests	Liquid	B49191	CE	IOTest	98/79/EC NEW
PC7	1 mL	Liquid	A51075	ASR	IOTest	GMP
PC7	100 tests	Liquid	A21690	CE	IOTest	98/79/EC
APC	1 mL	Liquid	A60790	ASR	IOTest	GMP
APC-A700	0.5 mL	Liquid	A78835	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	A78836	ASR	IOTest	GMP
APC-A750	50 tests	Liquid	B92413	CE	IOTest	98/79/EC NEW

Clone: CLB-T1/1

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
ECD	0.5 mL	Liquid	B55387	ASR	IOTest	GMP
APC	0.5 mL	Liquid	B55386	ASR	IOTest	GMP

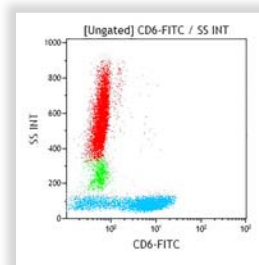
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD6

The CD6 antigen is a single-chain type I transmembrane glycoprotein with three extracellular SRCR domains. It exists predominantly in two isoforms as 100 kDa and 130 kDa. CD6 is an extensively glycosylated molecule and differences in glycosylation patterns may occur. The CD6 molecule is modified by phosphorylation of serine, threonine and tyrosine residues during T-cell activation. CD6 have a role as a costimulatory molecule for T-cell activation and in cell adhesion. CD166 was identified as an adhesion receptor for CD6. The CD6 antigen is expressed on the surface of most mature human T cells and a subset of resting B cells and medullary thymocytes. It is found on NK cells not it is reported to be on any other cells.



Lysed normal whole blood sample.

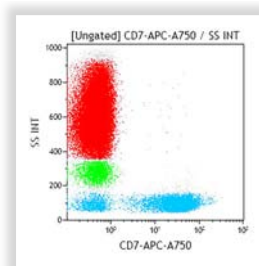
Clone: 2H46D3B

Isotype: IgG2a Mouse

Form	Size	Format	Part #	Status	Line	Quality Standard
FITC	1 mL	Liquid	B16492	ASR	IOTest	GMP

CD7

The CD7 antigen is a membrane-embedded glycoprotein with a molecular weight of 40 kDa. It is expressed at an early stage of T lineage ontogeny, during the extrathymic prothymocytic formation. CD7 expression persists throughout T lymphocytes differentiation defining CD7 as a pan-T marker. It is also expressed on thymocytes, on the majority of resting T lymphocytes, and Natural Killer cells (NK), and on a subset of pre-B lymphocytes and B lymphocytes from foetal bone marrow. CD7 expression is also detected on pluripotent hematopoietic stem cells. Mature B-lymphocytes, cells from erythroid, myeloid and megacaryocytic lineage do not express the CD7 molecule. The CD7 molecule is involved in T lymphocytes activation. Its expression may be quantitatively up-regulated on stimulated T lymphocytes.



Lysed normal whole blood sample.

Clone: 3A1E-12H7

Isotype: IgG2b Mouse

3A1E-12H7 (ref. 6T-CD7.4) was used as a CD7 reference monoclonal antibody during HLDA 6.

Form	Size	Format	Part #	Status	Line	Quality Standard
FITC	0.5 mL	Liquid	6603824	ASR	CYTO-STAT	GMP
FITC	0.1 mg	Freeze-dried	6603825	ASR	COULTER CLONE	GMP
RD1	0.5 mL	Liquid	6603822	ASR	CYTO-STAT	GMP
RD1	0.5 mL	Liquid	6603827	ASR	COULTER CLONE	GMP

Clone: 8H8.1

Isotype: IgG2a Mouse

Form	Size	Format	Part #	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B06499	ASR	IOTest	GMP
FITC	100 tests	Liquid	A07755	CE	IOTest	98/79/EC
FITC	2 mL	Liquid	IM0585U	ASR	IOTest	GMP
PE	2 mL	Liquid	IM1429U	ASR	IOTest	GMP
ECD	1 mL	Liquid	A70202	ASR	IOTest	GMP
PC5	100 tests	Liquid	IM3613	CE	IOTest	98/79/EC
PC5	1 mL	Liquid	IM3613U	ASR	IOTest	GMP
PC7	1 mL	Liquid	A46526	ASR	IOTest	GMP
PC7	100 tests	Liquid	B49183	CE	IOTest	98/79/EC
APC	0.5 mL	Liquid	A97050	ASR	IOTest	GMP
APC-A700	0.5 mL	Liquid	A70201	ASR	IOTest	GMP
APC-A700	50 tests	Liquid	B36290	CE	IOTest	98/79/EC
APC-A750	0.5 mL	Liquid	B16892	ASR	IOTest	GMP

NEW



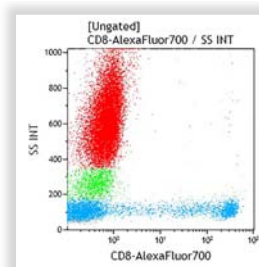
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD8

The CD8 antigen is a disulfide-linked dimer, which exists either as a CD8 α homodimer or as a CD8 α/β heterodimer. CD8 α is required for surface expression of CD8 β . The molecular weight of each monomer of α or β is approximately 32-34 kDa. CD8 binds to a non-polymorphic domain ($\alpha 3$ domain) of MHC Class I molecules. CD8 is expressed on a subset of human peripheral blood T lymphocytes. A subset of NK cells possess the CD8 antigen but show low to medium density of expression. CD8 α homodimer is expressed by NK cells and γ/δ^+ T cells. CD8 is also present on most thymocytes where it is frequently co-expressed with CD4, and on a subpopulation of bone marrow cells. The CD8 molecule acts with the T Cell Receptor (TCR) as a coreceptor for MHC class I restricted antigen recognition. CD8 is widely used as a marker of cytotoxic T lymphocytes.



Lysed normal whole blood sample.

Clone: B9.11

Isotype: IgG1 Mouse

The B9.11 monoclonal antibody recognizes the α chain of the CD8 molecule. It was used as a CD8 reference monoclonal antibody during HLDA 6 (ref. 6T-CD8.5).

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	A82791	ASR	IOTest	GMP
PB	50 tests	Liquid	B49182	CE	IOTest	98/79/EC NEW
KrO	0.5 mL	Liquid	B00067	ASR	IOTest	GMP
FITC	100 tests	Liquid	A07756	CE	IOTest	98/79/EC
FITC	2 mL	Liquid	IM0451U	ASR	IOTest	GMP
PE	100 tests	Liquid	A07757	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM0452U	ASR	IOTest	GMP
ECD	0.5 mL	Liquid	B08467	ASR	IOTest	GMP
PC5	100 tests	Liquid	A07758	CE	IOTest	98/79/EC
PC5	1 mL	Liquid	IM2638U	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	B21205	ASR	IOTest	GMP
APC	100 tests	Liquid	IM2469	CE	IOTest	98/79/EC
APC	1 mL	Liquid	IM2469U	ASR	IOTest	GMP
AF700	0.5 mL	Liquid	B76279	ASR	IOTest	GMP NEW
APC-A700	0.5 mL	Liquid	A66332	ASR	IOTest	GMP
APC-A700	50 tests	Liquid	B49181	CE	IOTest	98/79/EC NEW
APC-A750	50 tests	Liquid	A94683	CE	IOTest	98/79/EC
APC-A750	0.5 mL	Liquid	A94686	ASR	IOTest	GMP

Clone: SFCI21Thy2D3 (T8)

Isotype: IgG1 Mouse

SFCI21Thy2D3 monoclonal antibody recognizes the α chain of the CD8 molecule.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	100 tests	Freeze-dried	6602385	IVD & CE	COULTER CLONE	GMP
FITC	50 tests	Liquid	6603861	IVD & CE	CYTO-STAT	GMP
RD1	100 tests	Liquid	6603274	IVD & CE	COULTER CLONE	GMP
RD1	50 tests	Liquid	6603848	IVD & CE	CYTO-STAT	GMP
ECD	0.5 mL	Liquid	6604728	ASR	CYTO-STAT	GMP
ECD	50 tests	Liquid	737659	CE	CYTO-STAT	98/79/EC
PC5	0.5 mL	Liquid	6607011	ASR	CYTO-STAT	GMP
PC5.5	0.5 mL	Liquid	A99019	ASR	IOTest	GMP
PC7	100 tests	Liquid	6607102	RUO	IOTest	GMP
PC7	100 tests	Liquid	737661	CE	IOTest	98/79/EC
APC	0.5 mL	Liquid	A99023	ASR	IOTest	GMP



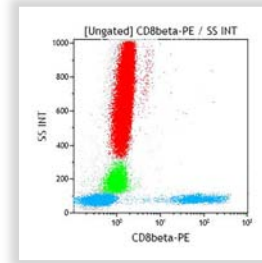
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD8 β

Along with CD8 α , the CD8 β polypeptide molecule is one of the two chains which can be expressed within the CD8 dimer. CD8 α is required for surface expression of CD8 β . The α and β glycoproteins have similar molecular weights of 32-34 kDa each. The CD8 α/β heterodimer is expressed by TCR α/β^+ CD8 $^+$ T cells whereas TCR γ/δ^+ CD8 $^+$ T cells and CD8 $^+$ NK cells exclusively express the CD8 α/α homodimer.



Lysed normal whole blood sample.

Clone: 2ST8.5H7

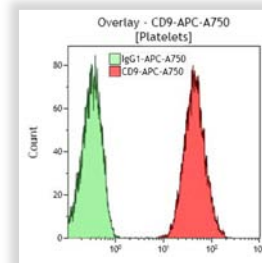
Isotype: IgG2a Mouse

The 2ST8.5H7 monoclonal antibody reacts with an epitope formed by the combination of the α and β polypeptides.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	1 mL	Liquid	B42025	ASR	IOTest	GMP
PE	2 mL	Liquid	IM2217U	ASR	IOTest	GMP
ECD	100 tests	Liquid	6607123	RUO	IOTest	GMP
UNLB	0.2 mg	Freeze-dried	IM2014	RUO	-	GMP

CD9

CD9 (p24 antigen) is a single transmembrane polypeptide of 24 kDa related to the tetraspanin (TM4) family. Like other tetraspanins (e.g. CD63, CD81, CD82, CD37, CD53, among the 20 known members), CD9 structure is composed of 4 transmembrane domains, with intracellular N and C termini. First discovered on a lymphoblastic cell line of pre-B phenotype, CD9 was then found on platelets and within their α -granules, on monocytes, pre-B cells, eosinophils, basophils and activated T cells. The CD9 molecule associates with other surface proteins such as the $\alpha 6/\beta 4$ integrin (CD49f/CD104 molecule) and HLA-DR, suggesting a role in adhesion, signal transduction and cell motility.



Platelet rich plasma (PRP) from normal whole blood.

Clone: ALB6

Isotype: IgG1 Mouse

The ALB6 monoclonal antibody (mAb) was first reported as specific for CD9 (p24) on platelets, capable of modulating aggregation of platelets activated with various agonists.

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B09979	ASR	IOTest	GMP
FITC	2 mL	Liquid	IM1755U	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	B13649	ASR	IOTest	GMP
UNLB	0.2 mg	Freeze-dried	IM0117	RUO	-	GMP

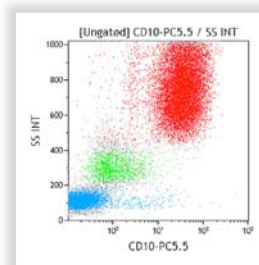
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD10

The CD10 antigen is referred to as the Common Acute Lymphoblastic Leukemia Antigen (CALLA). It is a type II integral membrane protein of 100 kDa, identified as the human membrane-associated neutral endopeptidase (EC3.4.24.11). It is expressed on uncommitted lymphoid precursors. CD10 expression is lost as cells enter the T lineage. In the B lineage, CD10 expression is lost later in ontogeny, as cells acquire surface Ig expression. It is also expressed on activated and proliferating B cells in the germinal center, and on neutrophils as well as on bone marrow stromal cells. It is also expressed on a number of other cells of epithelial origin.



Lysed normal whole blood sample.

Clone: J5

Isotype: IgG2a Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	0.5 mg	Freeze-dried	6602463	ASR	COULTER CLONE	GMP
FITC	0.5 mL	Liquid	6604107	ASR	CYTO-STAT	GMP
RD1	0.5 mL	Liquid	6603475	ASR	COULTER CLONE	GMP
RD1	0.5 mL	Liquid	6604120	ASR	CYTO-STAT	GMP

Clone: ALB1

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	100 tests	Liquid	A07759	CE	IOTest	98/79/EC
FITC	2 mL	Liquid	IM2720U	ASR	IOTest	GMP
PE	100 tests	Liquid	A07760	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM1915U	ASR	IOTest	GMP
ECD	1 mL	Liquid	IM3608U	ASR	IOTest	GMP
PC5	100 tests	Liquid	A07761	CE	IOTest	98/79/EC
PC5	1 mL	Liquid	IM2721U	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	B16490	ASR	IOTest	GMP
PC7	1 mL	Liquid	A46527	ASR	IOTest	GMP
APC	1 mL	Liquid	IM3633	ASR	IOTest	GMP
APC	100 tests	Liquid	B92400	CE	IOTest	98/79/EC NEW
APC-A700	0.5 mL	Liquid	A86353	ASR	IOTest	GMP
APC-A700	50 tests	Liquid	B49223	CE	IOTest	98/79/EC NEW
APC-A750	0.5 mL	Liquid	A89310	ASR	IOTest	GMP

Clone: ALB2

Isotype: IgG2a Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM0471U	ASR	IOTest	GMP



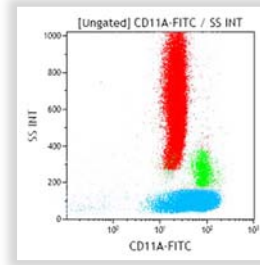
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD11a

CD11a (α L integrin, LFA-1 α chain) is a member of the integrin family. Like some other leucocyte integrins (CD11b, CD11c, CD11d), CD11a is non-covalently associated with the β 2 integrin subunit CD18. CD11a is a transmembrane glycoprotein of 170 kDa, mainly expressed by leucocytes including monocytes, macrophages, neutrophils, eosinophils, basophils, B and T lymphocytes. Activated platelets also express CD11a and CD18. LFA-1 (CD11a/CD18) promotes homotypic adhesion between lymphoid cells and heterotypic adhesion of leucocytes to the vascular endothelium. LFA-1's known ligands are Intercellular Adhesion Molecules (ICAM): ICAM-1 (CD54), ICAM-2 (CD102) and ICAM-3 (CD50).



Lysed normal whole blood sample

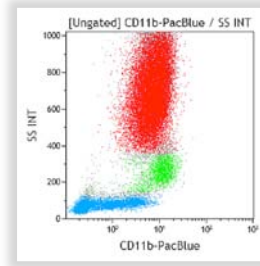
Clone: 25.3

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM0860U	ASR	IOTest	GMP
PE	2 mL	Liquid	IM1433U	ASR	IOTest	GMP

CD11b

The CD11b antigen is also known as the integrin α M subunit. It combines with the CD18 antigen (integrin β 2 subunit) to build the integrin Mac-1 (CD11b/CD18, α M β 2, CR3, iC3bR, Mo-1). CD11b is a type I transmembrane glycoprotein of 170 or 165 kDa under reducing or non-reducing conditions, respectively. CD11b shows 19 potential N-glycosylation sites. Expression of the CD11b chain on the cell surface requires the presence of the CD18 antigen (also known as β 2 integrin chain). Together, these two subunits create the CD11b/CD18 integrin, one of the four integrin heterodimers that can be built by the association of CD18 β chain with four distinctive CD11 α chains. CD11b/CD18 is highly expressed on NK Cells, neutrophils, monocytes and macrophages.



Lysed normal whole blood sample

Clone: 94 (Mo1)

Isotype: IgM Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	0.5 mg	Freeze-dried	6602573	ASR	COULTER CLONE	GMP

Clone: Bear1

Isotype: IgG1 Mouse

Bear1 is a non blocking monoclonal antibody.

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B16891	ASR	IOTest	GMP
PB	50 tests	Liquid	B36296	CE	IOTest	98/79/EC
FITC	100 tests	Liquid	IM0530	CE	IOTest	98/79/EC
FITC	2 mL	Liquid	IM0530U	ASR	IOTest	GMP
PE	2 mL	Liquid	IM2581U	ASR	IOTest	GMP
PC5	1 mL	Liquid	IM3611	ASR	IOTest	GMP
PC7	1 mL	Liquid	A54822	ASR	IOTest	GMP
APC	0.5 mL	Liquid	A87782	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	A97052	ASR	IOTest	GMP
APC-A750	50 tests	Liquid	B36295	CE	IOTest	98/79/EC
UNLB	0.2 mg	Freeze-dried	IM0190	ASR	-	GMP



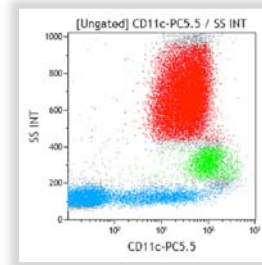
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD11c

CD11c (integrin α X subunit, also known as leucocyte surface antigen p150, Axb2 and CR4) is a member of the integrin family. Like other leucocyte integrins (CD11a, CD11b, CD11d), CD11c is non-covalently associated with the β 2 integrin subunit (CD18). CD11c is a transmembrane glycoprotein of 145-150 kDa, mainly expressed by monocytes, macrophages and NK cells, and to a lesser extent by granulocytes, dendritic cells and some subsets of T and B cells.



Lysed normal whole blood sample.

Clone: BU15

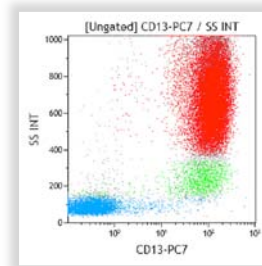
Isotype: IgG1 Mouse

The BU15 antibody was used as a CD11c reference mAb (ref.6) during HLDA 6.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	100 tests	Liquid	IM1760	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM1760U	ASR	IOTest	GMP
PC5	1 mL	Liquid	IM3707	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	B19719	ASR	IOTest	GMP
PC7	1 mL	Liquid	A80249	ASR	IOTest	GMP
APC	0.5 mL	Liquid	B01680	ASR	IOTest	GMP
APC-A700	0.5 mL	Liquid	B43304	ASR	IOTest	GMP

CD13

The CD13 antigen is a transmembrane glycoprotein with a large extracellular region and a small intracellular NH2-terminal tail. It has a molecular weight of 150 kDa and is expressed on the cell surface as a non-covalently linked homodimer. It is found on most cells of myeloid origin including neutrophils, eosinophils, basophils and monocytes from normal peripheral blood. It is absent from B and T lymphocytes as well as from red blood cells and platelets. This molecule is found on the surface of committed progenitor cells defined as the Granulocyte-Monocyte Colony Forming Units (CFU-GM) in normal bone marrow. There are up to five subpopulations of CD13 molecules possessing different levels of glycosylation, which may explain the different binding patterns of various CD13 antibodies.



Lysed normal whole blood sample.

Clone: 366 (MY7)

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
RD1	0.5 mL	Liquid	6602989	ASR	COULTER CLONE	GMP
PC7	0.5 mL	Liquid	B19714	ASR	IOTest	GMP

Clone: SJ1D1

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM0778U	ASR	IOTest	GMP
PE	100 tests	Liquid	A07762	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM1427U	ASR	IOTest	GMP
ECD	0.5 mL	Liquid	B24026	ASR	IOTest	GMP

Clone: Immu103.44

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
ECD	1 mL	Liquid	A33097	ASR	IOTest	GMP
ECD	100 tests	Liquid	B36286	CE	IOTest	98/79/EC
PC5	100 tests	Liquid	A07763	CE	IOTest	98/79/EC
PC5	1 mL	Liquid	IM2639U	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	A79389	ASR	IOTest	GMP
PC5.5	50 tests	Liquid	B49196	CE	IOTest	98/79/EC NEW
PC7	1 mL	Liquid	A46528	ASR	IOTest	GMP
APC	0.5 mL	Liquid	A87783	ASR	IOTest	GMP



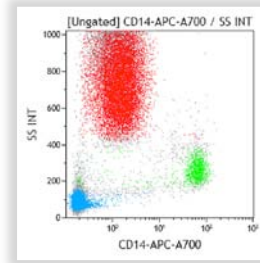
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD14

The CD14 antigen is a glycosyl-phosphatidylinositol-linked single-chain surface membrane glycoprotein with a molecular weight of 53-55 kDa. It functions as a high affinity receptor for the complex of LipoPolySaccharide (LPS) and the LPS-Binding Protein (LBP). It is found on cells of myelomonocytic lineage. CD14 antigen is strongly expressed on monocytes, macrophages, and weakly on neutrophils. It is also weakly expressed on B lymphocytes, but is absent from T lymphocytes, NK cells, red blood cells and platelets. It is found on Langerhans cells, follicular dendritic cells and histiocytes.



Lysed normal whole blood sample.

Clone: 116 (Mo2) Isotype: IgM Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	100 tests	Freeze-dried	6602507	IVD	COULTER CLONE	GMP
FITC	50 tests	Liquid	6604114	IVD & CE	CYTO-STAT	GMP
RD1	100 tests	Liquid	6603266	IVD	COULTER CLONE	GMP
RD1	50 tests	Liquid	6604500	IVD & CE	CYTO-STAT	GMP

Clone: 322A-1 (MY4) Isotype: IgG2b Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	100 tests	Freeze-dried	6603511	IVD & CE	COULTER CLONE	GMP
FITC	50 tests	Liquid	6604110	IVD & CE	CYTO-STAT	GMP
RD1	100 tests	Liquid	6603262	IVD & CE	COULTER CLONE	GMP

Clone: RMO52 Isotype: IgG2a Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B00846	ASR	IOTest	GMP
KrO	0.5 mL	Liquid	B01175	ASR	IOTest	GMP
FITC	2 mL	Liquid	IM0645U	ASR	IOTest	GMP
FITC	100 tests	Liquid	B36297	CE	IOTest	98/79/EC
PE	100 tests	Liquid	A07764	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM0650U	ASR	IOTest	GMP
ECD	1 mL	Liquid	IM2707U	ASR	IOTest	GMP
ECD	100 tests	Liquid	B92391	CE	IOTest	98/79/EC NEW
PC5	100 tests	Liquid	A07765	CE	IOTest	98/79/EC
PC5	1 mL	Liquid	IM2640U	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	A70204	ASR	IOTest	GMP
PC7	1 mL	Liquid	A22331	ASR	IOTest	GMP
APC	100 tests	Liquid	IM2580	CE	IOTest	98/79/EC
APC	1 mL	Liquid	IM2580U	ASR	IOTest	GMP
APC-A700	0.5 mL	Liquid	A99020	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	A86052	ASR	IOTest	GMP
APC-A750	50 tests	Liquid	B92421	CE	IOTest	98/79/EC NEW
UNLB	0.2 mg	Freeze-dried	IM0643	ASR	-	GMP



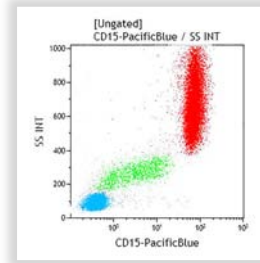
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD15

The CD15 antigen (Lewis x or Le^x) is the lacto-N-(neo) fucopentaose III molecule. This carbohydrate epitope is carried by both glycolipids and glycoproteins expressed on the cell membrane. CD15 antigen is strongly expressed by neutrophils, eosinophils, monocytes, macrophages, mast cells and normal myeloid precursor cells. It is not expressed on normal erythrocytes, platelets or lymphocytes.



Lysed normal whole blood sample.

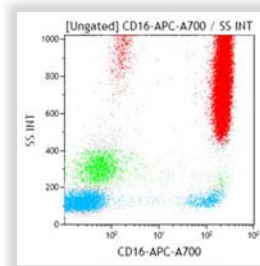
Clone: 80H5

Isotype: IgM Mouse

Form	Size	Format	Part #	Status	Line	Quality Standard
PB	0.5 mL	Liquid	A74775	ASR	IOTest	GMP
PB	50 tests	Liquid	B49218	CE	IOTest	98/79/EC NEW
KrO	0.5 mL	Liquid	B01176	ASR	IOTest	GMP
FITC	2 mL	Liquid	IM1423U	ASR	IOTest	GMP
FITC	100 tests	Liquid	B36298	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM1954U	ASR	IOTest	GMP
PC5	1 mL	Liquid	IM2641U	ASR	IOTest	GMP
PC5	100 tests	Liquid	B49217	CE	IOTest	98/79/EC NEW

CD16

The CD16 antigen is the low-affinity receptor for IgG (FcγRIII). The CD16 antigen exists in two different forms encoded by two different genes: FcγRIIIA (or III-2) and FcγRIIIB (or III-1). The genetic heterogeneity of CD16 generates alternative membrane-anchored molecules. One is a transmembrane form (FcγRIIIA, 50-65 kDa) expressed on NK cells, monocytes and macrophages. The other is a glycosylphosphatidylinositol (GPI)-anchored form (FcγRIIIB, 48 kDa) only expressed on neutrophils. It has been shown that the CD16 antigen can be non-covalently associated within the membrane of NK cells, to a disulfide-linked homo or heterodimer made from the 16 kDa CD3ζ chain and the FcεRIγ chain.



Lysed normal whole blood sample.

Clone: 3G8

Isotype: IgG1 Mouse

The 3G8 monoclonal antibody is inappropriate for western blot use. 3G8 binds to both isoforms of the CD16 molecule.

Form	Size	Format	Part #	Status	Line	Quality Standard
PB	0.5 mL	Liquid	A82792	ASR	IOTest	GMP
PB	50 tests	Liquid	B36292	CE	IOTest	98/79/EC
KrO	0.5 mL	Liquid	B00069	ASR	IOTest	GMP
FITC	0.5 mL	Liquid	6604894	ASR	CYTO-STAT	GMP
FITC	2 mL	Liquid	IM0814U	ASR	IOTest	GMP
FITC	100 tests	Liquid	B49215	CE	IOTest	98/79/EC NEW
PE	100 tests	Liquid	A07766	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM1238U	ASR	IOTest	GMP
ECD	1 mL	Liquid	A33098	ASR	IOTest	GMP
ECD	100 tests	Liquid	B49216	CE	IOTest	98/79/EC NEW
PC5	100 tests	Liquid	A07767	CE	IOTest	98/79/EC
PC5	1 mL	Liquid	IM2642U	ASR	IOTest	GMP
PC7	100 tests	Liquid	6607118	RUO	IOTest	GMP
APC	0.5 mL	Liquid	B00845	ASR	IOTest	GMP
APC-A700	0.5 mL	Liquid	B20023	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	A66330	ASR	IOTest	GMP
APC-A750	50 tests	Liquid	B49184	CE	IOTest	98/79/EC NEW
UNLB	0.2 mg	Freeze-dried	IM0813	ASR	-	GMP



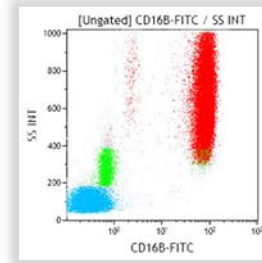
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD16b

The IgG_{Fc} low affinity receptor (FcγRIII) is known to be expressed as an integral membrane protein (FcγRIIIA) and as a glycosyl-phosphatidyl inositol (GPI)-anchored protein (FcγRIIIB). These two isoforms, encoded by two different, although linked genes, have extracellular amino-acidic sequences differing by six amino acids and show specific tissue distributions. FcγRIIIB protein defines the CD16b cluster.



Lysed normal whole blood sample

Clone: 1D3

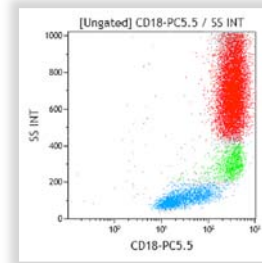
Isotype: IgM Mouse

The monoclonal antibody 1D3 was shown to be non-reactive with NK cells or monocytes but to be specific to polymorphonuclear leucocytes (PMNs). It recognizes an epitope specific to the FcγRIIIB molecule and was characterized as the sole antibody belonging to the CD16b cluster of differentiation. This antibody reacts with PMNs, irrespective of the neutrophil antigen (NA) phenotype, although it shows lower reactivity with NA2-homozygote PMNs as compared to NA1-homozygotes or NA1/NA2 heterozygotes.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM2353U	ASR	IOTest	GMP

CD18

CD18 is the 95 kDa integrin β2-chain which forms non-covalently-bound heterodimers with the integrin α subunits: CD11a, CD11b and CD11c (αL, αM and αX, respectively). CD18 is expressed by all leucocytes, activated platelets and megakaryocytic cell lines.



Lysed normal whole blood sample

Clone: 7E4

Isotype: IgG1 Mouse

7E4 is a blocking monoclonal antibody in cell adhesion assays.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM1568U	ASR	IOTest	GMP
PE	2 mL	Liquid	IM1570U	ASR	IOTest	GMP



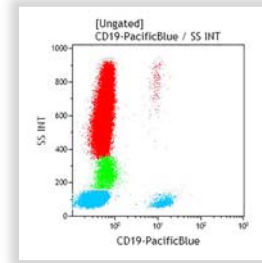
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD19

The CD19 antigen (also called B4) is a type I membrane glycoprotein with a molecular weight of 95 kDa. CD19 is involved in the regulation of B lymphocyte development, activation and differentiation. This molecule is expressed on all normal B lymphocytes including pro-B lymphocytes. It is also found on the surface of follicular dendritic cells, on the early cells of myelomonocytic lineage and on most stabilized B cell lines. It is not present on normal T lymphocytes, NK cells, monocytes, and granulocytes.



Lysed normal whole blood sample.

Clone: 89B (B4)				Isotype: IgG1 Mouse		
Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	100 tests	Freeze-dried	6603012	IVD & CE	COULTER CLONE	GMP
FITC	50 tests	Liquid	6603859	IVD & CE	CYTO-STAT	GMP
RD1	100 tests	Liquid	6603024	IVD & CE	COULTER CLONE	GMP
RD1	50 tests	Liquid	6603846	IVD & CE	CYTO-STAT	GMP

Clone: J3-119				Isotype: IgG1 Mouse		
In vitro studies show that the CD19 antibodies have an inhibitory effect on the activation and proliferation of B lymphocytes. They also inhibit the B cell response after co-stimulation by anti-immunoglobulin and interleukin 4.						
Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	A86355	ASR	IOTest	GMP
PB	50 tests	Liquid	B49213	CE	IOTest	98/79/EC NEW
KrO	0.5 mL	Liquid	A96418	ASR	IOTest	GMP
FITC	100 tests	Liquid	A07768	CE	IOTest	98/79/EC
FITC	2 mL	Liquid	IM1284U	ASR	IOTest	GMP
PE	100 tests	Liquid	A07769	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM1285U	ASR	IOTest	GMP
ECD	100 tests	Liquid	A07770	CE	IOTest	98/79/EC
ECD	1 mL	Liquid	IM2708U	ASR	IOTest	GMP
PC5	100 tests	Liquid	A07771	CE	IOTest	98/79/EC
PC5	1 mL	Liquid	IM2643U	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	A66328	ASR	IOTest	GMP
PC5.5	50 tests	Liquid	B49211	CE	IOTest	98/79/EC NEW
PC7	100 tests	Liquid	IM3628	CE	IOTest	98/79/EC
PC7	1 mL	Liquid	IM3628U	ASR	IOTest	GMP
APC	100 tests	Liquid	IM2470	CE	IOTest	98/79/EC
APC	1 mL	Liquid	IM2470U	ASR	IOTest	GMP
AF700	0.5 mL	Liquid	B76283	ASR	IOTest	GMP NEW
APC-A700	0.5 mL	Liquid	A78837	ASR	IOTest	GMP
APC-A700	50 tests	Liquid	B49212	CE	IOTest	98/79/EC NEW
APC-A750	0.5 mL	Liquid	A78838	ASR	IOTest	GMP
APC-A750	50 tests	Liquid	A94681	CE	IOTest	98/79/EC
UNLB	0.2 mg	Freeze-dried	IM1313	ASR	-	GMP

Clone: HD237 (B4 lytic)				Isotype: IgG2b Mouse		
Form	Size	Format	Part#	Status	Line	Quality Standard
ECD	0.5 mL	Liquid	6604551	ASR	CYTO-STAT	GMP



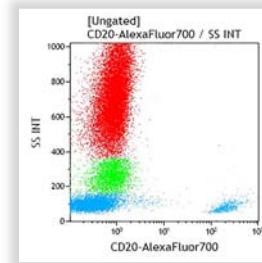
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD20

The CD20 antigen (Bp35) is an integral non-glycosylated membrane protein with four transmembrane domains. Three isoforms (33, 35 and 37 kDa) result from differential phosphorylation within the cytoplasmic domain. The CD20 molecule is present on all normal B lymphocytes from peripheral blood, lymph node, spleen, tonsil and bone marrow but is absent from plasma cells. It is expressed naturally but at low density on a subset of peripheral blood T lymphocytes.



Lysed normal whole blood sample.

Clone: B9E9 (HRC20)

Isotype: IgG2a Mouse

All monoclonal antibodies directed to the extracellular domain of the CD20 molecule are likely to bind closely related epitopes.

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	A74777	ASR	IOTest	GMP
PB	50 tests	Liquid	B49208	CE	IOTest	98/79/EC NEW
FITC	100 tests	Liquid	A07772	CE	IOTest	98/79/EC
FITC	2 mL	Liquid	IM1455U	ASR	IOTest	GMP
PE	100 tests	Liquid	IM1451	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM1451U	ASR	IOTest	GMP
ECD	1 mL	Liquid	IM3607U	ASR	IOTest	GMP
ECD	100 tests	Liquid	B92433	CE	IOTest	98/79/EC NEW
PC5	100 tests	Liquid	A07773	CE	IOTest	98/79/EC
PC5	1 mL	Liquid	IM2644U	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	B23134	ASR	IOTest	GMP
PC7	100 tests	Liquid	IM3629	CE	IOTest	98/79/EC
PC7	1 mL	Liquid	IM3629U	ASR	IOTest	GMP
APC	1 mL	Liquid	A51076	ASR	IOTest	GMP
APC	100 tests	Liquid	A21693	CE	IOTest	98/79/EC
AF700	0.5 mL	Liquid	B76287	ASR	IOTest	GMP NEW
APC-A700	0.5 mL	Liquid	B12112	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	A66331	ASR	IOTest	GMP
APC-A750	50 tests	Liquid	B49209	CE	IOTest	98/79/EC NEW

Clone: H299 (B1)

Isotype: IgG2a Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	100 tests	Freeze-dried	6602381	IVD & CE	COULTER CLONE	GMP
FITC	50 tests	Liquid	6604106	IVD & CE	CYTO-STAT	GMP
RD1	100 tests	Liquid	6603446	IVD & CE	COULTER CLONE	GMP
RD1	50 tests	Liquid	6603858	IVD & CE	CYTO-STAT	GMP
UNLB	0.25 mg	Freeze-dried	A83477	ASR	COULTER CLONE	GMP

Clone: FMC7

Isotype: IgM Mouse

The FMC7 antibody reacts with a subpopulation of peripheral blood B lymphocytes and tonsil B cells, but it does not react with granulocytes, monocytes, platelets, erythrocytes, T lymphocytes or null cells.

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B08466	ASR	IOTest	GMP
FITC	100 tests	Liquid	A07791	CE	IOTest	98/79/EC
FITC	1 mL	Liquid	IM1364U	ASR	IOTest	GMP



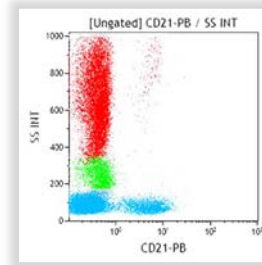
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD21

The CD21 antigen is a 145 kDa transmembrane glycoprotein. It belongs to the gene family of complement regulatory proteins. CD21 antigen (CR2) is the receptor for C3d and for Epstein-Barr virus (EBV). CD21 is present on mature B lymphocytes. It is absent from T lymphocytes, granulocytes and monocytes. This antigen is involved in B-lymphocyte activation and proliferation.



Lysed normal whole blood sample

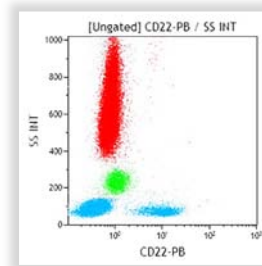
Clone: BL13

Isotype: IgG1 Mouse

Form	Size	Format	Part #	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B09982	ASR	IOTest	GMP
FITC	2 mL	Liquid	IM0473U	ASR	IOTest	GMP
PE	2 mL	Liquid	A32536	ASR	IOTest	GMP

CD22

The CD22 antigen (BL-CAM) is a transmembrane glycoprotein of the immunoglobulin superfamily. It may be expressed as two different isoforms: the α form (130 kDa) and the β form (140 kDa). CD22 antigen is a B cell restricted antigen expressed in the cytoplasm of B cell progenitors and on the surface of mature B lymphocytes. CD22 expression is lost after B-cell activation, prior to the plasma cell stage. It is absent from peripheral blood T lymphocytes, granulocytes, monocytes.



Lysed normal whole blood sample

Clone: HD239 (B3)

Isotype: IgG2b Mouse

The B3 antibody binds to an epitope located within the first Ig-like domain of CD22 antigen. It can be used to detect intracytoplasmic CD22 in flow cytometry after permeabilization.

Form	Size	Format	Part #	Status	Line	Quality Standard
RD1	0.5 mL	Liquid	6604428	ASR	CYTO-STAT	GMP

Clone: SJ10.1H11

Isotype: IgG1 Mouse

Form	Size	Format	Part #	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B06498	ASR	IOTest	GMP
FITC	2 mL	Liquid	IM0779U	ASR	IOTest	GMP
PE	100 tests	Liquid	IM1835	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM1835U	ASR	IOTest	GMP
ECD	0.5 mL	Liquid	B10245	ASR	IOTest	GMP
PC5	1 mL	Liquid	IM3704	ASR	IOTest	GMP
PC7	1 mL	Liquid	A74788	ASR	IOTest	GMP
APC	0.5 mL	Liquid	A60791	ASR	IOTest	GMP
APC-A700	0.5 mL	Liquid	A89311	ASR	IOTest	GMP
APC-A700	50 tests	Liquid	B36293	CE	IOTest	98/79/EC



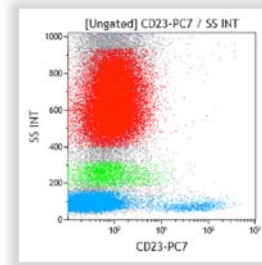
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD23

The CD23 antigen (also called B6) is a 45 kDa transmembrane glycoprotein associated with MHC Class II antigen, which belongs to the C-type lectin family. CD23 is the low affinity receptor for IgE (FcεRII). CD23 antigen is expressed on B lymphocytes, monocytes and follicular dendritic cells (FDC). Expression of CD23 by B lymphocytes is up-regulated following mitogen or antigen activation. Soluble forms of CD23 are generated by proteolytic cleavage of the membrane molecule.



