



# cytognos

Flow Cytometry Solutions



**REAGENTS**

**STAIN**



**TECHNICAL SUPPORT**



**Infinicyt™**

**ANALYZE &  
REPORT**



**EuroFlow**

**STANDARDIZE**



**Omnicyt™**  
FLOW CYTOMETER

**ACQUIRE**

## CATALOG 2021

# INDEX

## PRESENTATION

3

## REAGENTS

5

<b>Reagents for use in flow cytometry</b> .....	<b>5</b>
Available fluorochromes .....	5
<b>New in 2021</b> .....	<b>6</b>
<b>Antibodies against human antigens</b> .....	<b>7</b>
Single-color antibodies .....	7
<b>Multicolor cocktails</b> .....	<b>14</b>
Two-color antibody cocktails .....	14
Three and four-color antibody cocktails .....	14
<b>Erythrocyte lysing solutions</b> .....	<b>15</b>
<b>Cocktails for lymphocyte subset studies</b> .....	<b>16</b>
<b>DNA content studies and cell cycle analysis</b> .....	<b>19</b>
<b>Absolute counting systems</b> .....	<b>20</b>

## NEXT GENERATION FLOW™

21

<b>Introduction</b> .....	<b>21</b>
<b>Next Generation Flow™ for Hemato-oncology</b> .....	<b>22</b>
Chronic lymphoproliferative disorders .....	23
Acute leukemia .....	25
Plasma cell dyscrasias .....	27
<b>Next Generation Flow™ for Immunology</b> .....	<b>29</b>
Primary immunodeficiencies .....	30
<b>Next Generation Flow™ for Clinical Trials</b> .....	<b>32</b>

## FLOW CYTOMETER: OMNICYT™

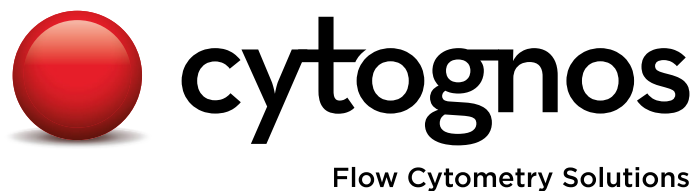
33

## SOFTWARE: INFINICYT™

35

## EUROFLOW™ DATABASES

37



## About Us

Cytognos is a biotechnology company specialized in clinical flow cytometry, that offers complete solutions for oncohematology, clinical immunology laboratories and clinical trials. Our goal is to help flow cytometry laboratories to provide better patient care, improving their efficiency and workflow through our standardized, efficient, reproducible and highly sensitive solutions.

Our products are developed in close cooperation with international universities, research centers and innovative companies in order to obtain the best tools for our customers.

Cytognos products can either be supplied directly or through a worldwide network of distributors.

Please visit our website [www.cytognos.com](http://www.cytognos.com) for more information about our portfolio.

### MISSION

Enhance patient care and laboratory efficiency through cutting-edge Flow Cytometry technology.



## On-hand Technical Support

Cytognos technical specialists are highly qualified to provide expert support to our customers.

Our personnel provide field or email-based assistance on:

- ◆ Standard operating protocols for instrument set-up and compensation.
- ◆ Standard Operating Procedures (SOPs) for sample preparation and staining.
- ◆ Analysis of flow cytometric data using Infinicyt™ Software.

## Regulatory Status

**Cytognos, S.L.** is certified by quality management standards **ISO 9001:2015** and **ISO 13485:2016**. All Cytognos, S.L. products for in vitro diagnostic comply with Directive **98/79/EC** that guarantees the highest level of safety and quality.

Based on this legal framework, the products offered in this catalog are classified as:

- ◆ Medical devices for in vitro diagnostics according to European Directive 98/79/EC with the CE “European Conformity” and IVD “In Vitro Diagnostic Use” marking. Products to be used in vitro for the examination of specimens derived from the human body in order to obtain information concerning a physiological or pathological state or to monitor the efficiency of therapeutic measures. Sanitary IVD products offer the highest level of sanitary protection and guarantee the compliance with the performance specifications claimed by the manufacturer in conformance with Directive 98/79/EC of the European Union. All CE/IVD products can also be provided as RUO reagents.
- ◆ Products for research use are marked as RUO “Research Use Only”. These products are intended to be used in basic research and should not be used for clinical diagnosis, prognosis or therapeutic determinations.



# REAGENTS

## Reagents for use in flow cytometry

Cytognos provides a variety of products to satisfy user needs in flow cytometry laboratories. We offer reagents for instrument standardization and sample preparation.

### Available fluorochromes

Fluorochrome	Excitation laser line (nm)	Maximum excitation peak (nm)	Maximum emission peak (nm)
<b>Pacific Blue™</b>	405 Violet laser	405	450
<b>OC515™</b> Orange Cytognos 515	405 Violet laser	405	515
<b>FITC</b> Fluorescein Isothiocyanate	488 Blue laser	495	519
<b>PE</b> R-Phycoerythrin	488, 532, 561 Blue laser	496, 564	578
<b>PerCP-Cyanine5.5</b> Peridin Chlorophyll protein-Cyanine 5.5 Tandem	488, 532 Blue laser	482	695
<b>PE-Cyanine5</b> R-Phycoerythrin-Cyanine 5 Tandem	488, 532, 561 Blue laser	496, 564	670
<b>PE-Cyanine7</b> R-Phycoerythrin-Cyanine 7 Tandem	488, 532, 561 Blue laser	496, 564	785
<b>APC</b> Allophycocyanin	595, 633, 635, 640, 647 Red laser	650	660
<b>APC-C750™</b> Allophycocyanin-C750 Tandem	595, 633, 635, 640, 647 Red laser	751	779

Pacific Blue™ conjugated antibodies are provided under an agreement between Life Technologies Corporation and Cytognos, S.L. The manufacture, usage, sale or importation of Pacific Blue™ may be subjected to one or more U.S. patents, pending applications, and corresponding non-U.S. equivalents owned by Life Technologies Corporation.

APC-C750™ fluorochrome is a high quality APC tandem for the red diode-laser designed to achieve the best performance. This fluorochrome is compatible with any flow cytometer equipped with a red diodelaser and the appropriate filters and detectors for the far red signal.



## New in 2021

PATENTED!

TiMaScan™

## Monocyte Subsets Tube

**TiMaScan™** (Monocyte Subsets Tube) is a pre-mixed combination that allows for the accurate detection and enumeration of the main monocyte subsets, as important parameters for tissue damage monitoring.

Several studies have identified relevant changes in relative and absolute numbers of circulating monocytes/macrophages in the aftermath of several clinical settings, specially involving tissue damage. For this reason, peripheral blood monitoring represents a sensitive test for the detection and quantification of the different subsets of monocytes. More information at [www.timascan.org](http://www.timascan.org).

Pacific Blue™	OC515™	PerCP-Cyanine5.5	PE-Cyanine7	APC-C750™
HLA-DR	CD45	CD14	CD300e	CD38

Description	Size	Catalog code	Status
<b>TiMaScan™</b>	25 tests	CYT-TIMASCAN-R	RUO

APLS-AML

## Alkaline Phosphatase Live Stain - Acute Myeloid Leukemia

**APLS-AML** is a 4-color antibody combination that should be used with Alkaline phosphatase live staining for the evaluation of myeloid blasts. This is a non-lyse-non-wash method that permits combining functional analysis and immunophenotyping to evaluate the activity of alkaline phosphatase in myeloid blasts.

Acute Myeloid Leukemia (AML) is a heterogeneous pathology that is complex to study due to the heterogeneity of the pathological population. An increased alkaline phosphatase activity in leukemic myeloid precursors has been proven to be significantly associated with a higher risk of relapse or resistance to treatment and mortality (Rico, et al. 2019). **APLS-AML** is commercialized under license from Josep Carreras Leukaemia Research Institute.

PE	PerCP-Cyanine5.5	APC	APC-C750™
HLA-DR	CD34	CD117	CD45

Description	Size	Catalog code	Status
<b>APLS-AML</b>	25 tests	CYT-APLS-AML-R	RUO

T-Cell  
Subsets

## T-Cell Subsets Tube

**T-Cell Subsets Tube** 7-antibody combination allows the identification of different T-cell subsets for the evaluation of their relative numbers and kinetics, which can have relevance in the immune response. This tube can be complemented with different types of markers in the FITC channel.

Pacific Blue™	OC515™	FITC	PE	PerCP-Cyanine5.5	PE-Cyanine7	APC	APC-C750™
CD3	CD45	Drop-in	CD27	CD4	CD8	CD62L	CD45RO

Description	Size	Catalog code	Status
T-Cell Subsets Tube	20 tests	CYT-TCELLSUBSETS-R	RUO



# Antibodies against human antigens

## Single-color antibodies

CD1a	Catalog code	Size	Clone	Isotype	Status
<b>FITC</b>	CYT-1AF1	200 tests	NA1/34-HLK	IgG2a	RUO

CD2	Catalog code	Size	Clone	Isotype	Status
<b>FITC</b>	CYT-2F7	200 tests	RPA-2.10	IgG1	RUO

CD3	Catalog code	Size	Clone	Isotype	Status
<b>Pacific Blue™</b>	CYT-3PBZ	100 tests	UCHT-1	IgG1	RUO
<b>FITC</b>	CYT-3F9	200 tests	UCHT-1	IgG1	CE/IVD
<b>PE</b>	CYT-3PE1	200 tests	UCHT-1	IgG1	CE/IVD
<b>PE-Cyanine5</b>	CYT-3C4	200 tests	UCHT-1	IgG1	CE/IVD
<b>PerCP-Cyanine5.5</b>	CYT-3C9	50 tests	UCHT-1	IgG1	CE/IVD
<b>APC</b>	CYT-3AP10	200 tests	UCHT-1	IgG1	CE/IVD
<b>APC-C750™</b>	CYT-3AC750	50 tests	UCHT-1	IgG1	CE/IVD

CD4	Catalog code	Size	Clone	Isotype	Status
<b>Pacific Blue™</b>	CYT-4PBZ	100 tests	RPA-T4	IgG1	CE/IVD
<b>FITC</b>	CYT-4F1	200 tests	RPA-T4	IgG1	CE/IVD
<b>PE</b>	CYT-4PE1	200 tests	RPA-T4	IgG1	CE/IVD
<b>PE-Cyanine5</b>	CYT-4C1	200 tests	RPA-T4	IgG1	CE/IVD
<b>PerCP-Cyanine5.5</b>	CYT-4C2	50 tests	RPA-T4	IgG1	CE/IVD
<b>APC</b>	CYT-4AP4	200 tests	RPA-T4	IgG1	RUO

NEW!

