



cytognos

Flow Cytometry Solutions



REAGENTS

STAIN



TECHNICAL SUPPORT



**ANALYZE &
REPORT**



EuroFlow

STANDARDIZE



Omnicyt™
FLOW CYTOMETRY

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CATALOG 2021

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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 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)
Pacific Blue™	405 Violet laser	405	450
OC515™ Orange Cytognos 515	405 Violet laser	405	515
FITC Fluorescein Isothiocyanate	488 Blue laser	495	519
PE R-Phycoerythrin	488, 532, 561 Blue laser	496, 564	578
PerCP-Cyanine5.5 Peridin Chlorophyll protein-Cyanine 5.5 Tandem	488, 532 Blue laser	482	695
PE-Cyanine5 R-Phycoerythrin-Cyanine 5 Tandem	488, 532, 561 Blue laser	496, 564	670
PE-Cyanine7 R-Phycoerythrin-Cyanine 7 Tandem	488, 532, 561 Blue laser	496, 564	785
APC Allophycocyanin	595, 633, 635, 640, 647 Red laser	650	660
APC-C750™ 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.

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

Description	Size	Catalog code	Status
TiMaScan™	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 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
APLS-AML	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
FITC	CYT-1AF1	200 tests	NA1/34-HLK	IgG2a	RUO

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

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

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

NEW!

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

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



CD8	Catalog code	Size	Clone	Isotype	Status	
FITC	CYT-8F8	200 tests	UCHT-4	IgG2a	CE/IVD	EUROFLOW™
PE	CYT-8PE9	200 tests	UCHT-4	IgG2a	CE/IVD	
PE-Cyanine5	CYT-8C	200 tests	UCHT-4	IgG2a	CE/IVD	
APC	CYT-8AP1	200 tests	UCHT-4	IgG2a	RUO	NEW!
CD9	Catalog code	Size	Clone	Isotype	Status	
Pacific Blue™	CYT-9PBZ	100 tests	MEM-61	IgG1	RUO	
CD10	Catalog code	Size	Clone	Isotype	Status	
FITC	CYT-10F1	200 tests	SN5c	IgG1	RUO	
PE	CYT-10PE8	100 tests	CB-CALLA	IgG2b	RUO	
APC	CYT-10AP	100 tests	HI10a	IgG1	RUO	
APC-C750™	CYT-10AC750	50 tests	HI10a	IgG1	CE/IVD	
CD11c	Catalog code	Size	Clone	Isotype	Status	
PE	CYT-11cPE3	200 tests	B-ly6	IgG1	CE/IVD	
CD13	Catalog code	Size	Clone	Isotype	Status	
PE	CYT-13PE3	100 tests	WM15	IgG1	RUO	
CD14	Catalog code	Size	Clone	Isotype	Status	
FITC	CYT-14F6	200 tests	MEM-15	IgG1	RUO	
PE	CYT-14PE7	200 tests	MEM-15	IgG1	RUO	
APC	CYT-14AP3	200 tests	47-3D6	IgG1	CE/IVD	
CD15	Catalog code	Size	Clone	Isotype	Status	
FITC	CYT-15F4	100 tests	MCS-1	IgG3	CE/IVD	
CD16	Catalog code	Size	Clone	Isotype	Status	
FITC	CYT-16F6	200 tests	3G8	IgG1	CE/IVD	
PE	CYT-16PE7	200 tests	3G8	IgG1	RUO	
CD16+CD56	Catalog code	Size	Clone	Isotype	Status	
PE	CYT-16PE7+56PE	100 tests	3G8 + C5.9	IgG1 + IgG2b	CE/IVD	



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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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



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

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

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

EUROFLOW™

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

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

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

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

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

NEW!