Lysed normal whole blood sample.

Clone: HD50 (B6)

Isotype: IgG2b Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
RD1	0.5 mL	Liquid	6604426	ASR	CYTO-STAT	GMP

Clone: 9P25

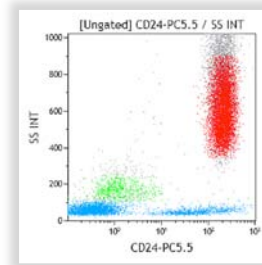
Isotype: IgG1 Mouse

9P25 blocks the binding of IgE.

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	A93689	ASR	IOTest	GMP
FITC	100 tests	Liquid	IM0529	CE	IOTest	98/79/EC
FITC	2 mL	Liquid	IM0529U	ASR	IOTest	GMP
PE	2 mL	Liquid	A33099	ASR	IOTest	GMP
PE	100 tests	Liquid	B49207	CE	IOTest	98/79/EC NEW
ECD	1 mL	Liquid	IM3609U	ASR	IOTest	GMP
PC7	0.5 mL	Liquid	B12935	ASR	IOTest	GMP
APC	1 mL	Liquid	A69964	ASR	IOTest	GMP
APC-A700	0.5 mL	Liquid	A70207	ASR	IOTest	GMP

CD24

The CD24 antigen is a glycosyl-phosphatidylinositol-linked membrane sialoglycoprotein, with a molecular weight of 35-45 kDa. CD24 is present on B cells, from the pre-B to the mature B cell stage, but not on plasma cells. It is expressed on mature granulocytes and on a variety of epithelial cell types.



Lysed normal whole blood sample.

Clone: ALB9

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	IM1428U	ASR	IOTest	GMP
PE	100 tests	Liquid	B92425	CE	IOTest	98/79/EC NEW
ECD	0.5 mL	Liquid	B12699	ASR	IOTest	GMP
PC5	1 mL	Liquid	IM2645	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	B23133	ASR	IOTest	GMP
APC	0.5 mL	Liquid	A87785	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	B10738	ASR	IOTest	GMP
UNLB	0.2 mg	Freeze-dried	IM0118	RUO	-	GMP



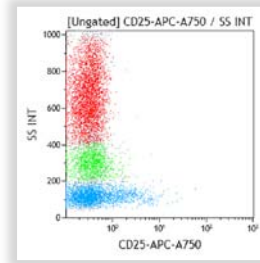
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD25

The CD25 antigen (IL-2R α chain, Tac or p55) is a single-chain glycoprotein with a molecular weight of 55 kDa which is the low affinity receptor for IL-2 (IL-2R α). In conjunction with CD122 (IL-2R β , p75) and CD132 (IL-2R γ , p64), CD25 antigen forms the high-affinity IL-2R complex. CD25 antigen is found on activated T and B cells, on activated monocytes and macrophages, and on T cell clones. It is also expressed on NK cells enriched from peripheral blood lymphocytes by culturing in the presence of IL-2. It is absent from thymocytes and resting T and B lymphocytes.



Lysed normal whole blood sample.

Clone: 1HT44H3 (IL-2R1)

Isotype: IgG2a Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
RD1	0.5 mL	Liquid	6604422	ASR	CYTO-STAT	GMP

Clone: B1.49.9

Isotype: IgG2a Mouse

The B1.49.9 monoclonal antibody does not block the binding of IL-2 to its receptor.

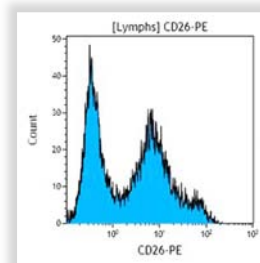
Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	A82944	ASR	IOTest	GMP
FITC	2 mL	Liquid	IM0478U	ASR	IOTest	GMP
PE	100 tests	Liquid	A07774	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM0479U	ASR	IOTest	GMP
ECD	100 tests	Liquid	6607112	RUO	IOTest	GMP
PC5	100 tests	Liquid	IM2646	CE	IOTest	98/79/EC
PC5	1 mL	Liquid	IM2646U	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	A79386	ASR	IOTest	GMP
PC5.5	50 tests	Liquid	B92458	CE	IOTest	98/79/EC
PC7	1 mL	Liquid	A52882	ASR	IOTest	GMP
APC	0.5 mL	Liquid	B09684	ASR	IOTest	GMP
APC-A700	0.5 mL	Liquid	A86356	ASR	IOTest	GMP
APC-A700	50 tests	Liquid	B92454	CE	IOTest	98/79/EC
APC-A750	0.5 mL	Liquid	B13979	ASR	IOTest	GMP

NEW

NEW

CD26

The CD26 antigen is a single-chain glycoprotein with a molecular weight of 110 kDa. It binds to adenosine deaminase (ADA) and is a functional collagen receptor. It is identical to dipeptidylpeptidase IV ectoenzyme (DPPIV). This antigen is expressed by activated T lymphocytes and B lymphocytes and by macrophages.



Lysed normal whole blood sample gated on lymphocytes.

Clone: 4EL-1C7 (Ta1)

Isotype: IgG1 Mouse

The 4EL-1C7 monoclonal antibody does not inhibit T cell activation and cytotoxicity.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	IM2724	ASR	IOTest	GMP



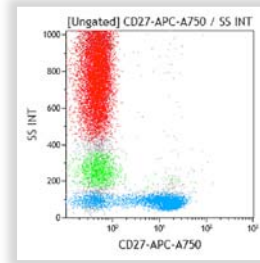
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD27

The CD27 antigen is a transmembrane glycoprotein disulfide-linked homodimer composed of 55 kDa monomers. CD27 belongs to the Tumor Necrosis Factor Receptor (TNFR) gene family. CD27 antigen is found on medullary thymocytes, peripheral T lymphocytes, activated B lymphocytes and NK cells. It is preferentially expressed on the CD45RA⁺ CD45RO⁻; naive subset of CD4⁺ T lymphocytes. Its ligand is CD70.



Lysed normal whole blood sample.

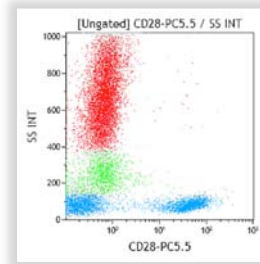
Clone: 1A4CD27

Isotype: IgG1 Mouse

Form	Size	Format	Part #	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B30635	ASR	IOTest	GMP
PE	2 mL	Liquid	IM2578	ASR	IOTest	GMP
ECD	0.5 mL	Liquid	B26603	ASR	IOTest	GMP
PC5	100 tests	Liquid	6607107	RUO	IOTest	GMP
PC5.5	0.5 mL	Liquid	B21444	ASR	IOTest	GMP
PC7	1 mL	Liquid	A54823	ASR	IOTest	GMP
PC7	100 tests	Liquid	B49205	CE	IOTest	98/79/EC NEW
APC	0.5 mL	Liquid	B09983	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	B12701	ASR	IOTest	GMP

CD28

The CD28 antigen (Tp44) is a homodimer of disulfide-linked chains, with a molecular weight of 44 kDa each. CD28 antigen is expressed by a majority of CD3⁺ T lymphocytes. CD4⁺ T lymphocytes express the CD28 antigen more frequently than do CD8⁺ T lymphocytes. CD28 antigen is also present on plasma cells and thymocytes. This antigen is involved in the adhesion of T lymphocytes with B lymphocytes, through the B7/BB-1 (CD80) or B70/B7-2 (CD86) glycoproteins and provides a major co-stimulatory signal for T cell activation.



Lysed normal whole blood sample.

Clone: CD28.2

Isotype: IgG1 Mouse

The CD28.2 monoclonal antibody costimulates T cell proliferation and cytokine production in the presence of T cell activators (αCD3, PMA, SEB). It inhibits proliferation of CD4⁺ T lymphocytes. It cross-reacts with Rhesus monkey peripheral blood lymphocytes.

Form	Size	Format	Part #	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM1236U	ASR	IOTest	GMP
PE	2 mL	Liquid	IM2071U	ASR	IOTest	GMP
ECD	100 tests	Liquid	6607111	RUO	IOTest	GMP
PC5	100 tests	Liquid	6607108	RUO	IOTest	GMP
PC5.5	0.5 mL	Liquid	B24027	ASR	IOTest	GMP
PC7	0.5 mL	Liquid	B23313	ASR	IOTest	GMP
APC	0.5 mL	Liquid	B10244	ASR	IOTest	GMP
APC-A700	0.5 mL	Liquid	B12696	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	B08757	ASR	IOTest	GMP
UNLB	0.2 mg	Freeze-dried	IM1376	ASR	-	GMP



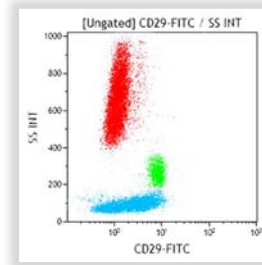
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD29

The CD29 antigen is the 130 kDa integrin $\beta 1$ chain which is expressed as a heterodimer, non-covalently associated with the integrin α subunits 1 to 6 (CD49a to CD49f) also known as Very Late Antigens (VLA). CD29 is also known as platelet GPIIa. The antigen mediates cellular adhesion and has broad cellular reactivity, but is not expressed by erythrocytes. In normal peripheral blood it is found on a subset of CD4⁺ and CD8⁺ T lymphocytes, on a minority of B lymphocytes and on monocytes. The "inducer" subpopulation of CD4⁺ lymphocytes co-expresses CD4 and CD29.



Lysed normal whole blood sample

Clone: 4B4LDC9LDH8 (4B4)

Isotype: IgG1 Mouse

4B4LDC9LDH8 is a blocking monoclonal antibody in CD29 mediated adhesion. This antibody was used as CD29 reference monoclonal antibody during HLDA 6.

Form	Size	Format	Part#	Status	Line	Quality Standard
RD1	100 tests	Liquid	6603177	RUO	COULTER CLONE	GMP
RD1	50 tests	Liquid	6604159	RUO	CYTO-STAT	GMP
UNLB	100 tests	Freeze-dried	6603113	RUO	COULTER CLONE	GMP

Clone: K20

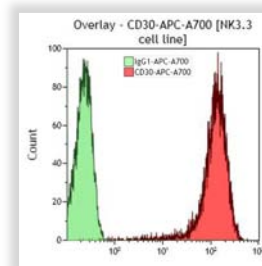
Isotype: IgG2a Mouse

K20 is a non blocking monoclonal antibody in CD29 mediated adhesion.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM0791U	ASR	IOTest	GMP

CD30

The CD30 antigen is a single-chain glycoprotein with a molecular weight of 105 kDa (Ki-1 antigen). It is a member of the TNFR (Tumor Necrosis Factor Receptor) superfamily and binds to CD153 (CD30 ligand). CD30 antigen is found on activated T and B lymphocytes and on Reed Sternberg cells.



NK3.3 cell line.

Clone: HRS4

Isotype: IgG1 Mouse

HRS4 recognizes a formaldehyde-resistant epitope.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	IM2033U	ASR	IOTest	GMP
APC	0.5 mL	Liquid	A87939	ASR	IOTest	GMP
APC-A700	0.5 mL	Liquid	B42017	ASR	IOTest	GMP



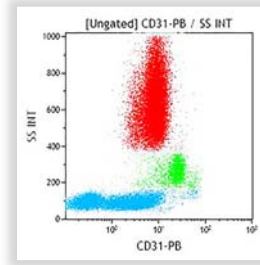
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD31

The CD31 antigen, also known as Platelet Endothelial Cell Adhesion Molecule 1 (PECAM-1), is a transmembrane glycoprotein of 130 kDa related to the immunoglobulin superfamily. Its expression has been shown on stem cells of the myeloid lineage, on platelets and on endothelial cell junctions. CD31 has been demonstrated to bind in a homophilic manner (CD31 binds CD31 on opposing cells). It also mediates heterophilic interactions, in particular, CD31 is involved in the migration of leucocytes through the endothelial cell wall, via adhesion to $\alpha\beta3$ integrin and to CD38. In addition, CD31 participates in outside-in signaling in leucocytes likely through phosphorylation of its intracytoplasmic tyrosine residues 663 and 686 and subsequent association with tyrosine phosphatases SHP-1 and SHP-2. Studies suggest a comparable mechanism of action for CD31 in activation and aggregation of platelets.



Lysed normal whole blood sample.

Clone: 1F11

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	100 tests	Liquid	IM2409	RUO	IOTest	GMP

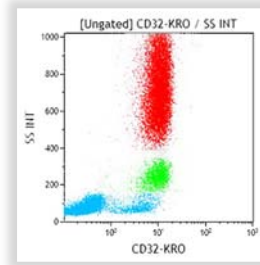
Clone: 5.6E

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B13035	ASR	IOTest	GMP
FITC	2 mL	Liquid	IM1431U	ASR	IOTest	GMP

CD32

Fc γ RII proteins exist as six potential isoforms encoded by three genes, designated as A, B, and C. The reported molecular weight of these isoforms are variable between 37 and 43 kDa. All isoforms are similar but not identical in their extracellular regions. The cytoplasmic portion of Fc γ RIIA and Fc γ RIIC contains an activatory ITAM motif whereas Fc γ RIIB contains an inhibitory ITIM motif. Differential splicing of Fc γ RIIB gene yields to 2 isoforms Fc γ RIIBb1 and Fc γ RIIBb2. Monocytes carry all forms of Fc γ RII, neutrophils carry Fc γ RIIA and C. Fc γ RIIB is expressed by B lymphocytes and mast cells.



Lysed normal whole blood sample.

Clone: 2E1

Isotype: IgG2a Mouse

The 2E1 antibody recognizes the antigen isoforms expressed on basophils, neutrophils, eosinophils, platelets and B cells.

Form	Size	Format	Part#	Status	Line	Quality Standard
KrO	0.5 mL	Liquid	B01177	ASR	IOTest	GMP
PE	2 mL	Liquid	IM1935	ASR	IOTest	GMP



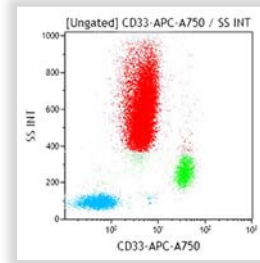
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD33

The CD33 antigen is a 67 kDa single-chain transmembrane glycoprotein reported to be a sialic acid dependent adhesion molecule. The extracellular portion of the molecule belongs to the Ig superfamily, involving one V-like and one C2-like domains. This antigen shows some homologies to myelin-associated glycoprotein and to the CD22 molecule. CD33 antigen is expressed on monocytes in peripheral blood. In the bone marrow, it is found on granulocyte and macrophage precursors, and is absent from pluripotent stem cells.



**Lysed normal whole
blood sample**

Clone: 906 (MY9)				Isotype: IgG2b Mouse		
Form	Size	Format	Part#	Status	Line	Quality Standard
RD1	0.5 mL	Liquid	6603042	ASR	COULTER CLONE	GMP
RD1	0.5 mL	Liquid	6604121	ASR	CYTO-STAT	GMP
Clone: D3HL60.251				Isotype: IgG1 Mouse		
Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM1135U	ASR	IOTest	GMP
PE	100 tests	Liquid	A07775	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM1179U	ASR	IOTest	GMP
PC5	100 tests	Liquid	IM2647	CE	IOTest	98/79/EC
PC5	1 mL	Liquid	IM2647U	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	A70198	ASR	IOTest	GMP
PC5.5	50 tests	Liquid	B36289	CE	IOTest	98/79/EC
PC7	1 mL	Liquid	A54824	ASR	IOTest	GMP
PC7	100 tests	Liquid	B92408	CE	IOTest	98/79/EC
APC	100 tests	Liquid	IM2471	CE	IOTest	98/79/EC
APC	1 mL	Liquid	IM2471U	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	A70200	ASR	IOTest	GMP

NEW



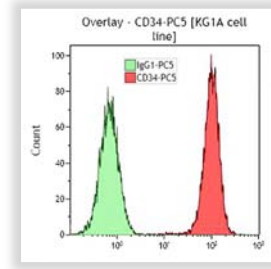
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD34

The CD34 antigen is a monomeric transmembrane phosphoglycoprotein of about 110 kDa with two distinct extracellular domains. The membrane proximal domain, of about 110 amino acids, probably adopts a globular conformation. The NH2-terminal domain, of about 140 amino acids, is heavily glycosylated with both N-linked glycans and sialylated O-linked carbohydrates and probably exhibits an extended rod-like structure typical of mucin-like glycoproteins. The CD34 antigen is expressed on hematopoietic progenitor cells of all lineages as well as the most primitive pluripotential stem cells. CD34 antigen expression is highest on the most primitive stem cells and is gradually lost as lineage committed progenitors differentiate. The CD34 antigen is also present on capillary endothelial cells and on bone marrow stromal cells. Variations of glycosylation are thought to occur during normal hematopoiesis depending on lineage commitment and the level of cellular maturation.



KG1A cell line

Clone: Immu133 Isotype: IgG1 Mouse

Epitope Class I: Immu133 monoclonal antibody detects sialic acid-dependent class I epitope.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	100 tests	Liquid	IM1420	RUO	IOTest	GMP

Clone: QBEnd10 Isotype: IgG1 Mouse

Epitope Class II: QBEnd10 reacts with early normal hematopoietic progenitor cells, and with vascular endothelial cells.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	IM1250U	ASR	IOTest	GMP
PC5	1 mL	Liquid	IM2650U	ASR	IOTest	GMP
UNLB	0.2 mg	Freeze-dried	IM0786	RUO	-	GMP

Clone: 581 Isotype: IgG1 Mouse

Epitope Class III: Clone 581 recognizes a sialidase / glycoprotease / chymopapain insensitive class III epitope.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	100 tests	Liquid	IM1870	CE	IOTest	98/79/EC
FITC	2 mL	Liquid	IM1870U	ASR	IOTest	GMP
PE	100 tests	Liquid	A07776	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM1871U	ASR	IOTest	GMP
ECD	1 mL	Liquid	IM2709U	ASR	IOTest	GMP
ECD	100 tests	Liquid	B49202	CE	IOTest	98/79/EC NEW
PC5	100 tests	Liquid	A07777	CE	IOTest	98/79/EC
PC5	1 mL	Liquid	IM2648U	ASR	IOTest	GMP
PC7	1 mL	Liquid	A51077	ASR	IOTest	GMP
PC7	100 tests	Liquid	A21691	CE	IOTest	98/79/EC
APC	100 tests	Liquid	IM2472	CE	IOTest	98/79/EC
APC	1 mL	Liquid	IM2472U	ASR	IOTest	GMP
APC-A700	0.5 mL	Liquid	A86354	ASR	IOTest	GMP
APC-A700	50 tests	Liquid	B92417	CE	IOTest	98/79/EC NEW
APC-A750	0.5 mL	Liquid	A89309	ASR	IOTest	GMP
APC-A750	50 tests	Liquid	B92463	CE	IOTest	98/79/EC NEW

Clone: QBEnd10 + Immu133 + Immu409 Isotype: IgG Mouse

The CD34 Pool Kit is delivered with its corresponding isotype control.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	IM1459U	ASR	IOTest	GMP



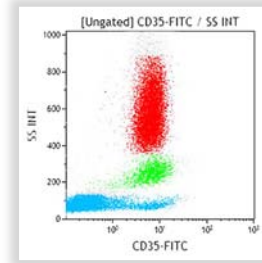
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD35

The CD35 antigen is a polymorphic molecule. Different molecular weights: 160, 190, 220, 250 and 285 kDa were reported for the various allotypes. It is known as the Complement Receptor type I (CR1) with affinity for C3b, C4b and iC3b. The CD35 antigen is expressed by granulocytes (except basophils), B lymphocytes, monocytes, some NK cells and erythrocytes. The CD35 antigen mediates phagocytosis of complement coated particles.



Lysed normal whole blood sample

Clone: J3D3

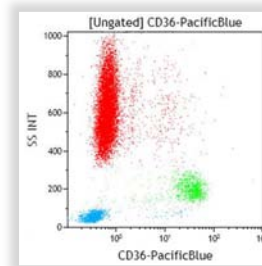
Isotype: IgG1 Mouse

The J3D3 monoclonal antibody inhibits CR1-mediated decay of cells bound to the alternative and classical pathways to C3-convertase sites. It also inhibits C3b dependent rosette formation with lymphocytes.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	100 tests	Liquid	IM1836	RUO	IOTest	GMP
UNLB	0.2 mg	Freeze-dried	IM0195	RUO	-	GMP

CD36

The CD36 antigen (platelet GPIV) is a generic term for a family of glycoproteins with molecular weights ranging from 78 to 88 kDa. This molecule is found on platelets, endothelial cells, monocytes, and some human tumor cell lines. It is a very early marker of erythroid differentiation and mediates the adherence of platelets to thrombospondin and collagen.



Lysed normal whole blood sample

Clone: FA6.152

Isotype: IgG1 Mouse

The FA6-152 monoclonal antibody, raised against fetal erythrocytes, recognizes the CD36 family of antigens on platelets and certain hematopoietic cells. It does not react with lymphocytes or granulocytes. It reacts with both fetal and adult monocytes, megakaryocytes, platelets, and with reticulocytes.

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B43302	ASR	IOTest	GMP
FITC	2 mL	Liquid	IM0766U	ASR	IOTest	GMP
FITC	100 tests	Liquid	B49201	CE	IOTest	98/79/EC NEW
APC	0.5 mL	Liquid	A87786	ASR	IOTest	GMP
APC-A700	0.5 mL	Liquid	B46022	ASR	IOTest	GMP
UNLB	0.2 mg	Freeze-dried	IM0765	RUO	-	GMP



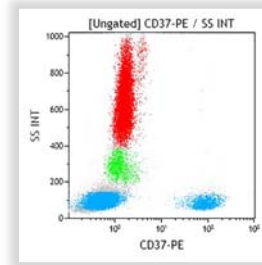
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD37

The CD37 antigen is a 40-52 kDa single chain transmembrane protein with 4 transmembrane domains (Tetraspan/TM4SF). This molecule has both its NH₂- and COOH-termini inside the cells, and is heavily glycosylated on one extracellular loop. The main feature of this antigen is its high content of hydrophobic residues (45%). The CD37 antigen is strongly expressed on the surface of human peripheral blood B lymphocytes and on B lymphocytes from germinal centers. In the ontogeny of B cells, this antigen appears late, after the pre-B stage, and is not expressed on plasma cells. The CD37 antigen has a low expression on T lymphocytes, granulocytes, and monocytes. A weak reactivity is observed with other cellular types such as Langerhans cells, macrophages, normal medullar granulous cells and peripheral blood polymorphonuclear cells. CD37 is involved in signal transduction.



Lysed normal whole blood sample.

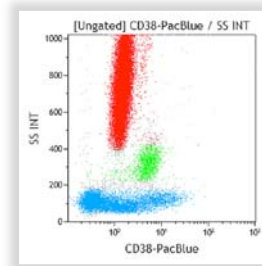
Clone: BL14

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM0457	ASR	IOTest	GMP
PE	2 mL	Liquid	IM0458	ASR	IOTest	GMP

CD38

The CD38 antigen is a 45 kDa single chain type II integral membrane glycoprotein, with the NH₂-terminus inside the cytoplasm. CD38 is an enzyme with several activities such as NAD glycohydrolase, ADP ribosylcyclase and cyclic ADP ribose hydrolase. CD38 is expressed on activated T and B lymphocytes, NK cells, monocytes, plasma cells and medullary thymocytes. CD38 expression appears to depend on the differentiation and activation of the cell. In the B cell lineage, CD38 is expressed in early stages of B-cell ontogeny, lost during maturation and re-expressed upon terminal differentiation to plasma cells. Similarly, CD38 is expressed on thymocytes and at a high level on activated T cells. Most mature resting lymphocytes of both B and T lineages do not express the CD38 antigen. CD38 is widely used as a marker to study T and B lymphocyte activation.



Lysed normal whole blood sample.

Clone: T16

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	100 tests	Liquid	A07778	CE	IOTest	98/79/EC
FITC	2 mL	Liquid	IM0775U	ASR	IOTest	GMP
PE	2 mL	Liquid	IM1832U	ASR	IOTest	GMP

Clone: LS198-4-3

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B09683	ASR	IOTest	GMP
PB	50 tests	Liquid	B92396	CE	IOTest	98/79/EC NEW
PE	100 tests	Liquid	A07779	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM2371U	ASR	IOTest	GMP
RD1	0.5 mL	Liquid	6604928	ASR	CYTO-STAT	GMP
ECD	0.5 mL	Liquid	A99022	ASR	IOTest	GMP
PC5	100 tests	Liquid	A07780	CE	IOTest	98/79/EC
PC5	1 mL	Liquid	IM2651U	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	A70205	ASR	IOTest	GMP
PC5.5	50 tests	Liquid	B49199	CE	IOTest	98/79/EC NEW
PC7	0.5 mL	Liquid	A54189	ASR	IOTest	GMP
PC7	50 tests	Liquid	B49198	CE	IOTest	98/79/EC NEW
APC	1 mL	Liquid	A60792	ASR	IOTest	GMP
APC-A700	0.5 mL	Liquid	B23489	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	A86049	ASR	IOTest	GMP
APC-A750	50 tests	Liquid	B49200	CE	IOTest	98/79/EC NEW



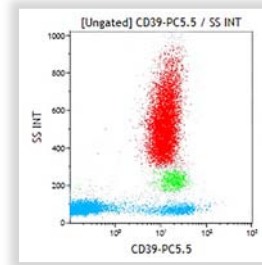
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD39

The CD39 molecule, known as ectonucleoside triphosphate diphosphohydrolase-1 (ENTPD1), is a 70-100 kDa integral membrane glycoprotein with two transmembrane domains. It belongs to the family of the primary enzymes responsible for cell surface nucleotide hydrolysis, with ATPase and ADPase activity. CD39 antigen is expressed on activated lymphocytes, regulatory T cells, B cells, and dendritic cells. It is involved in control of the extracellular nucleoside triphosphate pool (NTP), suppression of inflammation and control of platelet activation. The coordinated expression of CD39/CD73 on Tregs and the adenosine A2A receptor on activated T effector cells generates immunosuppressive loops. In human studies, it has been reported that CD4+CD25-CD39+ T cells are T inducers.



Lysed normal whole blood sample.

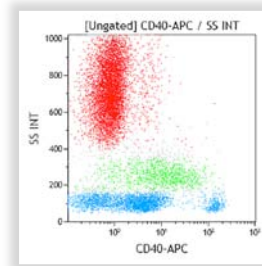
Clone: BA54

Isotype: IgG1 Mouse

Form	Size	Format	Part #	Status	Line	Quality Standard
PE	1 mL	Liquid	B55384	ASR	IOTest	GMP NEW
PC5.5	0.5 mL	Liquid	B55385	ASR	IOTest	GMP NEW

CD40

The CD40 antigen is a glycosylated phosphoprotein. It is a member of the Tumor Necrosis Factor Receptor (TNFR) superfamily and contains four cysteine-rich repeats. Its molecular weight is about 44-48 kDa. CD40 antigen is present on all mature B lymphocytes, but not on plasma cells. It is strongly expressed by interdigitating cells, some epithelial cells, follicular dendritic cells, and fibroblasts and macrophages. CD40 binds to CD154 (CD40 ligand) on T cells, resulting in B cell growth and differentiation.



Lysed normal whole blood sample.

Clone: MAB89

Isotype: IgG1 Mouse

Co-culture with MAB89 and IL-4 leads to long term B cell proliferation.

Form	Size	Format	Part #	Status	Line	Quality Standard
PE	2 mL	Liquid	IM1936U	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	B20025	ASR	IOTest	GMP
APC	0.5 mL	Liquid	B30636	ASR	IOTest	GMP
UNLB	0.2 mg	Freeze-dried	IM1374	ASR	-	GMP

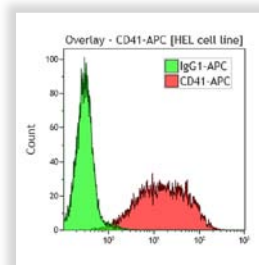
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD41

The CD41 antigen (platelet GPIIb; IIB integrin) is a transmembrane glycoprotein composed of two chains GPIIb α (120 kDa) and GPIIb β (23 kDa) linked by one disulfide bond. CD41 is always non-covalently associated with CD61 (platelet GPIIIa, β 3 integrin), to form the GPIIb-IIIa (CD41/CD61) complex. CD41 is expressed by platelets, megakaryocytes and a small subset of CD34⁺ cells, suggesting that CD41/CD61 is one of the earliest markers of the megakaryocytic lineage. The resting form of the CD41/CD61 complex binds to immobilized fibrinogen and upon platelet activation, the complex becomes a receptor for soluble fibrinogen, fibronectin, vWF, vitronectin and thrombospondin. It is involved in platelet aggregation.



HEL cell line

Clone: P2

Isotype: IgG1 Mouse

The P2 antibody reacts with the α chain of CD41a (GPIIb α) in the intact complex with GPIIIa but not with the GPIIb or GPIIIa separately. This antibody blocks binding to fibrinogen and inhibits platelet aggregation induced by thrombin, collagen and ADP. The P2 antibody was used as a CD41 reference mAb during HLDA 6.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM0649U	ASR	IOTest	GMP
PE	100 tests	Liquid	A07781	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM1416U	ASR	IOTest	GMP
ECD	100 tests	Liquid	6607117	RUO	IOTest	GMP
PC5	100 tests	Liquid	6607116	RUO	IOTest	GMP
PC7	100 tests	Liquid	6607115	RUO	IOTest	GMP
APC	0.5 mL	Liquid	B16894	ASR	IOTest	GMP
UNLB	0.2 mg	Freeze-dried	IM0145	RUO	-	GMP

Clone: SZ22

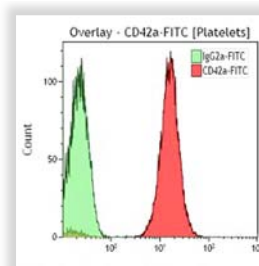
Isotype: IgG1 Mouse

The SZ22 monoclonal antibody reacts with the α chain of CD41 (GPIIb α) on platelets and megakaryocytes. This monoclonal does not inhibit platelet aggregation and secretion induced by collagen, arachidonic acid, and thrombin. It does not inhibit fibrinogen binding to human platelets induced by ADP, arachidonic acid and PAF.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM1756U	ASR	IOTest	GMP

CD42a

The CD42a antigen (GP1X) is a 22 kDa single-chain membrane glycoprotein that forms a noncovalent complex with CD42b, CD42c and CD42d (GP1X, GP1b, GPV). The CD42a-d complex is the receptor for von Willebrand's factor and is known as von Willebrand's factor-dependent adhesion receptor. The CD42a antigen is expressed on platelets and megakaryocytes.



**Platelet rich plasma
from a normal whole
blood sample.**

Clone: SZ1

Isotype: IgG2a Mouse

The SZ1 monoclonal antibody reacts with the CD42a-d complex but does not recognize GPIb or GP1X individually.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM1757U	ASR	IOTest	GMP
UNLB	0.2 mg	Freeze-dried	IM0538	RUO	-	GMP



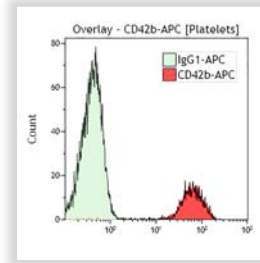
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD42b

The CD42b antigen (GPIb α) is a membrane glycoprotein of 135 kDa, that forms a disulfide linked 160 kDa membrane protein with the CD42c (GPIb β) known as GPIb. GPIb forms a noncovalent complex with GPIX (CD42a) and GPV (CD42d). This antigen is found on platelets and megakaryocytes. It has also been reported on vascular and tonsillar endothelial cells. The CD42a-d complex is the receptor for von Willebrand's factor and is known as von Willebrand's factor-dependent adhesion receptor.



Platelet rich plasma (PRP) from a normal whole blood sample.

Clone: S22

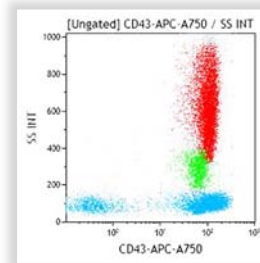
Isotype: IgG1 Mouse

The S22 monoclonal antibody prevents the ristocetin-dependent binding of von Willebrand's factor to platelets and inhibits ristocetin-induced platelet agglutination. Platelet aggregation induced by type I collagen and Platelet Activating Factor (PAF) is also inhibited. The S22 antibody immunoprecipitates the components of the GPIb complex. It may also be used in Western blot.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM0648U	ASR	IOTest	GMP
PE	2 mL	Liquid	IM1417U	ASR	IOTest	GMP
APC	0.5 mL	Liquid	B13980	ASR	IOTest	GMP
UNLB	0.2 mg	Freeze-dried	IM0409	RUO	-	GMP

CD43

The CD43 antigen is a 95-135 kDa heavily O-glycosylated and sialylated single chain membrane glycoprotein. This cell surface mucin-type glycoprotein is also called leukosialin or sialophorin. CD43 antigen is expressed by platelets and by all leucocytes, weakly on resting B lymphocytes but highly after activation. A soluble form of CD43 (galactoglycoprotein) can be detected in plasma. This form is produced by proteolytic shedding of the extracellular portion of the membrane molecule after cell activation.



Lysed normal whole blood sample

Clone: DFT1

Isotype: IgG1 Mouse

The DFT1 antibody reacts with an extracellular epitope of the CD43 antigen. It is useful for detecting leucocytes by flow cytometry and immunohistochemistry on routinely-fixed and paraffin-embedded tissue sections. The DFT1 antibody is also able to induce homotypic adhesion of leucocytes.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM3264U	ASR	IOTest	GMP
PE	2 mL	Liquid	A32560	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	A89307	ASR	IOTest	GMP
APC-A750	50 tests	Liquid	B49195	CE	IOTest	98/79/EC NEW



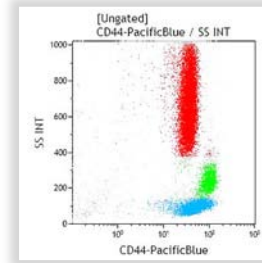
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD44

The CD44 antigens are transmembrane glycoproteins and members of the hyaladherin family of hyaluronan-binding proteins. Multiple CD44 isoforms have been described, the predominant form being CD44S, a glycoprotein of 85 kDa. CD44 is present on most cells or tissues, but not on platelets, hepatocytes, cardiac muscle, kidney tubular epithelium, testis and skin portions. The human blood group antigens Ina/b reside on CD44.



Lysed normal whole blood sample.

Clone: J.173

Isotype: IgG1 Mouse

J.173 antibody does not inhibit the binding of hyaluronate to its receptor. It can trigger IL-2-dependent proliferation and cytotoxicity of human T cell clones in vitro.

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B37789	ASR	IOTest	GMP
FITC	2 mL	Liquid	IM1219U	ASR	IOTest	GMP
PE	2 mL	Liquid	A32537	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	B30637	ASR	IOTest	GMP

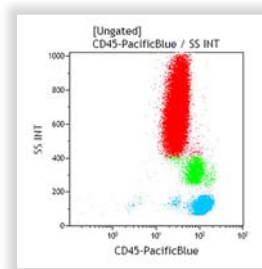
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD45

The CD45 molecules are single chain integral membrane proteins comprising at least five isoforms ranging from 180 to 220 kDa. They are generated by alternative splicing combinations of three exons (A, B, and C) of the genomic sequence. The non-restricted CD45, Leucocyte Common Antigen (LCA) consists of an extracellular sequence, proximal to the membrane, which is common to all CD45 isoforms. All the monoclonal antibodies that belong to the CD45 cluster react with this part of the antigen and are able to recognize all CD45 isoforms. These isoforms have extracytoplasmic sequences ranging from 391 to 552 amino acids long with numerous N-linked carbohydrate attachment sites. The cytoplasmic portion contains two phospho-tyrosine-phosphatase domains. The non-restricted CD45 epitope is present on the surface of all human leucocytes, lymphocytes, eosinophils monocytes, basophils and neutrophils by order of decreasing level of expression. CD45 is a major component of the lymphocyte membrane. It is absent from erythrocytes and platelets. It is lost during maturation of erythroid cells in the bone marrow. CD45 antibodies react with leucocyte progenitors in bone marrow.



Lysed normal whole blood sample.

Clone: KC56 (T-200)

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	0.5 mL	Liquid	6604104	ASR	CYTO-STAT	GMP
FITC	1 mg	Freeze-dried	6603838	ASR	COULTER CLONE	GMP
RD1	0.5 mL	Liquid	6603839	ASR	COULTER CLONE	GMP

Clone: ALB12

Isotype: IgG1 Mouse

The ALB12 antibody recognizes a carbohydrate epitope and should not be used for side scatter versus CD45 gating strategy in flow cytometry.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM0647	ASR	IOTest	GMP

Clone: Immu19.2

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	100 tests	Liquid	IM1833	RUO	IOTest	GMP
PC5	1 mL	Liquid	IM2652U	ASR	IOTest	GMP

Clone: J33

Isotype: IgG1 Mouse

J33 was assigned to CD45 cluster in HLDA 3 under the name I-33 (antibody # 818)

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	1 mL	Liquid	A74765	ASR	IOTest	GMP
PB	100 tests	Liquid	A74763	CE	IOTest	98/79/EC
KrO	1 mL	Liquid	A96416	ASR	IOTest	GMP
KrO	100 tests	Liquid	B36294	CE	IOTest	98/79/EC
FITC	100 tests	Liquid	A07782	CE	IOTest	98/79/EC
FITC	2 mL	Liquid	IM0782U	ASR	IOTest	GMP
PE	100 tests	Liquid	A07783	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM2078U	ASR	IOTest	GMP
ECD	100 tests	Liquid	A07784	CE	IOTest	98/79/EC
ECD	1 mL	Liquid	IM2710U	ASR	IOTest	GMP
PC5	100 tests	Liquid	A07785	CE	IOTest	98/79/EC
PC5	1 mL	Liquid	IM2653U	ASR	IOTest	GMP
PC5.5	100 tests	Liquid	A62835	CE	IOTest	98/79/EC
PC5.5	1 mL	Liquid	A54139	ASR	IOTest	GMP
PC7	100 tests	Liquid	IM3548	CE	IOTest	98/79/EC
PC7	1 mL	Liquid	IM3548U	ASR	IOTest	GMP
APC	100 tests	Liquid	IM2473	CE	IOTest	98/79/EC
APC	1 mL	Liquid	IM2473U	ASR	IOTest	GMP
AF647	1 mL	Liquid	A94246	ASR	IOTest	GMP
APC-A700	1 mL	Liquid	A71117	ASR	IOTest	GMP
APC-A700	100 tests	Liquid	A79390	CE	IOTest	98/79/EC
APC-A750	1 mL	Liquid	A71119	ASR	IOTest	GMP
APC-A750	100 tests	Liquid	A79392	CE	IOTest	98/79/EC



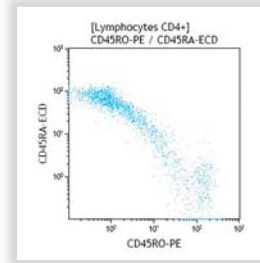
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD45RA

CD45RA epitopes are present on all the CD45 restricted molecules in which the exon A is expressed (ABC and AB containing isoforms). Most B lymphocytes express CD45RA isoforms. The differential expression of CD45 isoforms is associated with different functional properties of T lymphocytes. Peripheral T lymphocytes can be divided into two largely distinct populations of CD45RA⁻ CD45RO⁺ and CD45RA⁺ CD45RO⁻ cells. CD45RA is expressed by medullar thymocytes and naïve/resting peripheral CD4⁺ T lymphocytes.