CD5	Catalog code	Size	Clone	Isotype	Status
<b>FITC</b>	CYT-5F4	200 tests	MCD5	IgG2b	CE/IVD
<b>PE</b>	CYT-5PE4	200 tests	MCD5	IgG2b	RUO
<b>PerCP-Cyanine5.5</b>	CYT-5C2	50 tests	L17F12	IgG2a	CE/IVD

CD7	Catalog code	Size	Clone	Isotype	Status
<b>FITC</b>	CYT-7F5	200 tests	B-B7	IgG1	RUO
<b>APC</b>	CYT-7AP4	200 tests	HULY-M2	IgG2a	CE/IVD



CD8	Catalog code	Size	Clone	Isotype	Status	
<b>FITC</b>	CYT-8F8	200 tests	UCHT-4	IgG2a	CE/IVD	<b>EUROFLOW™</b>
<b>PE</b>	CYT-8PE9	200 tests	UCHT-4	IgG2a	CE/IVD	
<b>PE-Cyanine5</b>	CYT-8C	200 tests	UCHT-4	IgG2a	CE/IVD	
<b>APC</b>	CYT-8AP1	200 tests	UCHT-4	IgG2a	RUO	<b>NEW!</b>

CD9	Catalog code	Size	Clone	Isotype	Status
<b>Pacific Blue™</b>	CYT-9PBZ	100 tests	MEM-61	IgG1	RUO

CD10	Catalog code	Size	Clone	Isotype	Status
<b>FITC</b>	CYT-10F1	200 tests	SN5c	IgG1	RUO
<b>PE</b>	CYT-10PE8	100 tests	CB-CALLA	IgG2b	RUO
<b>APC</b>	CYT-10AP	100 tests	HI10a	IgG1	RUO
<b>APC-C750™</b>	CYT-10AC750	50 tests	HI10a	IgG1	CE/IVD

CD11c	Catalog code	Size	Clone	Isotype	Status
<b>PE</b>	CYT-11cPE3	200 tests	B-ly6	IgG1	CE/IVD

CD13	Catalog code	Size	Clone	Isotype	Status
<b>PE</b>	CYT-13PE3	100 tests	WM15	IgG1	RUO

CD14	Catalog code	Size	Clone	Isotype	Status
<b>FITC</b>	CYT-14F6	200 tests	MEM-15	IgG1	RUO
<b>PE</b>	CYT-14PE7	200 tests	MEM-15	IgG1	RUO
<b>APC</b>	CYT-14AP3	200 tests	47-3D6	IgG1	CE/IVD

CD15	Catalog code	Size	Clone	Isotype	Status
<b>FITC</b>	CYT-15F4	100 tests	MCS-1	IgG3	CE/IVD

CD16	Catalog code	Size	Clone	Isotype	Status
<b>FITC</b>	CYT-16F6	200 tests	3G8	IgG1	CE/IVD
<b>PE</b>	CYT-16PE7	200 tests	3G8	IgG1	RUO

CD16+CD56	Catalog code	Size	Clone	Isotype	Status
<b>PE</b>	CYT-16PE7+56PE	100 tests	3G8 + C5.9	IgG1 + IgG2b	CE/IVD





<b>CD19</b>	Catalog code	Size	Clone	Isotype	Status
<b>FITC</b>	CYT-19F	200 tests	SA287	IgG1	CE/IVD
<b>PE</b>	CYT-19PE9	200 tests	SA287	IgG1	CE/IVD
<b>PE-Cyanine5</b>	CYT-19C1	200 tests	SA287	IgG1	RUO
<b>PerCP-Cyanine5.5</b>	CYT-19C8	50 tests	HIB19	IgG1	RUO
<b>PE-Cyanine7</b>	CYT-19C4	100 tests	SA287	IgG1	CE/IVD
<b>APC</b>	CYT-19AP1	200 tests	SA287	IgG1	RUO
<b>APC-C750™</b>	CYT-19AC750-2	50 tests	SA287	IgG1	RUO

<b>CD20</b>	Catalog code	Size	Clone	Isotype	Status
<b>Pacific Blue™</b>	CYT-20PBZ	100 tests	2H7	IgG2b	CE/IVD
<b>FITC</b>	CYT-20F3	200 tests	2H7	IgG2b	CE/IVD
<b>PE</b>	CYT-20PE5	200 tests	B-ly1	IgG1	RUO
<b>APC</b>	CYT-20AP2	200 tests	2H7	IgG2b	RUO

<b>CD21</b>	Catalog code	Size	Clone	Isotype	Status
<b>APC-C750™</b>	CYT-21AC750	50 tests	B-ly4	IgG1	RUO

<b>CD22</b>	Catalog code	Size	Clone	Isotype	Status
<b>FITC</b>	CYT-22F3	200 tests	B-ly8	IgG1	RUO
<b>PE</b>	CYT-22PE6	200 tests	MEM-01	IgG1	RUO
<b>APC</b>	CYT-22AP	100 tests	S-HCL-1	IgG2b	RUO

<b>CD23</b>	Catalog code	Size	Clone	Isotype	Status
<b>FITC</b>	CYT-23F5	100 tests	EBVCS-5	IgG1	RUO
<b>PE</b>	CYT-23PE3	200 tests	B-G6	IgG1	RUO

<b>CD25</b>	Catalog code	Size	Clone	Isotype	Status
<b>FITC</b>	CYT-25F6	100 tests	MEM-181	IgG1	RUO
<b>PE</b>	CYT-25PE5	100 tests	MEM-181	IgG1	RUO
<b>APC</b>	CYT-25AP	100 tests	M-A251	IgG1	RUO

<b>CD31</b>	Catalog code	Size	Clone	Isotype	Status
<b>FITC</b>	CYT-31F2	200 tests	WM59	IgG1	RUO

<b>CD33</b>	Catalog code	Size	Clone	Isotype	Status
<b>FITC</b>	CYT-33F	200 tests	WM53	IgG1	CE/IVD
<b>PE</b>	CYT-33PE3	200 tests	WM53	IgG1	RUO
<b>APC</b>	CYT-33AP3	200 tests	WM53	IgG1	RUO



<b>CD34</b>	Catalog code	Size	Clone	Isotype	Status
<b>PerCP-Cyanine5.5</b>	CYT-34C2	50 tests	581	IgG1	CE/IVD

<b>CD35</b>	Catalog code	Size	Clone	Isotype	Status
<b>FITC</b>	CYT-35F	100 tests	E11	IgG1	RUO

<b>CD36</b>	Catalog code	Size	Clone	Isotype	Status
<b>FITC</b>	CYT-36F3	100 tests	CLB-IVC7	IgG1	CE/IVD

<b>CD38</b>	Catalog code	Size	Clone	Isotype	Status	
<b>PURE</b>	CYT-38P1	100 tests	LD38	IgG1	CE/IVD	<b>EUROFLOW™</b>
<b>FITC</b>	CYT-38F	200 tests	LD38	IgG1	CE/IVD	<b>EUROFLOW™</b>
<b>multi-epitope-FITC</b>	CYT-38F2	50 tests	multi-epitope	multi-epitope	CE/IVD	<b>EUROFLOW™</b>
<b>PE</b>	CYT-38PE2	200 tests	T16	IgG1	CE/IVD	
<b>APC-C750™</b>	CYT-38AC750	50 tests	LD38	IgG1	CE/IVD	

<b>CD39</b>	Catalog code	Size	Clone	Isotype	Status
<b>PE</b>	CYT-39PE	100 tests	TU66	IgG2b	RUO

<b>CD42a</b>	Catalog code	Size	Clone	Isotype	Status
<b>FITC</b>	CYT-42aF	100 tests	GRP-P	IgG1	RUO

<b>CD43</b>	Catalog code	Size	Clone	Isotype	Status
<b>FITC</b>	CYT-43F2	200 tests	DFT1	IgG1	RUO
<b>APC-C750™</b>	CYT-43AC750	50 tests	TP1/36	IgG1	RUO

<b>CD45</b>	Catalog code	Size	Clone	Isotype	Status	
<b>Pacific Blue™</b>	CYT-45PBZ	100 tests	GA90	IgG2a	CE/IVD	
<b>OC515™</b>	CYT-45OC	100 tests	GA90	IgG2a	CE/IVD	<b>EUROFLOW™</b>
<b>FITC</b>	CYT-45F6	200 tests	HI30	IgG1	CE/IVD	
<b>PE-Cyanine5</b>	CYT-45C11	200 tests	HI30	IgG1	CE/IVD	
<b>PerCP-Cyanine5.5</b>	CYT-45C8	50 tests	HI30	IgG1	CE/IVD	
<b>PerCP-Cyanine5.5</b>	CYT-45C10	50 tests	EO1	IgG2a	CE/IVD	<b>EUROFLOW™</b>
<b>APC</b>	CYT-45AP5	200 tests	HI30	IgG1	RUO	
<b>APC-C750™</b>	CYT-45AC750	50 tests	HI30	IgG1	CE/IVD	



<b>CD49d</b>	Catalog code	Size	Clone	Isotype	Status
<b>FITC</b>	CYT-49dF	200 tests	44H6	IgG1	RUO

<b>CD55</b>	Catalog code	Size	Clone	Isotype	Status
<b>PE</b>	CYT-55PE3	200 tests	NaM16-4D3	IgG1	RUO

<b>CD56</b>	Catalog code	Size	Clone	Isotype	Status
<b>FITC</b>	CYT-56F	200 tests	C5.9	IgG2b	CE/IVD
<b>PE</b>	CYT-56PE	200 tests	C5.9	IgG2b	CE/IVD
<b>APC</b>	CYT-56AP	200 tests	C5.9	IgG2b	RUO

EUROFLOW™

<b>CD59</b>	Catalog code	Size	Clone	Isotype	Status
<b>FITC</b>	CYT-59F6	200 tests	MEM-43	IgG2a	RUO
<b>PE</b>	CYT-59PE7	200 tests	NaM172-2B5	IgG1	RUO

<b>CD62L</b>	Catalog code	Size	Clone	Isotype	Status
<b>FITC</b>	CYT-62LF2	100 tests	SK11	IgG2a	RUO

<b>CD64</b>	Catalog code	Size	Clone	Isotype	Status
<b>PE</b>	CYT-64PE2	100 tests	22	IgG1	RUO

<b>CD66b</b>	Catalog code	Size	Clone	Isotype	Status
<b>FITC</b>	CYT-66bF	200 tests	80H3	IgG1	RUO

<b>CD66c</b>	Catalog code	Size	Clone	Isotype	Status
<b>PE</b>	CYT-66cPE	100 tests	SA66C	IgG1	RUO

NEW!

<b>CyCD79a</b>	Catalog code	Size	Clone	Isotype	Status
<b>FITC</b>	CYT-79aF4	100 tests	HM57	IgG1	RUO
<b>PE</b>	CYT-79aPE	100 tests	HM57	IgG1	CE/IVD

EUROFLOW™

<b>CD81</b>	Catalog code	Size	Clone	Isotype	Status
<b>FITC</b>	CYT-81F	100 tests	M38	IgG1	RUO
<b>APC-C750™</b>	CYT-81AC750	50 tests	M38	IgG1	CE/IVD

EUROFLOW™

<b>CD103</b>	Catalog code	Size	Clone	Isotype	Status
<b>FITC</b>	CYT-103F2	200 tests	B-ly7	IgG1	RUO

<b>CD117</b>	Catalog code	Size	Clone	Isotype	Status
<b>PE</b>	CYT-117PE2	100 tests	104D2	IgG1	RUO
<b>APC</b>	CYT-117AP3	100 tests	104D2	IgG1	CE/IVD

EUROFLOW™



CD134	Catalog code	Size	Clone	Isotype	Status
PE	CYT-134PE	100 tests	134-1	IgG1	CE/IVD

CD138	Catalog code	Size	Clone	Isotype	Status
PURE	CYT-138P4	100 tests	B-A38	IgG1	RUO
OC515™	CYT-138OC	100 tests	B-A38	IgG1	CE/IVD
FITC	CYT-138F4	200 tests	B-A38	IgG1	RUO
PE	CYT-138PE4	200 tests	B-A38	IgG1	CE/IVD
PE-Cyanine5	CYT-138C4	200 tests	B-A38	IgG1	RUO
APC-C750™	CYT-138AC750	50 tests	B-A38	IgG1	CE/IVD

NEW!