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

EUROFLOW™

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

EUROFLOW™

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

CD117	Catalog code	Size	Clone	Isotype	Status
PE	CYT-117PE2	100 tests	104D2	IgG1	RUO
APC	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

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

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

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 β	Catalog code	Size	Clone	Isotype	Status
APC	CYT-bFIAP	100 tests	8A3	IgG1	RUO

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

β 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/BB71	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

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

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
Quicklysis™	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.

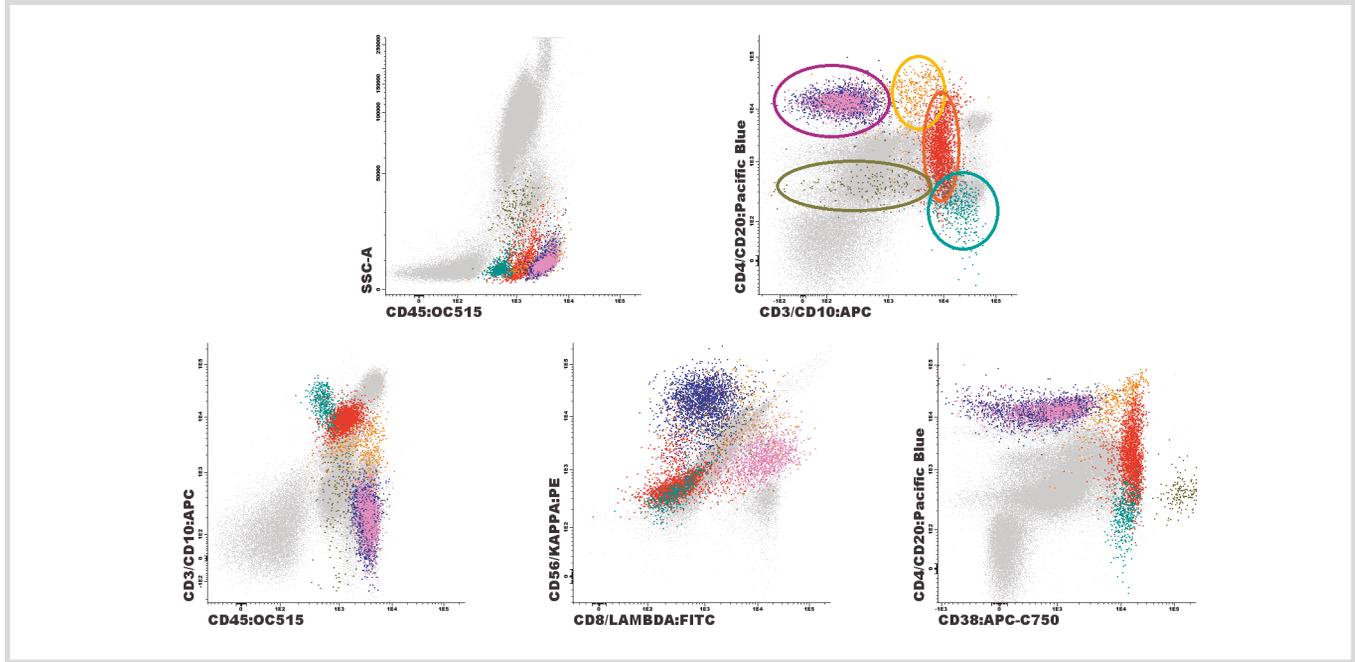
Description	Format	Size	Catalog code	Status
BulkLysis™	100 ml (10x)	20 tests	CYT-BL	CE/IVD*

* 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
- IgLambda⁺ B-cells
- IgKappa⁺ B-cells
- Plasma cells

Data file analyzed with
Infinicyt™

B-cell stages analysis in a bone marrow sample stained with Lymphoclonal™-12 cocktail.

Lymphogram™

PATENTED!