Lysed normal whole blood sample gated on CD4 positive lymphocytes. CD45RA-ECD in dual staining with CD45RO-PE.

Clone: 2H4LDH11LDB9 (2H4)

Isotype: IgG1 Mouse

Form	Size	Format	Part #	Status	Line	Quality Standard
PB	0.5 mL	Liquid	A82946	ASR	IOTest	GMP
FITC	50 tests	Liquid	6603904	RUO	CYTO-STAT	GMP
FITC	100 tests	Freeze-dried	6603117	RUO	COULTER CLONE	GMP
RD1	50 tests	Liquid	6603866	RUO	CYTO-STAT	GMP
RD1	100 tests	Liquid	6603181	RUO	COULTER CLONE	GMP
ECD	1 mL	Liquid	IM2711U	ASR	IOTest	GMP
ECD	100 tests	Liquid	B49193	CE	IOTest	98/79/EC NEW
PC7	0.5 mL	Liquid	B10821	ASR	IOTest	GMP
APC	0.5 mL	Liquid	B14807	ASR	IOTest	GMP
AF700	0.5 mL	Liquid	B90396	ASR	IOTest	GMP NEW
APC-A750	0.5 mL	Liquid	A86050	ASR	IOTest	GMP
APC-A750	50 tests	Liquid	B49194	CE	IOTest	98/79/EC NEW

Clone: ALB11

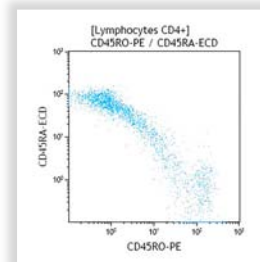
Isotype: IgG1 Mouse

The ALB11 antibody reacts with B lymphocytes, monocytes and granulocytes. The coexpression of CD4 and CD45RA allows the identification of the suppressor-inducer subpopulation of CD4 lymphocytes.

Form	Size	Format	Part #	Status	Line	Quality Standard
FITC	100 tests	Liquid	A07786	CE	IOTest	98/79/EC
FITC	2 mL	Liquid	IM0584U	ASR	IOTest	GMP
PE	2 mL	Liquid	IM1834U	ASR	IOTest	GMP

CD45RO

The CD45RO molecule is the 180 kDa isoform of CD45 Leucocyte Common Antigen (LCA). The expression of the CD45RA/CD45RO isoforms of CD45 is associated with functional differentiation of T lymphocytes. CD45RO is expressed by cortical thymocytes, CD4⁺ memory T lymphocyte subset and activated T lymphocytes. CD45RO is weakly expressed on monocytes and granulocytes.



Lysed normal whole blood sample gated on CD4 positive lymphocytes. CD45RO-PE in dual staining with CD45RA-ECD.

Clone: UCHL1

Isotype: IgG2a Mouse

Form	Size	Format	Part #	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM1247U	ASR	IOTest	GMP
PE	100 tests	Liquid	A07787	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM1307U	ASR	IOTest	GMP
ECD	1 mL	Liquid	IM2712U	ASR	IOTest	GMP
ECD	100 tests	Liquid	B49192	CE	IOTest	98/79/EC NEW
PC5.5	0.5 mL	Liquid	B30638	ASR	IOTest	GMP
PC7	0.5 mL	Liquid	B13648	ASR	IOTest	GMP



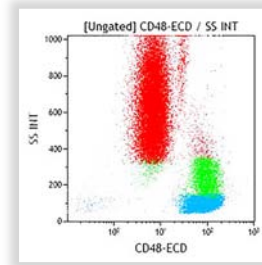
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD48

The CD48 antigen is a glycosyl phosphatidylinositol- (GPI)-anchored membrane glycoprotein of 40-47 kDa with 2 extracellular immunoglobulin (Ig)-like domains. CD48 belongs to the Ig superfamily. CD48, expressed on all lymphocytes and monocytes, has been shown to be a low affinity ligand for CD2, suggesting a role in leucocyte adhesion. CD48 may participate in CD40-mediated activation of B cells.



Lysed normal whole blood sample.

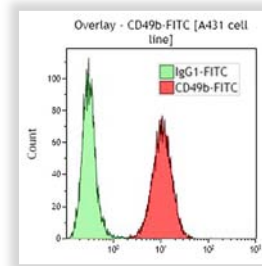
Clone: J4.57

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM1837U	ASR	IOTest	GMP
ECD	0.5 mL	Liquid	B06026	ASR	IOTest	GMP

CD49b

The CD49b antigen is a transmembrane glycoprotein of 150 kDa also known as the α -2 integrin and as platelet GPIa. CD49b non-covalently pairs with the β -1 integrin (CD29, GPIIa) to form the VLA-2 (very late activation antigen) complex. CD49b complexed to CD29 is involved in cell adhesion to collagen. It is expressed by platelets, activated T lymphocytes and thymocytes.



A431 cell line.

Clone: Gi9

Isotype: IgG1 Mouse

The Gi9 antibody reacts with the molecule carrying the Br(a) as well as the Br(b) alloantigen. This antibody inhibits the adhesion of platelets to collagen. It detects human alloantibodies (anti-Br a,b) against VLA-2 by MAIPA assay. Gi9 was used as a CD49b reference monoclonal antibody during the HLDA 6. Gi9 reacts with platelets and weakly with monocytes. It also stains most adherent cell lines and T lymphocytes in culture.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	100 tests	Liquid	IM1425	RUO	IOTest	GMP
UNLB	0.2 mg	Freeze-dried	IM0717	RUO	-	GMP



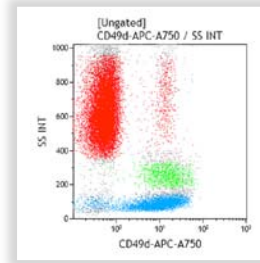
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD49d

CD49d is the integrin $\alpha 4$ chain that non-covalently pairs with CD29 ($\beta 1$ chain) to form the very late activation antigen 4 (VLA-4), or with the integrin $\beta 7$ chain. CD49d is a transmembrane glycoprotein of 145 kDa devoid of disulfide bond. Complexed to $\beta 1$ or $\beta 7$ integrins, CD49d is not only involved in cell adhesion to fibronectin and vascular cell adhesion molecule 1 (VCAM-1), but also in intercellular leucocyte interactions. It is expressed by monocytes, lymphocytes, eosinophils, thymocytes and Langerhans cells.



Lysed normal whole blood sample.

Clone: HP2/1

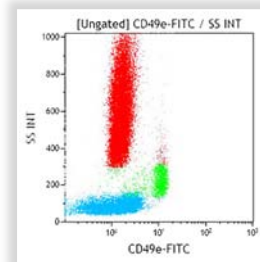
Isotype: IgG1 Mouse

The HP2/1 antibody blocks the interaction of VLA-4 with VCAM-1. HP2/1 was used as a CD49d reference monoclonal antibody during the HLDA 6.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM1404U	ASR	IOTest	GMP
APC	0.5 mL	Liquid	B01682	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	B16893	ASR	IOTest	GMP
UNLB	0.2 mg	Freeze-dried	IM0764	ASR	-	GMP

CD49e

The CD49e antigen is the 160 kDa integrin $\alpha 5$ -chain, which is composed of a heavy chain (135 kDa) and a light chain (25 kDa), linked by a disulfide bond. CD49e is non-covalently associated with the 130 kDa integrin $\beta 1$ -chain (CD29 molecule), forming the VLA-5 complex. CD49e is expressed by monocytes, platelets and two myeloid cell lines (U937, K562). It is known as the fibronectin and invasin receptor. It is useful for basic studies of fibronectin-mediated adhesion.



Lysed normal whole blood sample.

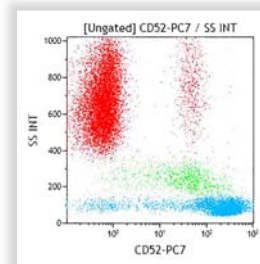
Clone: SAM1

Isotype: IgG2b Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM1854U	ASR	IOTest	GMP

CD52

CD52, also called CAMPATH-1, is a 21-28 kDa glycopeptide anchored to the membrane by a glycosylphosphatidylinositol (GPI) structure. The mature CD52 antigen is a very small protein (12 aminoacids) of 8-9 kDa. CD52 is expressed on lymphocytes, monocytes, macrophages and on epithelial cells of male reproductive tract, shed into seminal plasma and acquired by spermatozoa. Physiological role of CD52 on lymphocytes is unclear, although CAMPATH-1 antibody is capable of complement activation and it has been used in lympho proliferative disorders. Monoclonal antibodies directed against sperm may cause sperm immobilization and agglutination.



Lysed normal whole blood sample.

Clone: HI186

Isotype: IgG2b Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PC7	0.5 mL	Liquid	B68152	ASR	IOTest	GMP NEW



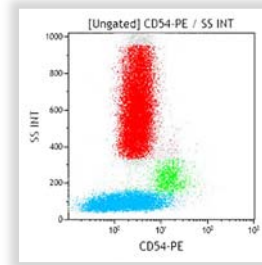
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD54

The CD54 antigen, previously known as ICAM-1 (InterCellular Adhesion Molecule-1), is a 90 kDa transmembrane glycoprotein. With seven potential N-linked glycosylation sites, its structure, as that of CD50 (ICAM-3) and CD102 (ICAM-2), is related to the Immunoglobulin family. The CD54 antigen mediates the adhesion of T lymphocytes with Antigen-Presenting Cells (APC) and is involved in T cell to T cell and T cell to B cell interactions. It is also involved in the adhesion of monocytes, lymphocytes and neutrophils to activated endothelium. It binds to the integrins LFA-1 (CD11a/CD18) and Mac-1 (CD11b/CD18). It is a receptor for the rhinovirus. It is expressed by endothelial cells and by many other cell types upon activation.



Lysed normal whole blood sample.

Clone: 84H10

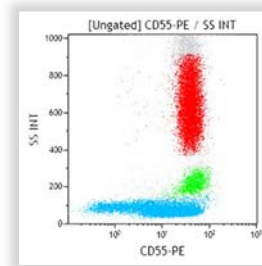
Isotype: IgG1 Mouse

84H10 antibody inhibits ICAM-1 mediated adhesion to LFA-1.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM0726U	ASR	IOTest	GMP
PE	2 mL	Liquid	IM1239U	ASR	IOTest	GMP

CD55

The CD55 antigen is a single chain glycosyl-phosphatidyl-inositol (GPI)-anchored, cell surface protein. This molecule undergoes post-transcriptional and post-translational modification resulting in a heterogeneous molecular weight ranging from 55 to 80 kDa. The CD55 antigen, also named Decay Accelerating Factor (DAF) is involved in the regulation of both alternative and classical complement pathways. C3b/C3Bb and C4b/C4b2a convertases, as well as echovirus, coxsackie B virus and CD97 are reported to interact with CD55. Like other GPI-anchored proteins, CD55 is associated in the cytoplasmic compartment with tyrosine kinases allowing signal transduction. The CD55 molecule is widely expressed on human cells including leucocytes, erythrocytes and platelets. CD55 is weakly expressed on NK cells.



Lysed normal whole blood sample.

Clone: JS11KSC2.3

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM2725	ASR	IOTest	GMP
PE	2 mL	Liquid	IM2726	ASR	IOTest	GMP
PE	100 tests	Liquid	B49190	CE	IOTest	98/79/EC NEW



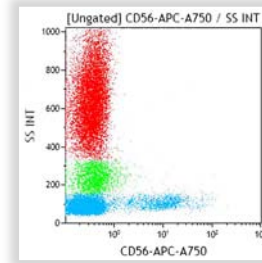
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD56

The CD56 antigen is a 140 kDa isoform of the Neural Cell Adhesion Molecule (N-CAM). Post-translational modifications to the polypeptide include N- and O-glycosylations, acylation, sulphation and phosphorylation. The different N-CAM isoforms have molecular weights ranging from 135 to 220 kDa. The CD56 antigen is moderately expressed on a subpopulation of peripheral blood large granular lymphocytes and on all cells with NK activity. It is also expressed by subsets of T lymphocytes. CD56 antibodies do not react with granulocytes, monocytes or B cells.



Lysed normal whole blood sample

Clone: N901 (NKH-1)

Isotype: IgG1 Mouse

The N901 (NKH-1) antibody was used as a CD56 reference mAb during HLDA 6.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	100 tests	Liquid	A07788	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM2073U	ASR	IOTest	GMP
RD1	0.5 mL	Liquid	6603067	ASR	COULTER CLONE	GMP
RD1	0.5 mL	Liquid	6603857	ASR	CYTO-STAT	GMP
ECD	1 mL	Liquid	A82943	ASR	IOTest	GMP
ECD	100 tests	Liquid	B49214	CE	IOTest	98/79/EC NEW
PC5	100 tests	Liquid	A07789	CE	IOTest	98/79/EC
PC5	1 mL	Liquid	IM2654U	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	A79388	ASR	IOTest	GMP
PC5.5	50 tests	Liquid	B49189	CE	IOTest	98/79/EC NEW
PC7	1 mL	Liquid	A51078	ASR	IOTest	GMP
PC7	100 tests	Liquid	A21692	CE	IOTest	98/79/EC
APC	100 tests	Liquid	IM2474	CE	IOTest	98/79/EC
APC	1 mL	Liquid	IM2474U	ASR	IOTest	GMP
APC-A700	0.5 mL	Liquid	B10822	ASR	IOTest	GMP
APC-A700	50 tests	Liquid	B92446	CE	IOTest	98/79/EC NEW
APC-A750	0.5 mL	Liquid	B46024	ASR	IOTest	GMP

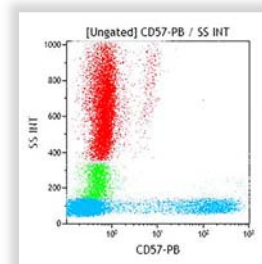
Clone: C218

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
UNLB	0.2 mg	Freeze-dried	IM1844	RUO	-	GMP

CD57

The CD57 antigen (HNK-1 antigen carbohydrate moiety) is an oligosaccharide with sulfated glucuronic acid residues that may be linked to a variety of polypeptides or lipids. In peripheral blood, it is found on a subset of cells with natural killer activity. It is confined to mononuclear cells, primarily large granular lymphocytes. Many of these CD57⁺ cells co-express the CD8 antigen and are a subset of the suppressor / cytotoxic T lymphocytes. Cord blood T cells or NK cells lack the CD57 antigen. It is not expressed on red blood cells or on platelets but is present on some neuroectodermal tissues.



Lysed normal whole blood sample

Clone: NC1

Isotype: IgM Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	A74779	ASR	IOTest	GMP
FITC	2 mL	Liquid	IM0466U	ASR	IOTest	GMP
FITC	100 tests	Liquid	B49188	CE	IOTest	98/79/EC NEW



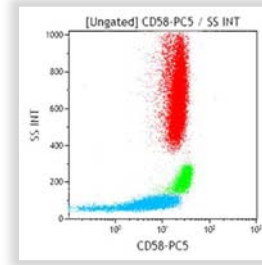
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD58

CD58 is a glycoprotein of 65-70 kDa, either transmembrane or glycosylphosphatidylinositol (GPI)-anchored. CD58 was first described as the lymphocyte-function associated antigen 3 (LFA-3). LFA-3 was further shown to interact with CD2 suggesting an important role in various immunological responses via T-cell adhesion and activation. CD58 mediates adhesion between killer and target cells, antigen presenting cells and T cells. This antigen is widely expressed on leucocytes, erythrocytes and endothelial cells.



Lysed normal whole blood sample.

Clone: AICD58

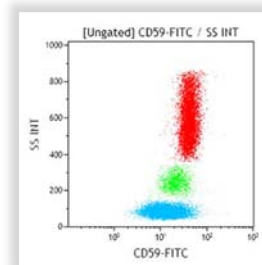
Isotype: IgG2a Mouse

The AICD58 antibody is a blocking antibody in LFA-3 mediated adhesion. This antibody was used as a CD58 reference mAb during HLDA 6.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM1218U	ASR	IOTest	GMP
PE	2 mL	Liquid	IM1430	ASR	IOTest	GMP
PC5	1 mL	Liquid	IM3702	ASR	IOTest	GMP
APC	1 mL	Liquid	IM3701	ASR	IOTest	GMP

CD59

The CD59 antigen, also known as Protectin or Membrane Inhibitor of Reactive Lysis (MIRL) is a 18-20 kDa, single-chain, glycosylphosphatidylinositol (GPI)-anchored cell surface protein. CD59 inhibits complement lysis by binding to the C5b-8 and C5b-9 complexes and thus preventing formation of the polymeric C9 complex during the final steps of membrane attack complex (MAC). CD59 is expressed on all haematopoietic cells and is widely expressed on cells in all tissues. Studies of the susceptibility of HIV-1, HTLV-1 and HCMV to complement (C)-mediated lysis suggest that viruses incorporate host cell-derived C regulatory proteins such as CD59 and CD55, a mechanism by which a variety of enveloped viruses may acquire resistance to C-mediated lysis.



Lysed normal whole blood sample.

Clone: P282E

Isotype: IgG2a Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM3457U	ASR	IOTest	GMP
FITC	100 tests	Liquid	B49187	CE	IOTest	98/79/EC NEW

Clone: MEM-43

Isotype: IgG2a Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	B68140	ASR	IOTest	GMP NEW



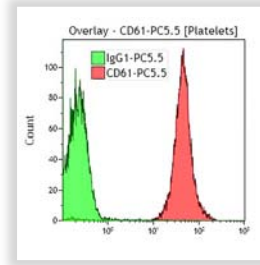
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD61

The CD61 antigen (platelet glycoprotein GPIIIa) is the 110 kDa integrin $\beta 3$ subunit, con-covalently associated with the integrin α IIB chain (CD41, platelet GPIIb) to form the GPIIb-IIIa complex (α IIB- $\beta 3$ integrin). Independently of CD41, CD61 is also associated with the integrin α V (CD51) to form the vitronectin receptor. CD41/CD61 is expressed only by platelets and megakaryocytes, whereas CD51/CD61 is found on osteoclasts, endothelial cells, macrophages, fibroblasts, smooth muscle, synovial lining cells and renal glomeruli.



Platelet rich plasma (PRP) from a normal whole blood sample.

Clone: SZ21

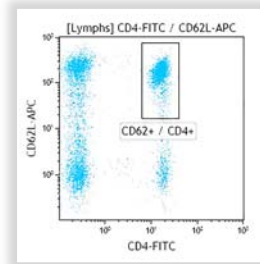
Isotype: IgG1 Mouse

The SZ21 antibody is specific for the PIA1, not the PIA2 form of GPIIIa. It inhibits platelet aggregation and secretion induced by collagen, arachidonic acid, and thrombin. This antibody also inhibits fibrinogen binding to human platelets induced by ADP, arachidonic acid and PAF.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	100 tests	Liquid	IM1758	CE	IOTest	98/79/EC
FITC	2 mL	Liquid	IM1758U	ASR	IOTest	GMP
PE	2 mL	Liquid	IM3605	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	B21172	ASR	IOTest	GMP
PC7	1 mL	Liquid	IM3716	ASR	IOTest	GMP
UNLB	0.2 mg	Freeze-dried	IM0540	RUO	-	GMP

CD62L

The CD62L antigen, also called LECAM-1, L-selectin or LAM-1, is a 75 kDa molecule. It acts as the peripheral lymph node homing receptor. It is also involved in lymphocyte binding to High Endothelial Venules (HEV) and in lymphocyte rolling on activated endothelium. CD62L is expressed by B and T lymphocytes, monocytes, neutrophils, eosinophils, and approximately half of the peripheral NK lymphocytes.



Lysed normal whole blood sample. Gated on lymphocytes.

Clone: DREG56

Isotype: IgG1 Mouse

In contrast to other antibodies recognizing this molecule, DREG56 is particularly effective in blocking CD62L mediated lymphocyte binding to lymph node HEV. DREG56 (ref.33) was used as a CD62L reference monoclonal antibody during the HLDA 6.

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B30640	ASR	IOTest	GMP
FITC	2 mL	Liquid	IM1231U	ASR	IOTest	GMP
PE	2 mL	Liquid	IM2214U	ASR	IOTest	GMP
ECD	1 mL	Liquid	IM2713U	ASR	IOTest	GMP
PC5	1 mL	Liquid	IM2655U	ASR	IOTest	GMP
PC7	0.5 mL	Liquid	B30641	ASR	IOTest	GMP
APC	0.5 mL	Liquid	B30639	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	B26604	ASR	IOTest	GMP



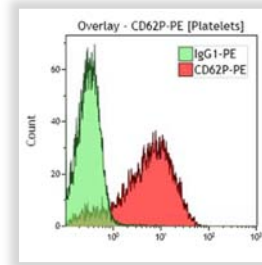
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ANTIBODIES TO HUMAN ANTIGENS

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CD62P

The CD62P antigen (P-selectin/GMP-140/PADGEM) is a member of the selectin family. Like other selectins (CD62E and CD62L), CD62P contains an amino terminal lectin-like domain, followed by an EGF domain, nine short consensus repeats (SCR), a transmembrane domain and a short cytoplasmic domain. CD62P (140 kDa) is present in megakaryocytes, in Weibel-Palade bodies of endothelial cells and in α -granules of platelets. CD62P is translocated to the surface membrane upon in vitro and in vivo activation. CD62P is involved in the interaction between activated platelets and with monocytes and neutrophils.



Platelet rich plasma (PRP) from a normal whole blood sample.

Clone: CLB-Thromb/6

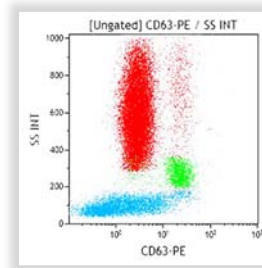
Isotype: IgG1 Mouse

The CLB-Thromb/6 antibody recognizes the boundary region between the lectin and EGF-like domains, which is preserved after platelet fixation. It inhibits platelet adhesion to eosinophils in cell adhesion assays.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	100 tests	Liquid	A07790	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM1759U	ASR	IOTest	GMP

CD63

The CD63 antigen, also known as lysosomal membrane associated glycoprotein 3 (LAMP3), is a member of the tetraspanin (TM4SF) family. Nearly 20 genes encode tetraspanins whose main structural characteristics is their four transmembrane domains. CD63, as other tetraspanins (CD9, CD81, CD82), has recently been reported as forming complexes with VLA-3 and phosphatidylinositol 4-kinase, with VLA-6, CD11/CD18 and tyrosine kinase. CD63 was first described in granules of resting platelets and on the surface membrane on activated platelets. CD63 was later identified as granulophysin, a platelet dense granule glycoprotein. The molecular weight of the platelet form of CD63 ranges from 40 to 55 kDa. CD63 has been found to be identical to the ME491 antigen expressed by melanoma cells. It is also found on monocytes / macrophages and is weakly expressed by resting granulocytes, T lymphocytes and B lymphocytes. CD63 antigen, present in azurophilic granules of non-stimulated neutrophils, is strongly expressed on the surface of neutrophils after activation. Studies have shown that CD63 may be a marker for granule release. This phenomenon is also reported for basophils.



Lysed normal whole blood sample.

Clone: CLB-Gran/12

Isotype: IgG1 Mouse

The CD63 antibodies inhibit adhesion of neutrophils to activated endothelium. CLBGran/12 was used as a CD63 reference monoclonal antibody during HLDA 6.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM1165U	ASR	IOTest	GMP
FITC	100 tests	Liquid	B92467	CE	IOTest	98/79/EC NEW
PE	2 mL	Liquid	IM1914U	ASR	IOTest	GMP



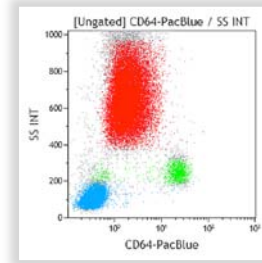
REAGENTS

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CD64

The CD64 antigen (FcγRI) is a glycoprotein with a molecular weight of 72 kDa. It belongs to the Ig superfamily, consisting of three C2-like Ig domains. It is the high affinity receptor for IgG and is able to bind monomeric human IgG1 and IgG3. This antigen is expressed on macrophages and monocytes. It is also expressed on neutrophils when induced with interferon γ (IFN- γ) and granulocyte colony-stimulating factor (G-CSF).



Lysed normal whole blood sample.

Clone: 22

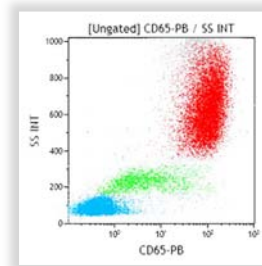
Isotype: IgG1 Mouse

The 22 antibody shows especially high affinity binding to human mononuclear phagocytes. The epitope recognized by this antibody is distinct from the IgG binding site.

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B19718	ASR	IOTest	GMP
FITC	2 mL	Liquid	IM1604U	ASR	IOTest	GMP
FITC	100 tests	Liquid	B49185	CE	IOTest	98/79/EC NEW
PE	2 mL	Liquid	IM3601U	ASR	IOTest	GMP
ECD	0.5 mL	Liquid	A98434	ASR	IOTest	GMP
PC5	1 mL	Liquid	IM3606U	ASR	IOTest	GMP
PC5	100 tests	Liquid	B49186	CE	IOTest	98/79/EC NEW
PC7	0.5 mL	Liquid	B06025	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	A89308	ASR	IOTest	GMP

CD65

The CD65 antigen is analogous to the carbohydrate structure(s) recognized by CD15 antibodies. It is a type II chain fucoganglioside involving the oligosaccharide sequence : Gal β 1 - 4GlcNac β 1 - 3Gal β 1 - 4GlcNac(Fuc α 1-3) β 1 - R. Granulocytes are CD65 positive and monocytes are weakly positive. It does not react with T and B lymphocytes.



Lysed normal whole blood sample.

Clone: 88H7

Isotype: IgM Mouse

88H7 antibody was re-assigned from the CD65s to the CD65 cluster during HLDA 6.

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B08164	ASR	IOTest	GMP
FITC	2 mL	Liquid	IM1654U	ASR	IOTest	GMP
FITC	100 tests	Liquid	B36299	CE	IOTest	98/79/EC

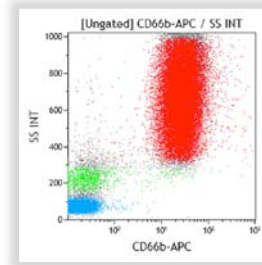
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Single-Color Reagents

CD66b

The CD66 antigens were originally described as granulocyte-specific activation antigens, related to the carcino-embryonic antigen (CEA) previously described on colon cancer cells. The CEA/CD66 gene group belongs to the immunoglobulin (Ig) gene superfamily. Among the CD66 cluster, CD66b (also known as CGM6) is a glycosyl-phosphatidylinositol (GPI)-anchored glycoprotein of 95-100 kDa. CD66b is thought to play a role in the regulation of the adhesive activity of CD11/CD18 via signal transduction in neutrophils. It is strongly expressed by myelocytes, metamyelocytes, neutrophils and polymorphonuclear neutrophils. CD66b is weakly expressed by promyelocytes.



Lysed normal whole blood sample.

Clone: 80H3

Isotype: IgG1 Mouse

The 80H3 antibody does not react with peripheral lymphocytes and monocytes.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM0531U	ASR	IOTest	GMP
APC	0.5 mL	Liquid	B15091	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	B08756	ASR	IOTest	GMP

CD66c (KOR-SA3544)

The CD66c (also called KOR-SA-3544) antigen is a granulocyte cell surface protein of 80-100 kDa.

Clone: KOR-SA3544

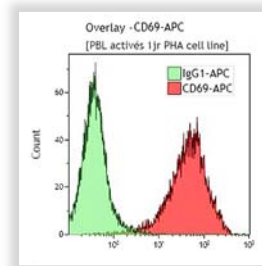
Isotype: IgG1 Mouse

In peripheral blood, the KOR-SA3544 antibody reacts with the majority of granulocytes but not with lymphocytes, monocytes, platelets or red blood cells. In normal bone marrow, only the myeloid cells are positive.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	1 mL	Liquid	IM2039U	ASR	-	GMP
PE	1 mL	Liquid	IM2357U	ASR	-	GMP

CD69

The CD69 antigen is a 60 kDa disulfide-linked dimeric structure, known as activation inducer molecule (AIM). This structure contains two differentially glycosylated forms (33 and 27 kDa) of a single core protein, that are covalently associated. This activation antigen is one of the earliest appearing cell surface glycoproteins (before other activation antigens such as IL2-R) after T or B-lymphocyte activation but is absent in resting lymphocytes. It is also expressed by activated macrophages, NK cells and other cell types including neutrophils, eosinophils and platelets. Its expression in vitro can be induced by different factors such as PMA, PHA or CD3 monoclonal antibodies.



PHA cell line.

Clone: TP1.55.3

Isotype: IgG2b Mouse

The CD69 antibody is useful in combination with CD4, CD8 and CD3 antibodies for T cell activation studies. The TP1.55.3 antibody immunoprecipitates the 60 kDa homodimer and both 27 kDa and 33 kDa subunits from activated peripheral blood lymphocytes under reduced and non-reduced conditions.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	IM1943U	ASR	IOTest	GMP
ECD	100 tests	Liquid	6607110	RUO	IOTest	GMP
PC5	100 tests	Liquid	IM2656	CE	IOTest	98/79/EC
PC7	1 mL	Liquid	A80710	ASR	IOTest	GMP
APC	1 mL	Liquid	A80711	ASR	IOTest	GMP

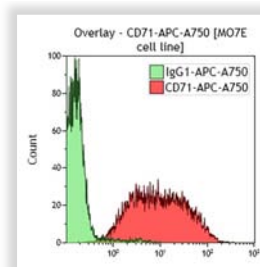
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ANTIBODIES TO HUMAN ANTIGENS

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CD71

The CD71 antigen is known as the transferrin receptor. It mediates cellular iron uptake via internalization and recycling. It is a type II membrane glycoprotein, characterized as a disulfide-bound dimer of two identical subunits of 95 kDa each. CD71 is expressed on activated T and B lymphocytes, macrophages and erythroblasts. The N-Terminal, intracytoplasmic domain of CD71 mediates rapid endocytosis and self recycling. CD71 is absent from resting blood leucocytes. Its expression is upregulated on proliferating cells.



MD7E cell line.

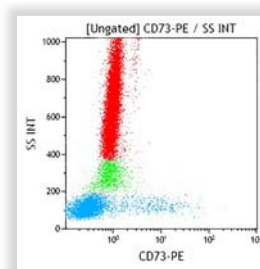
Clone: YDJ1.2.2

Isotype: IgG1 Mouse

Form	Size	Format	Part #	Status	Line	Quality Standard
FITC	100 tests	Liquid	IM0483	CE	IOTest	98/79/EC
FITC	2 mL	Liquid	IM0483U	ASR	IOTest	GMP
PE	2 mL	Liquid	IM2001U	ASR	IOTest	GMP
APC-A700	0.5 mL	Liquid	A97051	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	A89313	ASR	IOTest	GMP

CD73

CD73 is a 5'-nucleotidase anchored to the membrane by a glycosylphosphatidylinositol (GPI) structure. CD73 is a dimer of two identical 70 kD subunits. A soluble form of CD73 can be shed from the membrane through proteolytic cleavage or hydrolysis of the GPI anchor by phosphatidylinositol-specific phospholipase. CD73 is expressed on subsets of T and B cells, follicular dendritic cells and on epithelial and endothelial cells. CD73 possesses the enzymatic activity of a 5'-nucleotidase and catalyzes the dephosphorylation of purine and pyrimidine ribo- and deoxyribonucleoside mono-phosphates to their corresponding nucleosides. An alternate function for CD73 is to regulate the availability of adenosine by converting AMP to adenosine. There is evidence that the expression and function of this enzyme are upregulated under hypoxic conditions, as well as by the presence of several pro-inflammatory mediators, such as transforming growth factor (TGF)- β interferons (IFNs), tumor necrosis factor (TNF)- α , interleukin (IL)-1 β and prostaglandin E2. CD73 can transmit activation signals to T cells and mediates adhesion of lymphocytes to follicular dendritic cells and endothelial cells. The CD73/adenosine pathway is a potent additional suppressive pathway of Treg cells and also confers a suppressive anti-inflammatory function on the uncommitted primed precursor Thpp cell type.



Lysed normal whole blood sample.

Clone: AD-2

Isotype: IgG1 Mouse

Form	Size	Format	Part #	Status	Line	Quality Standard
PE	1 mL	Liquid	B68176	ASR	IOTest	GMP NEW

CD77

The CD77 antigen is neutral glycosphingolipid of the globoseries globotriaosylceramide (Gb3). It is known as the Pk blood group antigen, a normal intermediate in the biosynthetic pathway of the P blood group antigen. CD77 is also present as an antigen of germinal center B lymphocytes entering apoptosis. It is expressed by endothelial cells. Studies have shown that the antigen may be associated with a Burkitt's Lymphoma-associated Antigen (BLA).

Clone: 38.13

Isotype: IgM Rat

Form	Size	Format	Part #	Status	Line	Quality Standard
UNLB	100 tests	Liquid	IM0175	RUO	-	GMP



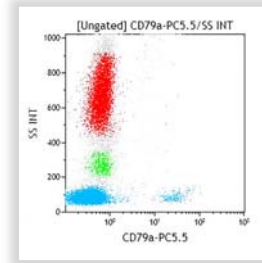
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ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD79a

The CD79a molecule (MB-1, Ig α) is part of the MB-1/B29 (CD79a/CD79b) disulfide-linked heterodimer which is non-covalently associated with membrane immunoglobulins (Igs) to build the B Cell antigen Receptor (BCR) complex. CD79a is a 40-45 kDa glycoprotein and belongs to the Ig superfamily of surface antigens. CD79a protein is specifically and strictly expressed throughout B lymphocyte differentiation. It appears early in ontogeny, probably before expression of cytoplasmic μ -chain, and is present in the cytoplasm of plasma cells.



Permeabilized normal whole blood sample.

Clone: HM47

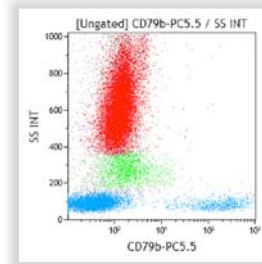
Isotype: IgG1 Mouse

The HM47 antibody is recommended to be used in flow cytometry after permeabilization with saponin-based permeabilization reagent IntraPrep. The HM47 antibody reacts with a cytoplasmic epitope of the CD79a molecule.

Form	Size	Format	Part #	Status	Line	Quality Standard
PE	100 tests	Liquid	IM2221	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM2221U	ASR	IOTest	GMP
PC5	1 mL	Liquid	IM3456U	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	B42018	ASR	IOTest	GMP
APC	1 mL	Liquid	A60793	ASR	IOTest	GMP
APC	100 tests	Liquid	B36287	CE	IOTest	98/79/EC

CD79b

The CD79b molecule (B29, Ig β) is part of the MB-1/B29 disulfide-linked heterodimer which is non-covalently associated with membrane-Igs to build the B Cell antigen Receptor (BCR) complex. CD79b is a 33-40 kDa glycoprotein and belongs to the Ig superfamily. The BCR complex is restricted to B cell lineage, expressed on the surface just after the pre-B cell stage and is lost prior to the plasma cell stage.



Lysed normal whole blood sample.

Clone: CB3-1

Isotype: IgG1 Mouse

The CB3-1 antibody reacts with the external part of the CD79b molecule and is to be used in flow cytometry. This antibody is not suitable for intracytoplasmic staining. For this application the use of the CD79a antibody is recommended.

Form	Size	Format	Part #	Status	Line	Quality Standard
PE	100 tests	Liquid	IM1612	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM1612U	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	B21445	ASR	IOTest	GMP
APC	0.5 mL	Liquid	A87784	ASR	IOTest	GMP



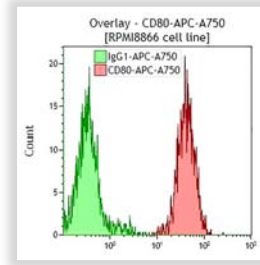
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD80

The CD80 antigen (B7, BB1) is a highly glycosylated single-chain protein. Its extracellular domain consists of two Ig-like domains. This 60 kDa molecule shares with CD86 the capability to be the ligand for two structurally similar molecules expressed on T lymphocytes, CD28 and CD152 (CTLA-4). CD80 antigen is expressed on in vitro activated B lymphocytes after 24h stimulation and at maximal level 48-72h post activation. It is not expressed on the majority of resting B cells from peripheral blood but identifies a subpopulation of B cells that has been previously activated. The antigen is also expressed by HTLV-1 transformed T cells and activated monocytes. CD80 binding provides co-stimulatory signals for T cell activation.



RPM18866 cell line

Clone: MAB104

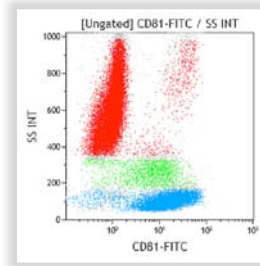
Isotype: IgG1 Mouse

The MAB104 monoclonal antibody reacts with in vitro activated B lymphocytes, some B cell lines, and weakly with a small proportion of non-activated B cells. This antibody also reacts with activated T cells but not with peripheral monocytes and T cells.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM1853U	ASR	IOTest	GMP
PE	2 mL	Liquid	IM1976U	ASR	IOTest	GMP
PC7	0.5 mL	Liquid	B30644	ASR	IOTest	GMP
APC	0.5 mL	Liquid	B30642	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	B30643	ASR	IOTest	GMP

CD81

The CD81 molecule is a single chain, 4 transmembrane domain protein (Tetraspan/TM4SF). Both the NH₂- and COOH-termini are located inside the cytoplasm, and two loops of the protein sequence are exposed extracellularly. The CD81 antigen is not glycosylated and its molecular weight is 26 kDa. Its tissue distribution is broad. This antigen may be present in some cases as multimolecular complexes, in association with other members of the TM4 superfamily (CD37, CD53) or, on the surface of B cells, in association with CD19 and/or CD21 and/or MHC class II antigens. Most B lymphocytes, at all stages of cellular differentiation, express CD81 at relatively high levels.



Lysed normal whole blood sample

Clone: JS64

Isotype: IgG2a Mouse

The JS64 antibody reacts with the majority of normal lymphocytes, monocytes and eosinophils. Neutrophils and platelets are negative. JS64 has an anti-proliferative effect on some cell lines, but does not cause apoptosis.