CD180	Catalog code	Size	Clone	Isotype	Status
APC-C750™	CYT-180AC750	50 tests	G28-8	IgG1	CE / IVD

CD185	Catalog code	Size	Clone	Isotype	Status
APC	CYT-185AP	100 tests	MU5UBEE	IgG2b	RUO

CD200	Catalog code	Size	Clone	Isotype	Status
APC	CYT-200AP	100 tests	OX-104	IgG1	RUO

CD300e	Catalog code	Size	Clone	Isotype	Status
APC	CYT-300eAP	100 tests	UP-H2	IgG1	RUO

Cytokeratine 18	Catalog code	Size	Clone	Isotype	Status
FITC	CYT-CK18F	0.25 ml	Ks18.04	IgG1	RUO

FMC7	Catalog code	Size	Clone	Isotype	Status
FITC	CYT-FMC7F	200 tests	FMC7	IgM	RUO

HLA-DR	Catalog code	Size	Clone	Isotype	Status
Pacific Blue™	CYT-DRPBZ	100 tests	L243	IgG2a	RUO
FITC	CYT-DRF2	200 tests	L243	IgG2a	RUO
PE	CYT-DRPE2	200 tests	L243	IgG2a	RUO

HLA-B27	Catalog code	Size	Clone	Isotype	Status
FITC	CYT-HLAIB27F	200 tests	HLA-ABC-m3	IgG2a	RUO



HLA-B7	Catalog code	Size	Clone	Isotype	Status
PE	CYT-HLAIB7PE	200 tests	BB7.1	IgG1	RUO

Kappa	Catalog code	Size	Clone	Isotype	Status
FITC	CYT-KAPPF2	100 tests	Polyclonal	Polyclonal	CE/IVD
PE	CYT-KAPPPE	100 tests	Polyclonal	Polyclonal	CE/IVD
PerCP-Cyanine5.5	CYT-KAPPC	50 tests	Polyclonal	Polyclonal	RUO
APC	CYT-KAPPAP	100 tests	Polyclonal	Polyclonal	CE/IVD
APC-C750™	CYT-KAC750	50 tests	Polyclonal	Polyclonal	RUO

EUROFLOW™

Lambda	Catalog code	Size	Clone	Isotype	Status
FITC	CYT-LAMBF	100 tests	Polyclonal	Polyclonal	CE/IVD
PE	CYT-LAMBPE	100 tests	Polyclonal	Polyclonal	CE/IVD
PerCP-Cyanine5.5	CYT-LAMBDAC	50 tests	Polyclonal	Polyclonal	RUO
APC	CYT-LAMBAP	100 tests	Polyclonal	Polyclonal	RUO
APC-C750™	CYT-LAC750	50 tests	Polyclonal	Polyclonal	CE/IVD

EUROFLOW™

EUROFLOW™

CyMPO	Catalog code	Size	Clone	Isotype	Status
FITC	CYT-MPOF3	100 tests	2C7	IgG1	CE/IVD

EUROFLOW™

NG2	Catalog code	Size	Clone	Isotype	Status
PE	CYT-NG2PE	100 tests	7.1	IgG1	RUO

TCR $\gamma\delta$	Catalog code	Size	Clone	Isotype	Status
PE-Cyanine7	CYT-TCRGDPECY7	100 tests	11F2	IgG1	CE/IVD

CyTCR $\beta$	Catalog code	Size	Clone	Isotype	Status
APC	CYT-bFIAP	100 tests	8A3	IgG1	RUO

EUROFLOW™

nuTdT	Catalog code	Size	Clone	Isotype	Status
FITC	CYT-TdTF	50 tests	Polyclonal	Polyclonal	CE/IVD

$\beta$ 2-microglobulin	Catalog code	Size	Clone	Isotype	Status
PerCP-Cyanine5.5	CYT-B2MC2	50 tests	B2-1	IgG2a	CE/IVD



## Multicolor cocktails

### Two-color antibody cocktails

FITC	PE	Catalog code	Size	Clones	Isotypes	Status
CD3	CD4	CYT-3F9-4PE1	100 tests	UCHT-1/RPA-T4	IgG1/IgG1	CE/IVD
CD3	CD8	CYT-3F9-8PE9	100 tests	UCHT-1/UCHT-4	IgG1/IgG2a	CE/IVD
CD3	CD16+CD56	CYT-3F9-16PE7+56PE	100 tests	UCHT-1/3G8+C5.9	IgG1/ IgG1+IgG2b	RUO
CD3	CD19	CYT-3F9-19PE9	100 tests	UCHT-1/SA287	IgG1/IgG1	RUO
CD4	CD8	CYT-4F1-8PE9	100 tests	RPA-T4/UCHT-4	IgG1/IgG2a	CE/IVD
HLA-B27	HLA-B7	CYT-COMB1012	100 tests	HLA-ABC-m3/BB7.1	IgG2a/IgG1	RUO
Kappa	Lambda	CYT-KF2-LPE	50 tests	Polyclonal/Polyclonal	Polyclonal/Polyclonal	CE/IVD
Kappa	Lambda	CYT-KF2-LPE-100	100 tests	Polyclonal/Polyclonal	Polyclonal/Polyclonal	CE/IVD
Lambda	Kappa	CYT-LF-KPE	50 tests	Polyclonal/Polyclonal	Polyclonal/Polyclonal	CE/IVD
Lambda	Kappa	CYT-LF-KPE-100	100 tests	Polyclonal/Polyclonal	Polyclonal/Polyclonal	CE/IVD

### Three and four-color antibody cocktails

FITC	PE	PE-Cyanine5	Catalog code	Size	Status
CD3	CD4	CD8	CYT-3F9-4PE1-8C	100 tests	CE/IVD
CD3	CD4	CD45	CYT-3F9-4PE1-45C11	100 tests	CE/IVD
CD3	CD16+CD56	CD19	CYT-3F9-16PE7+56PE-19C1	100 tests	RUO
CD3	CD16+CD56	CD45	CYT-3F9-16PE7+56PE-45C11	100 tests	RUO
CD4	CD8	CD3	CYT-4F1-8PE9-3C4	100 tests	CE/IVD
CD16	CD19	CD3	CYT-16F6-19PE9-3C4	100 tests	RUO
Kappa	Lambda	CD19	CYT-KF2-LPE-19C1	25 tests	RUO

FITC	PE	PerCP-Cyanine5.5	Catalog code	Size	Status
Kappa	Lambda	CD19	CYT-KF2-LPE-19C8	25 tests	RUO

FITC	PE	PerCP-Cyanine5.5	APC	Catalog code	Size	Status	
CD16	CD64	CD45	CD14	CYT-HPN-1	25 tests	RUO	PNH

FITC	PE	PerCP-Cyanine5.5	APC	Catalog code	Size	Status	
CD4	CD134	CD3	CD25	CYT-AT4C	100 tests	RUO	Act-T4 Cell™ Kit

FITC	PE	PE-Cyanine5	APC	Catalog code	Size	Status
CD45	CD8	CD4	CD3	CYT-45F6-8PE9-4C1-3AP10	100 tests	RUO



## Erythrocyte lysing solutions

### Quicklysis™



**Quicklysis™** is an erythrocyte lyse-non-wash solution without fixatives. It can be used in whole blood or bone marrow samples after immunofluorescence staining of cells and requires no subsequent washing-centrifugation steps, reducing cell losses, processing time and sample handling.

Description	Format	Size	Catalog code	Status
<b>Quicklysis™</b>	Ready to use 500 mL	250 tests	CYT-QL-1	CE/IVD

### BulkLysis™



**BulkLysis™** is a fixative-free erythrocyte lysing solution recommended for osmotic lysis of erythrocytes before immunofluorescence staining of peripheral blood or bone marrow aspirate samples.

**BulkLysis™** protocol allows greater sensitivity in flow cytometry studies where a higher cell count is required. BulkLysis™ is included in the following Cytognos' kits: BCP-ALL MRD, CTPC , MM MRD, PIDOT and IgH-isotype panel - Subclasses.

**BulkLysis™** is recommended for samples with low cell counts or to detect small/rare populations.

Description	Format	Size	Catalog code	Status
<b>BulkLysis™</b>	100 ml (10x)	20 tests	CYT-BL	CE/IVD*

\* RUO format also available



## Cocktails for lymphocyte subset studies

Cytognos offers different antibody cocktails designed to determine, in peripheral blood, bone marrow and other fluids, the major lymphocyte subpopulations. These cocktails are offered in liquid or lyophilized formats.

Pre B I



Pre B II



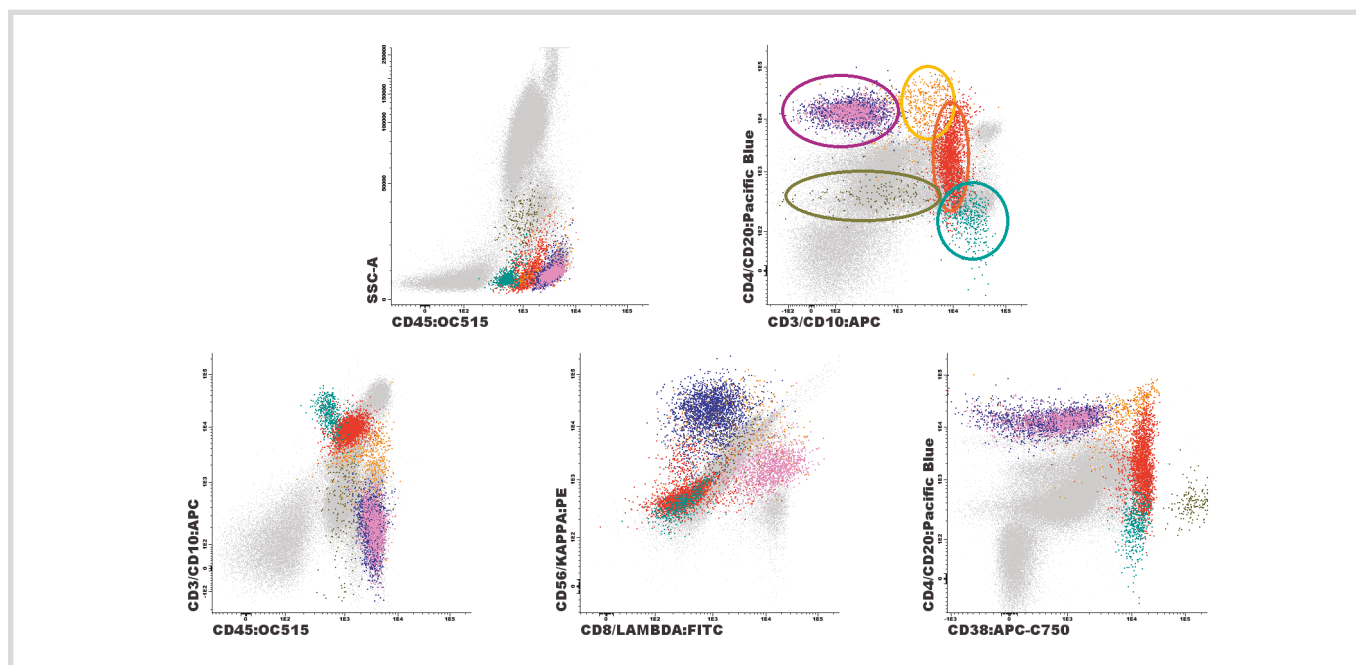
Immature B-cells



Mature B-cells



Plasma cells



- Pre B I
- Pre B II
- Immature B-cells
- Mature B-cells
- IgLambda<sup>+</sup> B-cells
- IgKappa<sup>+</sup> B-cells
- Plasma cells

Data file analyzed with  
**Infinicyt™**

B-cell stages analysis in a bone marrow sample stained with Lymphoclona<sup>TM</sup>-12 cocktail.