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
Lymphoclonal™	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
Lymphoclonal™-C	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
Lymphoclonal™-12	Lyophilized	25 tests	CYT-LC12	CE/IVD

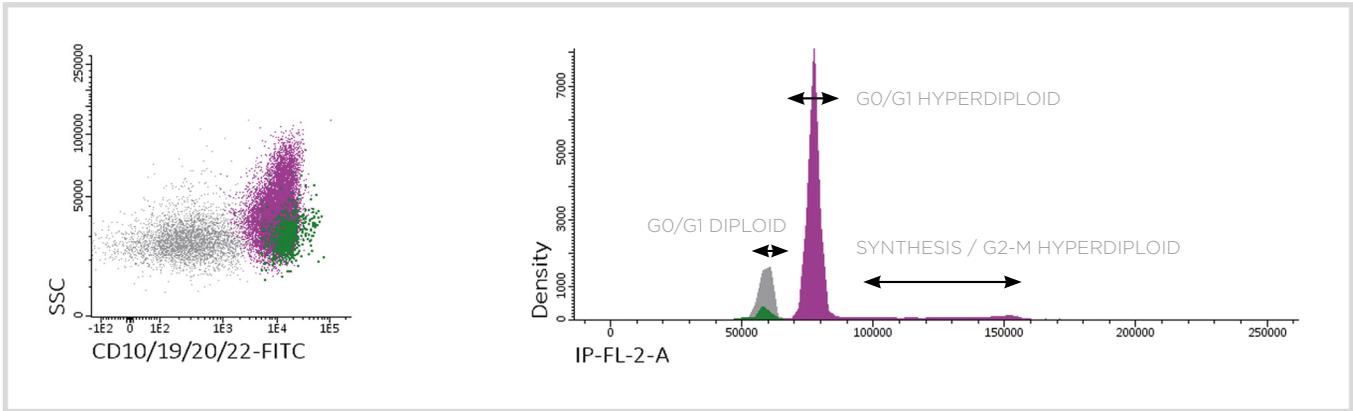


DNA content studies and cell cycle analysis

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
Cycloscope™ MM	CD38 + CD138	✓	✓	✓	20 tests	CYT-CS-MM	RUO
Cycloscope™ B-ALL	CD10 + CD19 + CD20 + CD22	✓	✓	✓	20 tests	CYT-CS-BALL	RUO
Cycloscope™ NHL	CD19 + CD20 + CD22 + CD23	✓	✓	✓	20 tests	CYT-CS-NHL	RUO
Cycloscope™ Reagent	✗	✗	✓	✓	50 tests	CYT-CS-R-50	RUO
DNA labeling Solution	✗	✗	✗	✓	25 tests	CYT-PIR-25	RUO



Absolute counting systems

PATENTED!

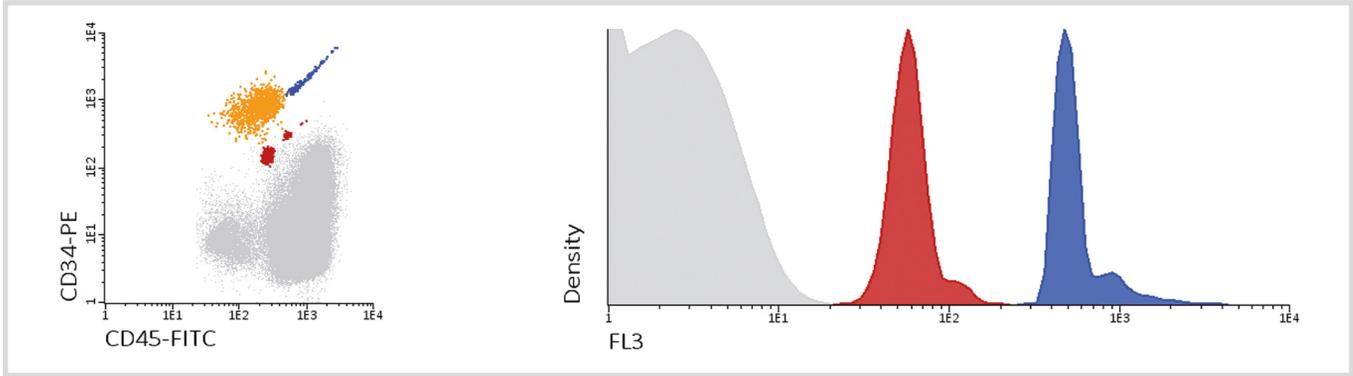
Perfect-Count™ Microspheres



CE
IVD

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
Perfect-Count™ Microspheres	50 tests	CYT-PCM-50	CE/IVD
Perfect-Count™ Microspheres	100 tests	CYT-PCM-100	CE/IVD