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B19717	ASR	IOTest	GMP
FITC	1 mL	Liquid	B25329	ASR	IOTest	GMP
PE	2 mL	Liquid	IM2579	ASR	IOTest	GMP
APC	0.5 mL	Liquid	A87789	ASR	IOTest	GMP



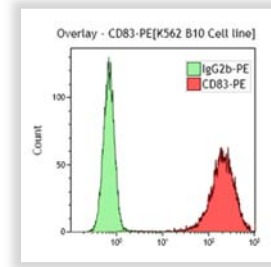
REAGENTS

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Single-Color Reagents

CD83

CD83, or HB15 molecule, is a 43 kDa glycoprotein member of the immunoglobulin superfamily. It is composed of a single extracellular V-type Ig-like domain, a transmembrane region and a 40 amino acid cytoplasmic domain. CD83 is predominantly expressed by dendritic lineage cells including Langerhans cells, skin and peripheral blood dendritic cells. It is also expressed by interdigitating reticulum cells present in the T cell zones of lymphoid organs as well as being weakly expressed by some germinal center lymphocytes. CD83 is expressed by in vitro generated dendritic cells. It is not expressed by resting peripheral blood leucocytes at detectable levels and is only expressed at low levels following lymphocyte activation in vitro.



K562 B10 Cell line.

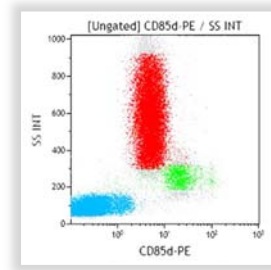
Clone: HB15a

Isotype: IgG2b Mouse

Form	Size	Format	Part #	Status	Line	Quality Standard
FTC	2 mL	Liquid	IM2410U	ASR	IOTest	GMP
PE	2 mL	Liquid	IM2218U	ASR	IOTest	GMP
PC5	1 mL	Liquid	IM3240U	ASR	IOTest	GMP

CD85d (ILT4)

CD85d (ILT4) is a member of the new immunoglobulin (Ig)-like transcripts (ILT) family of genes located on human chromosome 19q13.4. ILT4 is also known as leucocyte Ig-like receptor (LIR)-2 and monocyte / macrophage Ig-like receptors (MIR)-10. ILT4 is a transmembrane protein recognized by 42D1 monoclonal antibody. The protein has extracellular Ig-SF domains, and ITIM motifs in the cytoplasmic tail that inhibit cellular responses by recruiting phosphatases such SHP-1. ILT4 is confined to the myelomonocytic lineage as it is expressed on monocytes, macrophages, and dendritic cells (DCs). ILT4 binds to HLA-G molecules with a 3- to 4-fold higher affinity than to classical MHC class I molecules. ILT4 may modulate one or several of the antigen presenting functions mediated by DCs, control inflammatory responses mediated by monocytes / macrophages or inhibit their cytotoxicity. The recognition of HLA-G by ILT4 may play a role in materno-fetal tolerance as HLA-G is selectively expressed in the trophoblast. It has been shown that recipient's CD8⁺CD28⁻ T suppressor (Ts) cells may induce tolerance by up-regulating ITL3 and ILT4 expressions in donor's dendritic cells, rendering these antigen-presenting cells (APCs) tolerogenic.



Lysed normal whole blood sample.

Clone: 42D1

Isotype: IgG2a Rat

Form	Size	Format	Part #	Status	Line	Quality Standard
PE	100 tests	Liquid	A22334	RUO	IOTest	GMP



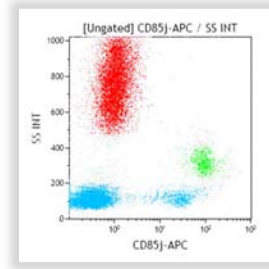
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD85j (ILT2)

CD85j, also called ILT2, is a member of the immunoglobulin (Ig)-like transcripts (ILT) family of genes located on human chromosome 19 (the numerical subclassification refers to the members in the order of the gene on the chromosome). It is a 110-kDa transmembrane glycoprotein. ILT2 receptor is a NK receptor involved in inhibition of NK and T cells cytolytic activity and cytokine production. ILT2 is also known as leucocyte Ig-like receptor (LIR)-1 and monocyte / macrophage Ig-like receptor (MIR)-7. The protein has 4 extracellular Ig-SF domains, and 4 cytoplasmic ITIM motifs in the cytoplasmic tail. Both myeloid and lymphoid cells express ILT2. Among lymphoid cells, NK cells, T cell subsets and all peripheral B cells express ILT2. It is also expressed on monocytes, macrophages, and dendritic cells. Ligands for CD85j are non-classical class I HLA-G molecules, certain alleles of HLA-A and -B loci and the human cytomegalovirus gene product, UL18, a viral homolog of HLA class I molecules. The inhibitory function of CD85j has been explored mainly in NK and T cells. In NK cells, ILT2 inhibits the cytolysis of HLA-Class I-positive target cells. In T cells, ILT2 inhibits both signaling and cellular events that control the activation of T cells.



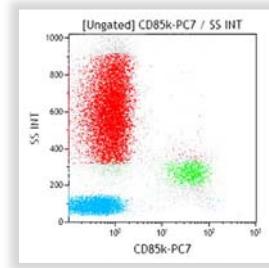
Lysed normal whole blood sample.

Clone: HP-F1 Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	A07408	ASR	IOTest	GMP
APC	0.5 mL	Liquid	B30645	ASR	IOTest	GMP

CD85k (ILT3)

The CD85k antigen (ILT3) is a member of Immunoglobulin (Ig)-Like Transcripts (ILT), also known as Leucocyte Ig-like Receptors (LIR) and Monocyte / Macrophage Ig-like Receptors (MIR). ILT are expressed on monocytes, macrophages, dendritic cells (DCs) and granulocytes, except ILT2, which is expressed by both myeloid and lymphoid cells: NK, T cell subsets and all peripheral B cells. All ILT receptors except (ILT6) are transmembrane proteins and have been classified in 3 types: Inhibitory: ILT2, 3, 4, 5, LIR8; Activating: ILT1, LIR6a, 7, LIR8, with a cytoplasmic tail associated to FcRγ; Soluble: ILT6. The CD85k antigen (otherwise known as LIR-5, HM18) is a transmembrane protein of 60 kDa, constitutively phosphorylated. Unlike ILT2 and ILT4, ILT3 does not bind to HLA-A, -B and -G1 molecules. The ligand of ILT3 is unknown, however research studies point out the following functional properties: ILT3 is involved in antigen uptake and presentation; ILT3 negatively regulates Antigen Presenting Cell (APC) functional responses triggered via stimulatory receptors such as CD11b, CD16, MHC-class II. The transmission of a negative signal via ITIMs may be one of the inhibitory mechanisms, ranging from temporary to permanent inactivation, that control homeostasis, and immunological tolerance. It has been shown that ILT3, unregulated on monocytes and DCs by CD8 +CD28- T suppressor cells, renders these APC tolerogenic.



Lysed normal whole blood sample.

Clone: ZM3.8 Isotype: IgG1 Mouse

The ZM3.8 antibody immunoprecipitates a protein of 55 kDa from ILT3-transfected T cells and a protein of 60 kDa from monocytes.

Form	Size	Format	Part#	Status	Line	Quality Standard
PC7	1 mL	Liquid	A46529	ASR	IOTest	GMP



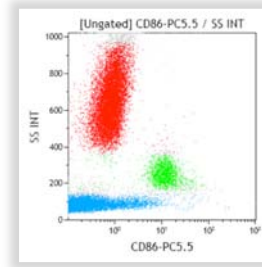
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD86

The CD86 antigen (B7-2, B70) is a single-chain trans-membrane glycoprotein, structurally similar to CD80. Its molecular weight is 80 kDa, under reducing conditions. The extracellular region is composed of one V-type and one C-type Ig-like domains. There are 8 potential sites for N-glycosylation. The cytoplasmic tail has 3 potential sites for protein kinase C phosphorylation. CD86 shares with the CD80 molecule the same co-receptors on T cells, CD28 and CD152 (CTLA-4). CD86 binds to CD152 with a 20-100-fold higher affinity than to CD28. CD86 is expressed constitutively by interdigitating dendritic cells, and at lower level by peripheral blood dendritic cells. It is strongly expressed by monocytes. On lymphocytes, CD86 appears as a B-cell activation antigen. CD86 is preferentially expressed by memory B cells and germinal center B cells, but not on plasma cells. Its expression can be up-regulated by activation through surface immunoglobulin, CD40, MHC class II molecules or by PMA with ionomycin. T cells activated by CD3 ligation have also been reported to express CD86.



Lysed normal whole blood sample.

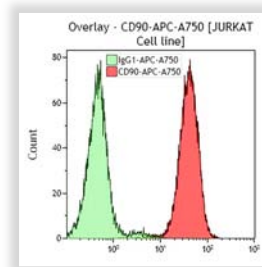
Clone: HA5.2B7

Isotype: IgG2b Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	IM2729U	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	B30647	ASR	IOTest	GMP
PC7	0.5 mL	Liquid	B30648	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	B30646	ASR	IOTest	GMP

CD90

The human CD90 antigen (also known as Thy-1) is the smallest (18 kDa) member of the immunoglobulin gene superfamily (IgSF). It is a highly glycosylated molecule with a glycosyl-phosphatidylinositol (GPI) anchor consisting of a single IgSF variable domain. The CD90 molecule has a broad tissue distribution and is expressed in nervous tissue, connective tissue and various stromal cell lines. It characterizes a rare subset of human fetal bone marrow cells, that contains multipotent hematopoietic progenitor activity. This antigen is expressed on a subset of CD34 positive cells from human bone marrow, cord blood or fetal liver. It is also expressed on very small subsets of thymocytes and peripheral T-lymphocytes.



Jurkat cell line: IL2 producing T lymphocyte cell line

Clone: F15-42-1-5

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM1839U	ASR	IOTest	GMP
PE	2 mL	Liquid	IM1840U	ASR	IOTest	GMP

Clone: Thy1/310

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B30649	ASR	IOTest	GMP
PC5	1 mL	Liquid	IM3703	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	B36121	ASR	IOTest	GMP

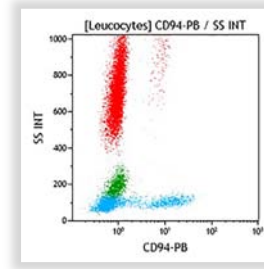
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD94

CD94 is a type II transmembrane glycoprotein of 30 kDa, belonging to the Ca⁺⁺-dependent (C-type) lectin family. Like NKG2A (or Kp43) on human natural killer (NK) cells, CD94 associates with one member of the NKG2 family to form disulphide-linked, NK cell receptor for MHC class I molecules, with a broader specificity than the human killer cell inhibitory (KIR) / activator (KAR) receptors of the Ig-superfamily. Ligation of CD94 either potently triggers or inhibits NK cell proliferation and cell-mediated cytotoxicity. Recent studies strongly indicate that the specificity of CD94/NKG2 receptors is for HLA-E, a non-classical MHC class I molecule. CD94/NKG2A and CD94/NKG2B heterodimers constitute inhibitory NK cell receptors, whereas the association of CD94 with NKG2C corresponds to an activating receptor. The expression of CD94 appears restricted to most NK cells and to a T lymphocyte subpopulation including a subset of $\gamma\delta$ TCR⁺ T-cells and $\alpha\beta$ TCR⁺ CD8⁺ CD56⁺ T-cells, mainly V α 2/V δ 2.



Lysed normal whole blood sample.

Clone: HP-3B1

Isotype: IgG2a Mouse

Ligation of CD94 with the HP-3B1 monoclonal antibody inhibits IL-2-dependent proliferation of NK-cells, and induces apoptosis in a subset of IL-2-stimulated NK cells.

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B90465	ASR	IOTest	GMP NEW
PE	100 tests	Liquid	IM2276	RUO	IOTest	GMP
APC	0.5 mL	Liquid	B09980	ASR	IOTest	GMP

CD95

The CD95 (Fas or APO-1) antigen is a 40-50 kDa transmembrane glycoprotein. It belongs to the Tumor Necrosis Factor (TNF) superfamily and contains three cysteine-rich repeats. This cell surface molecule mediates apoptosis (programmed cell death). CD95 antigen is expressed on a substantial proportion of peripheral blood CD4⁺ lymphocytes, CD8⁺ lymphocytes and B lymphocytes but on a minor proportion of NK cells. It is not found on platelets or erythrocytes, but is expressed variably on granulocytes and monocytes. CD95 is strongly up-regulated on activated T cells, B cells, NK cells and thymocytes. Moreover, it is widely expressed on cell lines of T, B, NK and myeloid lineages. Most other tissues express CD95.

Clone: CH11

Isotype: IgM Mouse

The CH11 antibody in vitro induces apoptosis in some CD95 expressing cell lines.

Form	Size	Format	Part#	Status	Line	Quality Standard
UNLB	0.05 mg	Liquid	IM1504	RUO	-	GMP

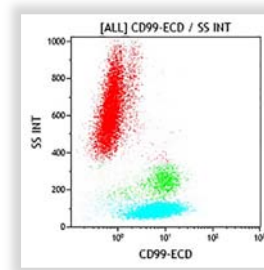
Clone: UB2

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	50 tests	Liquid	IM1739	RUO	-	GMP

CD99

CD99 is 32kDa heavily glycosylated single type transmembrane protein. CD99 is variably expressed on blood cells: at high density on T cells, NK cells and erythrocytes, at low density on B cells, eosinophils and platelets. CD99 has intercellular protein phosphorylation activity, which triggers modulation of T-cell adhesion, induction of homotypic adhesion of corticothymocytes, apoptosis and rosette formation with erythrocytes.



Lysed normal whole blood sample.

Clone: HCD99

Isotype: IgG2a Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
ECD	0.5 mL	Liquid	B76291	ASR	IOTest	GMP NEW
APC	0.5 mL	Liquid	B76270	ASR	IOTest	GMP NEW



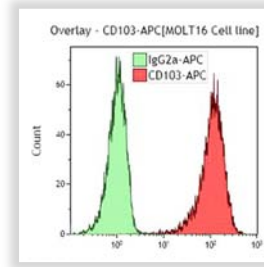
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD103

The CD103 antigen was originally described as the human mucosal antigen 1 (HML-1) and was subsequently proved to be the integrin α E subunit. CD103 is composed of a 150 kDa chain associated with a 25 kDa chain by a disulfide bond. It is expressed as a heterodimer in association with the integrin β 7 chain. CD103 is expressed on mucosa-associated T lymphocytes and activated cells. This human intra-epithelial lymphocyte marker is expressed in very few resting peripheral blood lymphocytes. α E β 7 binds to E-cadherin on epithelial cells. Activation and TGF β -1 induce CD103 expression.



MOLT16 Cell line.

Clone: 2G5

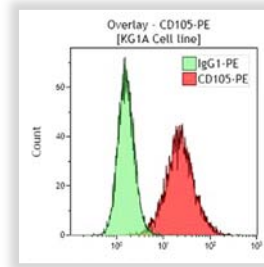
Isotype: IgG2a Mouse

The 2G5 antibody stains a few bone marrow cells and, rarely, peripheral blood lymphocytes.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM1856U	ASR	IOTest	GMP
FITC	100 tests	Liquid	B49222	CE	IOTest	98/79/EC NEW
APC	0.5 mL	Liquid	B06204	ASR	IOTest	GMP
UNLB	0.2 mg	Freeze-dried	IM0318	RUO	-	GMP

CD105

The CD105 antigen is a 170-180 kDa RGD-containing molecule which is present on the cell surface as a disulphide-linked homodimer. The molecule is a co-receptor for TGF β 1 and β 3. It is expressed mainly on endothelial cells, but also strongly in pre-B lymphocytes and in a subpopulation of monocytes.



KG1A Cell line.

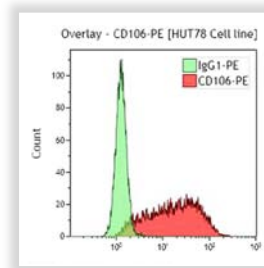
Clone: TEA3/17.1.1

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	B76299	ASR	IOTest	GMP NEW
PE	50 tests	Liquid	B92442	CE	IOTest	98/79/EC NEW
PC7	0.5 mL	Liquid	B43293	ASR	IOTest	GMP

CD106

The CD106 antigen, VCAM-1 (Vascular Cell Adhesion Molecule-1), is an adhesion molecule which binds to integrin α 4/ β 1 (VLA-4) and integrin α 4/ β 7 on lymphocytes. It is a 110 kDa membrane protein. CD106 antigen is present on activated endothelial cells, tissue macrophages, dendritic cells and bone marrow fibroblasts. It is involved in the adhesion of lymphocytes, monocytes and eosinophils to activated endothelium.



HUT78 Cell line.

Clone: 1G11

Isotype: IgG1 Mouse

The 1G11 antibody inhibits T lymphocyte adhesion to TNF-stimulated endothelial cells.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	100 tests	Liquid	A66085	RUO	IOTest	GMP



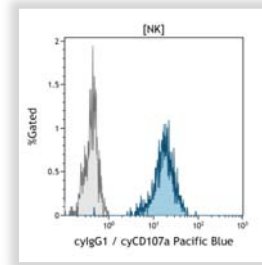
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD107a (LAMP-1)

The CD107a antigen is the heavily glycosylated 110 kDa lysosomal-associated membrane protein, LAMP-1. Together with LAMP-2, they are the major glycoproteins on the membrane of lysosome granules. CD107a molecule is ubiquitously found as intracellular antigen. It is also expressed on the surface of activated platelets, PHA activated, a few monocytic cell lines, and fetal thymus stromal cells. It has been described as a marker of cytotoxic CD8+ T cell degranulation and of NK cell functional activity. As platelet activation marker, it has characteristics of an adhesive molecule. A minor fraction (<2%) of LAMP-1 is associated with the plasma membrane of most nucleated cells, presumably as a result of selective exchange of lysosomal and plasma membranes. Increased surface expression of LAMP-1 has been observed on transformed cells of high metastatic potential, and on embryonic cells.



Lysed normal whole blood sample gated on NK cells.

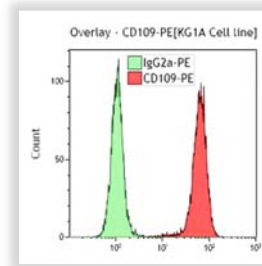
Clone: H4A3

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B13978	ASR	IOTest	GMP
APC	0.5 mL	Liquid	B12934	ASR	IOTest	GMP

CD109 (E123)

The CD109 antigen is a monomeric glycosyl phosphatidylinositol (GPI)-linked glycoprotein of 170 kDa that contains several N-linked endoglycosidase H-sensitive hybrid-type glycans but no O-linked glycan. It has been reported as a novel member of the $\alpha 2$ macroglobulin ($\alpha 2M$) / C3, C4, C5 family of thioester-containing proteins. The CD109 antigen is found on vascular endothelial cells, some epithelial cells, activated, but not resting, T-cells, activated, but not resting, platelets, leukemic megakaryoblasts and a subset of bone marrow CD34+ cells. This antigen is not expressed on fresh peripheral blood lymphocytes (PBL). Poorly differentiated (CD34+, TdT+, CD7+) T-acute leukemias and rare cases of chronic myeloid leukemia in megakaryoblast crisis express the CD109 antigen. Furthermore, megakaryoblastoid cell lines (MO7e, MOLM-1) are CD109+. The CD109 antigen, strongly expressed on KG1a cell line with 20,000 binding sites per cell, may represent a very early marker for hematopoietic cells committed to the megakaryocyte lineage. In contrast, the adult bone marrow CD34+ CD109+ subset identifies the most primitive hematopoietic stem cells capable of long-term culture and lymphoid progenitors of the B-cell lineage.



KG1A Cell Line.

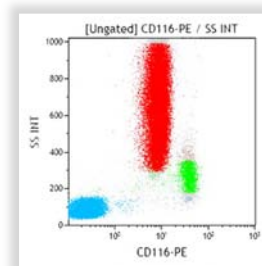
Clone: 8A3

Isotype: IgG2a Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	100 tests	Liquid	A08933	RUO	IOTest	GMP

CD116 (GM-CSFR)

The CD116 antigen, a 75-85 kDa molecule, is the human Granulocyte-Monocyte Colony-Stimulating Factor (GM-CSF) receptor α chain. The CD116 antigen is not expressed by lymphocytes, but strongly by monocytes and granulocytes as well as their precursors. It is also present on endothelial cells, fibroblasts and Langerhans cells. CD116 associates with the common β chain (CDw131) of the IL-3 and IL-5 receptors to form a high affinity receptor for GM-CSF.



Lysed normal whole blood sample.

Clone: SCO6

Isotype: IgG1 Mouse

The SCO6 antibody recognizes an epitope of the GM-CSF receptor α chain. It is a high affinity antibody which binds to the membrane and to the soluble form of GM-CSFR. It immunoprecipitates the molecule. SCO6 antibody does not work in Western blot assays.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	100 tests	Liquid	IM1977	RUO	IOTest	GMP



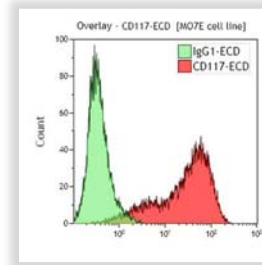
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD117 (c-kit)

The CD117 antigen is the 145 kDa protooncogene c-kit. It belongs to the class III receptor tyrosine kinase family. This antigen is the receptor for the stem-cell factor (SCF) encoded by the steel locus (Steel Locus Factor "SLF"). The CD117 antigen is expressed on very few normal bone marrow cells. The majority of CD117+ marrow cells co-express CD34. CD117 is also expressed on mast cells.



MD7E cell line.

Clone: 95C3

Isotype: IgG1 Mouse

The 95C3 antibody reacts with BFU-E, CFU-GEMM, CFU-GM and CFU-G. The 95C3 antibody reduces the binding of SCF to its receptor to about half of the maximum value.

Form	Size	Format	Part #	Status	Line	Quality Standard
PE	2 mL	Liquid	IM1360U	ASR	IOTest	GMP
PC5	1 mL	Liquid	IM2657U	ASR	IOTest	GMP

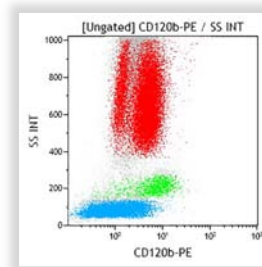
Clone: 104D2D1

Isotype: IgG1 Mouse

Form	Size	Format	Part #	Status	Line	Quality Standard
PE	100 tests	Liquid	IM2732	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM2732U	ASR	IOTest	GMP
ECD	0.5 mL	Liquid	B38307	ASR	IOTest	GMP
PC5	100 tests	Liquid	IM2733	CE	IOTest	98/79/EC
PC5	1 mL	Liquid	IM2733U	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	A66333	ASR	IOTest	GMP
PC7	1 mL	Liquid	IM3698	ASR	IOTest	GMP
PC7	100 tests	Liquid	B49221	CE	IOTest	98/79/EC NEW
APC	1 mL	Liquid	IM3638	ASR	IOTest	GMP
APC	100 tests	Liquid	B36300	CE	IOTest	98/79/EC
APC-A750	0.5 mL	Liquid	A86051	ASR	IOTest	GMP
APC-A750	50 tests	Liquid	B92450	CE	IOTest	98/79/EC NEW

CD120b (TNF-R2)

The CD120b molecule, also known as tumor necrosis factor-receptor 2 (TNF-R2) is a 75 kDa, integral membrane glycoprotein and a member of the tumor necrosis factor (TNF) receptor superfamily. Its extra-membraneous portion shows 4 cysteine-rich domains (CRDs), one of which seems to be required for ligand binding. The CD120b molecule is a receptor for TNF- α . Lymphotoxin- α (LT α), also known as TNF- β when secreted as a soluble homotrimer, as well as the membrane-associated LT α 2/ β 1 heterotrimer. Soluble TNF resulting from cleavage of membrane TNF by the TNF- α converting enzyme (TACE) can also bind to the CD120b receptor. From a functional perspective, signaling by TNF receptor family requires clustering of 3 receptors by trimeric ligands and subsequent association of the intracellular tails with transduction factors, like the TNF receptor-associated factors (TRAF). TNF-R2 triggering can lead to NF- κ B activation, but does not result in cell death. However, the most effective cell killing occurs when membrane bound TNF crosslinks both CD120a and CD120b receptors. The CD120b molecule (TNF-R2) is restricted to hematopoietic cells. It is expressed on monocytes, neutrophils, NK cells and dendritic cells, as well as on a subset of T cells. Very weak expression can be seen on some B cells, and no expression is reported on basophils.



Lysed normal whole blood sample.

Clone: 80M2

Isotype: IgG1 Mouse

Form	Size	Format	Part #	Status	Line	Quality Standard
PE	100 tests	Liquid	A22360	RUO	IOTest	GMP



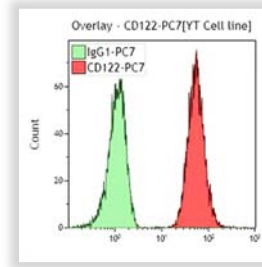
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD122 (IL-2R β)

The CD122 antigen is the human IL-2 receptor β chain (p75). CD122 associates with CD25 and CD132 (IL-2R γ) to form the IL-2 high affinity receptor. It is also a component of the IL-15 receptor. CD122 can directly bind IL-2 and is involved in IL-2 signal transduction. The CD122 antigen is expressed on NK cells, B and T lymphocytes and monocytes.



YT Cell line.

Clone: CF1

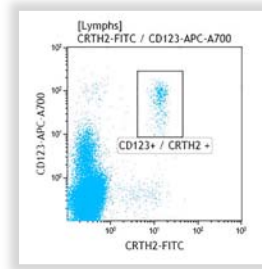
Isotype: IgG1 Mouse

CF1 is a non blocking antibody.

Form	Size	Format	Part#	Status	Line	Quality Standard
PC7	1 mL	Liquid	A53365	ASR	IOTest	GMP

CD123 (IL-3R α)

The CD123 antigen, alias Interleukin-3 alpha receptor (IL-3R α), belongs to the cytokine receptor family. It is constitutively expressed by committed hematopoietic stem / progenitor cells, by most of the myeloid lineage (CD13⁺, CD14⁺, CD33⁺, CD15^{low}), and by some CD19⁺ cells, it is absent from CD3⁺ cells.



Lysed normal whole blood sample gated on lymphocytes. CD123-APC-A700 in dual staining with CRTH2-FITC.

Clone: SSDCLY107D2

Isotype: IgG1 Mouse

The SSDCLY107D2 monoclonal antibody reacts with plasmacytoid dendritic cells in situ (PDCs).

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	A32535	ASR	IOTest	GMP
ECD	0.5 mL	Liquid	B20027	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	B20022	ASR	IOTest	GMP
PC7	0.5 mL	Liquid	B13647	ASR	IOTest	GMP
APC	0.5 mL	Liquid	B06376	ASR	IOTest	GMP
APC-A700	0.5 mL	Liquid	B24028	ASR	IOTest	GMP

Clone: 9F5

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	B14808	ASR	IOTest	GMP



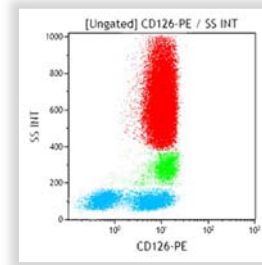
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD126 (IL-6R α)

The CD126 antigen is the human IL-6 receptor α chain. It is an integral membrane protein of 80 kDa. In peripheral blood it is detectable on monocytes, on activated B lymphocytes, and on CD4⁺ T lymphocytes. This antigen is also expressed by epithelial cells. The CD126 antigen associates with CD130 to form a high affinity IL-6 receptor. A soluble form of CD126 (sIL-6R) can be detected in plasma.



Lysed normal whole blood sample.

Clone: M91

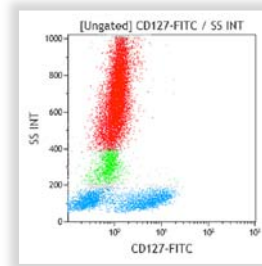
Isotype: IgG1 Mouse

The M91 antibody recognizes the membrane and soluble form of IL-6R α chain. It binds to the amino terminal immunoglobulin domain of IL-6R α . It binds to IL-6/IL-6R α complexes and IL-6/IL-6R/gp130 complexes. It is a non-blocking antibody suitable for Western blot assays.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	IM1979	ASR	IOTest	GMP

CD127 (IL-7R α)

The CD127 antigen is the human IL-7 receptor α chain. It is a 75-80 kDa molecule. CD127 is found on normal B cell precursors but not on mature B lymphocytes. It is also expressed by the majority of T lymphocytes, a subset of monocytes and a subset of CD34⁺ cells. CD127 associates with CD132 (IL-2R γ) to form the high affinity IL-7 receptor. Receptor expression is down-regulated following T cell activation.



Lysed normal whole blood sample.

Clone: R34.34

Isotype: IgG1 Mouse

The R34.34 antibody inhibits binding of IL-7 to CD127.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	1 mL	Liquid	B25366	ASR	IOTest	GMP
PE	2 mL	Liquid	IM1980U	ASR	IOTest	GMP
PE	100 tests	Liquid	B49220	CE	IOTest	98/79/EC NEW
PC5	1 mL	Liquid	A64617	ASR	IOTest	GMP
PC7	1 mL	Liquid	A64618	ASR	IOTest	GMP
APC	0.5 mL	Liquid	B42026	ASR	IOTest	GMP
APC-A700	0.5 mL	Liquid	A71116	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	B12700	ASR	IOTest	GMP



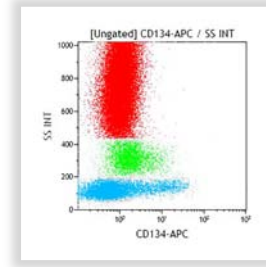
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD134 (OX 40)

The CD134 antigen is a 35 kDa, type-1 transmembrane glycoprotein member of the tumor necrosis factor superfamily (TNFRSF) and is allocated number 4. This antigen was originally named OX40 from the first antibody that led to the discovery of this antigen on activated rat CD4⁺ T cells. In humans, CD134 is expressed at high levels on activated CD4⁺ T cells and virally stimulated CD4⁺ T cells. Its ligand, known as gp34, is a type-2 transmembrane glycoprotein member of the tumor necrosis factor (TNF) superfamily, expressed on activated T and B cells, dendritic cells and macrophages. The CD134 antigen, through its interaction with adaptor proteins TRAF2, TRAF3 and TRAF5, is a costimulatory signal transducer of T-cell receptor-mediated activation that has been shown to activate NF-κB, a signaling factor involved in transcription of survival genes. Thus, CD134 engagement with its ligand induces clonal expansion and survival of CD4⁺ cells during primary responses, and results in the accumulation of increasing numbers of memory cells with time. Finally, CD134 has been shown to be involved in the T cell adhesion to endothelium.



Lysed normal whole blood sample.

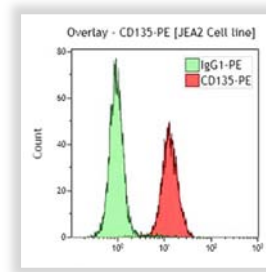
Clone: Ber-ACT35

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
APC	0.5 mL	Liquid	B30629	ASR	IOTest	GMP

CD135 (flt3/flk2)

CD135, also called FLT3 or FLK2, is an integral membrane protein of 130 kDa to 150 kDa, which belongs to the receptor tyrosine kinase (RTK) family. These receptors directly bind extracellular ligands and transduce regulatory signals through intracytoplasmic tyrosine kinase activity. The CD135 antigen is expressed on myelomonocytic and primitive B cell progenitors. On normal bone marrow cells, expression of CD135 can be found on fractions of CD34⁺ as well as CD34⁻ cells. Most of the CD34⁺CD135⁺ cells co-express c-kit (CD117) at high levels.



JEA2 Cell line.

Clone: SF1.340

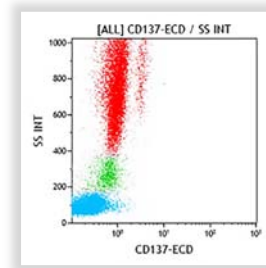
Isotype: IgG1 Mouse

The SF1.340 antibody is specific for an extracellular domain of CD135. This antibody does not compete with the FLT3 ligand for binding to FLT3.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	IM2234U	ASR	IOTest	GMP

CD137

CD137, also known as 4-1BB or ILA (for Induced by Lymphocyte Activation) is a 39kDa type I integral membrane protein of the TNF/NGF family. CD137 is expressed on activated T and B cells, NK cells, monocytes and follicular dendritic cells. Differential splicing leads to the release of a 16-kDa soluble form from activated T cells. CD137 is involved in monocyte activation by inducing an increase in the production of IL-6, IL-8 and TNF-α, and an inhibition of IL-10 production. In addition, CD137 plays a role in the induction of B lymphocyte apoptosis and the co-stimulation of T-cell proliferation.



Lysed normal whole blood sample

Clone: 4B4-1

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
ECD	0.5 mL	Liquid	B76262	ASR	IOTest	GMP NEW



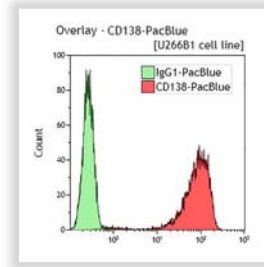
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD138

The CD138 antigen (also known as syndecan-1) is a member of the syndecan family, which is comprised of 4 types of transmembrane heparan sulfate proteoglycans macromolecules (syndecan-1, -2 or fibroglycan, -3 or N-syndecan, and -4 or amphiglycan). Syndecan molecules are involved in interactions with extracellular matrix proteins, with cell-surface molecules and with soluble proteins such as cytokines. Most adherent mammalian cells are reported to express heparan sulfate proteoglycans (including syndecan-1) and the expression seems to be developmentally regulated.



U266B1 cell line.

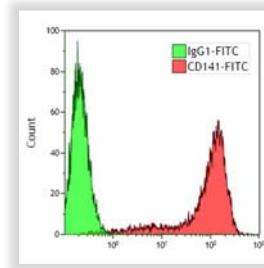
Clone: B-A38

Isotype: IgG1 Mouse

Form	Size	Format	Part #	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B37788	ASR	IOTest	GMP
KrO	0.5 mL	Liquid	B42019	ASR	IOTest	GMP
PE	2 mL	Liquid	A40316	ASR	IOTest	GMP
PE	100 tests	Liquid	A54190	CE	IOTest	98/79/EC
PC5	100 tests	Liquid	A54191	CE	IOTest	98/79/EC
PC5	1 mL	Liquid	A40317	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	A98835	ASR	IOTest	GMP
APC	0.5 mL	Liquid	A87787	ASR	IOTest	GMP
APC	50 tests	Liquid	B49219	CE	IOTest	98/79/EC NEW

CD141 (BDCA-3)

CD141, also known as thrombomodulin (TM) and BDCA-3, is an endothelial cell surface receptor. It is a 75 kD type I membrane glycoprotein and members of C-type lectin family. Two major isoforms exist, differentiated by the presence or not of sulfated glycosaminoglycan at Ser/Thr region. CD141 antigen is expressed on neutrophils, monocytes, platelets, a subpopulation of myeloid dendritic cells, vascular endothelial cells, and keratinocytes. It is a cofactor in the activation of protein C and initiation of the protein C anticoagulant pathway by binding to its ligand thrombin.



**Overlay - CD141-FITC
K562 Transfected cell line**

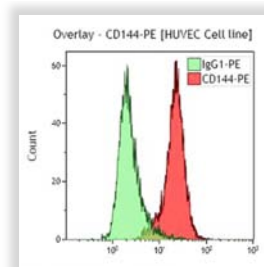
Clone: M80

Isotype: IgG1 Mouse

Form	Size	Format	Part #	Status	Line	Quality Standard
FITC	1 mL	Liquid	B43289	ASR	IOTest	GMP

CD144 (VE-Cadherin)

CD144, also called Cadherin 5 or VE-Cadherin is a 140 kDa protein belonging to the cadherin family of cell adhesion molecules. CD144 antigen is specific for endothelial cells and is located at the intercellular cleft sites of the junction within endothelial tissue. The cadherin 5 molecule may play a role in the permeability properties of vascular endothelium.



HUVEC Cell line.

Clone: TEA 1/31

Isotype: IgG1 Mouse

Form	Size	Format	Part #	Status	Line	Quality Standard
PE	2 mL	Liquid	A07481	ASR	IOTest	GMP

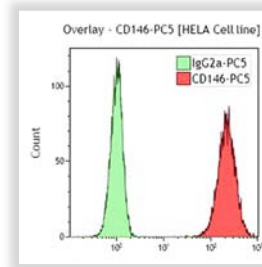
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD146

The CD146 molecule, also known as S-Endo, is a single chain transmembrane glycoprotein with a molecular weight of 118 kDa, belonging to the immunoglobulin superfamily (IgS). The extracellular structure consists of five Ig-like domains: two V-type, and three C2-type Ig-like domains. The CD146 antigen is related to cell adhesion molecules of the IgS family and its presence is concentrated at regions of cell-cell contact, confirming its role in adhesion and particularly in maintenance of monolayer integrity. CD146 is constitutively expressed in the endothelium, and is also observed on other cell types such as smooth muscle cells, and intermediate trophoblasts. Among peripheral whole blood leucocytes, CD146 expression is not detected, except on a subset of activated T-lymphocytes.



HELA Cell line.

Clone: TEA 1/34

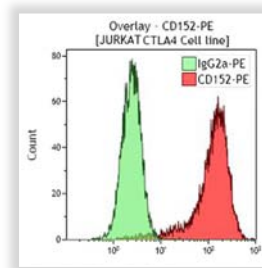
Isotype: IgG2a Mouse

The TEA 1/34 monoclonal antibody was assigned to the CD146 (Code: E077) during the HLDA 6.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	A07483	ASR	IOTest	GMP
PC5	1 mL	Liquid	A22364	ASR	IOTest	GMP

CD152 (CTLA-4)

The CD152 antigen, also called CTLA4, is an integral membrane protein belonging to the immunoglobulin superfamily, which is expressed either as a 30 kDa monomer or as a disulfide-linked homodimer. It has homology with the T cell antigen CD28, and like CD28, is a ligand for CD80 and CD86. CTLA-4 is transiently expressed by activated T cells and is not detectable in resting T cells. CD152 and CD28 are involved in the costimulation required for T cell activation.



JURKAT CTLA4 Cell line.

Clone: BNI3

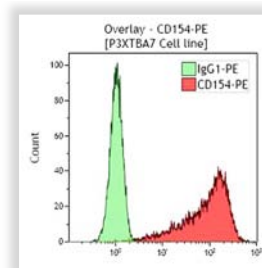
Isotype: IgG2a Mouse

The BNI3 antibody can be used to detect intracytoplasmic CD152 (CTLA4) by flow cytometry after permeabilization with IntraPrep Permeabilization Reagent.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	100 tests	Liquid	IM2282	RUO	IOTest	GMP
UNLB	0.2 mg	Freeze-dried	IM2070	RUO	-	GMP

CD154

The CD154 antigen (CD40-ligand), also known as TRAP (Tumor necrosis factor Related Activation Protein), is a member of the Tumor Necrosis Factor (TNF) superfamily. It is a 32 kDa type II transmembrane molecule. CD154 molecule is induced on the surface of activated T cells, mainly on CD4⁺ T lymphocytes. This ligand for the CD40 molecule is present on some basophils and mast cells. It has critical regulatory roles in T- and B-lymphocyte function.