**Lymphogram™**
**PATENTED!**

CE  
IVD

Lymphogram™

**Lymphogram™** is a 3-color mixture of monoclonal antibodies with carefully selected fluorescence intensities designed to simultaneously determine, in peripheral blood, bone marrow and other fluids, the major lymphocyte subpopulations.

FITC	PE	PE-Cyanine5	
CD8 + CD19	CD3 + CD56	CD4	
Description	Size	Catalog code	Status
Lymphogram™	50 tests	CYT-C001	CE/IVD





## Lymphoclonal™



Lymphoclonal™

**Lymphoclonal™** is a 4-color antibody mixture aimed to study lymphocyte subsets and determine clonality of B-cells in peripheral blood, bone marrow and other body fluids.

**Lymphoclonal™** is a rapid, effective and reliable combination for initial screening of lymphocyte subsets.

FITC	PE	PerCP-Cyanine5.5	APC
CD8 + SmlgLambda	CD56 + SmlgKappa	CD4 + CD19	CD3
Description	Size	Catalog code	Status
<b>Lymphoclonal™</b>	20 tests	CYT-LC	CE/IVD

## Lymphoclonal™-C

**Lymphoclonal™-C** antibody mixture contains the fluorochromes PE-Cyanine5 and PE-Cyanine7, instead of PerCP-Cyanine5.5 and APC, for its use with Beckman Coulter® standard configurations.

FITC	PE	PE-Cyanine5	PE-Cyanine7
CD8 + SmlgLambda	CD56 + SmlgKappa	CD4 + CD19	CD3
Description	Size	Catalog code	Status
<b>Lymphoclonal™-C</b>	20 tests	CYT-LC-C	RUO

Beckman Coulter® is a registered trademark of Beckman Coulter.

## Lymphoclonal™-9



Lymphoclonal™-9

**Lymphoclonal™-9** is a 6-color antibody mixture designed to simultaneously determine, in peripheral blood, bone marrow and other fluids, the major lymphocyte subpopulations.

This cocktail includes CD45 and CD20 antibodies for improved lymphocyte population identification and B-cell characterization respectively. The lyophilized format provides a more stable mixture.

FITC	PE	PerCP-Cyanine5.5	PE-Cyanine7	APC	APC-C750™
CD8 + SmlgLambda	CD56 + SmlgKappa	CD4 + CD19	CD3	CD20	CD45
Description	Format	Size	Catalog code	Status	
Lymphoclonal™-9	Lyophilized	25 tests	CYT-LC9	CE/IVD	



## Lymphoclonal™-12



Lymphoclonal™-12

**Lymphoclonal™-12** is an 8-color antibody mixture for screening of B-cell lymphoma within a variety of clinical samples when the pre-test probability is low or unknown. This is particularly useful for low cellularity specimens such as fine needle aspirate, core biopsy, pleural, ascitic and cerebral spinal fluid (CSF) where limited sample is available.

This combination also includes CD5 and CD10 antibodies for complete assessment of normal B-cell maturation and subclassification of B-cell lymphoma; and CD38 antibody for the identification of other leukocyte populations (e.g. plasma cells). The lyophilized format provides a more stable mixture.

Pacific Blue™	OC515™	FITC	PE	PerCP-Cyanine5.5	PE-Cyanine7	APC	APC-C750™
CD4 + CD20	CD45	CD8 + SmlgLambda	CD56 + SmlgKappa	CD5	CD19	CD3 + CD10	CD38

Description	Format	Size	Catalog code	Status
<b>Lymphoclonal™-12</b>	Lyophilized	25 tests	CYT-LC12	CE/IVD



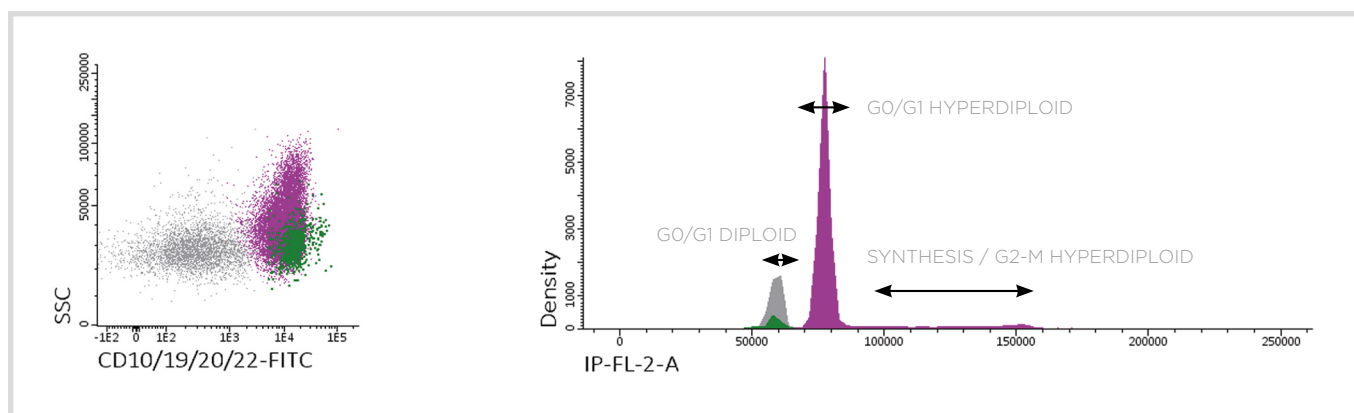
# DNA content studies and cell cycle analysis

PATENTED!

Cycloscope™

Cycloscope™

Cycloscope™ is an exclusive product line for cell DNA content studies by flow cytometry.



Residual B-cells  
Blast cells

Data file analyzed with  
**Infinicyt™**

B-ALL patient sample stained with Cycloscope™ B-ALL kit.

Cycloscope™ kits include a specific monoclonal antibody pool to identify neoplastic cells and a ready-to-use DNA labeling solution.

- Cycloscope™ MM:** useful for the evaluation of plasma cell DNA content in patient samples diagnosed with multiple myeloma (MM) or monoclonal gammopathies of undetermined significance.
- Cycloscope™ B-ALL:** suitable for the evaluation of neoplastic B-cell precursor DNA content in patient samples diagnosed with B-lineage acute lymphoblastic leukemia (B-ALL).
- Cycloscope™ NHL:** designed to determine neoplastic B-cell DNA content in patient samples diagnosed with B-lineage Non-Hodgkin lymphoma (B-NHL) and other B-cell chronic lymphoproliferative diseases (B-CLPD).
- Cycloscope™ Reagent:** ready-to-use DNA labeling solution (propidium iodide, permeabilization reagents and RNase) and an erythrocyte lysing solution.
- DNA Labeling Solution:** ready-to-use solution containing propidium iodide, permeabilization reagents and RNase.

Product	Mix of purified antibodies	FITC-secondary antibody	Erythrocyte lysis solution	DNA labeling solution	Size	Catalog code	Status
<b>Cycloscope™ MM</b>	CD38 + CD138	✓	✓	✓	20 tests	CYT-CS-MM	RUO
<b>Cycloscope™ B-ALL</b>	CD10 + CD19 + CD20 + CD22	✓	✓	✓	20 tests	CYT-CS-BALL	RUO
<b>Cycloscope™ NHL</b>	CD19 + CD20 + CD22 + CD23	✓	✓	✓	20 tests	CYT-CS-NHL	RUO
<b>Cycloscope™ Reagent</b>	✗	✗	✓	✓	50 tests	CYT-CS-R-50	RUO
<b>DNA labeling Solution</b>	✗	✗	✗	✓	25 tests	CYT-PIR-25	RUO



## Absolute counting systems

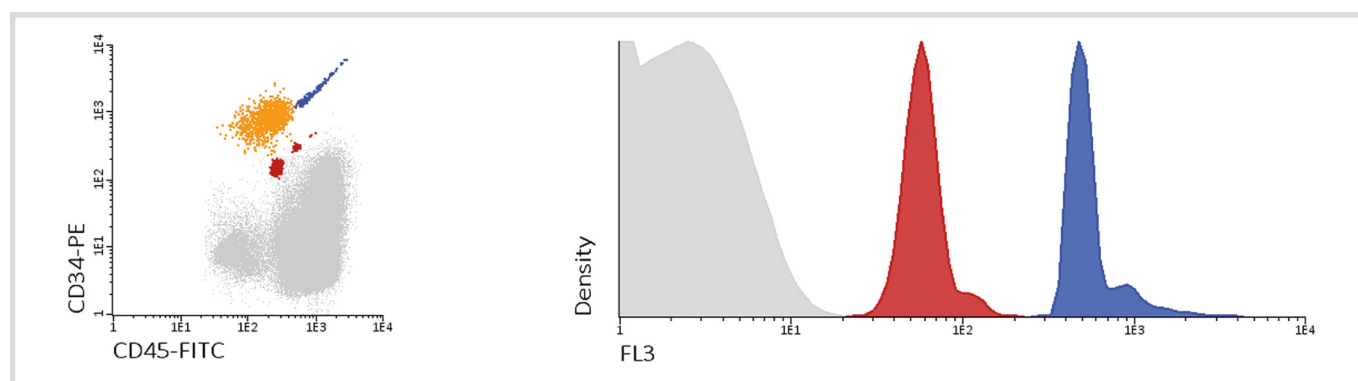
### Perfect-Count™ Microspheres

**PATENTED!**

**Perfect-Count™  
Microspheres**

**Perfect-Count™ Microspheres** is a microbead-based single-platform system for absolute count, which can be used in combination with antibodies conjugated with different fluorochromes. Its unique internal quality control contains two bead-types to assure the accuracy of the cell subpopulation absolute count.

Description	Size	Catalog code	Status
<b>Perfect-Count™ Microspheres</b>	50 tests	CYT-PCM-50	CE/IVD
<b>Perfect-Count™ Microspheres</b>	100 tests	CYT-PCM-100	CE/IVD



■ CD34+ cells  
■ A beads  
■ B beads

Data file analyzed with  
**Infinicyt™**

CD34+ cell count with Perfect-Count™ Microspheres.

### LeucoFinder™

**PATENTED!**

**LeucoFinder™**

**LeucoFinder™** is an efficient single-platform method for residual white blood cells (rWBC) enumeration in leukoreduced blood products.

LeucoFinder™ combines DNA labeling of residual leukocytes with the use of **Perfect-Count™ Microspheres** as an absolute count system.