- CD34+ cells
- A beads
- B beads



CD34+ cell count with Perfect-Count™ Microspheres.

PATENTED!

LeucoFinder™



CE
IVD

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
LeucoFinder™	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 1st 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

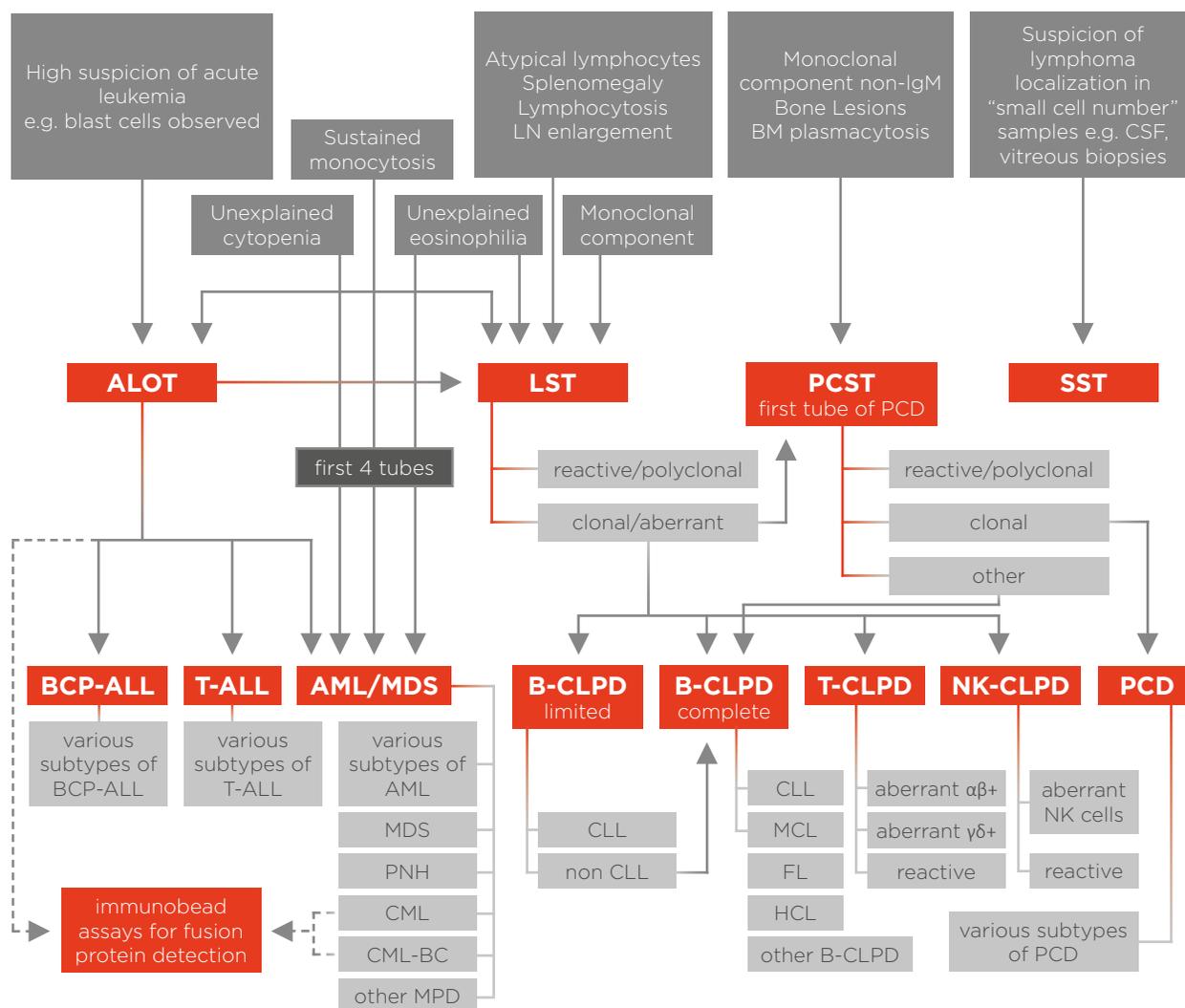
NGF immunophenotyping protocols for hemato-oncology include 8-color tubes, allowing **precise characterization** of normal, reactive and neoplastic leukocyte populations. In addition, the combination of multiple antibodies in the same fluorochrome position allows the analysis of a larger number of antibodies 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 performed 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 surface antigens (5 vials, 5 tests per vial)	OC515™-CD45 PerCP-Cyanine5.5-CD5 PE-Cyanine7-CD19 + TCRγδ APC-C750™-CD38	25 free EuroFlow™ Database Accesses 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 surface antigens (5 vials, 5 tests per vial)	OC515™-CD45 PerCP-Cyanine5.5-CD4 PE-Cyanine7-CD19 APC-C750™-CD38