P3X1BA7 Cell line.

Clone: TRAP-1

Isotype: IgG1 Mouse

The TRAP-1 antibody inhibits activation induced by full-length soluble human CD154.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	IM2216U	ASR	IOTest	GMP



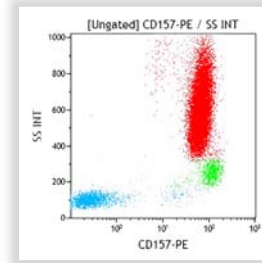
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD157

The CD157 antigen (BST-1) is a highly glycosylated, glycosyl-phosphatidylinositol (GPI)-anchored membrane protein with a molecular weight of 43 kDa. The amino acid sequence of human BST-1 has 33% identity with CD38. As with CD38, BST-1 displays ADP ribosyl cyclase activity and facilitates pre-B cell growth. CD157 antigen is expressed on monocytes, neutrophils and all lymphoid and myeloid precursors. Its expression is restricted to certain fractions (CD44⁺CD25⁺ and CD44⁺CD25⁻) of CD3⁺CD4⁺CD8⁻ T progenitors.



Lysed normal whole blood sample.

Clone: RF3

Isotype: IgG Mouse

The RF3 antibody reacts with an external epitope of BST-1 on several human cell lines including certain bone marrow stromal cell, human umbilical vein endothelial cell (HUVEC) and U937 cell lines.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	0.05 mg	Liquid	IM2557	RUO	-	GMP

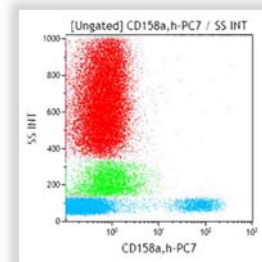
Clone: SY/11B5

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	B68160	ASR	IOTest	GMP NEW

CD158a,h

The CD158a and CD158h molecules are monomeric integral membrane glycoproteins existing in different forms. CD158a, or p58.1, is a 58 kDa molecule, and CD158h, or p50.1, is a 50 kDa molecule, both having identical extracellular portions, but different transmembrane and cytoplasmic regions. Another comprehensive nomenclature refers to these molecules as KIR2DL1 for CD158a and KIR2DS1 for CD158h. These acronyms stand for Killer cell Immunoglobulin (Ig)-like Receptor (KIR), with extracellular part containing 2 Ig Domains (2D), and cytoplasmic tails being either long (L) or small (S). The long intracellular portion of CD158a, or p58.1, makes it an inhibitory form, since it contains two characteristic ITIM motifs (Immunoreceptor tyrosine based inhibition motif) and is involved in the transduction of the inhibitory signal. Whereas the stimulatory form CD158h, or p50.1, lacks these ITIM motifs. CD158a/p58.1 functions as an inhibitory receptor for a group of HLA-C molecules (Cw2, cw4, Cw5 and Cw6 supertypes). The inhibitory effect is dominant over the activation exerted by the activator form p50.1. The CD158a and CD158h molecules are indistinguishable from the extracellular viewpoint. They are expressed by a subset of NK cells, and can be detected on the surface of sub-populations of peripheral T lymphocytes, mostly of the CD8⁺ phenotype.



Lysed normal whole blood sample.

Clone: EB6B

Isotype: IgG1 Mouse

The EB6B antibody reacts with both CD158a (p58.1 or KIR2DL1) and CD158h (p50.1 or KIR2DS1). The antibody restores the ability of p58.1⁺ NK clones to lyse targets expressing HLA-C molecules.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	A09778	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	A66898	ASR	IOTest	GMP
PC7	0.5 mL	Liquid	A66899	ASR	IOTest	GMP
APC	0.5 mL	Liquid	A22332	ASR	IOTest	GMP

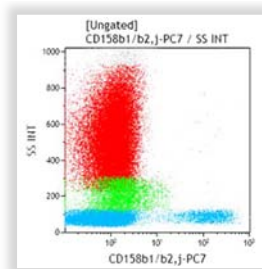
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD158b1/b2,j

The CD158b1, CD158b2 and CD158j molecules are monomeric integral membrane glycoproteins existing in different forms. CD158b1 and CD158b2 (p58.2 and p58.3, respectively) are 58 kDa molecules. CD158j (p50.2) is a 50 kDa molecule. All three have identical extracellular portions, but different transmembrane and cytoplasmic regions. CD158b1 and CD158b2 likely represent allelic forms of the same locus. There is another comprehensive nomenclature which refers to these molecules as KIR2DL2 for CD158b1 (p58.2), KIR2DL3 for CD158b2 (p58.3), and KIR2DS2 for CD158j; these acronyms stand for Killer cell Immunoglobulin (Ig)-like Receptor (KIR), with extracellular part containing 2 Ig Domains (2D), and cytoplasmic tails being either long (L) or short (S). The long intracellular portion of CD158b1/b2 (p58.2/p58.3) makes them inhibitory forms, since they contain two characteristic ITIM motifs (Immunoreceptor Tyrosine-based Inhibition Motif) and are involved in the transduction of an inhibitory signal through the activation of the protein tyrosine phosphatases SHP-1 and/or SHP-2. The stimulatory form CD158h (p50.1) lacks these ITIM motifs. CD158b1/b2 (p58.2/p58.3) function as inhibitory receptors for a group of HLA-C molecules (Cw1, Cw3, Cw7 and Cw8 supertypes). The inhibitory effect is dominant over the activation exerted by the activator form p50.2. The CD158b1/b2 and CD158j molecules are indistinguishable from the extracellular viewpoint. They are expressed by a subset of NK cells, and can be detected on the surface of sub-populations of peripheral T lymphocytes, mostly of CD8⁺ phenotype.



Lysed normal whole blood sample.

Clone: GL183

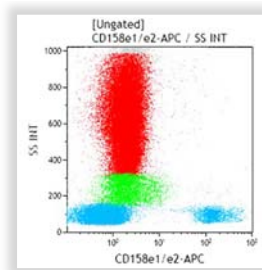
Isotype: IgG1 Mouse

The GL183 antibody reacts with both p58.2/p58.3 and p50.2. The antibody restores the ability of p58.2⁺ NK clones to lyse targets expressing HLA-C molecules.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	IM2278U	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	A66900	ASR	IOTest	GMP
PC7	0.5 mL	Liquid	A66901	ASR	IOTest	GMP
APC	0.5 mL	Liquid	A22333	ASR	IOTest	GMP
UNLB	0.2 mg	Freeze-dried	IM1846	RUO	-	GMP

CD158e1/e2

The CD158e1 and CD158e2 molecules (also known as p70 molecules) are monomeric integral membrane glycoproteins of 70 kDa. CD158e1 and CD158e2 likely represent allelic forms of the same locus of the NKB1 gene. These proteins belong to the family of NK receptors for MHC class I molecules and show a high degree of homology with p58 and p140 receptors. There is another comprehensive nomenclature which refers to these molecules as KIR3DL1 for CD158e1, and KIR3DS1 for CD158e2. These acronyms stand for Killer cell Immunoglobulin (Ig)-like Receptor (KIR), with extracellular part containing 3 Ig Domains (3D), and cytoplasmic tails being either long (L) or short (S). CD158e1 comprises 3 C-type extracellular Ig domains, and two characteristic ITIM motifs (Immunoreceptor Tyrosine-based Inhibition Motif) in the intracellular portion. These motifs are involved in the transduction of an inhibitory signal through the activation of the protein tyrosine phosphatases SHP-1 and/or SHP-2. CD158e1/e2 function as inhibitory receptors for HLA-B molecules of the Bw4 supertype. These molecules are expressed by a subset of NK cells, and can be detected on the surface of sub-populations of peripheral T cells, mostly of CD8⁺ phenotype.



Lysed normal whole blood sample.

Clone: Z27.3.7

Isotype: IgG1 Mouse

The anti-KIR/p70 antibody Z27 restores the ability of p70⁺ NK clones to lyse HLA-Bw4 targets.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	IM3292	ASR	IOTest	GMP
APC	0.5 mL	Liquid	A60795	ASR	IOTest	GMP

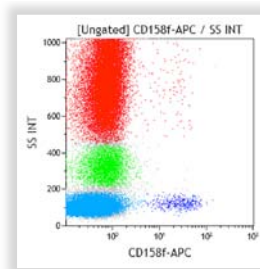
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD158f (KIR2DL5)

The CD158f molecule (also known as KIR2DL5) is a 60 kDa monomeric glycoprotein with two Ig-like extracellular domains and a long cytoplasmic domain. CD158f is an inhibitory receptor and a member of the KIR (Killer-cell Immunoglobulin-like Receptor) family of receptors, which recognizes subsets of HLA-Class I alleles. KIR2DL5 gene is found in only a fraction of individuals in the population, and it is represented in the human genome by two genes, KIR2DL5A and KIR2DL5B. KIR2DL5 has alleles with mRNA transcripts that are clonally distributed in NK and T lymphocytes. KIR2DL5 is predicted to encode a purely inhibitory receptor, according to its signaling motifs (two ITIMs (Immunoreceptor Tyrosine-based Inhibition Motif) and a 1 transmembrane region lacking charged amino acid residues). KIR2DL5, together with KIR2DL4, are the only members of a gene lineage coding for KIR with a D0-D2 organization of the Ig-like domains, which distinguishes them from all other KIR2Ds, having domains of the D1-D2 type. Upon tyrosine phosphorylation, KIR2DL5 recruits the Src homology region 2-containing protein tyrosine phosphatase -2 and, to a lesser extent, Src homology region 2-containing protein tyrosine phosphatase-1. KIR2DL5 is an inhibitory receptor which may play a specialized role in innate immunity. In particular, it is expressed in a fraction of blood NK cells with the CD56^{dim} phenotype and in a variable proportion of circulating T lymphocytes.



Lysed normal whole blood sample.

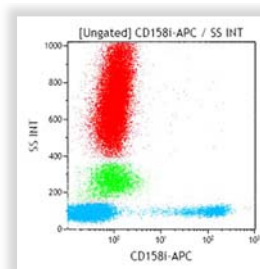
Clone: UP-R1

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	B19715	ASR	IOTest	GMP
APC	0.5 mL	Liquid	B19716	ASR	IOTest	GMP

CD158i

The CD158i molecule (also known as p50.3) is a monomeric integral membrane glycoprotein of 50 kDa. This protein belongs to the family of NK receptors for MHC class I molecules. There is another comprehensive nomenclature which refers to this molecule as KIR2DS4; this acronym stands for Killer cell Immunoglobulin (Ig)-like Receptor (KIR), with extracellular part containing 2 Ig domains (2D), and a short (S) cytoplasmic tail. CD158i comprises 2 C-type extracellular Ig domains. The intracytoplasmic portion lacks characteristic ITIM motifs (Immunoreceptor Tyrosine-based Inhibition Motif) and displays a charged residue in the trans-membrane portion. CD158i receptor seems involved in NK cell activation, following HLA-Cw3 supertype recognition. Antibody-induced cross-linking of CD158i (p50.3) results in both early activation events and late effector function.



Lysed normal whole blood sample.

Clone: FES172

Isotype: IgG2a Mouse

The FES172 antibody stains NK subsets, but the p50.3 antigen appears to be expressed only by some individuals, and to be co-expressed with p58 KIRs.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	IM3337	ASR	IOTest	GMP
APC	0.5 mL	Liquid	A60796	ASR	IOTest	GMP

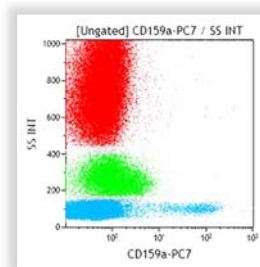
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD159a (NKG2a)

CD159a (NKG2a) is a 40 kDa (reduced), 75 kDa (unreduced) type II transmembrane protein associated with CD94 to form a disulphide-linked heterodimer. CD159a is a member of the Ca⁺⁺-dependent (C-type) lectin family. The CD94/NKG2A dimer is an inhibitory NK receptor for MHC Class I, with a broader specificity than Killer cell Immunoglobulin (Ig)-like Receptors (KIR). The intracellular portion of CD159a (NKG2A) contains two characteristic ITIM motifs (Immunoreceptor tyrosine based inhibition motif) involved in the transduction of the inhibitory signal. The CD159a (NKG2A) antigen is always co-expressed with CD94. The CD94/NKG2A complex is detectable in sub-populations of NK cells, T cells and thymocytes.



Lysed normal whole blood sample.

Clone: Z199

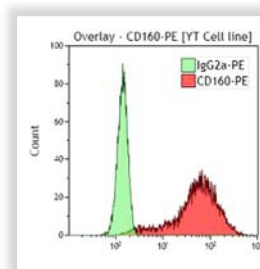
Isotype: IgG2b Mouse

The Z199 antibody reacts specifically with CD94^{bright} NK cells expressing the inhibitory form of the CD94 molecules. It does not stain the activator form of CD94 which corresponds to the association of CD94 with other products of the NKG2a gene family. The antibody restores the ability of CD94^{bright} NK clones to lyse HLA class I targets.

Form	Size	Format	Part #	Status	Line	Quality Standard
PE	1 mL	Liquid	IM3291U	ASR	IOTest	GMP
PC7	0.5 mL	Liquid	B10246	ASR	IOTest	GMP
APC	0.5 mL	Liquid	A60797	ASR	IOTest	GMP
UNLB	0.2 mg	Freeze-dried	IM2750	ASR	-	GMP

CD160

The CD160 molecule (BY55 antigen) is a 27-kDa, glycosyl phosphatidylinositol (GPI)-anchored glycoprotein of 181 amino acids, with a single immunoglobulin (Ig)-like domain. The molecule contains two potential sites for N-glycosylation and is rich in cysteine (6 residues in the mature polypeptide), indicating an important capacity for forming intra- and inter-chain disulfide bonds, which likely support the disulfide-linked multimeric (80 kDa) expression at the cell surface. Its expression is highly restricted to circulating cytotoxic T and NK cells, and in tissues, to intestinal intraepithelial lymphocytes, as revealed by CD160 mRNA blot analysis and various phenotyping studies. In peripheral blood, CD160⁺ cells consist of a majority of CD3⁻ TCRγδ⁺ NK cells, which is significantly reduced in HIV⁺ individuals, and of a minority of CD3⁺ CD8^{bright} T lymphocytes, which is significantly increased in HIV⁺ individuals. In bone marrow, CD160⁺ cells, though less abundant than in adult peripheral blood, also consist of the two populations observed in peripheral blood. In cord blood, CD160⁺ cells consist of a unique CD3⁻ TCR⁻ NK cell population, 80% of these cells being CD56⁺. CD160 is a ligand for classical and non-classical MHC-class I molecules. The ligation of MHC-class I by CD160 provides a costimulatory signal restricted to peripheral blood activated T cells, suggesting a pathway being additional and/or alternative to the CD28 costimulation mechanism. This pathway may be relevant in memory T cells that lack CD28, such as the intestinal intraepithelial lymphocytes.



YT Cell line.

Clone: BY55

Isotype: IgM Mouse

The BY55 antibody was initially reported to react with a protein structure of 80 kDa exclusively expressed by circulating cytotoxic lymphocytes. It does not block the binding of the CD160 molecule to MHC-class I molecules.

Form	Size	Format	Part #	Status	Line	Quality Standard
PE	2 mL	Liquid	IM3657	ASR	IOTest	GMP



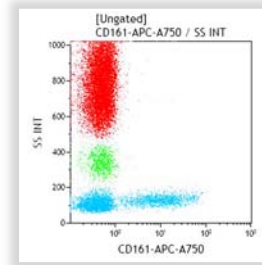
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD161 (NKR-P1A)

The CD161 antigen is also designated as the NKR-P1A molecule. CD161 is a type II integral membrane protein expressed as a monomer of 44 kDa or as a disulphide-linked homodimer of 80 kDa. The carboxy-terminal extracellular domain is homologous to Ca⁺⁺-dependent (C-type) lectin superfamily. CD161 is an activatory NK receptor, but in contrast with other NK receptors such as KIR (p58, p70, p140) and CD94/NKG2, CD161-mediated activation is not HLA-dependent. CD161 is expressed on all NK cells and on sub-populations of T lymphocytes.



Lysed normal whole blood sample.

Clone: 191B8

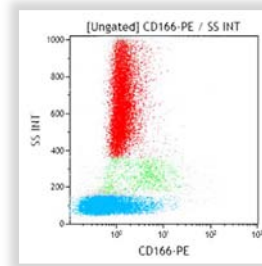
Isotype: IgG2a Mouse

The 191B8 antibody partially blocks the spontaneous NK cytotoxicity in the P815 model.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	IM3450	ASR	IOTest	GMP
PC7	0.5 mL	Liquid	B30631	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	B30630	ASR	IOTest	GMP

CD166 (ALCAM)

The CD166 antigen, also known as activated leukocyte cell adhesion molecule (ALCAM), is a single chain type 1 transmembrane glycoprotein, containing 10 potential N-linked glycosylation sites, and belonging to the immunoglobulin superfamily (IgSF). It shows a 100 - 105 kDa molecular weight, and is composed of five extracytoplasmic Ig-like domains linked to a 32-amino acid cytoplasmic tail through a short membrane-spanning region. The CD166 antigen is an adhesion molecule that binds to the CD6 molecule, or forms ALCAM-ALCAM homophilic interactions. Studies suggest that CD166 molecules can oligomerize at the site of cell-cell contact via their three C2-type Ig-like proximal domains. The CD166 molecule appears to be a non-lineage restricted molecule, expressed on a variety of cell types, including selected hematopoietic cells, endothelial cells, cortical and medullar thymic epithelial cells, bone marrow mesenchymal stem cells, fibroblasts, and hepatocytes. In peripheral blood, ALCAM is expressed on activated T- and B-cell subsets, on monocytes, on circulating dendritic cells, and weakly on granulocytes. While expressed in a wide variety of tissues, ALCAM is usually restricted to subsets of cells involved in dynamic growth and/or migration. In the thymus, the interaction between the CD6 molecule, as expressed on CD6⁺ thymocytes, and the CD166 molecule expressed on thymic epithelial cells may play a role in T cell development. Other studies suggest that the CD166 adhesion molecule is involved in embryonic hematopoiesis, as well as in hemangioblast differentiation and capillary tube formation.



Lysed normal whole blood sample.

Clone: 3A6

Isotype: IgG1 Mouse

The 3A6 antibody blocks the binding of the CD6 ligand to its CD166 receptor as seen on adhesion experiments of CD6-expressing COS cells to thymic epithelial cells. The 3A6 antibody was clustered to the CD166 during HLDA 6.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	A22361	ASR	IOTest	GMP



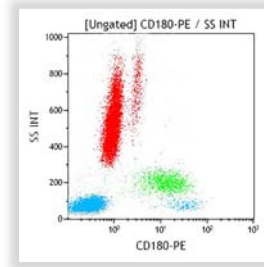
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD180

CD180 is a type 1 membrane protein consisting of extracellular leucinerich repeats (LRR) and a short cytoplasmic tail. It regulates B cell recognition of lipopolysaccharide. The extracellular LRR is associated with a molecule called MD-1 and forms the cell surface receptor complex RP105/MD-1. It belongs to the family of pathogen receptors, Toll-like receptors (TLR). RP105/MD-1, working in concert with TLR4, controls B cell recognition and signaling of lipopolysaccharide (LPS), a membrane constituent of Gram-negative bacteria. The extracellular domain of CD180 contains 22 LRR, tandem repeats of leucine-rich motif (LMR). This LMR is a 24-28 amino acid sequence in which leucines are characteristically positioned. The ligation of CD180 on B cells by a monoclonal antibody induces activation that leads to upregulation of costimulatory molecules, CD80 and CD86, and an increased cell size. CD180 is expressed on mantle zone B cells and marginal zone B cells, but weakly or negative on germinal center B cells. CD180 is also expressed on peripheral blood monocytes and dendritic cells.



Lysed normal whole blood sample.

Clone: MHR73-11

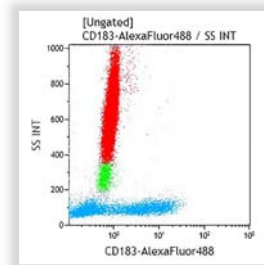
Isotype: IgG1 Mouse

The monoclonal antibody MHR73-11 was generated against human RP105 complexed with mouse MD-1 and recognizes the CD180 protein.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	B68148	ASR	IOTest	GMP NEW

CD183 (CXCR3)

CD183, also called CXCR3, is a 41kDa transmembrane G protein-coupled CXC receptor, belonging to the family of chemokine receptors. It has selectivity for IP10, Mig and I-TAC chemokines. Cellular production of CD183 ligands is induced by interferon, suggesting an important role of CD183 in Th1-type inflammatory processes. CD183 signaling induces chemotactic migration in inflammation-associated effector T cells, involving integrin activation and cytoskeletal changes. CD183 is expressed on T cells (Th1), NK cells, dendritic cells, mast cells, eosinophils.



Lysed normal whole blood sample.

Clone: G025H7

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
AF488	0.5 mL	Liquid	B68144	ASR	IOTest	GMP NEW



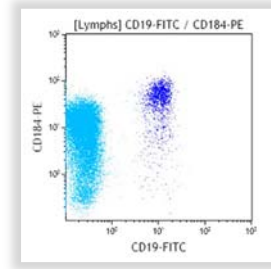
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD184 (CXCR4)

CD184 (also known as CXCR4, or Fusin) is a seven-transmembrane domain G protein-coupled surface receptor. CD184 (CXCR4) natural ligand is the stromal cell-derived factor-1 (SDF-1), a C-X-C chemokine (the nomenclature specifies that this chemokine has a single amino acid between the first two cysteines of the characteristic four cysteine motif), which is strongly chemotactic for monocytes and lymphocytes. But CD184 (CXCR4) has also initially been described as the human immunodeficiency virus-1 (HIV-1) entry co-receptor, associated with the surface CD4-gp120 complex before HIV-1 enters target cells. It also acts as an alternative receptor for some isolates of HIV-2. The SDF-1 / CXCR4 pair may also play a role in the development of the nervous system. Unlike other chemokine receptors, the cellular distribution of CD184 (CXCR4) is nearly ubiquitous; it is expressed on a variety of CD4⁺ and CD4⁻ cells in the immune system and the central nervous system. In blood, CD184 (CXCR4) is highly expressed on neutrophils, monocytes, dendritic cells, NK cells, B cells, and T cells, as well as on platelets. CD184 (CXCR4) exhibits a rapid (30 seconds) up-regulation upon activation of lymphocytes, followed by internalization (within 2 minutes). Accordingly, CD184 (CXCR4) is detected in large amounts in intracellular stores within leucocytes. Absent from eosinophils and basophils in fresh whole blood, CD184 (CXCR4) is inducible ex vivo on eosinophils by glucocorticoids, and on basophils by SDF-1. As a GPCR, CXCR4 binding of SDF-1 triggers certain signaling pathways such as ras, and PI3 kinase. One downstream effect of SDF-1 / CXCR4 interaction is the activation of transcription factors such as AP-1 and chemokine regulated genes. JAK / STAT pathways also play a role in SDF-1/CXCR4 signaling.



Lysed normal whole blood sample. Gated on lymphocytes. Dual staining with CD19-FITC.

Clone: 12G5

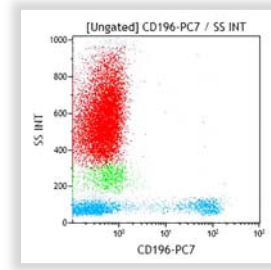
Isotype: IgG2a Mouse

The 12G5 antibody partially inhibits chemotaxis and calcium influx induced by SDF-1. It stains predominantly the naive, resting CD26^{low} CD45RA⁺ CD45RO⁻ T lymphocyte subset of peripheral blood T cells. The 12G5 mAb has been assigned to the CD184 cluster of differentiation during HLDA 7.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	A07409	ASR	IOTest	GMP

CD196 (CCR6)

CD196, also known as CCR6, is G-proteincoupled receptor (GPCR) consisting of an extracellular amino terminal, seven membrane-spanning regions and a cytoplasmic carboxyl terminal. CCR6 is a member of the beta chemokine receptor. CD196 is a 374 amino acids long protein and has a calculated molecular weight of 42 kDa.. CD196 is predominantly expressed by B lymphocytes, certain subsets of effector and memory T cells and by immature dendritic cells but not by monocytes, NK cells or granulocytes. CD196 binds CCL20, although members of the β defensin family (family of anti-bacterial peptides) also bind CD196 with a lower affinity. CD196 positive cells, and its ligand CCL20, have been detected in numerous organs, especially the secondary lymphoid organ. CCL20 is selectively made by the follicle-associated epithelium (FAE) overlying Peyer patches (PPs) and isolated lymphoid follicles (ILFs). CCL20 contributes to the recruitment of CCR6-expressing B cells to these structures. In humans, CCR6 can function to mediate arrest of T cells on dermal endothelial cells and is highly expressed on T cells resident in both healthy and diseased skin. CCR6 and/or CCL20 have been implicated in the pathogenesis of inflammatory joints diseases and inflammatory bowel diseases. Human T cells that are able to produce IL-17 express CCR6. It suggests that CCL20 and CCR6 have a role in inflammatory diseases by recruiting Th17 cells to target tissues.



Lysed normal whole blood sample.

Clone: B-R35

Isotype: IgG2a Mouse

The B-R35 monoclonal antibody specifically binds to CCR6.

Form	Size	Format	Part#	Status	Line	Quality Standard
PC7	0.5 mL	Liquid	B68132	ASR	IOTest	GMP NEW

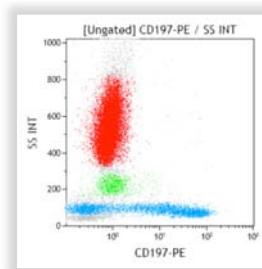
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD197 (CCR7)

CCR7 is G protein-coupled receptors (GPCR) with seven transmembrane receptors. It binds CCL19 and CCL21. CCR7 and its ligands link innate and adaptive immunity through their effects on interactions between T cells and dendritic cells. The chemokine receptor CCR7 plays a pivotal role in the homing of naïve T cells and regulatory T cells to secondary lymphoid organs, and the migration of dendritic cells into afferent lymphatic vessels. Naïve T cells enter the lymph node through high endothelial venules, which express CCL21. Dendritic cells and macrophages enter the lymph node through afferent lymphatics. The encounter of T cells and dendritic cells in the T cell zone is CCR7-dependent. In addition, during immunological surveillance, B lymphocytes recirculate between B-cell-rich compartments (follicles or B zones) in secondary lymphoid organs, surveying for antigen. After antigen binding, B cells move to the boundary of B and T zones to interact with T-helper cells; this B cell migration is directed by CCR7 and its ligands. CCR7-positive cancer cell expression has been associated with lymph node metastasis. By bringing together T cells, B cells, and DCs to form functional microenvironments in secondary lymphoid organs, CCR7 has been identified as a major homing receptor and important regulator for initiating an antigen-specific immune response.



Lysed normal whole blood sample.

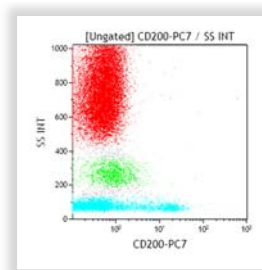
Clone: G043H7

Isotype: IgG2a Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	B30632	ASR	IOTest	GMP
PC7	0.5 mL	Liquid	B46025	ASR	IOTest	GMP

CD200

CD200 is a highly conserved membrane glycoprotein that belongs to the Ig superfamily (IgSF) containing a two immunoglobulin-like domain (V, C), a single transmembrane and a short cytoplasmic domain. Diverse cell types express CD200 on surface, including thymocytes, B cells, activated T and B cells, dendritic cells, neurons and endothelia. CD200 and CD200R are highly conserved type I membrane glycoproteins, which present N-terminal immunoglobulin-like domains based interaction. While the distribution of CD200 expression is very broad, CD200R is primarily expressed in myeloid and lymphoid cells. They fulfill multiple functions in regulating inflammation interaction by promoting inhibitory activities of the immune system. The interaction between CD200/CD200R results in activation of the intracellular inhibitory pathway with RasGAP recruitment and thus contributes to effector cell inhibition. It was confirmed that the CD200R activation stimulates the differentiation of T cells to the Treg subset, upregulates indoleamine 2,3-dioxygenase activity, modulates cytokine environment from a Th1 to a Th2 pattern, and facilitates an antiinflammatory IL-10 and TGF- β synthesis. CD200/CD200R are required for maintaining selftolerance. Many studies have demonstrated the importance of CD200 in controlling autoimmunity, inflammation, inhibitory activities, hypersensitivity.



Lysed normal whole blood sample.

Clone: OX-104

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	B68124	ASR	IOTest	GMP NEW
PC7	0.5 mL	Liquid	B43299	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	B43301	ASR	IOTest	GMP



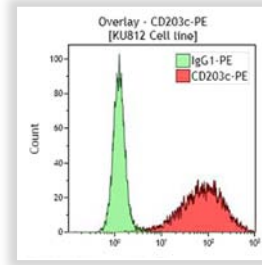
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD203c

The CD203c molecule is a type II transmembrane protein that belongs to the ectonucleotide pyrophosphatase / phosphodiesterase 3 (E-NPP3) family of enzymes involved in hydrolysis of oligonucleotides, nucleoside phosphates, and NAD. Basophils and mast cells are hematopoietic effector cells involved in allergic and inflammatory reactions. Both cell types highly express the high affinity IgE receptor. The CD203c is expressed on human peripheral blood basophils, but not on other blood cells. It is also expressed by mature mast cells, and by CD34+ bone marrow progenitors of basophils and mast cells. Moreover, the CD203c antigen is up-regulated after activation of basophils by anti-IgE antibodies and allergens.



KU812 Cell line.

Clone: 97A6

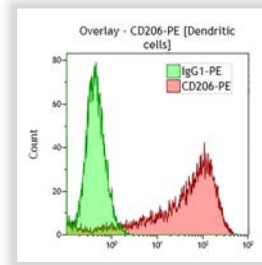
Isotype: IgG1 Mouse

The 97A6 antibody immunoprecipitates two proteins of 270 and 150 kDa at reducing conditions, and one protein of 270 kDa at nonreducing conditions, suggesting that the 97A6 antigen is a disulfide-linked dimer of two proteins of about 150 kDa each.

Form	Size	Format	Part #	Status	Line	Quality Standard
PE	2 mL	Liquid	IM3575	ASR	IOTest	GMP
PE	100 tests	Liquid	B92404	CE	IOTest	98/79/EC NEW
PC7	1 mL	Liquid	A66906	ASR	IOTest	GMP

CD206 (MMR)

CD206, also named macrophage mannose receptor (MMR), is a type I single-chain transmembrane glycoprotein of 175 kDa with a multilectin receptor structure. The Mannose Receptor is thought to play a key role in the internalization of sugar-containing proteins thus concentrating antigens for transport to processing compartments and peptide loading compartments. First detected on tissue macrophages, the Mannose Receptor is mainly expressed on immature dendritic cells and on a variety of other cells. Absent on lymphocytes and monocytes, the Mannose Receptor is up-regulated on monocytes during their differentiation to macrophages.



Dendritic cells from in vitro activated density-purified whole blood sample (PBL).

Clone: 3.29B1.10

Isotype: IgG1 Mouse

Form	Size	Format	Part #	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B36119	ASR	IOTest	GMP
PE	2 mL	Liquid	IM2741	ASR	IOTest	GMP
PC7	0.5 mL	Liquid	B36120	ASR	IOTest	GMP



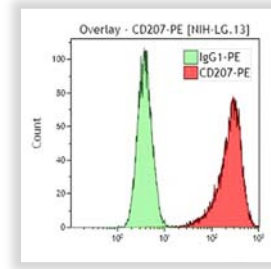
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD207 (Langerin)

CD207 (Langerin) is an antigen described as selectively expressed by Langerhans cells (LC), a subset of immature dendritic cells (DC) formed in epidermis and mucosa. Langerin is a 40 kDa glycoprotein predominantly N-glycosylated which contains no disulfide bond. Its expression, restricted to the Langerhans cell lineage, is demonstrated at both the surface membrane and in the cytoplasm. Several lines of evidence indicate that Langerin is a marker specific for the acquisition of the Langerhans cell phenotype. It is down-regulated beyond the LC maturation stage. Langerin is not involved in antigen delivery into the MHC class II pathway but may play a role in antigen capture. Langerin is present only in epidermis and airway epithelia. Langerin is not detected in purified DCs isolated from peripheral blood, lymph nodes or thymus. CD1a⁺ DCs derived from CD34⁺ cord blood cell cultures in the presence of GM-CSF and TNF- α express Langerin between day 8 and 12. DCs derived from peripheral blood monocytes cultured with GM-CSF and IL-4 do not express Langerin.



NIH-LG.13 Cell Line

Clone: DCGM4

Isotype: IgG1 Mouse

The DCGM4 antibody stains exclusively immature DCs of the LC lineage. Both intracytoplasmic and surface membrane staining is observed. DCGM4 acts as a ligand for Langerin, triggering rapid endocytosis within 20 minutes at 37°C. The antibody has been used in intracellular immunofluorescence analyzed in confocal microscopy. The DCGM4 antibody has been used to determine the differentiation of the CD1a⁺/CD11c⁺ subset of blood DCs into LCs, and in the characterization of DCs infiltrating breast carcinoma tissue.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	IM3577	ASR	IOTest	GMP

CD208 (DC-LAMP)

The DC-LAMP antigen (70-90 kDa) is a new member of the LAMP (lysosome-associated membrane protein) family. As other LAMP members such as CD68, DC-LAMP is a type I integral membrane protein of 416 amino acid residues, highly glycosylated (7 N- and some O-glycosylation sites), with 90% of the molecule located in the lumen of lysosomes. DC-LAMP is specifically expressed by those mature dendritic cells (DC) located in T cell areas of lymphoid tissues, which are known as interdigitating dendritic cells (IDC). A direct correlation between the expression of DC-LAMP and that of other maturation markers such as CD86 has been established. DC-LAMP first appears in the MHC Class II compartment, suggesting an important contribution of DC-LAMP to the processing of exogenous antigens.

Clone: 104.G4

Isotype: IgG1 Mouse

In flow cytometry, the 104.G4 antibody shows intracytoplasmic staining of DCs derived either from CD34⁺ cell cultures activated with TNF α and CD40L, or from monocyte cultures activated with TNF α , LPS and CD40L.

Form	Size	Format	Part#	Status	Line	Quality Standard
UNLB	0.2 mg	Liquid	IM3448	RUO	-	GMP



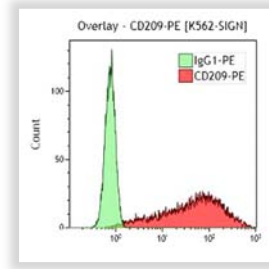
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD209 (DC-SIGN)

The CD209 antigen, also named dendritic cell (DC)-specific-intracellular adhesion molecule 3 (ICAM-3)-grabbing non-integrin (DC-SIGN), is a 44 kDa type II transmembrane C-type lectin with a single carbohydrate recognition domain (CRD). Like other C-type lectin members, CD209's extracellular structure is able to bind mannose residues in a Ca⁺⁺ dependent manner. Highly specific to DCs, CD209 plays a key role in the primary immune response as receptor / processor for a variety of ligands, including: ICAM-3: initiation of DC-T cell immunological synapse; ICAM-2: transendothelial DC migration; HIV-1 gp120: capture of HIV-1 and transpresentation to CD4⁺ T cells; CMV envelope glycoprotein B: capture of CMV; Unknown ligands: capture of Ebola virus, and of Leishmania amastigotes. CD209 is expressed by immature DCs in peripheral tissues, with the noticeable exception of Langerhans cells. It is also expressed by DCs in lymphoid tissues, and by certain macrophages. In peripheral blood, a percentage of plasmacytoid DCs (or DC2) may also express CD209. It is totally absent from monocytes, and an observed up-regulation of CD209 expression on monocyte-derived DCs correlates with the down-regulation of CD14. Monocyte-derived macrophages may express CD209, only when cultured in the presence of IL-13.



K562-SIGN Cell line

Clone: AZND1

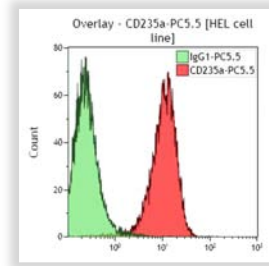
Isotype: IgG1 Mouse

The AZND1 monoclonal antibody (mAb) is useful for many purposes, including flow cytometric analysis of CD209-expressing cells, immunohistochemical analysis of CD209⁺ cells on frozen tissue sections, immunoprecipitation of CD209 antigen, and investigation of its functions, due to the blocking or inhibiting properties of AZND1 mAb. The AZND1 mAb to DC-SIGN has been assigned to the CD209 cluster of differentiation during HLDA 7.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	100 tests	Liquid	A07407	RUO	IOTest	GMP
UNLB	0.2 mg	Liquid	A07406	RUO	-	GMP

CD235a (Glycophorin A)

CD235a, Glycophorin A, is a major sialoglycoprotein expressed on human red blood cells and erythroid precursor cells.



HEL cell line

Clone: 11E4B-7-6 (KC16)

Isotype: IgG1 Mouse

The 11E4B-7-6 (KC16) antibody binds to the amino acid sequence 27-39 of glycophorin A and has no reactivity to glycophorin B. It reacts with immature erythrocytes including erythroblasts, proerythroblasts and reticulocytes.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	1M2212U	ASR	IOTest	GMP
FITC	100 tests	Liquid	B49206	CE	IOTest	98/79/EC NEW
PE	100 tests	Liquid	A07792	CE	IOTest	98/79/EC
PE	2 mL	Liquid	1M2211U	ASR	IOTest	GMP
PC7	1 mL	Liquid	A71564	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	A89314	ASR	IOTest	GMP

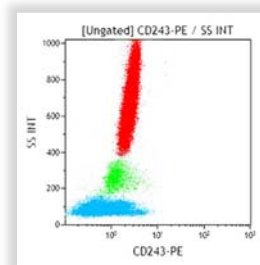
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD243 (P-glycoprotein)

The CD243 antigen (P-gp) is the 170-180 kDa multi-drug resistance (mdr)-1 gene product. This protein carries out ATP-dependent efflux of structurally diverse lipophilic compounds, including many anti-cancer chemotherapy agents. In hematopoietic cells, the mdr1 gene product is expressed, but at relatively low levels. P-gp is expressed in specialized epithelial cells with secretory or excretory functions. In the liver, P-gp is found on the biliary surface of hepatocytes and small biliary ductules; in the pancreas, on the laminal surface of epithelial cells of small ductules and, in the kidney, on the brush border of the proximal tubules. Additional sites of expression include the gastrointestinal tract, endothelial cells of the brain and the adrenal glands.