Description	Size	Catalog code	Status
<b>LeucoFinder™</b>	50 tests	CYT-LF-50	CE/IVD



# NEXT GENERATION FLOW™

**Next Generation Flow™ (NGF)** is based on the standardization of every step of the process from sample preparation to expert-guided automated reporting. Cytognos, in collaboration with EuroFlow™, offers a complete and scientific-based solution to cover all the needs of clinical laboratory including the support of our highly specialized technical team:

- Setting up and technical implementation of the EuroFlow™ SOPs.
- Staining of samples using the NGF product line.
- Acquisition of samples in compatible cytometers (e.g. Omnicyt™).
- Automated data analysis and reporting using Infinicyt™.

Next Generation Flow™ has emerged in recent years as a **solution** to overcome the limitations of 1<sup>st</sup> generation (conventional) flow cytometry and also, as a complement to molecular and imaging methodologies.

## What is the NGF workflow?

The NGF workflow addresses the most common clinical questions, including rare disease entities. This workflow consists on a sequential use of **screening** tubes followed by multi-tube panels for the **diagnosis and classification** of each disease, and finally panels for **monitoring** patients after treatment. Following the EuroFlow™ SOPs is paramount to assure full technical standardization in 3-laser based cytometers (e.g. Omnicyt™).

	Hemato-oncology laboratory	Immunology laboratory	Clinical Trials
Screening / Orientation	✓	✓	
Diagnosis / Classification	✓	✓	
Monitoring	✓	✓	✓



# Next Generation Flow™ for Hemato-oncology

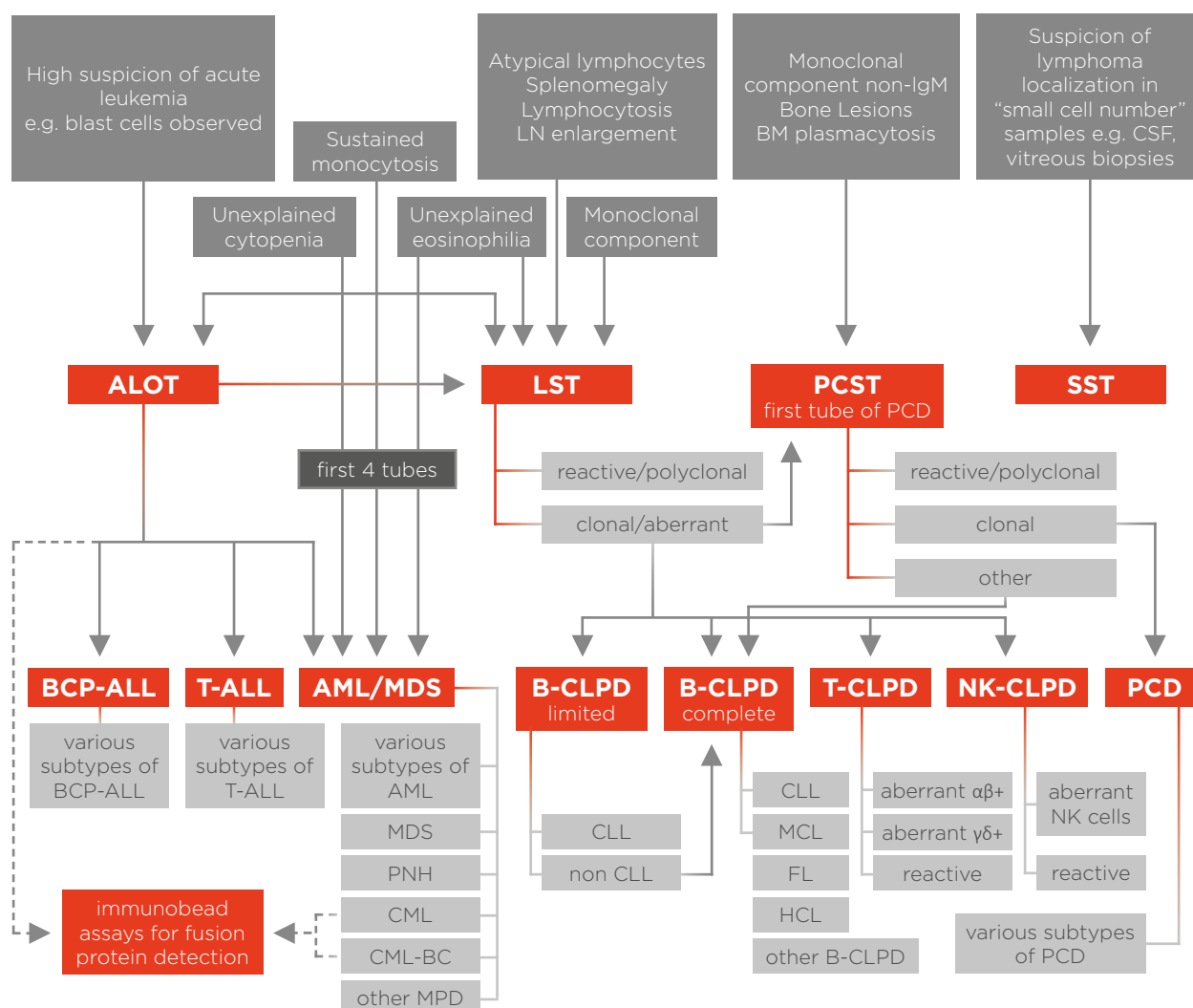
NGF immunophenotyping protocols for hemato-oncology include 8-color tubes, allowing **precise characterization** of normal, reactive and neoplastic leukocyte populations. In addition, the combination of multiple antibodies in the same fluorochrome position allows the analysis of a larger number of antibodies in a single tube.

Each marker combination was designed to answer multiple **clinical questions**, through the identification, enumeration and characterization of relevant cell populations. As target populations are not known in advance, an initial screening step based on a limited number of antibodies is crucial to direct to the differential identification of all relevant cell subsets of a sample, thereby improving **laboratory efficiency**.

Pipetting large number of antibodies is time-consuming and prone to operational mistakes. In contrast, the use of **lyophilized tubes** results in reduced staining variability between different samples due to prolonged stability of the reagent mixes. Therefore, laboratory efficiency and quality are improved by using **ready-to-use reagents**.

Based on the results of the initial screening step, further studies of suspected cells are preformed using the most appropriated characterization panel which contain several common (core) markers for **reliable** and **reproducible identification** between tubes.

The **EuroFlow™ NGF diagnostic algorithm** has several entries based on the most frequent clinical questions:



Optimal results can only be obtained by following the **EuroFlow™** SOPs in a 3-laser instrument (e.g. **Omnicyt™**) and performing data analysis using standardized templates and reference Databases included in the **Infinicyt™** Software.



## Chronic lymphoproliferative disorders

### Screening/Orientation

#### Lymphoid Screening Tube

PATENTED!



LST

The LST kit designed by the EuroFlow™ consortium contains a single 8-color, 12-markers, combination for the discrimination between normal and abnormal lymphoid cells, based on the detection of aberrant immunophenotypic characteristics in mature B-, T- and NK-cells.

Description	Format	Size	Catalog code	Status
LST	Lyophilized	25 tests	CYT-LST	CE/IVD

Pacific Blue™	OC515™	FITC	PE	PerCP-Cy-nine5.5	PE-Cyanine7	APC	APC-C750™
CD20 + CD4	CD45	CD8 + SmlgLambda	CD56 + SmlgKappa	CD5	CD19 + TCRγδ	SmCD3	CD38

#### Kit composition (auxiliary reagents included)

Lyophilized tubes	Compensation tubes (lyophilized monotest tube)	
Antibodies against <b>surface antigens</b> (5 vials, 5 tests per vial)	OC515™-CD45 PerCP-Cyanine5.5-CD5 PE-Cyanine7-CD19 + TCRγδ APC-C750™-CD38	<b>25 free EuroFlow™ Database Accesses</b> to be used in Infinicyt™ Software.

#### Small Sample Tube

PATENTED!



SST

The SST kit is an adapted version of the LST combination designed by EuroFlow™ consortium as a powerful diagnostic tool for the evaluation of CSF, vitreous and other low-volume samples with a clinical suspicion of primary lymphoma. This 8-color, 11-markers, combination is optimized for the detection and identification of B-, T-, NK-cells and monocytes.

Description	Format	Size	Catalog code	Status
SST	Lyophilized	25 tests	CYT-SST	CE/IVD

Pacific Blue™	OC515™	FITC	PE	PerCP-Cy-nine5.5	PE-Cyanine7	APC	APC-C750™
CD20	CD45	CD8 + SmlgLambda	CD56 + SmlgKappa	CD4	CD19	SmCD3 + CD14	CD38

#### Kit composition (auxiliary reagents included)

Lyophilized tubes	Compensation tubes (lyophilized monotest tube)
Antibodies against <b>surface antigens</b> (5 vials, 5 tests per vial)	OC515™-CD45 PerCP-Cyanine5.5-CD4 PE-Cyanine7-CD19 APC-C750™-CD38



## Characterization/Classification

### Combinations and single antibodies



B-CLPD  
T-CLPD  
NK-CLPD

The design and development of the standardized 8-color antibody panels, to classify each B-CLPD, T-CLPD and NK-CLPD entity, comprised on the selection of core markers and tube-specific characterization markers for the identification and characterization of all B-, T-, and NK-cell populations of interest (for more information consult single color antibodies section).

### Core combination for B-CLPD panel

This lyophilized combination of core markers is suitable to identify the population of study in all tubes of the B-CLPD panel.

Pacific Blue™	OC515™	PE-Cyanine7	Catalog code	Format	Size	Status
CD20	CD45	CD19	CYT-MBC-CORE	Lyophilized	40 tests	CE/IVD

#### Kit composition (auxiliary reagents included)

Lyophilized tubes	Compensation tubes (lyophilized monotest tube)
Antibodies against <b>surface antigens</b> (2 vials, 20 tests per vial)	OC515™-CD45 PE-Cyanine7-CD19

### SLPC

FITC	PE	Catalog code	Format	Size	Status
CD8 + SmlgLambda	CD56 + SmlgKappa	CYT-SLPC-25	Liquid	25 tests	RUO
CD8 + SmlgLambda	CD56 + SmlgKappa	CYT-SLPC-50	Liquid	50 tests	RUO

### SLPC-4

FITC	PE	PerCP-Cyanine5.5	Catalog code	Format	Size	Status
CD8 + SmlgLambda	CD56 + SmlgKappa	CD4	CYT-SLPC4-25	Liquid	25 tests	RUO
CD8 + SmlgLambda	CD56 + SmlgKappa	CD4	CYT-SLPC4-50	Liquid	50 tests	RUO





# Acute leukemia

## Screening/Orientation

### Acute Leukemia Orientation Tube

PATENTED!



ALOT

The ALOT kit designed by the EuroFlow™ consortium contains a single 8-color, 8 markers, combination for the initial assessment of the nature of immature populations in samples with suspicion of acute leukemia.