Characterization/Classification

Combinations and single antibodies

EuroFlow

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 surface antigens (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)	FIX&PERM®: Cell Permeabilization Kit.	25 free EuroFlow™ Database Accesses to be used in Infinicyt™ Software.
Antibodies against surface antigens (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 cytoplasmic antigens (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 surface antigens (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)	BulkLysis™: Fixative-free erythrocyte lysing solution
Antibodies against surface antigens Tube 1 (4 vials, 5 tests per vial)	OC515™-CD45	
Antibodies against surface antigens Tube 2 (4 vials, 5 tests per vial)	PerCP-Cyanine5.5-CD34	
	PE-Cyanine7-CD19	
	APC-C750™-CD38	



Plasma cell dyscrasias

Screening/Orientation

PATENTED!

PCST

Plasma Cell Screening Tube

EuroFlow

CE IVD

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	CyIgKappa	CyIgLambda

Kit composition (auxiliary reagents included)

Lyophilized tubes	Compensation tubes (lyophilized monotest tube)	FIX&PERM®: Cell Permeabilization Kit.
Antibodies against surface antigens (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 cytoplasmic antigens (5 vials, 5 tests per vial)	PerCP-Cyanine5.5-β2-microglobulin	
	PE-Cyanine7-CD19	
	APC-C750™-CyIgLambda	



Monitoring

PATENTED!

CTPC

Circulating Tumor Plasma Cells kit

EuroFlow

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 surface antigens - Tube 1 (4 vials, 5 tests per vial)	PerCP-Cyanine5.5-CD45	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.
Antibodies against surface antigens - Tube 2 (4 vials, 5 tests per vial)	PE-Cyanine7-CD19 APC-C750™-CD81		
Antibodies against cytoplasmic antigens - Tube 2 (4 vials, 5 tests per vial)	APC-C750™-CyIgLambda		
		25 free EuroFlow™ Database Accesses to be used in Infinicyt™ Software.	

PATENTED!

MM MRD

Multiple Myeloma MRD kit

EuroFlow

CE IVD

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 surface antigens - Tube 1 (4 vials, 5 tests per vial)	PerCP-Cyanine5.5-CD45	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.
Antibodies against surface antigens - Tube 2 (4 vials, 5 tests per vial)	PE-Cyanine7-CD19 APC-C750™-CD81		
Antibodies against cytoplasmic antigens - Tube 2 (4 vials, 5 tests per vial)	APC-C750™-CyIgLambda		
		25 free EuroFlow™ Database Accesses to be used in Infinicyt™ Software.	