Lysed normal whole blood sample.

Clone: UIC2

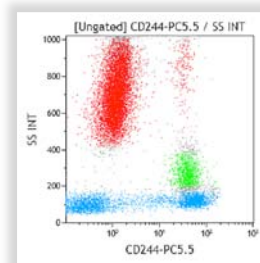
Isotype: IgG2a Mouse

The UIC2 antibody reacts with an external epitope of the human P-glycoprotein (P-gp). UIC2 antibody inhibits Pgp-mediated efflux and potentiates the cytotoxic action of P-gp transported drugs in MDR cells.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	IM2370U	ASR	IOTest	GMP

CD244 (2B4)

The CD244 antigen, also called 2B4, is a 38 kDa cell surface signal transduction molecule found on almost all human NK cells. It induces a granule independent killing mechanism by NK effector cells. It is also found on $\gamma\delta$ TCR T cells and approximately half of peripheral $\alpha\beta$ TCR CD8⁺ T cells. It is not found on B or naive CD8⁺ T cells. Upon activation, most CD8⁺ T cells become CD244-positive. However, a small but significant minority of CD8⁺ T cells remain CD244-negative. This subset is associated with lower cytotoxic activity, lower γ -IFN production and higher IL-4 and IL-10 production. CD244 is a high affinity receptor for CD48.



Lysed normal whole blood sample.

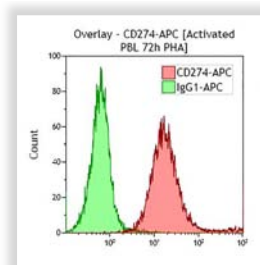
Clone: C1.7

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	IM1608	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	B21171	ASR	IOTest	GMP

CD274 (PD-L1)

The CD274 antigen is known as Programmed Cell Death 1 ligand 1 (PDCD1LG1 or PD-L1) or B7-H1. It is encoded by a gene located on the human chromosome 9p24. Immune cell function implicates important modulators known as cosignaling receptors. On T cells, the cosignaling receptors belong to either the immunoglobulin (CD28-like) or TNF receptor (TNFR) superfamilies. The CD28 immunoglobulin-superfamily is composed of coinhibitory (CD28, ICOS) and costimulatory receptors. Programmed Death- 1 (PD-1) is one of the three coinhibitory receptors with Cytotoxic T Lymphocyte Antigen 4 (CTLA4) and CD272. CD274 antigen is one of the two ligands, with PD-1 ligand 2 (PD-L2), for PD-1 and belongs to the B7 family. The PD-1 - PD-L1 interaction plays a critical role in regulating T cell activation and tolerance. In particular, it plays a role during development by inhibiting the TCR-mediated positive selection of thymocytes. It has also been shown to be implicated in the regulation of CD4 positive T cells proliferation. CD274 antigen is expressed on immature dendritic cells (iDC), mature dendritic cells (mDC), IFN- γ -treated monocytes, and follicular dendritic cells.



Activated PBL 72h PHA.

Clone: PD-L1

Isotype: IgG1 Mouse

The PD-L1 monoclonal antibody recognizes dendritic cells, T cells and follicular dendritic cells. It has been assigned to the CD274 cluster of differentiation during the 8th HLDA Workshop on Human Leukocyte Differentiation Antigens, held in Adelaide, Australia, in 2004.

Form	Size	Format	Part#	Status	Line	Quality Standard
PC7	50 tests	Liquid	A78884	RUO	IOTest	GMP
APC	0.5 mL	Liquid	B36126	ASR	IOTest	GMP



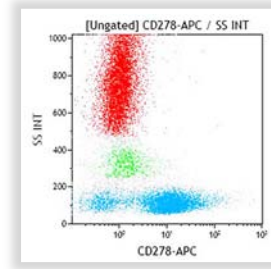
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD278 (ICOS)

The CD278 antigen, also known as ICOS molecule (inducible T-cell costimulator, Inducible Costimulator), is a disulfide-linked homodimeric T-cell surface glycoprotein of 55-60 kDa, which belongs to the CD28 and CTLA-4 cell-surface receptor family. The CD278 molecule plays an important role in cell-cell signaling, immune responses, and regulation of cell proliferation. While CD278 antigen is not constitutively expressed on naïve peripheral blood T cells, it is highly expressed on unstimulated thymocytes of germinal centers, showing a role in T cell differentiation. Upon activation by antigen presenting cells, T cells (CD4 positive cells and CD8 positive cells) express inducible co-stimulatory receptors, including CD28, CTLA4 and ICOS. The resulting interaction of CD278 (ICOS) with its ligand ICOS-L (B7-like molecule present on B cells) participates to interleukin production, especially IL-10 and IL4. The central role of CD278 in the generation and maintenance of humoral immunity has also been shown to be important. Upon the co-stimulation of T cells through ICOS and CD28, ICOS binds its ligand ICOS-L leading to IgG and IgM secretion as well as IgE production. It is not expressed on resting peripheral T cells, B cells, NK cells, monocytes/macrophages, platelets and granulocytes.



Lysed normal whole blood sample.

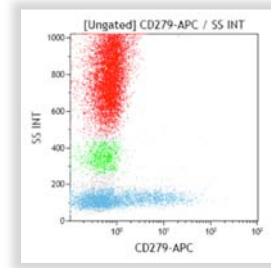
Clone: ISA-3

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	100 tests	Liquid	A49080	RUO	IOTest	GMP
APC	0.5 mL	Liquid	B36127	ASR	IOTest	GMP

CD279 (PD-1)

The CD279 antigen, also known as Programmed Death 1 (PD-1), belongs to the immunoglobulin superfamily. It contains an immunoreceptor tyrosine-based inhibitory motif (ITIM) in its cytoplasmic tail. It is encoded by the PDCD1 gene, which is located on the human chromosome 2q37.3. Immune cell function implicates important modulators known as cosignaling receptors. On T cells, the cosignaling receptors belong to either the immunoglobulin (CD28-like) or TNF receptor (TNFR) superfamilies. The CD28 immunoglobulin-superfamily is composed of coinhibitory and costimulatory receptors. Programmed Death-1 (PD-1) is one of the coinhibitory receptors, with notably Cytotoxic T Lymphocyte Antigen 4 (CTLA4) and CD272 (BTLA). The interaction of PD-1 with its ligands, PD-L1 and PD-L2, plays a critical role in regulating T cell activation and tolerance.



Lysed normal whole blood sample.

Clone: PD1.3

Isotype: IgG2b Mouse

The PD1.3 monoclonal antibody recognizes T cells, activated CD4 and CD8 positive cells and activated B cells. This antibody has been assigned to the CD279 cluster of differentiation during the 8th HLDA Workshop on Human Leukocyte Differentiation Antigens, held in Adelaide, Australia, in 2004.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	B30634	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	B36123	ASR	IOTest	GMP
PC7	0.5 mL	Liquid	A78885	ASR	IOTest	GMP
APC	0.5 mL	Liquid	B30633	ASR	IOTest	GMP

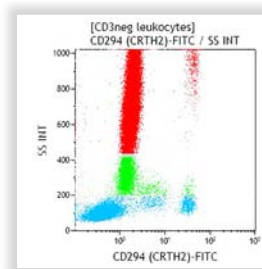
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD294 (CRTH2)

CD294, also known as CRTH2, is a seven-transmembrane G-protein-coupled receptor known as the chemoattractant receptor-homologous molecule expressed on Th2 cells. The deduced amino acid sequence of CRTH2 suggests two potential N-glycosylation sites at the first extracellular domain and a unique long cytoplasmic tail including four consensus sites for protein kinase C phosphorylation. Two G protein-coupled receptors, Prostaglandin D receptor (DP), and CRTH2 have been identified as receptors for Prostaglandin D2 (PGD2), but they differ in their signaling pathways. PGD2 is the major metabolite of arachidonic acid produced by allergen-activated mast cells and has been implicated in various allergic diseases as a proinflammatory lipid mediator. CRTH2 molecule is preferentially expressed on human T-helper (Th) 2 and T cytotoxic (Tc) 2 cells but not on Th1 and Tc1 cells. CRTH2 is the most reliable surface marker selectively associated with circulating T (Th and Tc) cells able to produce IL-4 (as well as IL-5 and IL-13) and not IFN γ . On normal whole blood leucocytes, CD294 is highly expressed on basophils and eosinophils, as well as Th2 and Tc2 cells. The expression of CD294 in peripheral blood mononuclear cells (PBMCs) is highly restricted to an activated state of Type 2 cells: i.e. CD25^{neg} T cells do not express CD294. CD294 may be expressed (weakly) on some monocytes and/or dendritic cells (CD14^{dim}, CD16^{pos}, HLA-DR^{pos}, CD33^{pos}). CD294 may act in mediating the recruitment and/or activation of basophils, eosinophils and Th2 cells at sites containing mast cells activated by invading allergens. CRTH2, but not DP, induces migration of Th2 cells, eosinophils and basophils in response to PGD2.



Lysed normal whole blood sample. Gating on CD3 negative leukocytes.

Clone: BM16

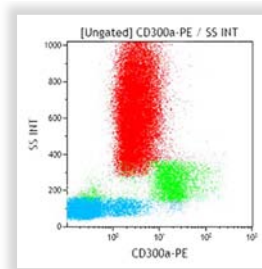
Isotype: IgG2a Rat

The BM16 monoclonal antibody precipitates a 55 to 70 kDa protein from cell lysates of CRTH2-transfected Jurkatt and Th2 clone, corresponding to PGD2 receptor.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	1 mL	Liquid	B42020	ASR	IOTest	GMP
PE	100 tests	Liquid	A07413	RUO	IOTest	GMP

CD300a (IRp60)

The CD300a, also known as inhibitory receptor protein (IRp60), is a surface molecule of 60kDa expressed by all human natural killer (NK) cells. The IRp60 gene, located on human chromosome region 17q25 encodes a molecule, highly O- and N-glycosylated, belonging to the immunoglobulin superfamily (Ig-SF) that displays one extracellular Ig-like domain of the V-type, a hydrophobic transmembrane portion and a cytoplasmic tail containing ITIM motifs involved in the inhibitory function. The ligand of the CD300a is still unknown but CD300a does not appear to recognize HLA-class I molecules. Upon cross-linking, IRp60 recruits and activates SH2-containing phosphatases SHP-1 and SHP-2 which switch off the activating signaling cascade by dephosphorylating a variety of tyrosine phosphorylated proteins. Cross-linking of IRp60 by E59.126 monoclonal antibody strongly inhibits the spontaneous cytotoxicity of NK cells as well as the NK-mediated cytolytic activity induced via different non-HLA-specific or HLA-specific activating receptors. CD300a may play a more general role in the regulation of the immune response since it is expressed on other cell types, including T lymphocyte subsets, monocytes and granulocytes.



Lysed normal whole blood sample.

Clone: E59.126

Isotype: IgG1 Mouse

The E59.126 antibody has been used in flow cytometry and Western blotting to characterize IRp60.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	A22328	ASR	IOTest	GMP



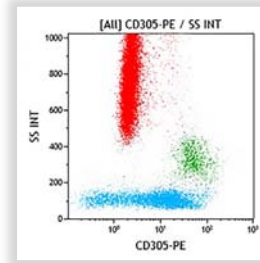
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD305 (LAIR1)

CD305, also called LAIR1 (Leucocyte-associated Ig-like receptor 1), is a 31 kDa type 1 transmembrane molecule with a single N terminal extracellular Ig superfamily C2 domain. The extracellular domain contains one N-glycosylation site. CD305 is expressed on the majority of lymphocytes, NK cells, monocytes, dendritic cells and naive B cells. It inhibits cell cytotoxicity, cell activation, proliferation and differentiation by phosphorylation of its cytoplasmic ITIM motifs.



Lysed normal whole blood sample.

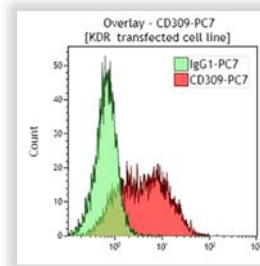
Clone: NKTA255

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	B68156	ASR	IOTest	GMP NEW

CD309 (KDR)

CD309 antigen, also called KDR (Kinase insert domain receptor), or flk-1 (Fetal liver kinase 1) belongs to the VEGF (vascular endothelial growth factor) receptor family. It is known as the VEGFR-2 and is one of the three cell signaling tyrosine-kinase receptors of the VEGF family [VEGFR-1 (flt-1), VEGFR- 2 (KDR/flk-1), VEGFR-3 (flt -4)] and plays a key role in vascular development and regulation of vascular permeability. These receptors are transmembrane proteins that contain seven immunoglobulin-like domains in their extracellular part and two tyrosine kinase domain in their intracellular part. The KDR gene maps to the chromosome 4q11-q12. CD309 is the receptor for VEGF but it also binds VEGF-C, VEGF-D, and VEGF-E. Through the binding to CD309, which is expressed almost in endothelial cells, VEGF induces endothelial cell proliferation, and promotes cell migration. CD309 is expressed during early stages of embryogenesis. It has also been shown that VEGF can induce, in vivo, angiogenesis as well as permeabilization of blood vessels, and plays a central role in the regulation of vasculogenesis. It is expressed on CD34 positive cells defining a CD34⁺ CD309⁺ common precursor for both hematopoietic cells and endothelial cells called hemoangioblast.



KDR transfected Cell line.

Clone: KDR-1

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	A64615	ASR	IOTest	GMP
PC7	1 mL	Liquid	A64616	ASR	IOTest	GMP



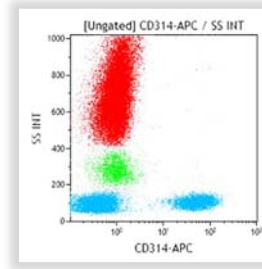
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD314 (NKG2D)

CD314, also known as NKG2D, is a 42 kDa type II transmembrane protein belonging to the C-type lectin superfamily. The name NKG2D may be misleading as it is not a typical NKG2 family member. It has low homology with the other members and dimerizes with itself to form a homodimer while other members dimerize with CD94. The surface expression of NKG2D requires association with a signaling adaptor protein, a KAP10 (DAP10) homodimer that contains a Y-x-x-M motif. Upon tyrosine phosphorylation, that motif recruits and activates phosphatidylinositol 3' (PI 3)-kinase. Unlike natural cytotoxicity receptors (NCRs), NKG2D is not only expressed by all NK cells but also by most $\gamma\delta$ T cells and by virtually all CD8 $^+$ $\alpha\beta$ T cells. In addition, its expression can be up-regulated on NK cells by different cytokines (IL-15, IL-12 and IFN- γ). Human CD314 ligands identified so far are MICA and MICB, stress-inducible and broadly expressed molecules on tumors of epithelial origin, some melanomas, and ULBPs, targets of the human CMV protein, expressed on a wide range of cells. NKG2D triggering would appear to overrule the inhibitory signals delivered by the KIR and HLA class I interactions. NKG2D might play a complementary role in the NK-cell mediated lysis of target cells that appear to express HLA class I molecules normally and that express one or more NKG2D-specific ligands.



Lysed normal whole blood sample.

Clone: ON72

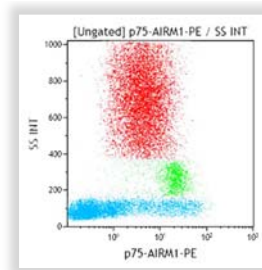
Isotype: IgG1 Mouse

The ON72 antibody has been used in flow cytometry to analyze the expression of NKG2D on NK cells.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	A08934	ASR	IOTest	GMP
APC	0.5 mL	Liquid	A22329	ASR	IOTest	GMP

CD328 (p75 AIRM1)

The p75 adhesion inhibitory receptor molecule 1 (p75/AIRM1), also known as Siglec-7, belongs to the CD33-related Siglec subgroup. p75 AIRM1 is a type I transmembrane glycoprotein, belonging to the immunoglobulin superfamily (Ig-SF) and sharing sequence homology with the sialic acids binding Ig-like lectins. The extracellular domain of the p75/AIRM1 molecule is relatively highly N-glycosylated and displays three extracellular Ig-like domains. The cytoplasmic tail is characterized by a classical ITIM motif responsible for the inhibitory functions of this receptor. p75 AIRM1 is expressed on activated and resting NK cells, monocytes, some chronic (CML) and acute myeloid leukemias (AML). p75 AIRM1 is a novel, HLA independent, inhibitory receptor that may play a relevant role in the negative regulation of human NK cell functions.



Lysed normal whole blood sample.

Clone: Z176

Isotype: IgG2b Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	50 tests	Liquid	A22330	RUO	IOTest	GMP

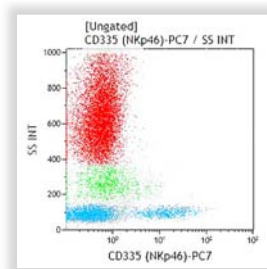
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD335 (NKp46)

CD335, also known as NKp46, is a 46-kDa transmembrane glycoprotein which is a NK-specific triggering receptor involved in non-MHC-restricted natural cytotoxicity and considered the prototype of the NK natural cytotoxicity receptors (NCRs). Its expression is restricted to all resting and activated NK cells, including the minor CD3⁺CD56^{bright}CD16⁻ subset. Although CD335 is highly expressed at the NK-cell surface in the majority of donors, some individuals have a proportion of NK cell (which vary up to 90%) expressing a "dull" NKp46 phenotype. CD335 is a member of the immunoglobulin superfamily characterized by two extracellular C2-type Ig-like domains. It is associated with the ITAM bearing molecules CD3 ζ and Fc ϵ RI γ . Although this association is likely to be essential for signal transduction via NKp46, CD3 ζ is not required for NKp46 surface expression. NKp46 represents a major activating receptor and plays a central role in the lysis and clearance of HLA class I⁻ cells. The magnitude of lysis correlates with its level of surface expression.



Lysed normal whole blood sample.

Clone: BAB281

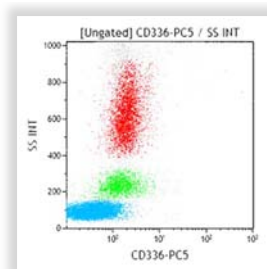
Isotype: IgG1 Mouse

BAB 281-mediated masking of NKp46 molecule inhibits NK cytotoxicity versus different target cells. In redirected killing assays, BAB281 binding to NKp46 induces a strong increase of cytolytic activity. Although hemagglutinins of viral origins have been identified as ligands for NKp46 receptor, the natural (non-viral) ligand for NKp46 is unknown.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	IM3711	ASR	IOTest	GMP
PC5	0.5 mL	Liquid	A66902	ASR	IOTest	GMP
PC7	0.5 mL	Liquid	B38703	ASR	IOTest	GMP

CD336 (NKp44)

CD336, also known as NKp44, is a 44-kDa transmembrane glycoprotein which is selectively expressed by activated NK cells. NKp44 functions as a triggering receptor involved in non-MHC-restricted natural cytotoxicity by activated NK cells and is one of the NK natural cytotoxicity receptors (NCRs). Structurally, CD336 is a member of the immunoglobulin superfamily characterized by a single extracellular V-type Ig-like domain. It associates with a homodimer of ITAM motif-containing KARAP / DAP12 adaptor proteins. These adaptor proteins were found to be crucial both for the surface expression of NKp44 and for transducing activating signal. CD336 can mediate triggering of NK cell cytotoxicity as in redirected killing assays. Monoclonal antibody Z231-mediated cross-linking of NKp44 in cloned NK cells resulted in strong lysis of target cells and, Z231-mediated masking of NKp44 partially inhibits cytolytic activity. Such inhibition is greatly increased if an anti-CD335, also known as anti-NKp46 (BAB281), is combined with Z231. The CD336 ligand is still undefined. Since activated NK cells selectively express NKp44, it may play a partial role in the enhanced cytotoxicity of IL2-activated compared to those freshly isolated NK cells from peripheral blood.



Lysed normal whole blood sample.

Clone: Z231

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	IM3710	ASR	IOTest	GMP
PC5	0.5 mL	Liquid	A66903	ASR	IOTest	GMP



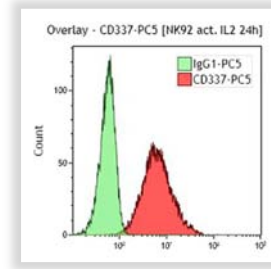
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD337 (NKp30)

CD337, also known as NKp30, is a 30-kDa transmembrane glycoprotein which is a NK-specific triggering receptor involved in non-MHC-restricted natural cytotoxicity. NKp30 is strictly expressed by all resting and activated NK cells including the minor CD3⁺CD56^{bright}CD16⁻ subset. With NKp46 and NKp44 it is one of the three identified NK natural cytotoxicity receptors (NCR). Its surface expression parallels that of NKp46. NKp46^{dull} NK cells are also characterised by a NKp30^{dull} phenotype while NKp46^{bright} NK cells show a NKp30^{bright} phenotype. The NKp30^{bright} or NKp30^{dull} phenotypes are correlated with high or low cytotoxicity, respectively. CD337 is a member of the immunoglobulin superfamily characterized by a single extracellular V-type Ig-like domain. It is associated with a homodimer of ITAM motif-containing CD3 ζ adaptor proteins. These adaptor proteins are not necessary for surface expression of NKp30, but are necessary for signal transduction. In redirected killing assays, Z25-mediated cross linking of NKp30 induces strong NK cell activation. Conversely, Z25-mediated masking of NKp30 inhibits NK cytotoxicity against target cells. More importantly, CD337 represents the major receptor in induced NK-mediated killing of certain target cells, the lysis of which is largely NKp46 / NKp44 independent. Although the CD337 ligand is unknown, studies report NKp30-mediated lysis of immature dendritic cells (iDC). These findings suggest that DCs express one or more unidentified ligands for CD337.



**NK92 act. IL2 24h
Cell line.**

Clone: Z25

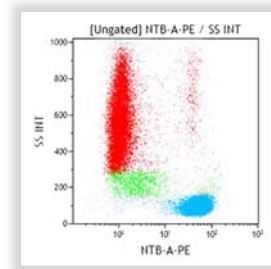
Isotype: IgG1 Mouse

The Z25 antibody has been used in flow cytometry to analyze the expression of NKp30 on NK cells.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	IM3709	ASR	IOTest	GMP
PC5	0.5 mL	Liquid	A66904	ASR	IOTest	GMP

CD352 (NTB-A)

The natural killer (NK), T lymphocyte, B lymphocyte antigen (NTB-A) is a 60-kDa transmembrane glycoprotein of the CD2 family expressed on all human resting and activated NK, T and B cells. This antigen is not expressed on monocytes, neutrophils, and basophils but is expressed on eosinophils. The NTB-A antigen, a 331 amino acid protein, is a member of the immunoglobulin (Ig) superfamily. It is characterized, in its 225 amino acid extracellular domain, by one distal V-type domain without disulfide bond and two proximal C2-type domains, and in its 83 amino acid cytoplasmic domain by three tyrosine residues. One tyrosine residue is part of an ITIM motif and two are parts of an ITSM motif (TxYxxv/I). NTB-A is its own ligand through an homophilic binding. NTB-A associates with two adaptor proteins, the SLAM-associated protein (SAP) also known as SH2D1A and the Ewing's sarcoma activated transcript (EAT) 2. In NK cells, NTB-A acts as an activating coreceptor.



**Lysed normal whole
blood sample.**

Clone: MA127

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	50 tests	Liquid	A40926	RUO	IOTest	GMP



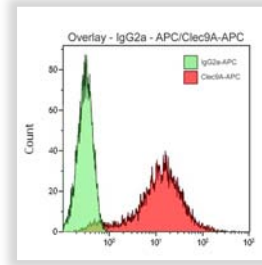
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

CD370 (Clec9A)

CLEC9A is a group V C-type lectin receptor (CTLR) comprised of a single extracellular C-type lectin domain (CTLD) connected to the transmembrane domain by a stalk region and an intracellular cytoplasmic tail. In humans, CLEC9A is expressed on the cell surface of a subset of Dendritic cells (DCs) and a subset of CD14+CD16- Monocytes. In dendritic cells, CLEC9A is selectively expressed on CD141+ (BDCA3+) dendritic cells. As opposed to other DC markers, CLEC9A presents the advantage of being expressed in both human and mouse DCs. Thus, it can serve as a DC marker crossing species barriers and may help in the translation from the mouse DC system to human immunobiology.



K562 Clec9A cell line.

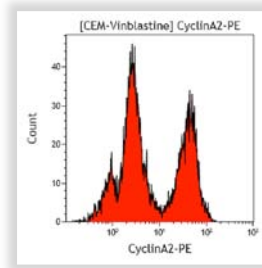
Clone: 8F9

Isotype: IgG2a Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
APC	0.5 mL	Liquid	B43291	ASR	IOTest	GMP

Cyclin A2

In humans, there are two A-type cyclins – an embryonic-specific cyclin A1 and a somatic cyclin A2. Cyclin A1 is only expressed in meiosis and very early embryos, whereas cyclin A2 is present in proliferating somatic cells. Cyclin A2 is a 48 kDa protein composed of 432 amino-acids. Cyclins control the activation of cyclin dependent kinases (CDKs) by associating with them to form a cyclin-CDK complex able to phosphorylate selected proteins and to induce downstream processes. The cyclin A2-CDK2 complex initiates DNA replication and is required for S phase progression. For passage through G2 to M phase, cyclin A2 complexes to the CDK1 (also called CDC2). Cyclin A2 is degraded via the ubiquitin-dependant proteolysis pathway in the early phases of mitosis.



Human lymphoid cell line (CEM) + Vinblastine.

Clone: 11B2G3

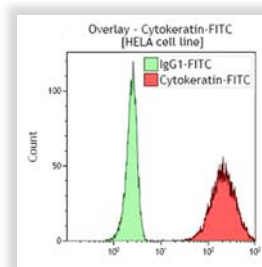
Isotype: IgG1 Mouse

The 11B2G3 antibody reacts with human cyclin A2.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	A22327	ASR	IOTest	GMP
PE	1 mL	Liquid	B15092	ASR	IOTest	GMP

Cytokeratin

Cytokeratins belong to the intermediate filament protein family and are characteristic of epithelial cells. At present, more than 20 different cytokeratins have been identified based on the original two dimensional gel electrophoresis classification. A sub classification, based on charge, divides cytokeratins into two subfamilies: the acidic (negatively charged) cytokeratin (type I) and the neutral to basic (positively charged) cytokeratin (type II). They are typically expressed as pairs, consisting of one acidic and one basic molecule.



HELA Cell line.

Clone: J1B3

Isotype: IgG1 Mouse

This monoclonal antibody exclusively reacts with cells of epithelial origin, and shows a cytoplasmic staining pattern. It can be used as a gating tool in flow cytometry to distinguish epithelial from non-epithelial cells. Multi-color flow cytometric analysis requires preliminary permeabilization of the cells with digitonin or methanol.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM2356U	ASR	IOTest	GMP



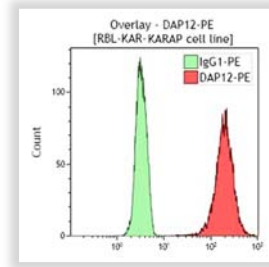
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

DAP12 (DNAX / KARAP / TYROBP)

The DAP12 antigen (DNAX activating protein of 12 kDa) is a type I transmembrane glycoprotein which is also known as KARAP (killer cell activating receptor-associated protein) or TYROBP (tyrosine kinase binding protein). It is encoded by a gene located on the chromosome 19q13 and contains an intracytoplasmic immunoreceptor tyrosine-based activation motif (ITAM). The DAP12 antigen associates with a large family of receptors in hematopoietic cells conferring to this antigen a broad range of intracellular signaling functions. Interestingly, it has been shown to both potentiate or inhibit leukocytes activation. When associated with KIRs (stimulatory killer Ig-like receptors), the adaptor molecule DAP12 functions as an activation unit leading to the T cell activation. It has also been shown that the activation of the syk/ZAP70 tyrosine kinases by DAP12 plays a role in the stimulation of NK cells and T cells. On the contrary, the DAP12 association with other receptors such as Fc receptor γ -chain and CD3 ζ may lead to the regulation of T cell immune response.



**RBL-KAR-KARAP
Cell line.**

Clone: H10E12F4

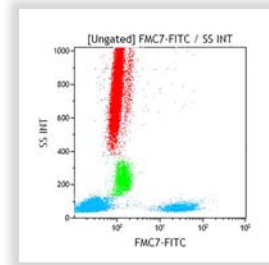
Isotype: IgG1 Rat

The H10E12F4 monoclonal antibody recognizes monocytes, neutrophils, dendritic cells, NK cells and to a lesser extent basophils, and B lymphocytes. It does not recognize CD4 and CD8 T cells or B cells.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	100 tests	Liquid	A78886	RUO	IOTest	GMP

FMC7 (CD20)

The recognized antigen is an epitope of the CD20 molecule. This antigen is only expressed by mature B lymphocytes.



**Lysed normal whole
blood sample.**

Clone: FMC7

Isotype: IgM Mouse

The FMC7 antibody reacts with a subpopulation of peripheral blood B lymphocytes and tonsil B cells, but it does not react with granulocytes, monocytes, platelets, erythrocytes, T lymphocytes or null cells.

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B08466	ASR	IOTest	GMP
FITC	100 tests	Liquid	A07791	CE	IOTest	98/79/EC
FITC	1 mL	Liquid	IM1364U	ASR	IOTest	GMP



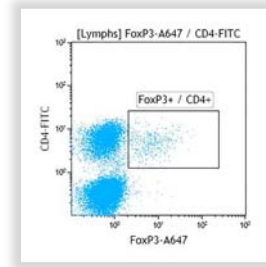
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

FoxP3

FoxP3 (Forkhead box protein P3, also known as Scurfin, JM2, or IPEX), is the major transcription factor that determines the fate and identity of CD4⁺ CD25⁺ Treg cells. It is constitutively expressed in natural Tregs (nTregs) and acts as the master regulator in nTreg development and suppressive function. nTreg (CD4⁺ CD25⁺ FoxP3⁺ Treg cells) are important regulators of almost all immune responses, and they mediate suppressive functions both through the production of cytokines and direct cell-cell contacts. nTreg cells exit in the thymus, circulate and migrate to secondary lymphoid tissues, as well as to inflammatory sites, to exert suppressor activities. FoxP3 expression can also be directly induced in peripheral naïve CD4⁺ CD25⁻ T cells, forming inducible Treg (iTreg) cells that also suppress immune responses. Diminished Treg cell development and function has been linked to auto-immunity and allergy whereas elevated Treg cell responses might play a role in undermining anti-infectious and anti-cancer immunity. FoxP3 contains 3 discernible functional domains, a single C2H2 zinc-finger motif, a leucinezipper-like motif, and a C-terminal forkhead domain, thereby exerting its positive and negative function as transcription factor. FoxP3 acts as transcriptional activator for genes that are typically up-regulated in nTregs while it represses transcription of both Th1 and Th2 cytokines in nTregs. FoxP3 can also exert regulatory capacity via protein-protein interactions.



Permeabilized normal whole blood sample. Gating on lymphocytes. Dual staining with CD4-FITC and FoxP3-A647.

Clone: 259D

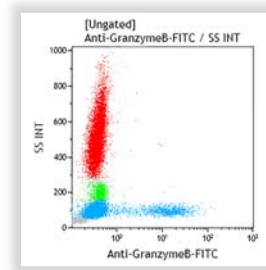
Isotype: IgG1 Mouse

The monoclonal antibody 259D detects endogenous levels of human FoxP3 transcription factor.

Form	Size	Format	Part #	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B90432	ASR	IOTest	GMP NEW
PE	1 mL	Liquid	B46031	ASR	IOTest	GMP
PC7	0.5 mL	Liquid	B46032	ASR	IOTest	GMP
AF647	0.5 mL	Liquid	B30650	ASR	IOTest	GMP

Granzyme B

Granzyme B (GrB) is single chain and single domain serine protease. GrB is member of the chymotrypsin superfamily. GrB is synthesised as an inactive preproenzyme and transported into the endoplasmic reticulum (ER) as proGrB. ProGrB, covalently modified with a mannose-6-phosphate (M6P) group, is transported in ER-derived vesicles to the Golgi apparatus (GA). Within the secretory granules, granzymes are stored in association with the chondroitin sulphate containing proteoglycan serglycin (SG). The GrB molecule alone has a high positive surface charge, but when GrB binds to SG its charge may be substantially neutralized. The newly synthesised GrB is heterogeneously glycosylated. The mature enzyme has two potential glycosylation sites. The process of GrB glycosylation results in generation of both the 32 and 35 kDa glycosylated forms of GrB. The 32 kDa GrB forms contain high mannose oligosaccharide moieties and accumulate in cytotoxic T lymphocytes (CTLs) after T cell receptor (TCR) stimulation. In contrast, the 35 kDa GrB forms, which possess only the complex oligosaccharide groups, are not stored in CTLs and instead they are secreted through the constitutive calcium-independent secretory pathway after TCR activation. GrB is the most abundant serine protease stored in secretory granules of CTLs and NK cells. GrB can be produced by plasmacytoid dendritic cells (pecs). GrB-induced cell death is a primary mechanism in cytotoxic T lymphocytes (CTLs) and natural killer (NK) cells to eliminate harmful target cells including allogeneic, virally infected and tumor cells. This mechanism implies activation of several pro-apoptotic pathways by direct proteolysis. The mannose 6-phosphate receptor has been identified as the plasma membrane receptor for GrB.



Lysed normal whole blood sample.

Clone: GB11

Isotype: IgG1 Mouse

The monoclonal antibody GB11 recognizes the human, mouse and rat Granzyme B

Form	Size	Format	Part #	Status	Line	Quality Standard
FITC	1 mL	Liquid	B46038	ASR	IOTest	GMP NEW



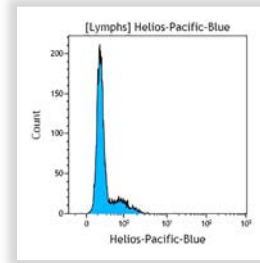
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

Helios

Helios belongs to the Ikaros transcription factor family. Members of this family are DNA binding proteins containing two-zinc finger N terminal domains and protein binding domain. Helios expression is restricted to the T lymphocytes lineage. Helios is suggested to play an important role in CD4+CD25+FoxP3+ regulatory cells. It has been shown that Helios up-regulates the expression of FoxP3 expression by binding to the FoxP3 promoter. Helios is a highly conserved transcription factor that has 97% sequence homology between human and mice.



Lysed normal whole blood sample.

Clone: 22F6

Isotype: IgG Hamster

The clone 22F6 reacts with human and mouse Helios.

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	50 tests	Liquid	B49311	RUO	IOTest	GMP NEW

HIV-1 core antigen

Clone: KC57

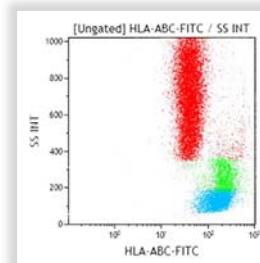
Isotype: IgG1 Mouse

The KC57 antibody identifies the 55, 39, 33 and 24 kDa proteins of the core antigens of the human immunodeficiency virus type 1 (HIV-1). The 55 kDa protein is the precursor protein for the core antigen. The 39 and 33 kDa proteins are intermediate products and the 24 kDa protein is the core protein.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	100 tests	Liquid	6604665	RUO	COULTER CLONE	GMP
RD1	100 tests	Liquid	6604667	RUO	COULTER CLONE	GMP

HLA-ABC

HLA-A, -B, and -C are major histocompatibility complex (MHC)-class I antigens. Like other class I molecules (i.e. HLA-E, -F, -G), HLA-A, -B, and -C are heterodimers consisting of a 40 – 45 kDa transmembrane glycoprotein α -chain, noncovalently combined to the invariant β 2-microglobulin. All class I molecules have conserved, monomorphic domains, but are also characterized by their extensive degree of allelic polymorphism. MHC molecules play a central role in the immune response. They are involved in the maturation of T cell repertoire, in the activation of T lymphocytes by presentation of xenogenic peptides or in the allogenic response. HLA-A, -B and -C are "classical" MHC Class I molecules and are expressed on the surface of most nucleated human cell types.



Lysed normal whole blood sample.

Clone: B9.12.1

Isotype: IgG2a Mouse

The B9.12.1 monoclonal antibody recognizes a monomorphic epitope common to HLA-A, -B and -C molecules. B9.12.1 antibody does not recognize unassociated heavy chains.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM1838U	ASR	IOTest	GMP
UNLB	0.2 mg	Freeze-dried	IM0107	RUO	-	GMP



REAGENTS

ANTIBODIES TO HUMAN ANTIGENS Single-Color Reagents

HLA-DQ

The HLA (Human Leucocyte Antigen) system is the name given to the major histocompatibility complex (MHC) in man. The MHC complex is located on the short arm of the chromosome 6 and encodes three groups of molecules designated MHC class I, class II and class III. Coded by 5 loci (DM, DO, DP, DQ and DR) of the D locus, HLA class II molecules are also called HLA-DM, HLA-DO, HLA-DP, HLA-DQ and HLA-DR antigens. The HLA class II molecules like class I molecules, are composed of non-covalently associated α/β heterodimers. On HLA class II, both heavy (α) and light (β) chain with a molecular weight of 31-33 kDa and 26-29 kDa respectively span the cell membrane. The two immunoglobulin-like domains proximal to the cell membrane ($\alpha 2$ and $\beta 2$) support the two polymorphic amino-terminal domains ($\alpha 1$ and $\beta 1$) distal to the membrane which constitute a part of the "antigen presenting site". HLA class II molecules are involved in the regulation of immune response whose expression is limited to antigen presenting cells, i.e. B lymphocytes, monocytes / macrophages, dendritic and Langerhans cells of the skin.

Clone: SPVL3

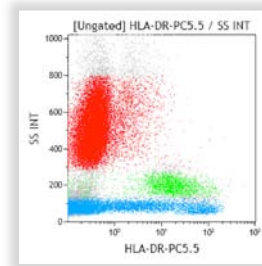
Isotype: IgG2a Mouse

The monoclonal antibody SPVL3 recognizes a monomorphic determinant of human class II HLA-DQ molecules. The SPVL3 antibody has been used in studies of inhibition of antigen-specific cytolytic T cell clones.

Form	Size	Format	Part#	Status	Line	Quality Standard
UNLB	0.2 mg	Freeze-dried	IM0416	RUO	-	GMP

HLA-DR

HLA-DR molecules are found on antigen-presenting cells (APC), i.e. dendritic cells, B lymphocytes, monocytes, macrophages, and thymic epithelial cells. They are also expressed on activated T cells, but not on granulocytes, platelets, or red blood cells. Resting T cells or endothelial cells that do not normally express these molecules can be induced to express them.



Lysed normal whole blood sample.