Description	Format	Size	Catalog code	Status
ALOT	Lyophilized	25 tests	CYT-ALOT	CE/IVD

Pacific Blue™	OC515™	FITC	PE	PerCP-Cyanine5.5	PE-Cyanine7	APC	APC-C750™
CyCD3	CD45	CyMPO	CyCD79a	CD34	CD19	CD7	SmCD3

### Kit composition (auxiliary reagents included)

Lyophilized tubes	Compensation tubes (lyophilized monotest tube)		
Antibodies against <b>surface antigens</b> (5 vials, 5 tests per vial)	OC515™-CD45	<b>FIX&amp;PERM®: Cell Permeabilization Kit.</b> * In cooperation with Nordic-MUBio BV, The Netherlands. FIX&PERM® is a trademark of Nordic-MUBio BV.	<b>25 free EuroFlow™ Database Accesses</b> to be used in Infinicyt™ Software.
Antibodies against <b>cytoplasmic antigens</b> (5 vials, 5 tests per vial)	PerCP-Cyanine 5.5-CD34		
	PE-Cyanine7-CD19 APC-C750™-SmCD3		

## Characterization/Classification

### Combinations and single antibodies


B-ALL  
T-ALL  
AML/MDS

The design and development of the standardized 8-color antibody panels to classify each B-ALL, T-ALL and AML/MDS entities included the selection of core markers and tube-specific characterization markers for the identification and characterization of all populations of interest (for more information see single color antibody section).

### Core combination for BCP-ALL panel

This lyophilized combination of core markers is suitable to identify the population of study in all tubes of the BCP-ALL panel.

OC515™	PerCP-Cyanine5.5	PE-Cyanine7	Catalog code	Format	Size	Status
CD45	CD34	CD19	CYT-PBC-CORE	Lyophilized	20 tests	CE/IVD

### Kit composition (auxiliary reagents included)

Lyophilized tubes	Compensation tubes (lyophilized monotest tube)
Antibodies against <b>surface antigens</b> (5 vials, 4 tests per vial)	OC515™-CD45 PerCP-Cyanine 5.5-CD34 PE-Cyanine7-CD19



## Monitoring

**PATENTED!**

### B-Cell Precursor Acute Lymphoblastic Leukemia MRD kit



**BCP-ALL  
MRD**

Minimal residual disease (MRD) is one of the most significant prognostic factors in ALL independent of patient age, cell origin, or genetic subtype.

The BCP-ALL panel for MRD, designed by EuroFlow™, comprises a fully-standardized 8-color antibody panel and laboratory procedure designed to reach a sensitivity of  $\leq 10^{-5}$ , comparable to real-time quantitative polymerase chain reaction (RQ-PCR)-based MRD detection. This kit allows measuring MRD and discriminating between normal and malignant BCP cells in 99% of studied BCP-ALL patients.

Description	Format	Size	Catalog code	Status
BCP-ALL MRD panel	Lyophilized	20 tests	CYT-BCP-ALL-MRD	CE/IVD

BCP-ALL MRD	Pacific Blue™	OC515™	FITC	PE	PerCP-Cyanine5.5	PE-Cyanine7	APC	APC-C750™
Tube 1	CD20	CD45	CD81	CD66c+CD123	CD34	CD19	CD10	CD38
Tube 2	CD20	CD45	CD81	CD73+CD304	CD34	CD19	CD10	CD38

#### Kit composition (auxiliary reagents included)

Lyophilized tubes	Compensation tubes (lyophilized monotest tube)	
Antibodies against <b>surface antigens</b> Tube 1 (4 vials, 5 tests per vial)	OC515™-CD45	BulkLysis™: Fixative-free <b>erythrocyte lysing solution</b>
Antibodies against <b>surface antigens</b> Tube 2 (4 vials, 5 tests per vial)	PerCP-Cyanine5.5-CD34	
	PE-Cyanine7-CD19	
	APC-C750™-CD38	



## Plasma cell dyscrasias

### Screening/Orientation

#### Plasma Cell Screening Tube

PATENTED!



PCST

The PCST kit designed by the EuroFlow™ consortium contains a combination of 8 antibodies for identification, discrimination and enumeration of co-existing normal/reactive and aberrant plasma cell populations.

Description	Format	Size	Catalog code	Status
PCST	Lyophilized	25 tests	CYT-PCST	CE/IVD

Pacific Blue™	OC515™	FITC	PE	PerCP-Cyanine5.5	PE-Cyanine7	APC	APC-C750™
CD45	CD138	CD38	CD56	β2-microglobulin	CD19	CylgKappa	CylgLambda

#### Kit composition (auxiliary reagents included)

Lyophilized tubes	Compensation tubes (lyophilized monotest tube)	FIX&PERM®: Cell Permeabilization Kit.
Antibodies against <b>surface antigens</b> (5 vials, 5 tests per vial)	OC515™-CD45	* In cooperation with Nordic-MUBio BV, The Netherlands. FIX&PERM® is a trademark of Nordic-MUBio BV.
Antibodies against <b>cytoplasmic antigens</b> (5 vials, 5 tests per vial)	PerCP-Cyanine5.5-β2-microglobulin	
	PE-Cyanine7-CD19	
	APC-C750™-CylgLambda	



## Monitoring

### Circulating Tumor Plasma Cells kit

PATENTED!



CTPC

The EuroFlow™ methodology to monitor Circulating Tumor Plasma Cells (CTPC) and Multiple Myeloma MRD is a 2-tube, 8-color approach that provides an important quality control of PC identification due to its replicate consistency and precision.

Description	Format	Size	Catalog code	Status
CTPC panel	Lyophilized	20 tests	CYT-CTPC	RUO

Drop-in*	Drop-in*	FITC	PE	PerCP-Cyanine5.5	PE-Cyanine7	APC	APC-C750™
CD138	CD27	CD38	CD56	CD45	CD19	CD117	CD81
CD138	CD27	CD38	CD56	CD45	CD19	CyIgKappa	CyIgLambda

\*The CD138-BV421 and CD27-BV510 antibodies selected by EuroFlow™ for the violet laser are not included in the kit. These must be therefore added as "drop-in" antibodies.

#### Kit composition (auxiliary reagents included)

Lyophilized tubes	Compensation tubes (lyophilized monotest tube)
Antibodies against <b>surface antigens</b> - Tube 1 (4 vials, 5 tests per vial)	PerCP-Cyanine5.5-CD45
Antibodies against <b>surface antigens</b> - Tube 2 (4 vials, 5 tests per vial)	PE-Cyanine7-CD19
Antibodies against <b>cytoplasmic antigens</b> - Tube 2 (4 vials, 5 tests per vial)	APC-C750™-CD81
	APC-C750™-CyIgLambda

**BulkLysis™:** Fixative-free erythrocyte lysing solution.

**FIX&PERM®: Cell Permeabilization Kit.**  
\* In cooperation with Nordic-MUBio BV, The Netherlands. FIX&PERM® is a trademark of Nordic-MUBio BV.

**25 free EuroFlow™ Database Accesses** to be used in Infinicyt™ Software.

### Multiple Myeloma MRD kit

PATENTED!



MM MRD

Description	Format	Size	Catalog code	Status
MM MRD panel	Lyophilized	20 tests	CYT-MM-MRD-CE-IVD	CE/IVD*

\*RUO kit also available.

Drop-in*	Drop-in*	FITC	PE	PerCP-Cyanine5.5	PE-Cyanine7	APC	APC-C750™
CD138	CD27	CD38	CD56	CD45	CD19	CD117	CD81
CD138	CD27	CD38	CD56	CD45	CD19	CyIgKappa	CyIgLambda

\*The CD138-BV421 and CD27-BV510 antibodies selected by EuroFlow™ for the violet laser are not included in the kit. These must be therefore added as "drop-in" antibodies.

#### Kit composition (auxiliary reagents included)

Lyophilized tubes	Compensation tubes (lyophilized monotest tube)
Antibodies against <b>surface antigens</b> - Tube 1 (4 vials, 5 tests per vial)	PerCP-Cyanine5.5-CD45
Antibodies against <b>surface antigens</b> - Tube 2 (4 vials, 5 tests per vial)	PE-Cyanine7-CD19
Antibodies against <b>cytoplasmic antigens</b> - Tube 2 (4 vials, 5 tests per vial)	APC-C750™-CD81
	APC-C750™-CyIgLambda

**BulkLysis™:** Fixative-free erythrocyte lysing solution.

**FIX&PERM®: Cell Permeabilization Kit.**  
\* In cooperation with Nordic-MUBio BV, The Netherlands. FIX&PERM® is a trademark of Nordic-MUBio BV.

**25 free EuroFlow™ Database Accesses** to be used in Infinicyt™ Software.



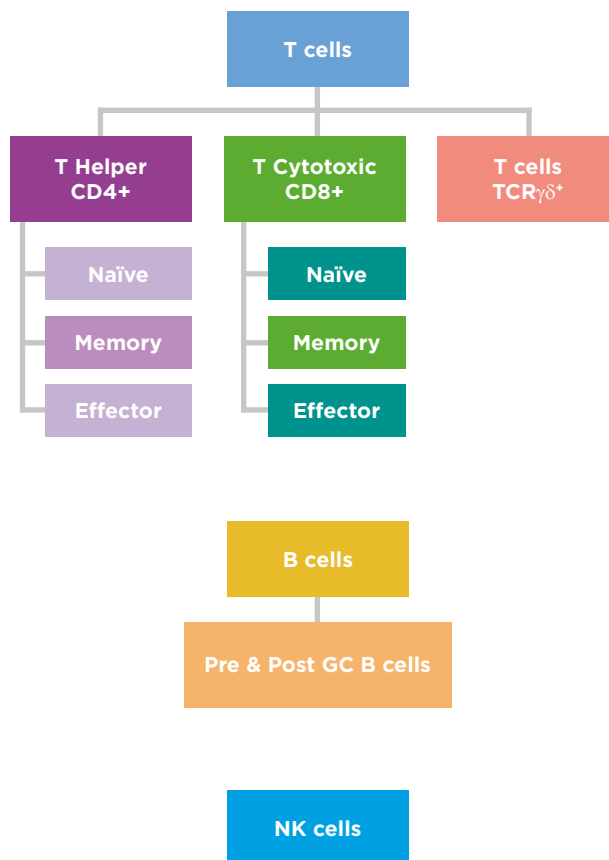
# Next Generation Flow™ for Immunology

Due to the success of the standardization in hemato-oncology field, the EuroFlow™ consortium has expanded their activities to the immunology field. Although quite recent, the NGF methodology for primary immunodeficiencies (PID) has already made available **standardized protocols, panels** and **reference Databases** (included in the Infinicyt™ Software).

As defined by the ESID registry, the complete diagnosis and classification of PIDs is based on a stepwise screening step and subsequent characterization for numerical alterations in lymphocyte T, B and NK subpopulations, absence of specific proteins and functional assays ([www.esid.org](http://www.esid.org)).

EuroFlow™ objective was to develop a **universal and highly sensitive** method to identify all lymphoid PIDs (around 70% of all diagnosed PIDs) which could guide and help prioritize further diagnosis using other techniques (e.g. genetic analysis).

This method consists on the application of the EuroFlow™ methodology (standardized panel, SOPs, etc.) to create a **database** in the Infinicyt™ Software that describes the **frequency and absolute count** of all cell populations that can be identified with the PIDOT tube.



## Primary immunodeficiencies

### Screening/Orientation

#### Primary Immunodeficiency Orientation Tube

**PATENTED!**



**PIDOT**

The PID orientation tube (PIDOT) designed by the EuroFlow™ consortium contains a combination of lineage specific markers for the identification of B-, T- and NK-cells.