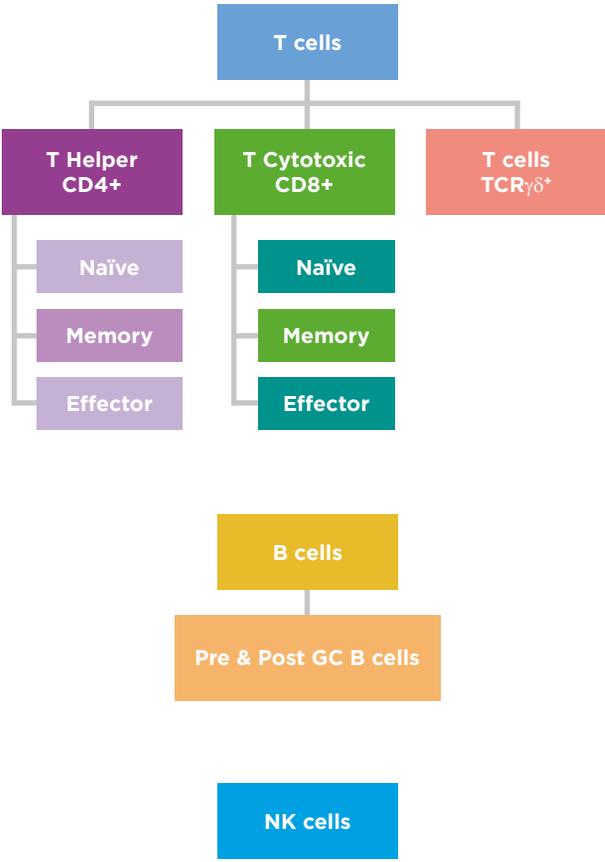
Next Generation Flow™ for Immunology

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).

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



Characterization/Classification

PATENTED!

IgH-isotype panel - Subclasses

Combinations of immunoglobulins

EuroFlow

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 surface antigens (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.
Tube 1: Antibodies against surface antigens (1 vial, 20 tests) Tube 2: Antibodies against surface antigens (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
IgA1	FITC	CYT-IGA1F	25 tests	RUO
IgA1	PE	CYT-IGA1PE	25 tests	RUO
IgA1	PerCP-Cyanine5.5	CYT-IGA1C	25 tests	RUO
IgA1	APC	CYT-IGA1AP	25 tests	RUO
IgA2	PE	CYT-IGA2PE	25 tests	RUO
IgA2	PerCP-Cyanine5.5	CYT-IGA2C2	25 tests	RUO
IgD	FITC	CYT-IGDF	25 tests	RUO
IgD	PerCP-Cyanine5.5	CYT-IGDC	25 tests	RUO
IgG1	FITC	CYT-IGG1F	25 tests	RUO
IgG1	PE	CYT-IGG1PE	25 tests	RUO
IgG2	FITC	CYT-IGG2F	25 tests	RUO
IgG2	PE	CYT-IGG2PE	25 tests	RUO
IgG3	FITC	CYT-IGG3F	25 tests	RUO
IgG4	FITC	CYT-IGG4F	25 tests	RUO
IgG4	APC	CYT-IGG4AP	25 tests	RUO
IgM	PerCP-Cyanine5.5	CYT-IGMC2	25 tests	RUO
IgM	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