Clone: B8.12.2

Isotype: IgG2b Mouse

HLA-DR antibodies are specific to non polymorphic determinants of human HLA class II DR molecules which are constituted of α and β polypeptides of 34 and 29 kDa respectively.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	2 mL	Liquid	IM0463U	ASR	IOTest	GMP
PE	2 mL	Liquid	IM0464U	ASR	IOTest	GMP

Clone: Immu-357

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	A74781	ASR	IOTest	GMP
PB	50 tests	Liquid	B36291	CE	IOTest	98/79/EC
KrO	0.5 mL	Liquid	B00070	ASR	IOTest	GMP
FITC	2 mL	Liquid	IM1638U	ASR	IOTest	GMP
PE	100 tests	Liquid	IM1639	CE	IOTest	98/79/EC
PE	2 mL	Liquid	IM1639U	ASR	IOTest	GMP
ECD	1 mL	Liquid	IM3636	ASR	IOTest	GMP
ECD	100 tests	Liquid	B92438	CE	IOTest	98/79/EC NEW
PC5	100 tests	Liquid	A07793	CE	IOTest	98/79/EC
PC5	1 mL	Liquid	IM2659U	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	B20024	ASR	IOTest	GMP
PC7	0.5 mL	Liquid	A40579	ASR	IOTest	GMP
PC7	50 tests	Liquid	B49180	CE	IOTest	98/79/EC NEW
APC	1 mL	Liquid	IM3635	ASR	IOTest	GMP
APC-A750	0.5 mL	Liquid	B42021	ASR	IOTest	GMP



REAGENTS

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HLA-DR, DP, DQ

The recognized epitope is specific to a non-polymorphic HLA class II (DR, DP, DQ) Ia antigen constituted of α and β polypeptides of 34 and 29 kDa respectively. This antigen is expressed on monocytes, macrophages, B lymphocytes and activated T lymphocytes.

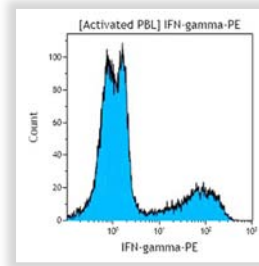
Clone: 9-49 (I3)

Isotype: IgG2a Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	0.5 mg	Freeze-dried	6603424	ASR	COULTER CLONE	GMP
RD1	0.5 mL	Liquid	6604366	ASR	CYTO-STAT	GMP

IFN- γ

Human Interferon- γ (IFN- γ) is a 20-25 kDa (monomer) pleiotropic cytokine that is produced by activated T cells and NK cells and is involved in the regulation of almost all immune and inflammatory responses. IFN- γ is involved in the activation, growth and differentiation of T cells, B cells, macrophages, NK cells as well as other cell types. IFN- γ enhances MHC expression on antigen-presenting cells including epithelial, endothelial and connective tissue cell and monocytes cell lines. It also has weak antiviral activity and acts as a macrophage-activating factor (MAF) for tumor cytotoxicity leading to anti-tumor effects.



Activated peripheral blood lymphocytes (PBL).

Clone: 45.15

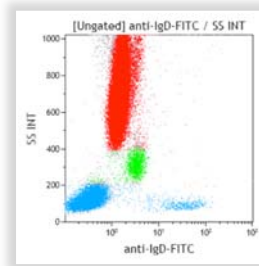
Isotype: IgG1 Mouse

The FITC- and PE-conjugated forms of the 45.15 antibody are optimized for flow cytometric detection of intracellular IFN- γ in stimulated peripheral blood mononuclear cells (PBMC) after permeabilization with IntraPrep™ permeabilization reagent.

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B46034	ASR	IOTest	GMP
FITC	2 mL	Liquid	IM2716U	ASR	IOTest	GMP
PE	2 mL	Liquid	IM2717U	ASR	IOTest	GMP

IgD

IgD, a member of the immunoglobulin (Ig) family, is expressed in naïve B cells. It exists in a transmembrane and a soluble form. IgD is, together with IgM, the first antibody isotypes expressed during B cell ontogeny. Bone marrow B cell precursors acquire surface IgM after assembling heavy (H) and light (L) chain variable region exons from prototypic variable (V), diversity (D) and joining (J) gene segments through an antigen-independent process. After leaving the bone marrow to colonize secondary lymphoid organs, B cells acquire surface IgD of the same specificity as surface IgM through alternative splicing of a pre-messenger RNA comprising V(D)J and both heavy chain constant μ (C μ) and C δ exons.



Pre-washed lysed normal whole blood sample.

Clone: IA6-2

Isotype: IgG2a Mouse

The IA6-2 monoclonal antibody binds specifically to the heavy chain of human IgD.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	50 tests	Liquid	B30652	RUO	IOTest	GMP
PE	50 tests	Liquid	B30653	RUO	IOTest	GMP
APC	50 tests	Liquid	B30651	RUO	IOTest	GMP



REAGENTS

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IgE (Dε2)

The anti-IgE mAb binds to circulating IgE as well as to IgE antibodies bound to the low affinity receptor FcεRII (expressed mainly on eosinophils, B lymphocytes), or to the high affinity receptor FcεRI (expressed on mast cells, basophils, monocytes and monocytes-derived cells). The anti-IgE antibody induces the histamine release from basophils. However, it is known in the literature information that basophils from 10% to 20% of donors completely fail to release histamine in response to anti-IgE, designated anti-IgE "non releasers".

Clone: E124.2.8

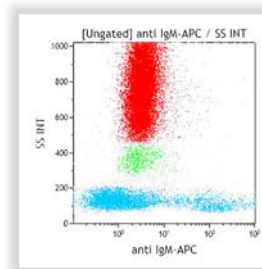
Isotype: IgG1 Mouse

The E124.2.8 monoclonal antibody binds specifically to the Dε2 constant domain of human Immunoglobulin E (IgE) (Dε2 is the heat labile region of IgE).

Form	Size	Format	Part#	Status	Line	Quality Standard
UNLB	0.2 mg	Freeze-dried	A40174	ASR	-	GMP

IgM

The anti-IgM antibody binds to circulating IgM as well as to IgM antibodies bound to the FcμR. The FcμR is a transmembrane single sialoglycoprotein of 60 kD with O-linked oligosaccharides. It contains an extracellular Ig-like domain homologous to two other IgM-binding receptors (polymeric Ig receptor and Fcα/μR) but exhibits an exclusive Fcμ-binding specificity. Unlike other FcRs, the major cell types expressing FcμR are adaptive immune cells, including B and T lymphocytes. The FcμR can be expressed as a cell surface activation antigen throughout the pre-B and B cell stages in differentiation. Receptor expression is not directly linked with IgM production, as both μ- pre-B cells and isotype-switched B cells may express the FcμR. The FcμR is thus the third member of a family of Fc receptors expressed on B-lineage cells, and its preferential expression on activated B cells suggests a potential role in the response to antigens.



Pre-washed lysed normal whole blood sample.

Clone: SA-DA4

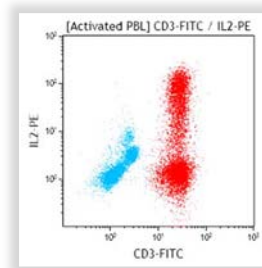
Isotype: IgG1 Mouse

The SA-DA4 monoclonal antibody binds specifically to mu heavy chain of Human Immunoglobulin (IgM).

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	50 tests	Liquid	B30656	RUO	IOTest	GMP
FTTC	50 tests	Liquid	B30655	RUO	IOTest	GMP
PE	50 tests	Liquid	B30657	RUO	IOTest	GMP
APC	50 tests	Liquid	B30654	RUO	IOTest	GMP

IL-2

Interleukin-2 (IL-2) is a 15-17 kDa cytokine produced and secreted by T cells. The induction of IL-2 secretion is the first step in T cell activation. IL-2 is the major autocrine growth factor for activated T cells and is obligatory for the generation of cytotoxic T cells. IL-2 also promotes the proliferation and the differentiation of NK precursors, B cells and monocytes. Activated CD4⁺ T cells of the Th1 phenotype produce predominantly IL-2 and Interferon-γ, whereas CD4⁺ T cells of the Th2 phenotype produce IL-4 and IL-10.



Activated peripheral blood lymphocytes (PBL).

Clone: N7.48A

Isotype: IgG2a Mouse

N7.48A-PE conjugated antibody is optimized for flow cytometric detection of intracellular IL-2 in stimulated peripheral mononuclear cells (PBMC) after permeabilizing with formaldehyde/saponin-based IntraPrep Permeabilization Reagent.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	IM2718U	ASR	IOTest	GMP

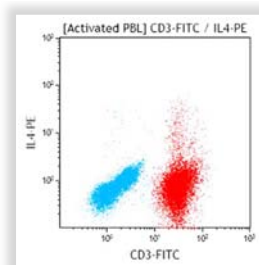
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

IL-4

Interleukin-4 (IL-4) is a monomeric 20 kDa predominantly produced by activated T lymphocytes of the Th2 phenotype, by mast cells and by some antigen-presenting cells. Together with IL-2, IL-4 is an autocrine growth factor for activated T cells and for cytotoxic T cell precursors. IL-4 is a major factor involved in the activation of resting B lymphocytes. Together with IL-13, IL-4 induces isotype switch towards IgE and IgG1 isotypes. Activated CD4⁺ T cells of the Th1 phenotype produce predominantly IL-2 and Interferon γ , whereas CD4⁺ T cells of the Th2 phenotype produce IL-4, IL-5, IL6 and IL-10.



Activated peripheral blood lymphocytes (PBL).

Clone: 4D9

Isotype: IgG1 Mouse

The 4D9-PE-conjugated antibody is optimized for flow cytometric detection of intracellular IL-4 in stimulated peripheral mononuclear cells (PBMC) after permeabilizing with formaldehyde / saponin-based IntraPrep Permeabilization Reagent.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	IM2719U	ASR	IOTest	GMP

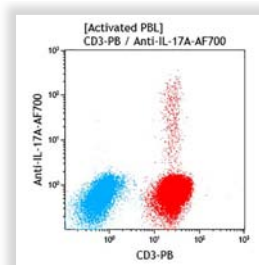
Clone: MP4-25D2

Isotype: IgG1 Rat

Form	Size	Format	Part#	Status	Line	Quality Standard
PC7	0.5 mL	Liquid	B90441	ASR	IOTest	GMP NEW

IL-17A

IL17-A is a member of the IL-17 family which is constituted by 6 members (IL-17A to IL-17F). IL-17A is commonly refer to as IL-17 and is produced as a homodimer of about 30 kDa. IL-17A is mainly secreted by a subset of CD4⁺ T cells, namely the Th17 cells, which are helper cells that are distinct from Th1 and Th2 cells. In addition to Th17 cells, other immune cells such as $\gamma\delta$ T cells, CD8⁺ T cells, NK cells and Innate Lymphoid cells (ILCs) can be activated to secrete IL-17. IL-17 is a pro-inflammatory molecule that induces the production of chemokines and other cytokines by various cell types, i.e fibroblasts, epithelial cells, endothelial cells, macrophages and neutrophils, which helps the recruitment of innate immune cells at the site of activation



Peripheral blood lymphocytes (PBL) activated with PMA/Ionomycin/Brefeldin A, permeabilized and fixed with PerFix-nc reagent.

Clone: BL168

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	50 tests	Liquid	B76266	RUO	IOTest	GMP NEW
AF700	50 tests	Liquid	B90428	RUO	IOTest	GMP NEW



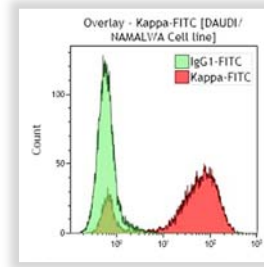
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

κ Chain

The Kappa light chain of the cell surface immunoglobulins is expressed on a subset of 50% of normal human peripheral mature B lymphocytes and on a subset of bone marrow immature B cells.



**DAUDI/ NAMALWA
Cell line.**

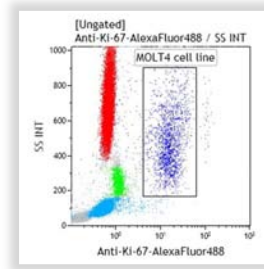
Clone: Polyclonal

Isotype: F(ab')₂ Rabbit

Form	Size	Format	Part #	Status	Line	Quality Standard
FITC	2 mL	Liquid	A64828	ASR	IOTest	GMP
FITC	100 tests	Liquid	B49178	CE	IOTest	98/79/EC NEW

Ki-67

Ki-67 nuclear antigen is associated with cell proliferation and is found throughout the cell cycle (G1, S, G2, M phases). It is never expressed by resting (G0) cells. The Ki-67 antigen is a human nuclear protein defined by its reactivity with monoclonal antibody from the Ki-67 clone. Two isoforms of 345 and 395 kDa have been identified by cDNA sequence coding. Deduced amino acid sequence analysis of the Ki-67 antigen confirmed that the cDNA encodes for a nuclear and short-lived protein without any significant homology to known sequences. The Ki-67 antigen is expressed at active phases of the cell cycle (G1, S, G2 and M phases), but it is absent in resting cells (G0 phase). The level of Ki-67 antigen expression varies during cell cycle and it has been correlated to several cell pathways: The Ki-67 decrease pathway is characterized by a declining Ki-67 staining and leads eventually to the exit from the active cell cycle (G0). If cells on this pathway get stimulated by growth factors, they can enter the Ki-67 increase pathway that brings the cells back into S phase. Cells following the Ki-67 stable pathway exhibit a constant intensity of Ki-67 staining during the G1 phase. This pathway is thought to correspond to optimal local growth conditions. The cellular localization of the Ki-67 protein is cell cycle phase dependent. During interphase, the antigen can be exclusively detected within the nucleus, whereas in M phase most of the protein is relocated to the surface of the chromosomes. The antigen is rapidly degraded as the cell enters the non proliferative state.



**Lysed normal whole
blood sample spiked
with MOLT4 cell line**

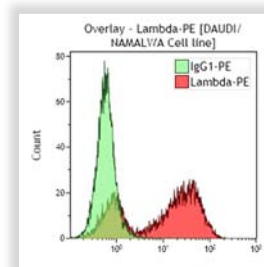
Clone: Ki-67

Isotype: IgG1 Mouse

Form	Size	Format	Part #	Status	Line	Quality Standard
AF488	0.5 mL	Liquid	B68180	ASR	IOTest	GMP NEW

λ Chain

The Lambda light chain of immunoglobulins is expressed at the surface of a cellular sub-population corresponding to approximately 1/3 of mature B lymphocytes in peripheral blood. This light chain is also found on the surface of a sub-population of immature bone marrow B lymphocytes.



**DAUDI/ NAMALWA
Cell line.**

Clone: Polyclonal

Isotype: F(ab')₂ Rabbit

Form	Size	Format	Part #	Status	Line	Quality Standard
PE	2 mL	Liquid	A64827	ASR	IOTest	GMP
PE	100 tests	Liquid	B49174	CE	IOTest	98/79/EC NEW

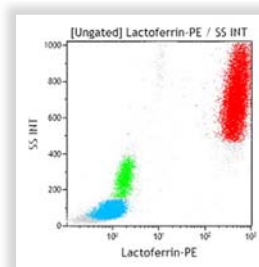
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

Lactoferrin

Lactoferrin is a 76 kDa single chain polypeptide with iron-binding property. This protein shows structural similarity to the plasma iron-transport protein transferrin. Lactoferrin is involved in various immuno-regulatory functions associated with anti-infective and inflammatory responses such as antibody synthesis, cytokine production, NK cell cytotoxicity, complement activation and lymphocyte proliferation. Lactoferrin synthesis occurs at the myelocytic stage during polymorphonuclear neutrophil (PMN) ontogeny and constitutes a component of secondary (or specific) granules. Unlike the myeloperoxidase, lactoferrin is absent from primary (or azurophilic) granules and appears later during maturation of the granulocytic lineage. Thus, in peripheral blood, intracellular lactoferrin expression is restricted to neutrophils.



Lysed normal whole blood sample.

Clone: CLB13.17

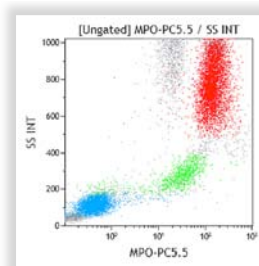
Isotype: IgG1 Mouse

The PE-conjugated CLB-13.17 antibody is optimized for flow cytometric detection of intracellular lactoferrin by flow cytometry after permeabilization with IntraPrep permeabilization reagent.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	IM2742	ASR	IOTest	GMP

Myeloperoxidase

Myeloperoxidase (MPO) is a heterodimeric glycoprotein of 150 kDa with an $\alpha 2/\beta 2$ structure. The two subunits (α and β) have a molecular weight of 55 and 15 kDa, respectively. MPO synthesis occurs in bone marrow at an early stage of myeloid lineage differentiation. MPO is specifically expressed during promyelocytic formation, the stage at which azurophilic granules (or primary granules) are formed. MPO is still found in mature myeloid cells, becoming the major constituent of azurophilic granules of neutrophils. MPO is stored in polymorphonuclear neutrophilic granules and in macrophages, but it is not expressed in lymphocytes, platelets and erythrocytes. MPO catalyzes the formation of hypochlorous acid (HOCl) in the presence of active oxygen (H_2O_2). Intranuclear MPO may also help to protect DNA against damage resulting from oxygen radicals produced during cell maturation and function.



Permeabilized normal whole blood sample.

Clone: CLB-MPO-1

Isotype: IgG2a Mouse

The CLB-MPO-1 antibody recognizes MPO and its enzymatically inactive form. This antibody can be used to detect intracytoplasmic myeloperoxidase in flow cytometry after permeabilization with IntraPrep permeabilization reagent.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	100 tests	Liquid	IM1874	CE	IOTest	98/79/EC
FITC	2 mL	Liquid	IM1874U	ASR	IOTest	GMP
PE	2 mL	Liquid	IM3455U	ASR	IOTest	GMP
PE	100 tests	Liquid	B36288	CE	IOTest	98/79/EC
PC5.5	0.5 mL	Liquid	B23132	ASR	IOTest	GMP



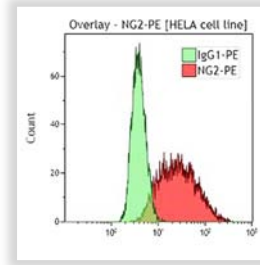
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

NG2 (7.1)

Human melanoma-associated chondroitin sulfate proteoglycan (MCSP), known as the homolog rat NG2 antigen, is a 250 kDa glycoprotein that is thought to play important roles in angiogenesis-dependent processes like wound healing and tumor growth. The core protein contains an open frame of 2322 amino acids encompassing a large extracellular domain, a hydrophobic transmembrane region and a relatively short cytoplasmic tail. This antigen is not expressed on normal hematopoietic cells but can be expressed on myeloid and lymphoid cell subsets with chromosomal modifications. It is also expressed on human glial cells. This antigen regulates signaling events that are important for both cell proliferation and cell migration through at least two distinct mechanisms: the focal adhesion kinase (FAK) and the extracellular signal-regulated kinases (ERK) 1/2.



HELA cell line.

Clone: 7.1

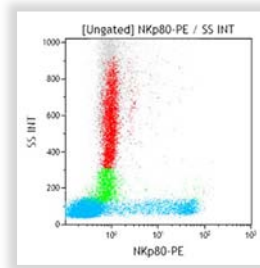
Isotype: IgG1 Mouse

The 7.1 monoclonal antibody recognizes the human melanoma associated chondroitin sulfate proteoglycan molecule.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	IM3454U	ASR	IOTest	GMP
PE	100 tests	Liquid	B92429	CE	IOTest	98/79/EC NEW

NKp80

The NKp80, also known as killer cell lectin-like subfamily F, member 1 (KLRF1) is a type II transmembrane glycoprotein of 80 kDa and 40 kDa under reducing conditions. It is expressed on NK cells and a subset of T lymphocytes whereas it is not expressed on B lymphocytes, monocytes and granulocytes. The NKp80 antigen is a 231 amino acid protein which belongs to the C-lectin family and is encoded by a gene located on chromosome 12. It is characterized, in its 169 amino acid extracellular domain by 4 glycosylation sites and by two tyrosine residues in its 39 amino acid cytoplasmic domain. The transmembrane domain contains 23 amino acids. The NKp80 molecule binds to the genetically linked receptor AICL which is up-regulated by Toll-like receptor stimulation. NKp80-AICL interaction regulates the immune responses at sites of inflammation by stimulating the release of proinflammatory cytokines.



Lysed normal whole blood sample.

Clone: MA152

Isotype: IgG1 Mouse

The monoclonal antibody MA152 recognizes NK cells, a subset of T lymphocytes. It does not react with NK92, NK3.3 and YT cell lines.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	A52635	ASR	IOTest	GMP



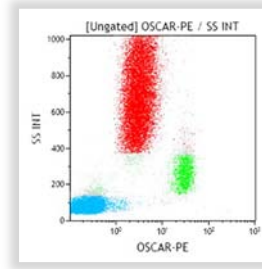
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

OSCAR

OSCAR, an abbreviation of osteoclast-associated receptor, is a new member of the leukocyte receptor complex. Human OSCAR is a cell-surface, monomeric N-glycosylated protein of approximately 45 kDa. The amino acid sequence shows homology with that of members of the KIR family. The protein exhibits two C2-type immunoglobulin extracellular domains, a transmembrane section that contains a positively charged arginine residue, and a short intracytoplasmic tail with no recognizable signaling motif. As suggested by the presence of the charged residue, OSCAR associates with the ITAM-adaptor FcRγ and not with other signaling molecules. The gene coding for OSCAR has been mapped to chromosome 19q13. Unlike mouse OSCAR, human OSCAR is widely expressed in cells of the myeloid lineage, and in particular, at all stages of dendritic cell (DC) differentiation and maturation. T cells, B cells, and NK cells do not express OSCAR. OSCAR is involved in antigen presentation and activation of human DCs. It allows processing and presentation of exogenous antigens.



Lysed normal whole blood sample.

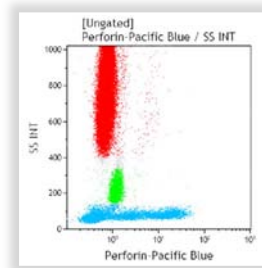
Clone: 11.1CN5

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	100 tests	Liquid	A24987	RUO	IOTest	GMP

Perforin

Perforin is a 70 kD N-glycosylated modified cytolytic protein. Following synthesis and post-translational modifications, perforin monomers are packaged into lysosome-like cytoplasmic granules of cytotoxic T lymphocytes (CTLs) and natural killer (NK) cells. Both types of cells kill their cellular targets by mechanisms that require direct contact between the effector and target cells. Cytoplasmic granule toxins, predominantly perforin, and a family of structurally related serine proteases (granzymes) with various substrate specificities are secreted by exocytosis and together induce apoptosis of the target cell. Perforin is one of the major effector molecules used by cytotoxic T cells and NK cells to mediate targeted cell lysis.



Lysed normal whole blood sample.

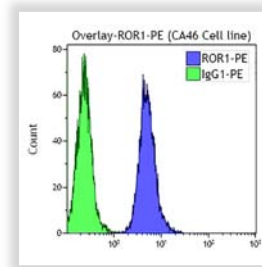
Clone: dG9

Isotype: IgG2b Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B46030	ASR	IOTest	GMP

ROR1

The receptor tyrosine kinase like orphan receptor ROR1 together with ROR2 constitutes the ROR family that is highly homologous in humans and mice. ROR1 and ROR2 are composed of a distinguished extracellular region with one immunoglobulin domain, one frizzled domain, and one kringle domain, followed by a transmembrane region and an intracellular region that contains a tyrosine kinase domain.



CA46 Cell Line

Clone: 2A2

Isotype: IgG1 Mouse

Epitope mapping studies showed that the 2A2 clone recognized N-terminal epitopes in the extracellular region of ROR1.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	B68136	ASR	IOTest	GMP NEW



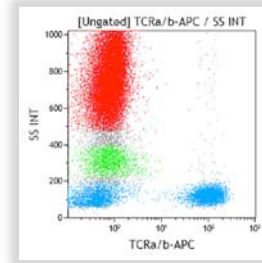
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

TCR PAN α/β

Human T cells recognize foreign antigens, in the context of host HLA molecules through the T-cell receptor for antigen (TcR). The TcRs are molecular complexes which comprise two units: a recognition unit, composed of either α - β or γ - δ heterodimer, which are present on the cell surface in a mutually exclusive manner, and, a transducing unit, the CD3 complex, common to α - β and γ - δ heterodimers, which triggers the T cell when the recognition unit is occupied by the antigen. The recognition units recognize any possible foreign antigen and the diversity necessary for this function of recognition is generated by somatic recombination the TcR genes. There are four TcR gene loci (α , β , γ and δ). Each of them is composed of several V (for variable) segments, coding for about 90 amino acids, very short D (for diversity) segments (α and δ loci only), and short J (for joining) segments (about 15 amino acids), and one or two C (for constant) segments.



Lysed normal whole blood sample.

Clone: IP26A

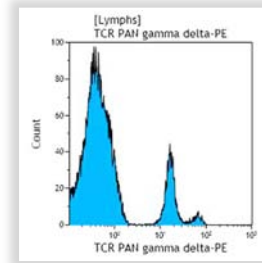
Isotype: IgG1 Mouse

The IP26A antibody recognizes a monomorphic determinant of the human α/β chain of the TcR complex.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	A39499	ASR	IOTest	GMP
PE	50 tests	Liquid	B49177	CE	IOTest	98/79/EC NEW
PC5	0.5 mL	Liquid	A39500	ASR	IOTest	GMP
APC	0.5 mL	Liquid	B13981	ASR	IOTest	GMP

TCR PAN γ/δ

The TCR is a molecular complex which comprises two units: a recognition unit, composed of either alpha-beta or gamma-delta heterodimer, which are present on the cell surface in a mutually exclusive manner, and, a transducing unit, the CD3 complex, common to alpha-beta and gamma-delta heterodimers, which triggers the T cell when the recognition unit is occupied by the antigen. The recognition unit recognizes foreign antigens and the diversity necessary for this function of recognition is generated by somatic recombination the TCR genes. There are four TCR gene loci (alpha, beta, gamma and delta). Each of them is composed of several V (variable) segments, coding for about 90 amino acids, very short D (diversity) segments (alpha and delta loci only), and short J (joining) segments (about 15 amino acids), and one or two C (constant) segments. Most of T cells express the alpha/beta TCR (T cell receptor) protein and a small population of T cells expresses the gamma/delta TCR, which usually has a double negative (CD4/CD8) phenotype. Gamma/delta T-cells are normally the first line of defence at epidermal and epithelial surfaces and they represent 10-12% of lymphocytes in the spleen.



Lysed normal whole blood sample.

Clone: IMMU510

Isotype: IgG1 Mouse

The IMMU510 monoclonal antibody recognizes all γ/δ T cells, regardless of their variable chains. It stains 1.6% to 8.9% of peripheral CD3⁺ cells from healthy donors. In Western blot, it recognizes the δ chain in reducing conditions. It immunoprecipitates the three isoforms of the γ/δ T cell receptor. This antibody is suitable for immunohistochemistry on frozen sections. It has been used to study the distribution of γ/δ T cells and their functions.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	1 mL	Liquid	IM1571U	ASR	IOTest	GMP
FITC	50 tests	Liquid	B49175	CE	IOTest	98/79/EC NEW
PE	1 mL	Liquid	IM1418U	ASR	IOTest	GMP
PE	50 tests	Liquid	B49176	CE	IOTest	98/79/EC NEW
PC5	50 tests	Liquid	IM2662	CE	IOTest	98/79/EC
PC5	0.5 mL	Liquid	IM2662U	ASR	IOTest	GMP
PC5.5	0.5 mL	Liquid	A99021	ASR	IOTest	GMP
PC7	0.5 mL	Liquid	B10247	ASR	IOTest	GMP
UNLB	0.1 mg	Freeze-dried	IM1349	RUO	-	GMP



REAGENTS

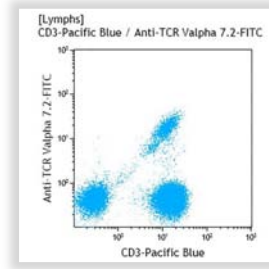
ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

TCR V α 7.2

Also called TCRAV7S2 according to the nomenclature from Arden et al.

The α 7.2 segment in humans is an evolutionarily conserved invariant TCR α chain, expressed in mucosal associated invariant T (MAIT) cells, also called mNKT. MAIT cells are abundant in human blood (1-8% of T cells vs. 0.01-1% for NKT cells), the intestinal mucosa and mesenteric lymph nodes (MLN). MAIT cells are evolutionarily conserved innate-like T cells with anti-microbial properties. They are apparently also involved in non-infectious inflammatory disorders and in autoimmune inflammatory lesions. MAIT cells were found to specifically accumulate in the lamina propria (LP) of the intestine. This suggests that these cells may, in fact, be directed to microbial antigens presented by MR1 molecules, having a role of natural killer T cells (mNKT cells) in intestinal immunology. mNKT cells are a subset of non-conventional T cells recognizing endogenous and / or exogenous glycolipid antigens when presented by the major histocompatibility complex (MHC) class I-like antigen-presenting molecules CD1d and MR1. Upon T-cell receptor (TCR) engagement, mNKT cells can rapidly produce various cytokines that have important roles in mucosal immunity.



Lysed normal whole blood sample. Gating on lymphocytes. Dual staining with CD3-PB.

Clone: 3C10

Isotype: IgG1 Mouse

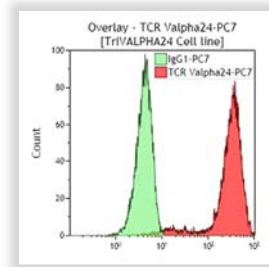
The monoclonal antibody 3C10 recognizes the Va7.2-Ja33 TCR α chain.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	50 tests	Liquid	B90400	RUO	IOTest	GMP NEW

TCR V α 24

Also called TCRAV24S1 (according to the nomenclature from Arden et al.)

V α 24 is the only described member of the subfamily of the T cell receptor. It has been shown to be expanded in a clonal fashion in the CD3+ CD8- CD4- cell population in PBL of several donors. It is expressed by 0.4% to 1% of peripheral CD3+ cells from normal blood. An invariant V α 24/V β 11 T cell receptor is expressed in all individuals by clonally expanded CD4- CD8- T cells, reactive to bacterial antigens. This unique lymphocyte population restricted by the CD1d molecule recognition has been identified as the natural killer T (NKT) cells. The IGRa02 sequence is also referred to as TRAV10 (based on the IMGT gene nomenclature).



Tri VAlpha24 Cell line.

Clone: C15

Isotype: IgG1 Mouse

The C15 antibody recognizes the IGRa02 sequence, the only described member of this family.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	1 mL	Liquid	IM1589	ASR	IOTest	GMP
PE	1 mL	Liquid	IM2283	ASR	IOTest	GMP
PC7	0.5 mL	Liquid	A66907	ASR	IOTest	GMP



REAGENTS

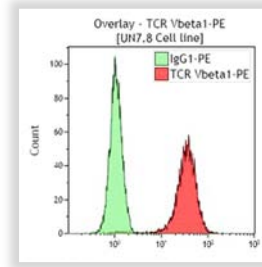
ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

TCR Vβ1

Also called TCRBV1S1 and S2

Vβ1 is the human variable β1 chain of the T cell receptor. It is expressed by approximately 6% of peripheral CD3⁺ cells in normal blood. This sequence is also referred to as TRBV9 (based on the IMGT gene nomenclature).



UN7.8 Cell line.

Clone: BL37.2

Isotype: IgG1 Rat

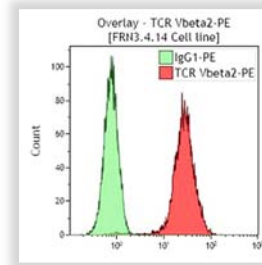
The BL37.2 antibody recognizes both Vβ1.1 and Vβ1.2 allele products (HBVT73 cDNA and 46W/Q cDNA, respectively). None of the other Vβ specific antibodies from the TCR Workshop (San Francisco, CA, 1995) gave significant staining on the sorted cell lines.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	1 mL	Liquid	IM2406	ASR	IOTest	GMP
PE	1 mL	Liquid	IM2355	ASR	IOTest	GMP

TCR Vβ2

Also called TCRBV2S1

Vβ2 is the human variable β2 chain of the T cell receptor. It is expressed by 10% of peripheral CD3⁺ cells in normal blood. Vβ2 is the target of Toxic Shock Syndrome Toxin 1 (TSST1). This sequence is also referred to as TRBV20-1 (based on the IMGT gene nomenclature).



FRN3.4.14 Cell line.

Clone: MPB2D5

Isotype: IgG1 Mouse

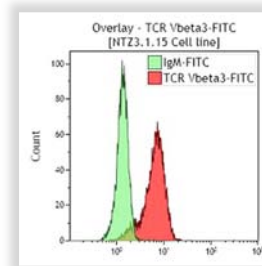
The MPB2D5 antibody recognizes all the members (Molt4 identical to PL2.13, PH34 and TCRBV2S13 sequences) of the Vβ2 subfamily that are in fact alleles.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	1 mL	Liquid	IM2407	ASR	IOTest	GMP
PE	1 mL	Liquid	IM2213	ASR	IOTest	GMP

TCR Vβ3

Also called TCRBV3S1

Vβ3 is the human variable β3 chain of the T cell receptor. Vβ3 is the target of Staphylococcal Enterotoxin B (SEB) superantigen. This sequence is also referred to as TRBV28 (based on the IMGT gene nomenclature).



NIZ3.1.15 Cell line.

Clone: CH92

Isotype: IgM Mouse

The CH92 antibody recognizes the unique member of the Vβ3 subfamily (PL4.4 identical to HBVT22 sequences). CH92 antibody recognizes the major subset of Vβ3 cells.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	1 mL	Liquid	IM2372	ASR	IOTest	GMP



REAGENTS

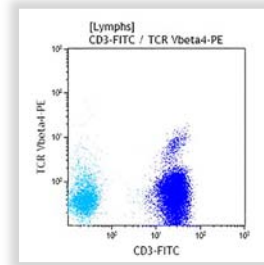
ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

TCR Vβ4

Also called TCRBV4

Vβ4 is the human variable β4 chain of the T cell receptor. It is expressed by 0.8% to 3.3% (mean 1.9%) of peripheral CD3-positive lymphocytes in normal blood. This sequence is also referred to as TRBV29-1 (based on the IMGT gene nomenclature).



Lysed normal whole blood sample. Gating on lymphocytes. Dual staining with CD3-FITC

Clone: WJF24

Isotype: IgM Rat

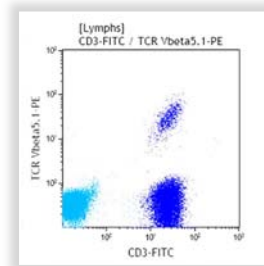
The WJF24 antibody recognizes the Vβ allele product.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	1 mL	Liquid	B07084	ASR	IOTest	GMP
PE	1 mL	Liquid	IM3602	ASR	IOTest	GMP

TCR Vβ5.1

Also called TCRBV5S1

Vβ5 is a multimembered subfamily of the T cell receptor. Vβ5.1 is expressed by 4.2% to 7.2% of peripheral CD3+ cells in normal blood. This sequence is also referred to as TRBV5-1 (based on the IMGT gene nomenclature).



Lysed normal whole blood sample. Gating on lymphocytes. Dual staining with CD3-FITC.

Clone: IMMU 157

Isotype: IgG2a Mouse

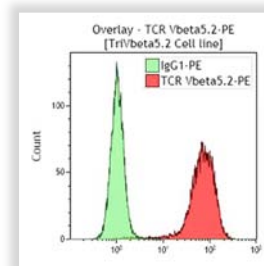
Immu157 recognizes the Vβ5.1 (HBP51 sequence) member of this subfamily. Vβ5.2 and Vβ5.3 (PL25 and 12A1 sequences) are not recognized. Recognition of other members of the Vβ5 subfamily has not been found, but cannot be formally excluded.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	1 mL	Liquid	IM1552	ASR	IOTest	GMP
PE	1 mL	Liquid	IM2285	ASR	IOTest	GMP

TCR Vβ5.2

Also called TCRBV5S2

Vβ5 is a multimembered subfamily of the T cell receptor. Vβ5.2 is expressed by 0.5% to 1.5% (mean 0.8%) of peripheral CD3+ cells in normal blood. This sequence is also referred to as TRBV5-6 (based on the IMGT gene nomenclature).



TrnVbeta 5.2-PE Cell line.

Clone: 36213

Isotype: IgG1 Mouse

The 36213 antibody recognizes the PL25 sequence. Vβ5.1 (HBP51 sequence) and Vβ5.3 (IGRb08 sequence) are not recognized. Recognition of other members of the Vβ5 subfamily has not been found, but cannot be formally excluded.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	1 mL	Liquid	IM1482	ASR	IOTest	GMP
PE	1 mL	Liquid	IM2286	ASR	IOTest	GMP



REAGENTS

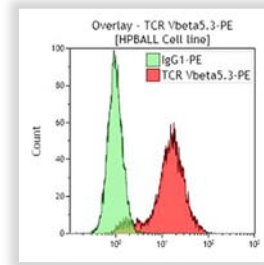
ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

TCR Vβ5.3

Also called TCRBV5S3

Vβ5 is a multimered subfamily of the T cell receptor. Vβ5.3 is expressed by 1% to 1.8% (mean 1.4%) of peripheral CD3+ cells in normal blood. This sequence is also referred to as TRBV5-5 (based on the IMGT gene nomenclature).



HPBALL Cell line

Clone: 3D11

Isotype: IgG1 Mouse

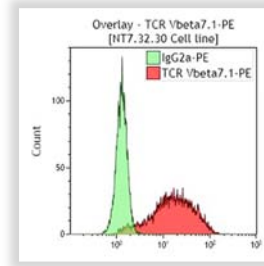
The 3D11 antibody recognizes the IGRb08 sequence. Vβ5.1 and Vβ5.2 (HPB51 and PL25 sequences) are not recognized. Reactivity on other members of the Vβ5 subfamily has not been found, but cannot be formally excluded.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	IM2002	ASR	IOTest	GMP

TCR Vβ7.1

Also called TCRBV7S1

Vβ7 is a multimered subfamily of the T cell receptor. Vβ7.1 is expressed by 1.5% to 2.4% of CD3+ cells in normal blood. This sequence is also referred to as TRBV4-1, TRBV4-2, TRBV4-3 (based on the IMGT gene nomenclature).



NT7.32.30 Cell line

Clone: ZOE

Isotype: IgG2a Mouse

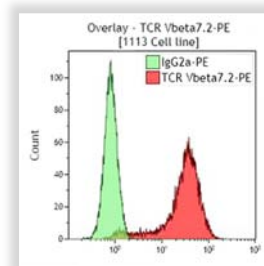
The ZOE antibody recognizes Vβ7.1 (PL4.9 sequence). It does not react with Vβ7.2, but the reactivity on other Vβ7 members like Vβ7.3 (HT267.2 sequence) has not been found, but cannot be formally excluded.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	1 mL	Liquid	IM2408	ASR	IOTest	GMP
PE	1 mL	Liquid	IM2287	ASR	IOTest	GMP

TCR Vβ7.2

Also called TCRBV7S2

Vβ7 is a multimered subfamily of the T cell receptor. Vβ7.2 is expressed by 0% (Vβ7.2 del./Vβ7.2 del. haplotypes) to 5.5% (mean 1.5%) of peripheral CD3+ lymphocytes in normal blood.



1113 Cell line

Clone: ZIZOU4

Isotype: IgG2a Mouse

The ZIZOU4 antibody recognizes the human TCR Vβ7.2 allele product. A genetically determined insertion/deletion-related polymorphism of the TCRB locus, including the functional Vβ7.2 variable gene segment, has been described. Thus, the expression of the Vβ7.2 allele product may not be expressed in some individuals (Vβ7.2 deleted/Vβ7.2 deleted haplotypes).

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	1 mL	Liquid	B06666	ASR	IOTest	GMP
PE	1 mL	Liquid	IM3604	ASR	IOTest	GMP

REAGENTS

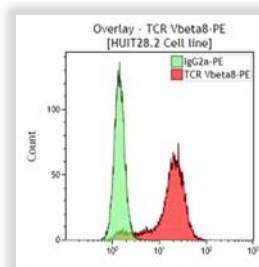
ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

TCR Vβ8

Also called TCRBV8S1 and S2

Vβ8 is the human variable β8 chain of the T cell receptor. It is expressed by 2.6% to 5.1% of peripheral CD3+ cells in normal blood. Vβ8 is the target of Staphylococcal Enterotoxin E (SEE). This sequence is also referred to as TRBV12-3, TRBV12-4 (based on the IMGT gene nomenclature).



HUIT 28.2 Cell line.

Clone: 56C5.2

Isotype: IgG2a Mouse

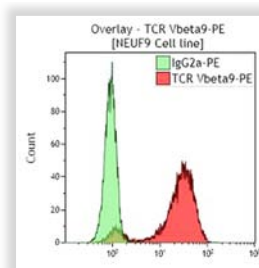
The 56C5.2 antibody recognizes Vβ8.1 and Vβ8.2 (YT35 and PL3.3 sequences). Other Vβ8 sequences are believed to be pseudogenes.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	1 mL	Liquid	IM1233	ASR	IOTest	GMP
PE	1 mL	Liquid	IM2289	ASR	IOTest	GMP

TCR Vβ9

Also called TCRBV9S1

Vβ9 is the human variable β9 chain of the T cell receptor. There is only one functional member of this T cell receptor subfamily (IGRb20 sequence, identical to sequence PL2.6). It is expressed by 1.6% to 3.2% of peripheral CD3+ cells in normal blood. This sequence is also referred to as TRBV3-1 (based on the IMGT gene nomenclature).



NEUF9 Cell line.

Clone: FIN9

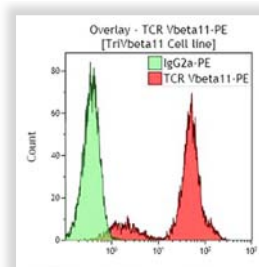
Isotype: IgG2a Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	IM2003	ASR	IOTest	GMP

TCR Vβ11

Also called TCRBV11S1

Vβ11 is the human variable β11 chain of the T cell receptor. Two Vβ11 sequences are described, PL3.12 and PH15. These sequences differ only in their leader sequence and therefore lead to the same mature protein. An invariant Va24/Vβ11 T cell receptor is expressed in all individuals by clonal expanded CD4- CD8- T cells, reactive to bacterial antigens. This unique lymphocyte population restricted by the CD1d molecule recognition has been identified as the natural killer T (NKT) cells. Vβ11 is expressed by 0.4% to 0.9% of peripheral CD3+ cells in normal blood. This sequence is also referred to as TRBV25-1 (based on the IMGT gene nomenclature).



TriVbeta 11 Cell line.

Clone: C21

Isotype: IgG2a Mouse

The C21 recognizes the gene product of PL3.12 and PH15 sequences. The specificity of this antibody has been confirmed at the First Human TcR Monoclonal Antibody Workshop in San Francisco in 1995.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	1 mL	Liquid	IM1586	ASR	IOTest	GMP
PE	1 mL	Liquid	IM2290	ASR	IOTest	GMP
APC	0.5 mL	Liquid	A66905	ASR	IOTest	GMP



REAGENTS

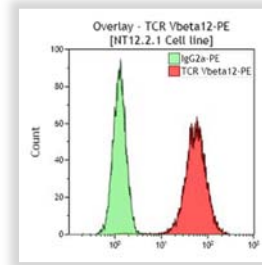
ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

TCR Vβ12

Also called TCRBV12S1

Vβ12 is a family of the T cell receptor. It is expressed by 1.1% to 1.9% of peripheral CD3+ cells in normal blood. This sequence is also referred to as TRBV10-3 (based on the IMGT gene nomenclature).



NT12.21 Cell line.

Clone: VER2.32.1

Isotype: IgG2a Mouse

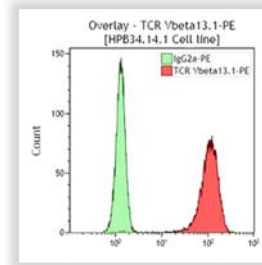
The VER2.32.1 monoclonal antibody recognizes HBP54 identical to PH27 sequence often referred to as Vβ12.2. The reactivity of the other members of this family (PL4.2 sequence) and other recently described Vβ12 genes (HT96 sequence) has not been found but cannot be formally excluded.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	1 mL	Liquid	IM1587	ASR	IOTest	GMP
PE	1 mL	Liquid	IM2291	ASR	IOTest	GMP

TCR Vβ13.1

Also called TCRBV13S1

Vβ13 is a complex subfamily of the T cell receptor. Vβ13.1 is expressed by 1.8% to 3.3% of peripheral CD3+ cells in normal blood. This sequence is also referred to as TRBV6-5, TRBV6-6, TRBV6-9 (based on the IMGT gene nomenclature).



HBP34141 Cell line.

Clone: IMMU 222

Isotype: IgG2b Mouse

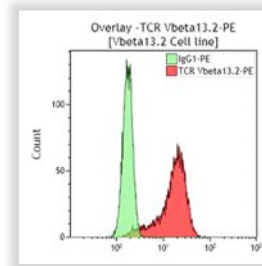
The IMMU 222 antibody recognizes Vβ13.1 member (HBP34 sequence). Vβ13.3 (IGRb14 sequence) is not recognized. Reactivity with other members of this subfamily has not been found, but cannot be formally excluded. It has been recently shown that Immu 222 can recognize the Vβ13.4 and Vβ13.6 (IGRb16 sequence) subsets.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	1 mL	Liquid	IM1554	ASR	IOTest	GMP
PE	1 mL	Liquid	IM2292	ASR	IOTest	GMP

TCR Vβ13.2

Also called TCRBV13S2

Vβ13 is a complex subfamily of the T cell receptor. Vβ13.2 is expressed by 0.8% to 5.3% (mean 2.8%) of peripheral CD3-positive lymphocytes in normal blood.



Vbeta13.2 Cell line.

Clone: H132

Isotype: IgG1 Mouse

The antibody H132 recognizes the Vβ13.2 allele product, but does not react with the Vβ3.1, 13.3, 13.5 and 13.6 allele products of the Vβ13 subfamily. The specificity of this antibody has been confirmed at the Human TCR Workshop in San Francisco, CA, in 1995.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	IM3603	ASR	IOTest	GMP



REAGENTS

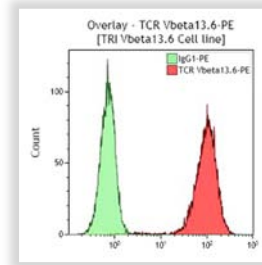
ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

TCR Vβ13.6

Also called TCRBV13S6

Vβ13 is a complex subfamily of the T cell receptor. Vβ13.6 is expressed by 0.9% to 1.9% of peripheral CD3+ cells in normal blood. This sequence is also referred to as TRBV6-6 (based on the IMGT gene nomenclature).



TRI Vbeta 13.6 Cell line.

Clone: JU74.3

Isotype: IgG1 Mouse

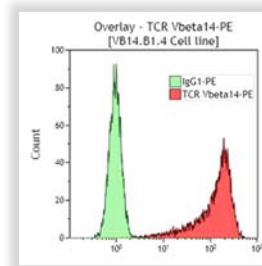
The JU74.3 antibody recognizes the Vβ13.6 sequence (IGRb16 sequence). Vβ13.1 (HBP34 sequence) is not recognized. The reactivity of the other members of this complex subfamily has not been found, but cannot be formally excluded.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	1 mL	Liquid	IM1330	ASR	IOTest	GMP
PE	1 mL	Liquid	B07225	ASR	IOTest	GMP

TCR Vβ14

Also called TCRBV14S1

Vβ14 is a single member subfamily (PL8.1 sequence identical to PH21 sequence). It is expressed by 2.2% to 5.6% of peripheral CD3+ cells in normal blood. This sequence is also referred to as TRBV27 (based on the IMGT gene nomenclature).



VB14.B1.4 Cell line.

Clone: CAS1.1.3

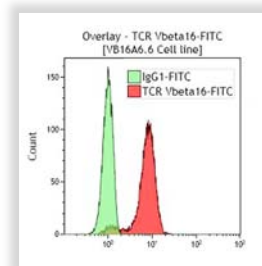
Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	1 mL	Liquid	IM1558	ASR	IOTest	GMP
PE	1 mL	Liquid	IM2047	ASR	IOTest	GMP

TCR Vβ16

Also called TCRBV16S1

Vβ16 is a single member subfamily (HBP42 sequence identical to HT370 sequence). It is expressed by 0.4% to 1.1% of peripheral CD3+ cells in normal blood. This sequence is also referred to as TRBV14 (based on the IMGT gene nomenclature).



VB16A6.6 Cell line.

Clone: TAMAYA1.2

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	1 mL	Liquid	IM1560	ASR	IOTest	GMP



REAGENTS

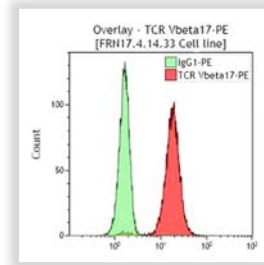
ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

TCR Vβ17

Also called TCRBV17S1

Vβ17 is a single member subfamily (HBVT02 sequence). It is expressed by 3.3% to 7% of peripheral CD3+ cells in normal blood. Vβ17 is the target of Mycoplasma Arthritis Superantigen (MAS) and Staphylococcal Enterotoxin B (SEB). This sequence is also referred to as TRBV19 (based on the IMGT gene nomenclature).



FRH17.4.14.33 Cell line.

Clone: E17.5F3.15.13

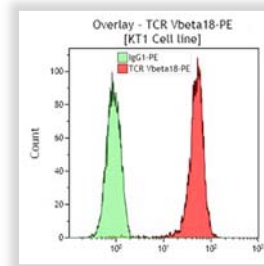
Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	1 mL	Liquid	IM1234	ASR	IOTest	GMP
PE	1 mL	Liquid	IM2048	ASR	IOTest	GMP

TCR Vβ18

Also called TCRBV18S1

Vβ18 is a single member subfamily (PH29 sequence identical to the HBVT56 sequence). It is expressed by 0.7% to 1.4% of peripheral CD3+ cells in normal blood. This sequence is also referred to as TRBV18 (based on the IMGT gene nomenclature).



K11 Cell line.

Clone: BA62.6

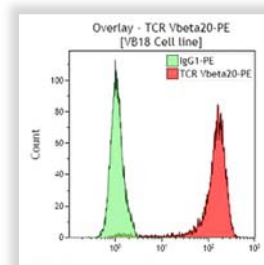
Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	1 mL	Liquid	IM2049	ASR	IOTest	GMP

TCR Vβ20

Also called TCRBV20S1

Vβ20 is a single member subfamily (HUT102 sequence) of the T cell receptor. Two alleles have been identified for this sequence. One of them is a frequent null allele (frequency estimated at 11%). No cells are stained on PBL from certain specimens whereas around 2.4% is expected for specimens expressing the functional allele. This sequence is also referred to as TRBV30 (based on the IMGT gene nomenclature).



VB18 Cell line.

Clone: ELL1.4

Isotype: IgG2a Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	1 mL	Liquid	IM1562	ASR	IOTest	GMP
PE	1 mL	Liquid	IM2295	ASR	IOTest	GMP



REAGENTS

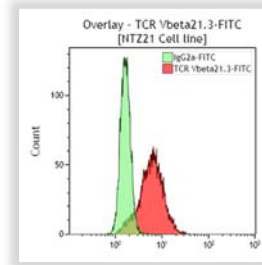
ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

TCR Vβ21.3

Also called TCRBV21S3

Vβ21 is a subfamily of the T cell receptor. The Vβ21.3 is expressed by 2.2% to 3.6% of peripheral CD3+ cells in normal blood. This sequence is also referred to as TRBV11-2 (based on the IMGT gene nomenclature).



N1Z21 Cell line

Clone: IG125

Isotype: IgG2a Mouse

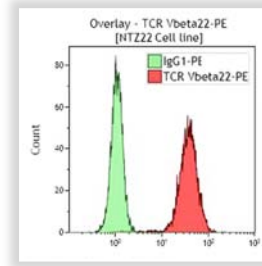
The IG125 antibody recognizes the IGRb01 sequence identical to TCR BV21.3 sequence. Recognition of other sequences within this subfamily has not been found, but cannot be formally excluded.

Form	Size	Format	Part #	Status	Line	Quality Standard
FITC	1 mL	Liquid	IM1483	ASR	IOTest	GMP

TCR Vβ22

Also called TCRBV22S1

Vβ22 is a subfamily of the T cell receptor. The Vβ22 is expressed by 2.4% to 5.1% of peripheral CD3+ cells in normal blood. This sequence is also referred to as TRBV2 (based on the IMGT gene nomenclature).



N1Z22 Cell line

Clone: IMMU 546

Isotype: IgG1 Mouse

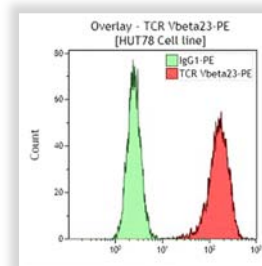
The IMMU 546 antibody recognizes the IGRb03 sequence. Another gene has been described for this family which differs by only one amino acid and may represent an allelic variant. Recognition of this sequence is likely, but has not been formally proven yet.

Form	Size	Format	Part #	Status	Line	Quality Standard
FITC	1 mL	Liquid	IM1484	ASR	IOTest	GMP
PE	1 mL	Liquid	IM2051	ASR	IOTest	GMP

TCR Vβ23

Also called TCRBV23S1

Vβ23 is a family with a single member (IGRb04 sequence). Vβ23 is expressed on the HUT78 and H9 cell lines, which is frequently used to grow HIV. It is expressed by 0.4% to 5% of peripheral CD3+ cells in normal blood. This sequence is also referred to as TRBV13 (based on the IMGT gene nomenclature).



HUT78 Cell line

Clone: AF23

Isotype: IgG1 Mouse

Form	Size	Format	Part #	Status	Line	Quality Standard
PE	1 mL	Liquid	IM2004	ASR	IOTest	GMP



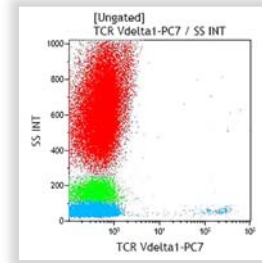
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

TCR Vδ1

Vδ1 is a variable segment of the $\gamma\delta$ T cell receptor. Vδ1 is rearranged on both C α and C δ and is expressed in these two cell types. Vδ1+ $\gamma\delta$ + cells are the major T cell population at birth and are over expressed in intestinal intraepithelial lymphocytes. This sequence is also referred to as TRDV1 (based on the IMGT gene nomenclature).



Lysed normal whole blood sample.

Clone: R9.12

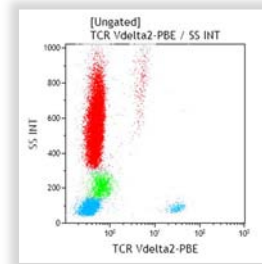
Isotype: IgG1 Mouse

R9.12 reacts only with $\gamma\delta$ + Vδ1+ cells and not with $\alpha\beta$ + Vδ1+ cells.

Form	Size	Format	Part#	Status	Line	Quality Standard
PC7	0.5 mL	Liquid	B49309	ASR	IOTest	GMP NEW
UNLB	0.1 mg	Freeze-dried	IM1761	RUO	-	GMP

TCR Vδ2

Vδ2 is the human variable δ 2 gene of the $\gamma\delta$ T cell receptor. Vδ2+ T cells are the main population of the circulating $\gamma\delta$ T cells. It is expressed by 0.5% to 10% of PBL in normal blood, representing around 70% of the peripheral $\gamma\delta$ T cells. Vδ2 is mostly associated with V γ 9. This sequence is also referred to as TRDV2 (based on the IMGT gene nomenclature).



Lysed normal whole blood sample.

Clone: IMMU 389

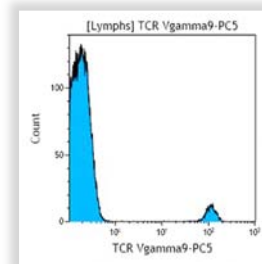
Isotype: IgG1 Mouse

The IMMU 389 antibody gives excellent results in immunofluorescence and frozen sections. It also works in Western blot. It recognizes the $\gamma\delta$ complex from the Vδ2+ T cell receptor (non reducing conditions), and the isolated δ chain under reducing conditions. It immunoprecipitates the $\gamma\delta$ complex of Vδ2+ T cell clones.

Form	Size	Format	Part#	Status	Line	Quality Standard
PB	0.5 mL	Liquid	B49310	ASR	IOTest	GMP
FITC	1 mL	Liquid	IM1464	ASR	IOTest	GMP

TCR V γ 9

V γ 9 is the only functional member of the group II γ variable genes of the $\gamma\delta$ T cell receptor. It is expressed by 0.5% to 10% of PBL in normal blood, representing around 70% of circulating $\gamma\delta$ + T cells. Therefore, V γ 9 positive cells are the major population of circulating $\gamma\delta$ T cells. V γ 9 is mainly associated with Vδ2. The combination V γ 9-Vδ2 $\gamma\delta$ T cell seems to recognize mycobacterial antigens. This sequence is also referred to as TRGV9 (based on the IMGT gene nomenclature).



Lysed normal whole blood sample gated on lymphocytes.

Clone: IMMU 360

Isotype: IgG1 Mouse

IMMU 360 may be used in flow cytometry, immunoprecipitation, Western blot and immunohistochemistry techniques.

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	1 mL	Liquid	IM1463	ASR	IOTest	GMP
PC5	0.5 mL	Liquid	A63663	ASR	IOTest	GMP



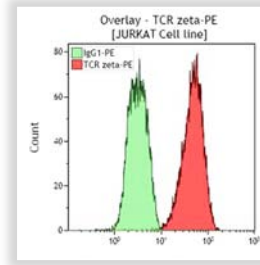
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

TCR ζ

The ζ subunit is a 16 kDa surface molecule associated with the T cell receptor. Its expression is restricted to T lymphocytes and NK cells. In T lymphocytes, the ζ subunit is expressed as a disulfide-linked homodimer of 32 kDa or as a disulfide-linked heterodimer with a 21 kDa subunit designated η . Both of these dimeric species are non-covalently associated with the remaining subunits of the CD3-TCR-antigen receptor complex. In NK cells, the ζ subunit is expressed as a disulfide-linked homodimer of 32 kDa or as a disulfide-linked heterodimer with a 12 kDa subunit. It is associated with the CD16 molecule (Fc γ RIII).



JURKAT Cell line.

Clone: 2H2D9 (TIA-2)

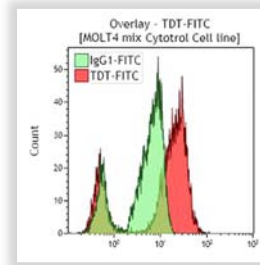
Isotype: IgG1 Mouse

The 2H2D9 (TIA-2) antibody recognizes a cytoplasmic epitope of the ζ subunit of the T lymphocyte receptor complex. It is suitable for immunoprecipitation, immunoblotting, and flow cytometric analysis of permeabilized cells. The TIA-2 antibody was evaluated during the Fifth International Workshop on Human Leukocyte Differentiation Antigens. TIA-2 antibody can be used to detect intracytoplasmic TCR- ζ in flow cytometry after permeabilization with digitonin.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	IM3169	ASR	IOTest	GMP

TdT

Terminal Deoxynucleotidyl Transferase (TdT) is an intra nuclear marker normally present at high levels in cortical thymocytes and a minor subset of bone marrow pre-lymphocytes.



MOLT4 Mix Cytototal Cell line.

Clone: HT1 + HT4 + HT8 + HT9

Isotype: IgG Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
FITC	50 tests	Liquid	IM3524	CE	-	98/79/EC
FITC	1 mL	Liquid	IM3524U	ASR	-	GMP



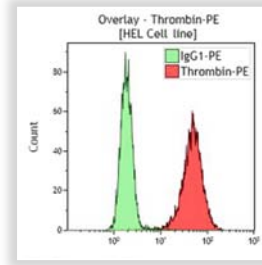
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

Thrombin receptor

The Thrombin Receptor (60 to 80 kDa) is expressed on a variety of cells including platelets and endothelium. The receptor is a substrate of thrombin and has been shown to play a role in the activation of platelets.



HEL Cell line.

Clone: SPAN 12

Isotype: IgG1 Mouse

The SPAN 12 antibody recognizes an epitope on the receptor that spans the thrombin cleavage site. It binds to intact receptors, but not to cleaved ones. SPAN 12 inhibits thrombin-induced receptor activation at reduced thrombin concentrations.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	IM2583	ASR	IOTest	GMP

Clone: WEDE15

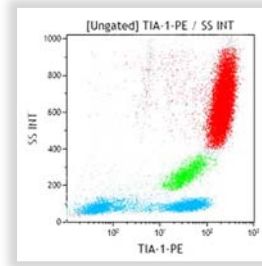
Isotype: IgG1 Mouse

The WEDE15 antibody recognizes an epitope on the receptor, distant from the N-terminal thrombin cleavage site (WEDEE). It reacts with both intact and cleaved receptors.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	IM2584	ASR	IOTest	GMP

TIA-1

The T cell intracellular antigen 1 (TIA-1) is a 17 kDa cytoplasmic granule-associated protein, expressed in cells possessing cytolytic potential. TIA-1 is also designated as GMP-17 (granule membrane protein of 17 kDa). The GMP-17/TIA-1 molecule could be involved in the molecular signaling cascade during Fas (CD95)-mediated apoptosis. In normal peripheral blood lymphocytes, TIA-1 is expressed by 90% of CD16⁺, 50-60% of CD8⁺, and less than 10% of CD4⁺ cells. Although TIA-1 may be detected in unstimulated T lymphocytes, activated T lymphocytes are induced to express disulfide linked polymers of the 17 kDa protein, also recognized by TIA-1. TIA-1 is expressed by all monocytes and granulocytes, by activated CD4⁺ T-cell clones and activated natural killer cell clones, and by Con A-activated thymocytes. On the contrary, TIA-1 is not expressed by B lymphocytes or B-cell lines.



Lysed normal whole blood sample.

Clone: 2G9A10F5

Isotype: IgG1 Mouse

The 2G9 antibody is a useful reagent for detecting cytolytic effector cells in tissue infiltrates. It was evaluated during HLDA 5 in the section of monoclonal antibodies reactive with intracellular antigens. It may be used to detect intracytoplasmic TIA-1 in flow cytometry after permeabilization with IntraPrep permeabilization reagent.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	IM3293	ASR	IOTest	GMP
UNLB	0.2 mg	Freeze-dried	IM2550	ASR	-	GMP



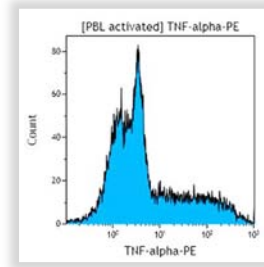
REAGENTS

ANTIBODIES TO HUMAN ANTIGENS

Single-Color Reagents

TNF α

Tumor necrosis factor α (TNF α) or cachectin is a cytokine that was first identified based on its cytotoxic activity against various cell lines and tumor cells. Human TNF α is synthesized as a pro-protein with a molecular weight of 26 kDa (membrane-bound form). The pro-protein is cleaved by a specific metalloprotease (TACE) yielding a monomeric, soluble form of 17 kDa. Under physiological conditions, TNF α forms a homotrimeric protein. This cytokine is primarily produced by mononuclear phagocytes, and by activated lymphocytes. Immunostaining allows intracellular detection of TNF α before it can be detected by a bioassay. TNF α acts on target cells by binding to two types of receptors, the TNF α receptor I (TNF-R1 or CD120a) and the TNF α receptor II (TNF-R2 or CD120b). TNF α elicits a wide spectrum of immune and inflammatory responses, including the induction of other cytokines and immunoregulatory molecules, cell growth and differentiation and apoptosis. This molecule is also involved in Th1 - Th2 (T helper 1 - T helper 2) cytokine pathways (or Type 1 - Type 2 responses), as a Th1-effector cytokine.



Activated PBL

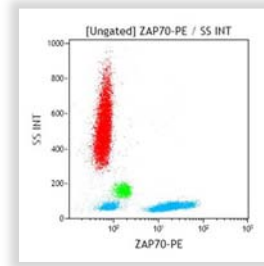
Clone: IPM2 (188)

Isotype: IgG1 Mouse

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	2 mL	Liquid	IM3279U	ASR	IOTest	GMP
AF700	0.5 mL	Liquid	B76295	ASR	IOTest	GMP NEW

ZAP-70

Zap-70, a Syk family protein tyrosine kinase expressed in T and NK cells, plays a critical role in mediating T cell activation in response to T cell receptor (TCR) engagement. Following TCR engagement, Zap-70 is rapidly phosphorylated on several tyrosine residues, presumably by two mechanisms: autophosphorylation and transphosphorylation by the Src family tyrosine kinase, Lck. Tyrosine phosphorylation of Zap-70 correlates with its increased kinase activity and downstream signaling events.



Lysed normal whole blood sample

Clone: SBZAP

Isotype: IgG1 Mouse

The monoclonal antibody SBZAP was generated against a KLH-peptide sequence corresponding to the human ZAP-70 amino acid residues 280-309.

Form	Size	Format	Part#	Status	Line	Quality Standard
PE	50 tests	Liquid	B57658	RUO	IOTest	GMP
UNLB	50 tests	Liquid	B10739	RUO	-	GMP



REAGENTS

ISOTYPE CONTROLS

Mouse

IgG1 Mouse

Form	Size	Format	Line	Status	Part #
PB	1 mL	Liquid	IOTest	ASR	A74766
PB	100 tests	Liquid	IOTest	CE	A74764
KrO	1 mL	Liquid	IOTest	ASR	A96415
FITC	2 mL	Liquid	IOTest	ASR	IM0639U
FITC	100 tests	Liquid	IOTest	CE	A07795
FITC	50 tests	Liquid	CYTO-STAT	IVD & CE	6603864
FITC	100 tests	Freeze-dried	COULTER CLONE	IVD & CE	6602928
PE	2 mL	Liquid	IOTest	ASR	IM0670U
PE	100 tests	Liquid	IOTest	CE	A07796
RD1	100 tests	Liquid	COULTER CLONE	IVD & CE	6602884
ECD	1 mL	Liquid	IOTest	ASR	IM2714U
ECD	100 tests	Liquid	IOTest	CE	A07797
ECD	50 tests	Liquid	CYTO-STAT	RUO	6604548
PC5	1 mL	Liquid	IOTest	ASR	IM2663U
PC5	100 tests	Liquid	IOTest	CE	A07798
PC5	50 tests	Liquid	CYTO-STAT	RUO	6607012
PC5.5	100 tests	Liquid	IOTest	CE	A62833
PC5.5	1 mL	Liquid	IOTest	ASR	A62834
PC7	100 tests	Liquid	IOTest	RUO	6607099
PC7	100 tests	Liquid	IOTest	CE	737662
APC	100 tests	Liquid	IOTest	CE	IM2475
APC	1 mL	Liquid	IOTest	ASR	IM2475U
APC-A700	1 mL	Liquid	IOTest	ASR	A71118
APC-A700	100 tests	Liquid	IOTest	CE	A79391
APC-A750	1 mL	Liquid	IOTest	ASR	A71120
APC-A750	100 tests	Liquid	IOTest	CE	A79393



REAGENTS

ISOTYPE CONTROLS

Mouse

IgG2a Mouse

Form	Size	Format	Line	Status	Part #
FITC	2 mL	Liquid	IOTest	ASR	A12690
FITC	100 tests	Liquid	IOTest	CE	A12689
FITC	50 tests	Liquid	CYTO-STAT	IVD & CE	6603855
PE	2 mL	Liquid	IOTest	ASR	A09141
PE	100 tests	Liquid	IOTest	CE	A09142
RD1	50 tests	Liquid	CYTO-STAT	IVD & CE	6604119
ECD	1 mL	Liquid	IOTest	ASR	A09144
PC5	1 mL	Liquid	IOTest	ASR	A09147
PC5	100 tests	Liquid	IOTest	CE	A09148
PC7	1 mL	Liquid	IOTest	ASR	A12692
APC	1 mL	Liquid	IOTest	ASR	A12694
APC	100 tests	Liquid	IOTest	CE	A12693

IgG2b Mouse

Form	Size	Format	Line	Status	Part #
FITC	50 tests	Liquid	CYTO-STAT	IVD & CE	6603853
RD1	0.5 mL	Liquid	CYTO-STAT	ASR	6603852
ECD	0.5 mL	Liquid	CYTO-STAT	ASR	6604700

IgM Mouse

Form	Size	Format	Line	Status	Part #
FITC	2 mL	Liquid	IOTest	ASR	IM1269U
UNLB	100 tests	Liquid	-	RUO	IM1268



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Clones and related technical data

The Technical Data are published information about a clone functional or technical applications. They are not systematically tested in our laboratories and for each application, you must select the appropriate format of the product. Please refer to the related package insert for specific information and/or references on intended use or limitations on the use of the products. Each abbreviation indicate technical data that may be appropriate or inappropriate uses of a product (see table below).

<p>APPROPRIATE USES</p> <p>A Activating</p> <p>B Blocking</p> <p>C Flow Cytometry</p> <p>Ci Intracytoplasmic Staining</p> <p>E Elisa</p>	<p>APPROPRIATE USES</p> <p>F Frozen Tissue Sections</p> <p>I Immunoprecipitation</p> <p>P Paraffin-embedded Tissue Sections</p> <p>Ph Heat Treated Paraffin-embedded Tissue</p> <p>W Western Blot</p>	<p>INAPPROPRIATE USES</p> <p>A Non-activating</p> <p>B Non-blocking</p> <p>f Inappropriate for Immunoprecipitation</p> <p>P Inappropriate for Paraffin-embedded Tissue Sections</p> <p>W Inappropriate for Western Blot</p>
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Most of the Beckman Coulter Monoclonal Antibodies to human CD antigens have been clustered and studied during at least one of the International Workshops on Human Leucocyte Differentiation Antigens (HLDA). The red number references the HLDA workshop at which an antibody was clustered.

- | | |
|--|---|
| <p>1 HDA 1: Leucocyte Typing - Bernad, A., et al Eds., Springer-Verlag (1984)</p> <p>2 HDA 2: Leucocyte Typing II - Reinhez, E.L., et al Eds., Springer-Verlag (1986)</p> <p>3 HDA 3 Leucocyte Typing III - McMichael, A.J., et al Eds., Oxford University Press (1987)</p> <p>4 HDA 4 Leucocyte Typing IV - KnappW., et al Eds., Oxford University Press (1989)</p> <p>5 HDA 5 Leucocyte Typing V - Schlossman, S.F., et al Eds., Oxford University Press (1995)</p> | <p>6 HDA 6 Leucocyte Typing VI - Kishimoto, T., et al Eds., Garland Publishing Inc. (1997)</p> <p>7 HDA 7 Leucocyte Typing VII - Mason, D., et al Eds., Oxford University Press (2002)</p> <p>8 HDA 8 www.hlda8.org</p> <p>9 HDA 9 www.hcdm.org</p> <p>10 HDA 10 www.hcdm.org</p> |
|--|---|

Leulocyte and Stromal Cell Molecules, The CD Makers, Zola, H., et al Eds. Wiley-Liss (2007)

Clone Name	Technical Data	Page
1-2		
1A4CD27	5 C F I B	155
1D3	5 C I F	149
1F11	5 C I	157
1G11	5 C I B F	184
1HT4HB	2 I C	154
2.7A6A3	C W E Ci	135
2A2	C	221
2E1	3 C I F E	157
2G5	5 C I	184
2G9A10F5	5 C	234
2H2D9	C W I F	233
2H4G3B	2 C	141
2H4LDH11LDB9	3 C F I B	167
2ST8.5H7	5 C I	143
2T8.2F5	C	237
3-4		
3.29B1.10	B C F	200
3A1E-12H7	1 C F I	141

Clone Name	Technical Data	Page
3A6	6 C	196
3C10	C	223
3D11	C	226
3G8	4 C F B I A E	148
4B41	6 C	189
4B4DC9LDB8	3 C A B I F P	156
4D9	C Ci	217
4EL1C7	2 C I B	154
5-6		
5GE	4 C W I F	157
7-8-9		
7I	I C F W	220
7E4	6 B I C	149
8A3	C	185
8F9	C	210
8FB1	2 C F I	141
9.49	C	215
9F5	6 C	187
9P25	6 C B I	153



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11.1CN5	C	221
11E2G3	C	210
11E4B-7-6	7 C F	202
12G5	7 C B	198
13B82	3 W E C B	139
22	4 C I F	175
22F6	C	213
253	4 I C B	145
3813	4 C F A	177
39C1.5	2 A B C	137
42D1	C	180
4515	C Ci	215

51-99

56C5.2	C F	227
80H3	5 C I W F E	176
80H5	5 C E A Ph F	148
80M2	C	186
84H10	3 I C F B E Ci	170
88H7	6 C W F	175
89B	2 C I F	150
94	1 C W I B F	145
95C3	5 C I F	186
97A6	7 I C	200

100 & +

104G4	7 F I Ci	201
104D2D1	6 C	186
116	1 C I F	147
191B8	6 C B	196
259D	C	212
322A-1	1 C F W I E B	147
36213	C	225
366	1 C I F	146
581	5 A C W F P	159

Clone Name	Technical Data	Page
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906	2 C F I	158
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A

AD-2	4 C	177
AF23	C	231
ACD58	5 C I F B	172
ALB1	F C	144
ALB11	5 C P	167
ALB12	C	166
ALB2	3 C F	144
ALB6	3 C I W A F	143
ALB9	6 E C F	153
AZND1	7 C F	202

B

BA38	C	190
BR35	8 C	198
BL499	2 I C A B	154
BLG6	C	135
BS122	C	214
B911	1 C B I	142
B9121	C	213
B9E9	5 C	151
BA54	5 C	162
BAG26	C F	230
BAE281	C	208
Bead	6 C I B F	145
BeACT35	C	189
BL13	3 C F I E	152
BL14	3 C I F	161
BL168	C	217
BL1a	3 C I W B	140
BL37.2	C	224
BL6	3 C F I	136
BM6	C	205
BNB	6 E F I C Ci	191
BU15	3 F C I	146



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Clone Name	Technical Data	Page
BY55	7 C I B	195
C		
C1.7	5 A C W	203
C15	C F	223
C21	C	227
C218	6 B C	171
CAS1.1.3	C	229
CB31	6 A C I W	178
CD282	5 A C B	155
CF1	5 C E B F	187
CH1	5 A C F P E	183
CH2	C	224
CLB-Guar/12	4 C W Ci	174
CLB-MP0-1	C	219
CLB-Ti/1	3 C	140
CLB-Thromb/6	4 W I B C F Ci	174
CLB1317	C	219
D		
D3H160.251	4 C I	158
DCGM4	7 F C I Ci	201
DFT1	5 C P W A I F	164
dG9	C	221
DREG56	5 C W I B E F	173
E		
E12428	C	216
E17.5F3.15.13	C F	230
E5A126	C W	205
EB6B	6 C I W B	192
ELL1.4	C	230
F		
F15-421-5	6 C W	182
FA6152	5 C F E W B I	160
FES172	I C	194
FN9	C	227

Clone Name	Technical Data	Page
FMC7	W C	151, 211
G		
G025H7	C	197
G043H7	8 C	199
GB11	C	212
G9	5 B F C I W	168
GL183	6 C I W B	193
H		
H10E12F4	C	211
H132	C	228
H299	1 C F I B E	151
H4A3	5 C Ci	185
HA5.2B7	C F	182
HB15a	5 C I A	180
HCD99	6 C	183
HD237	3 C B	150
HD239	4 I F C	152
HD50	3 C B I	153
HI86	6 C	169
HM47	5 I Ci F Ph C	178
HP-3B1	5 B I A C F	183
HP-F1	C	181
HP2/1	4 I B C F	169
HRS4	3 C W P I E F	156
HI1 + HI4 + HI8 + HI9	C	233
I		
IA62	C	215
I125	C	231
IMM157	C F	225
IMM222	C F	228
IMM360	C	232
IMM389	C	232
IMM546	C F	231
Imm-357	C	214



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Clone Name	Technical Data	Page
Imm103.44	5 C	146
Imm133	5 C W P F A I	159
Imm192	6 C	166
MMU510	C I E F	222
P26A	C	222
PME	C	235
SA-3	C	204

J

J.173	3 C A I	165
J1B3	C	210
J3-119	4 B I C	150
J33	3 C	166
J3D3	3 I C E B F P	160
J457	4 C I P	168
J5	1 F C I P B	144
JS11KSC23	6 I F C	170
JS64	5 C I W	179
JU743	C	229

K

K20	3 I F C B	156
KC56	5 C	166
KC57	C	213
KDR-1	8 C	206
K6-67	F W C Ci Ph	218
KDR-SA3544	C W Ph	176

L

L161	3 C I F	136
LS19843	5 C	161

M

M60	C	190
MEM	6 F I B W C E	188
MA127	C	209
MA152	C	220
MAB104	6 C I F	179

Clone Name	Technical Data	Page
MAB89	4 C P A F W E	162
MEM43	4 C	172
MHR73-11	7 C	197
MP4-25D2	C E W	217
MPB2D5	C	224

N

N7.48A	C Ci	216
N901	4 P I F B A C	171
NC1	5 C W P	171
NKTA255	8	206

O

ON72	C	207
OX-104	7 C	199

P

P2	5 C B E I W	163
P282E	5 C	172
PD-L1	8 C	203
PDL3	8 C	204

Q

QBEnd10	4 C W P F I A	159
QBEnd10+ Imm133+ Imm409	C	159

R

R3434	6 B C I	188
R912	C	232
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