Description	Format	Size	Catalog code	Status
PID Orientation tube	Lyophilized	20 tests	CYT-PIDOT	CE/IVD*

\*RUO kit also available.

Drop-in*	Drop-in*	FITC	PE	PerCP-Cyanine5.5	PE-Cyanine7	APC	APC-C750™
CD27	CD45RA	CD8+SmlgD	CD16+CD56	CD4+SmlgM	CD19+TCRγδ	CD3	CD45

\*The CD27-BV421 and CD45RA-BV510 antibodies selected by EuroFlow™ for the violet laser are not included in the kit. These must therefore be added as "drop-in" antibodies.

#### Kit composition (auxiliary reagents included)

Lyophilized tubes	Compensation tubes (lyophilized monotest tube)	
Antibodies against <b>surface antigens</b> (4 vials, 5 tests per vial)	PerCP-Cyanine5.5-CD4+SmlgM PE-Cyanine7-CD19+TCRγδ APC-C750™-CD45	BulkLysis™: Fixative-free erythrocyte lysing solution.  <b>25 free EuroFlow™ Database Accesses</b> to be used in Infinicyt™ Software.



## Characterization/Classification

**PATENTED!**

**IgH-isotype panel - Subclasses**

### Combinations of immunoglobulins



The combined quantitation of IgG and IgA subclasses in B-cell disorders can be used in the screening of antibody-mediated immune function, which is especially useful in evaluating defective antibody production in patients with recurrent bacterial infections before initiating therapy.

#### IgH-isotype panel - Subclasses (1 tube)

FITC	PE	PerCP-Cyanine5.5	APC	Catalogue code	Format	Size	Status
IgG2 IgG3	IgG1 IgG2	IgA1 IgA2	IgA1 IgG4	CYT-IGS-1	Lyophilized	20 tests	RUO

#### Kit composition (auxiliary reagents included)

Lyophilized tubes	Compensation tubes (lyophilized monotest tube)	BulkLysis™: Fixative-free erythrocyte lysing solution.
Antibodies against <b>surface antigens</b> (4 vials, 5 tests per vial)	PerCP-Cyanine5.5-IgA1+IgA2	

#### IgH-isotype panel - Subclasses (2 tubes)

	FITC	PE	Catalogue code	Format	Size	Status
Tube 1	IgG2 IgG4	IgG1 IgG2	CYT-IGS-2	Liquid	20 tests	RUO
Tube 2	IgA1 IgG3	IgA1 IgA2				

#### Kit composition (auxiliary reagents included)

Liquid tubes	BulkLysis™: Fixative-free erythrocyte lysing solution.
<b>Tube 1:</b> Antibodies against <b>surface antigens</b> (1 vial, 20 tests)	
<b>Tube 2:</b> Antibodies against <b>surface antigens</b> (1 vial, 20 tests)	

**Ig Subclasses**

### Ig Subclasses

Ig Subclasses can be used to further study the B-cell compartment in primary immunodeficiencies studies.

Marker	Fluorochrome	Catalog code	Size	Status
<b>IgA1</b>	FITC	CYT-IGA1F	25 tests	RUO
<b>IgA1</b>	PE	CYT-IGA1PE	25 tests	RUO
<b>IgA1</b>	PerCP-Cyanine5.5	CYT-IGA1C	25 tests	RUO
<b>IgA1</b>	APC	CYT-IGA1AP	25 tests	RUO
<b>IgA2</b>	PE	CYT-IGA2PE	25 tests	RUO
<b>IgA2</b>	PerCP-Cyanine5.5	CYT-IGA2C2	25 tests	RUO
<b>IgD</b>	FITC	CYT-IGDF	25 tests	RUO
<b>IgD</b>	PerCP-Cyanine5.5	CYT-IGDC	25 tests	RUO
<b>IgG1</b>	FITC	CYT-IGG1F	25 tests	RUO
<b>IgG1</b>	PE	CYT-IGG1PE	25 tests	RUO
<b>IgG2</b>	FITC	CYT-IGG2F	25 tests	RUO
<b>IgG2</b>	PE	CYT-IGG2PE	25 tests	RUO
<b>IgG3</b>	FITC	CYT-IGG3F	25 tests	RUO
<b>IgG4</b>	FITC	CYT-IGG4F	25 tests	RUO
<b>IgG4</b>	APC	CYT-IGG4AP	25 tests	RUO
<b>IgM</b>	PerCP-Cyanine5.5	CYT-IGMC2	25 tests	RUO
<b>IgM</b>	APC	CYT-IGMAP	25 tests	RUO



# Next Generation Flow™ for Clinical Trials

New and effective therapies, targeting antibodies and blocking molecules, are being developed to further improve treatment outcome while increasing quality of life.

For this particular setting, **MRD** emerges as a tool to evaluate patient's response to treatment since it measures tumor burden and can be used as an **efficacy-response** and **prognosis biomarker**.

**Cytognos-EuroFlow™ NGF methodology complies with all considerations of clinical trials for cell-based assays as defined by FDA (2020) and EMA (2018 Draft):**

- The number of events to be collected is pre-specified in each assay to reach the required **sensitivity**.
- **Consistent antibody panels** are defined for each application.
- Sample collection, stability and time for processing are pre-established to **reduce variation** in results.
- Analysis templates and reference Databases guarantee **reproducibility** of analysis between sites and operators.
- Specific antibody expression alterations caused by therapy are overcome by using antibodies with multi-epitope-specificity in the evaluation panels (e.g. **CD38 multi-epitope**).
- **Potential regeneration of bone marrow samples** is assessed since the complete immunophenotype of the sample is evaluated.
- **Hemodilution** is taken into account when reporting results to assure reliable reporting.

**Cytognos Technical Support team** have the required experience, know-how and training resources to achieve successful implementation of the NGF methodology independently of the site (public and private hospitals, research facilities or other). The following points are addressed during technical support:

- SOPs for cytometer set-up: Instrument standardization.
- SOPs and stable lyophilized kits for sample processing: Inter- and intra-laboratory reproducibility.
- Data analysis: Reference Databases with standardized reports bring a common language to the different sites.

Technical support is available via email (**support@cytognos.com**), webinars or onsite visits. Cytognos provides a variety of solutions and products specifically aimed at the establishment of monitoring techniques for clinical trials. Feel free to contact us to know more about our available monitoring solutions:

Solution	Monitoring
BCP-ALL MRD	BCP-Acute Lymphocytic Leukemia
MM MRD/CTPC	Plasma cell dyscrasias
PIDOT	Immune reconstitution

Standardized and validated methodologies such as NGF can ensure that results obtained in different laboratories are consistent and improve the accuracy, precision, specificity and sensitivity in all evaluation sites.





# FLOW CYTOMETER



OMNICYT™

CE  
IVD



**Omnicyt™** benchtop analyzer with innovative features is the perfect complement to work with all kind of hematological and immunological samples following EuroFlow™ protocols.

The use of flat-top laser beams guarantees the most reproducible and accurate fluorescence measurement and, at the same time, reduces the frequency of system calibration. Its acoustic focusing and volumetric non-pressurized acquisition system allows for the acquisition of up to 20 million events per file without losing relevant information by electronic abort.



## Optical system

**Standard configuration: 3 lasers and 13 parameters (11 fluorescence channels, FSC and SSC).**

Violet (405 nm)    Blue (488 nm)    Red (637 nm)

As upgrade, a fourth yellow laser (561 nm) with 16 parameters is available.

Omnicyt™ uses **flat-top lasers** with an intensity profile that allows a much wider window of alignment.

**Simmer mode: lasers are only switched on during acquisition.** This **prolongs laser lifetime by 10x.**

## Fluidic system

**The acoustic focusing allows data quality not to be compromised by the use of higher input rates since it uncouples the cell alignment from the sheath flow.**

**Volumetric cell counts for all samples.**

**Sample analysis volume:** from 20 µL to 4 mL sample volumes and possibility to recover unused sample.

Choose between sample input flow rates: **12.5, 25, 100, 200, 500, and 1,000 µL/min.**

Data acquisition speed up to **35,000 events/second.**

Non-pressurized fluidic system which allows the use of **different tube formats** from 17x100 mm to 8.5x45 mm.

**Omnicyt™ is equipped with small tanks stored within the instrument.**

## Electronic system

Omnicyt™ software is designed to provide powerful data acquisition and analysis tools using an intuitive and **user-friendly interface.**

- Generates file formats **FCS 3.0 and FCS 3.1.**
- **Large data sets can be saved** with **up to 20 million events** with all parameters.
- **No abort rate:** all the events, including aggregates, can be saved.

## Quality control and instrument maintenance

**Levey-Jennings and history reports of baseline and performance tests are available.**

**Fully compatible with EuroFlow™ methodology: SOPs and Databases.**

**Automated maintenance protocols with software guidance:** startup, shutdown, debubble procedure, deep clean and regular decontamination of the system.

## Other features

**Instrument size (H x W x D): 40 x 58 x 43 cm including fluid tanks.**

**Weight: 29 Kg.**

Product	Catalog code	Format
Omnicyt™ Flow Cytometer (VBR)	CYT-OMNI	NA
Omnicyt™ Performance Tracking Beads	CYT-OMNI-PTB	3 mL
Omnicyt™ Focusing Fluid	CYT-OMNI-FF	10 L
Omnicyt™ Wash Solution	CYT-OMNI-WS	250 mL
Omnicyt™ Shutdown Solution	CYT-OMNI-SD	250 mL
Omnicyt™ Debubble Solution	CYT-OMNI-DBS	50 mL