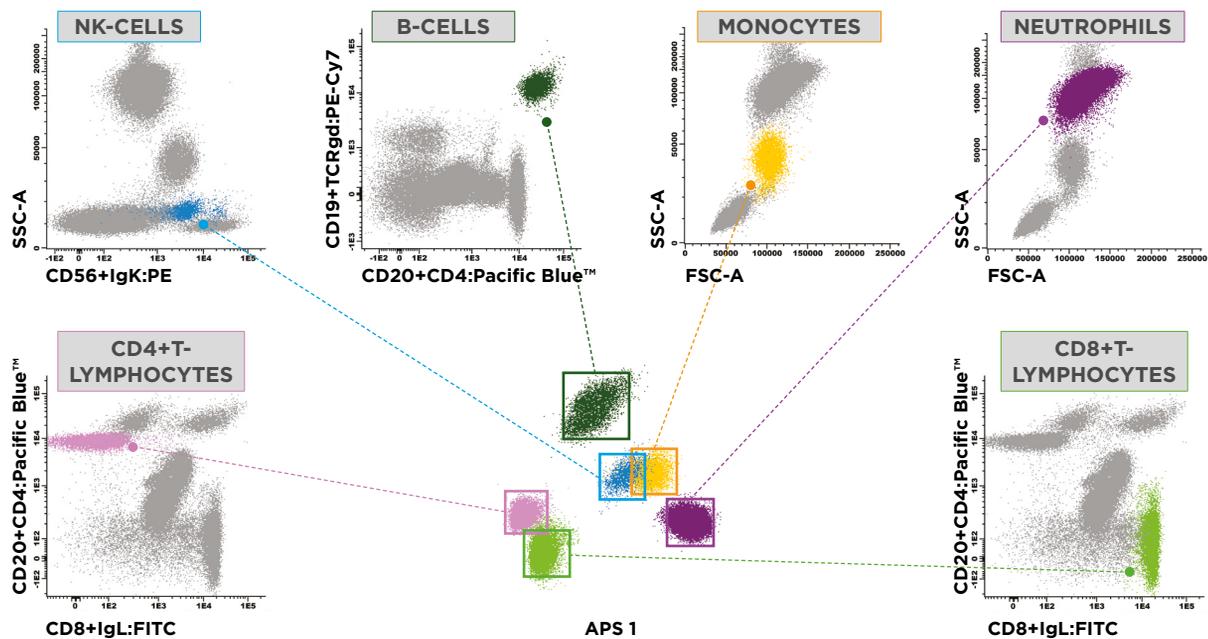
SOFTWARE

INFINICYT™



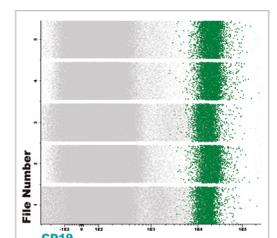
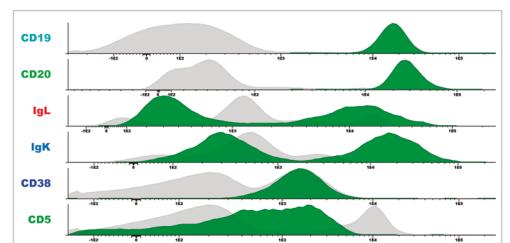
Infinicyt™ Software includes **innovative tools** for analysis, integration and interpretation that make your flow cytometry data analysis multivariate, standard, efficient, reproducible and sensitive.

- 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.

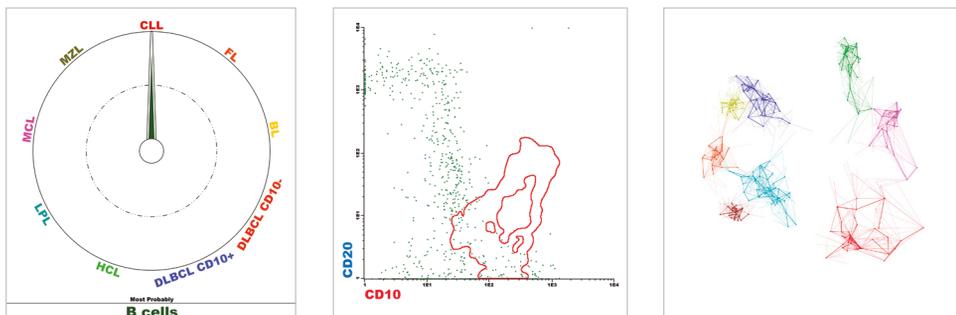
- **Multiparametric diagrams** for the representation of several parameters and populations at the same time.
- The **File Merge** tool allows the integration of several files that can be globally analyzed at the same time.
- The inclusion of common markers at the same fluorochrome positions in multi-tube 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)**.



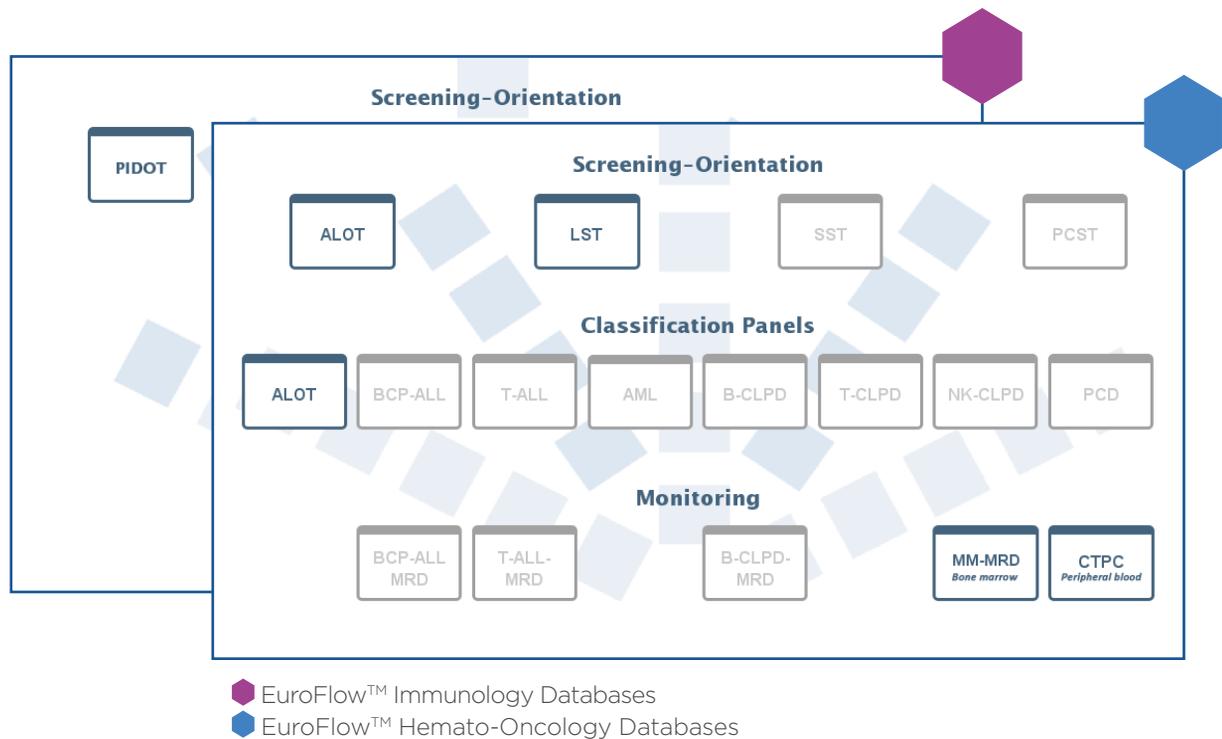
- **Automated analysis tools** included in Infinicyt™ make the analysis user-independent providing objective and reproducible results.
- Infinicyt™ includes **EuroFlow™ Profiles** with the appropriate population tree and diagrams facilitating the analysis of samples stained with EuroFlow™ panels.
- **Analysis 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.



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Flow Cytometry Solutions



REAGENTS

STAIN



Omnicyt™

ACQUIRE



Infinicyt™

**ANALYZE &
REPORT**



EuroFlow

STANDARDIZE



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