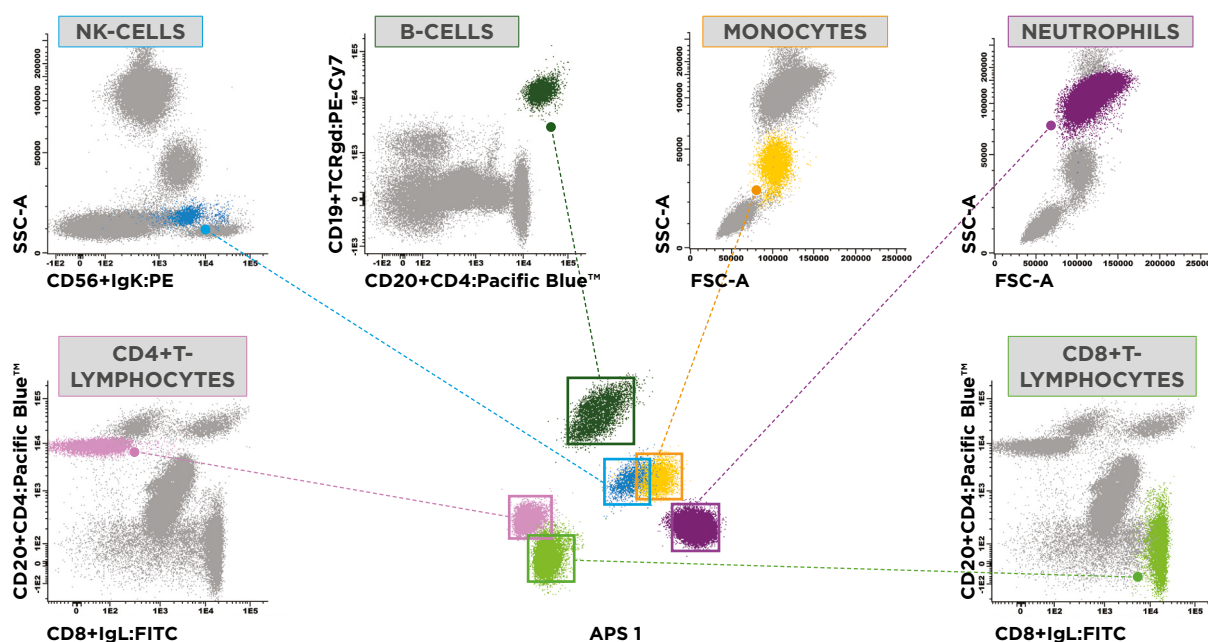


# SOFTWARE

**INFINICYT™**
**EuroFlow**

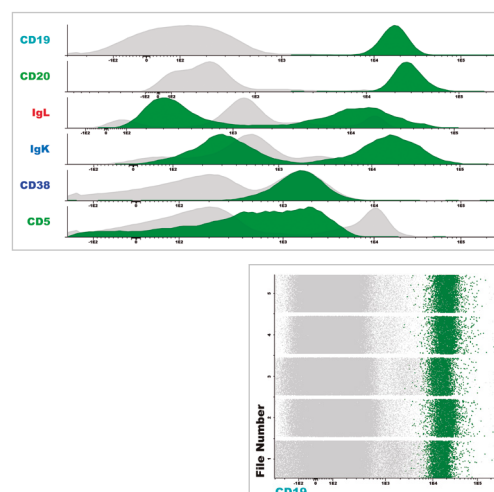

Infinicyt™ Software includes **innovative tools** for analysis, integration and interpretation that make your flow cytometry data analysis multivariate, standard, efficient, reproducible and sensitive.

- The **Automatic Population Separator (APS)**, based on Principal Component Analysis, uses the information from all the parameters included in the file providing the best cell cluster separation, and highlights the markers that are most significant for this separation.



The diagrams above represent a sample stained with Cytognos LST Kit. The APS in the centre displays cell cluster separation considering all parameters at the same time. Dotplots with relevant markers demonstrate that clusters on the APS are biologically defined populations.

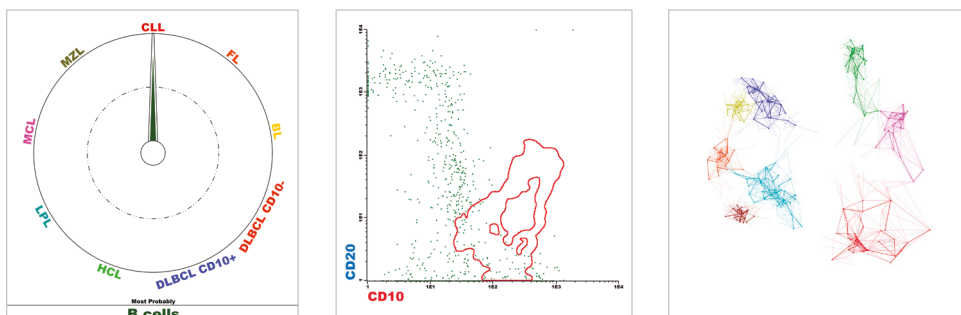
- Multiparametric diagrams** for the representation of several parameters and populations at the same time.
- The **File Merge** tool allows the integration of several files that can be globally analyzed at the same time.
- The inclusion of common markers at the same fluorochrome positions in multi-tube panels increments the reproducibility of the gating strategy used to identify target cell populations for phenotypic characterization.



Infinicyt™ supports FCS files generated in all flow cytometers that follow the Flow Cytometry Data File Standards (2.0, 3.0, 3.1).



- Automated software tools for comparison of samples with the **EuroFlow™ Databases** (EuroFlow™ SOPs for sample preparation, instrument set-up and antibody panels are required).
- Create your own classification Databases and use the **Compass tool** for sample classification (standard conditions for sample preparation instrument set-up and antibody panels are required).
- Save **Reference Images** in the profile for disease monitoring, identification of maturation patterns, etc.
- **Clustering tool** automatically groups all the events into clusters according to their relative distance in the multidimensional space.
- Results can be linked to your **Laboratory Information System (LIS)**.



- **Automated analysis tools** included in Infinicyt™ make the analysis user-independent providing objective and reproducible results.
- Infinicyt™ includes **EuroFlow™ Profiles** with the appropriate population tree and diagrams facilitating the analysis of samples stained with EuroFlow™ panels.
- **Analysis strategies** stored in the profile make the analysis more reproducible.
- Infinicyt™ includes **robust statistics parameters** that are less influenced by outlying events: median absolute deviation (MAD), robust standard deviation (rSD), robust coefficient of variation (rCV%).
- Optimal performance when **processing large files** (essential in MRD studies).
- Limit of Detection and Lower Limit of Quantification are automatically calculated in the **Automatic Report** in order to provide an objective result following current reporting guidelines.

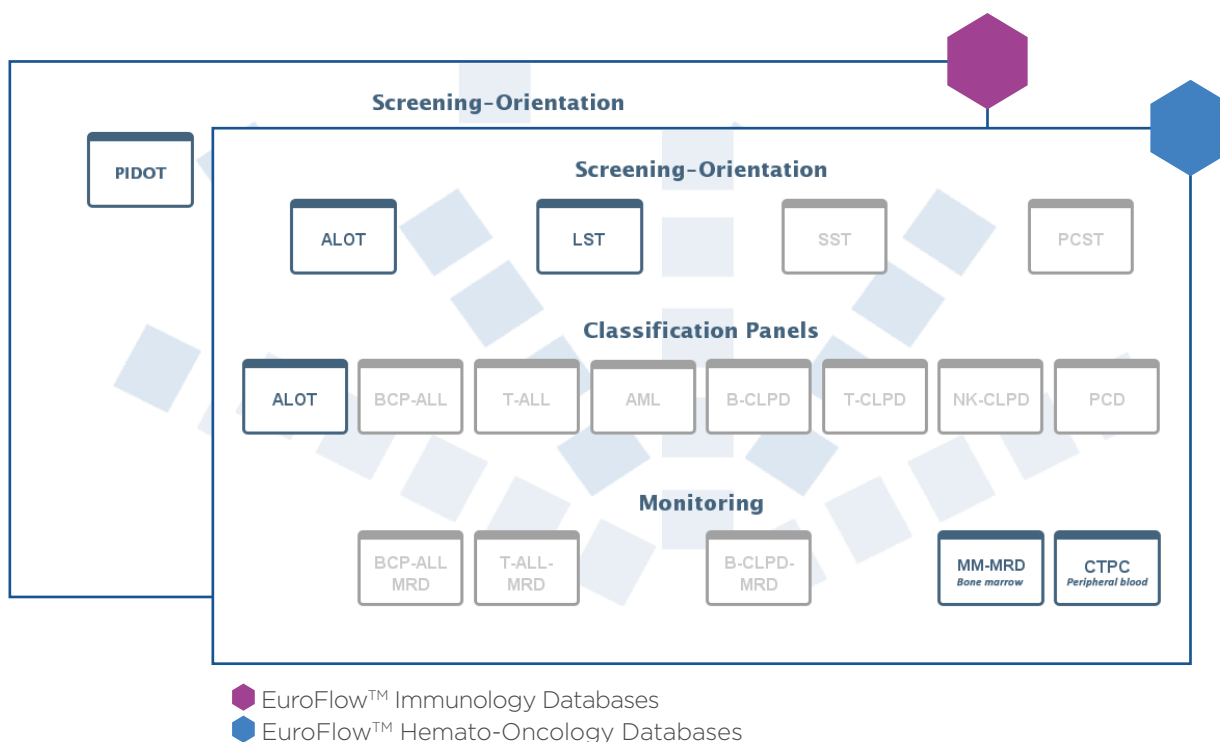
Description	Reference
Infinicyt™ Basic Licence	CYT-INFINICYT-BASIC
Infinicyt™ Advanced Licence	CYT-INFINICYT-ADVANCED
Infinicyt™ Upgrade	CYT-INFINICYT-UPGRADE
EuroFlow™ Database Accesses	CYT-INFINICYT-EFDB





## EUROFLOW™ DATABASES

Infinicyt™ includes EuroFlow™ innovative tools that go one step forward in the analysis of flow cytometry data. For the first time, Infinicyt™ aims at the **standardization** of the analysis with **databases** for pattern recognition and **software algorithms** to make these databases work.



*EuroFlow™ Databases for screening, classification and monitoring of hematological and immunological malignancies.*

## Screening Databases

### EuroFlow™ Databases for Acute Leukemia: ALOT Databases

EuroFlow™ developed and validated two reference databases. Firstly, all cell populations present in the sample are compared with the normal reference database and classified as normal, or to be reviewed by the expert. Once the abnormal blast population is identified, the software automatically performs a comparison (using the Compass tool) with a reference database containing abnormal (B, T and Myeloid) leukemic cells.

### EuroFlow™ Databases for Chronic Lymphoproliferative Disorders: LST Database

EuroFlow™ created a reference database for peripheral blood samples that allows reliable and reproducible classification of normal and pathological lymphocytes efficiently orientating towards the most appropriate characterization panel.

### EuroFlow™ Databases for Primary Immunodeficiencies: PIDOT Database

EuroFlow™ created a database of representative normal peripheral blood samples stained with the PIDOT panel after standard processing of samples from hundreds of normal donors belonging to different age segments. Alerts set-up based on normal ranges are included in the report (reference age-related values).

## Monitoring Databases

### EuroFlow™ Databases for plasma cell dyscrasias (PCD): MM MRD and CTPC Databases

EuroFlow™ created two reference databases, one for monitoring of circulating tumor plasma cells (CTPC) in peripheral blood at diagnosis and during/post-treatment and another database for MRD assessment in bone marrow samples after treatment.





# cytognos

Flow Cytometry Solutions



**REAGENTS**

***STAIN***



**Omnicyt™**  
FLOW CYTOMETRY

***ACQUIRE***



**Infinicyt™**

***ANALYZE &  
REPORT***



**EuroFlow**

***STANDARDIZE***

[www.cytognos.com](http://www.cytognos.com)



# cytognos

## Flow Cytometry Solutions

### HEADQUARTERS

Pol. La Serna, Nave 9, 37900, Santa Marta de Tormes, Salamanca. **Spain**

**Phone:** +34 923 125 067 / **Fax:** +34 923 125 128

**Ordering information:** admin@cytognos.com

### SUBSIDIARIES

361 Newbury Street, suite 404  
Boston, MA 02115

**United States of America**

**Ordering information:**

admin.usa@cytognos.com

**Customer Service:**

+1 (857) 222 6743

29a Crown Street  
Brentwood, Essex, CM14 4BA

**United Kingdom**

**Ordering information:**

admin.uk@cytognos.com

**Customer Service:**

+44 (0) 33 3303 0950

### BRANCH

Rotterdam Braingate, Rivium Boulevard 301  
2909 LK, Capelle aan den IJssel

**The Netherlands**



### TECHNICAL SUPPORT

support@cytognos.com

**Phone:** +34 923 12 50 67

International distributor information can be found on our website:

**[www.cytognos.com](http://www.cytognos.com)**

Follow us:

