CytoFLEX Flow Cytometer Platform
Join the Resolution REVOLUTION

CytoFLEX LX

EVERY
*event matters.*
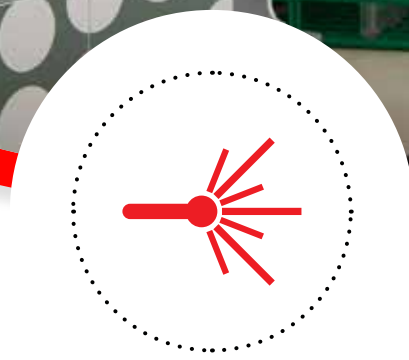
BECKMAN
COULTER
Life Sciences

# Benchtop Cytometry without Compromises

The CytoFLEX Platform is a revolutionary system presenting optimal excitation and emission, minimizing light loss and maximizing sensitivity. Since its initial unveiling, the compact system with innovative technology borrowed from the telecommunications industry has garnered attention from the flow cytometry community. Since that time, we have continued to expand the platform, creating even more choices for researchers.

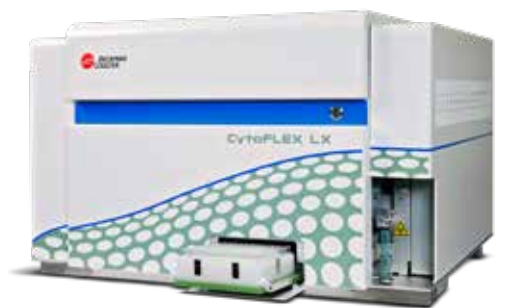We continue to leverage the power of the platform:

• Exquisite sensitivity

• Small particle analysis in a benchtop analyzer

• Extensive set of repositionable band pass filters

• Flexibility to upgrade by adding additional parameters

• Intuitive software to facilitate multicolor analysis
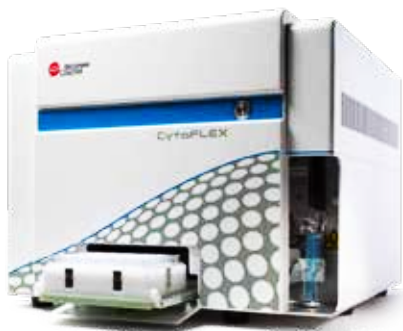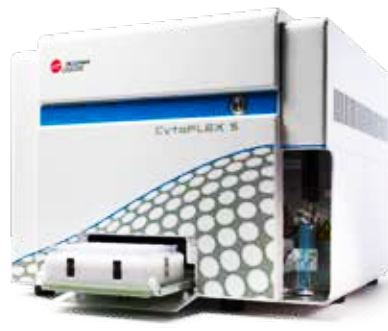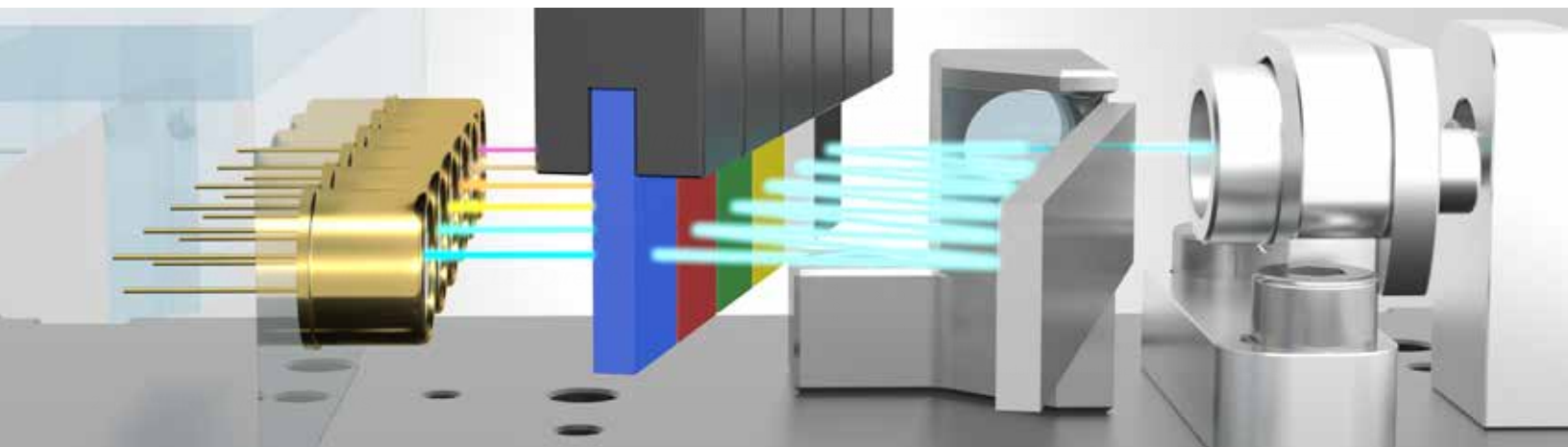
| Up to 3 lasers	Up to 4 lasers	Up to 6 lasers

Visit Beckman.com/cytoflex

Harness the Power of Advanced Sensitivity

A unique assembly of technologies contributes to the exquisite sensitivity of the platform. Borrowing technology from the telecommunications industry, the Wavelength Division Multiplexer (WDM) deconstructs and measures multiple wavelengths of light. The WDM relies on fiber optics and band pass filters to separate the light wavelengths. Unlike more traditional instruments, multiple dichroic filters to direct the light path are not required. This makes it much easier to configure the fluorescence channels, but also increases light efficiency as light loss due to refraction is minimized.
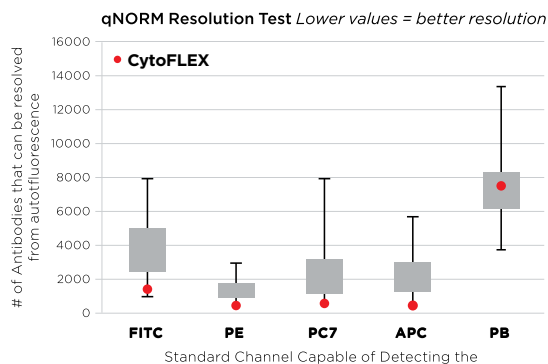
The WDM utilizes Avalanche Photodiode detectors (APD), versus Photomultiplier tubes (PMT). One hallmark of the photodiode is the high quantum efficiency in excess of 80%, especially for wavelengths greater than 800 nm.
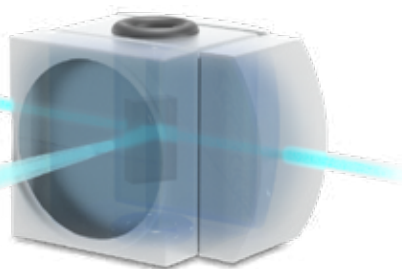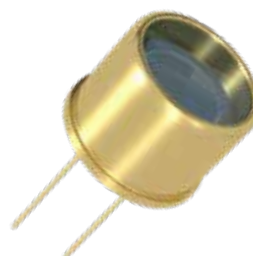
With conventional analyzers, laser excitation sources are optimized by shaping and focusing light through a series of lenses and filters onto the flow cell. Each of these light interactions is an opportunity for light loss. Another component of the system which increases efficiency is the use of integrated optics to focus light onto the flow cell. All of these technologies work together in the CytoFLEX to ensure efficient light management for optimal excitation and emission of fluorochrome-tagged cells, which is critical to its performance.

"The CytoFLEX compares very well with all the best instruments out there. It definitely beats every instrument I own in the FITC, PE, PECy7, and APC channels."

Ryan Duggan, UC Flow Core Lab Director

qNORM Resolution Test *Lower values = better resolution*

- **CytoFLEX**

# of Antibodies that can be resolved from autofluorescence

16000
14000
12000
10000
8000
6000
4000
2000
0

FITC   PE   PC7   APC   PB

Standard Channel Capable of Detecting the

Focus on the Science

The CytoFLEX Platform innovative design delivers powerful performance in a compact, easy-to-use flow cytometer. It simplifies the practice of flow cytometry so that it can be more readily used by a wider range of scientists, allowing them to harness the power of single cell analysis. Increasing the robustness of the system, detectors, light management, fluidics and compensation algorithms means that establishing multicolor assays takes less planning and optimization.
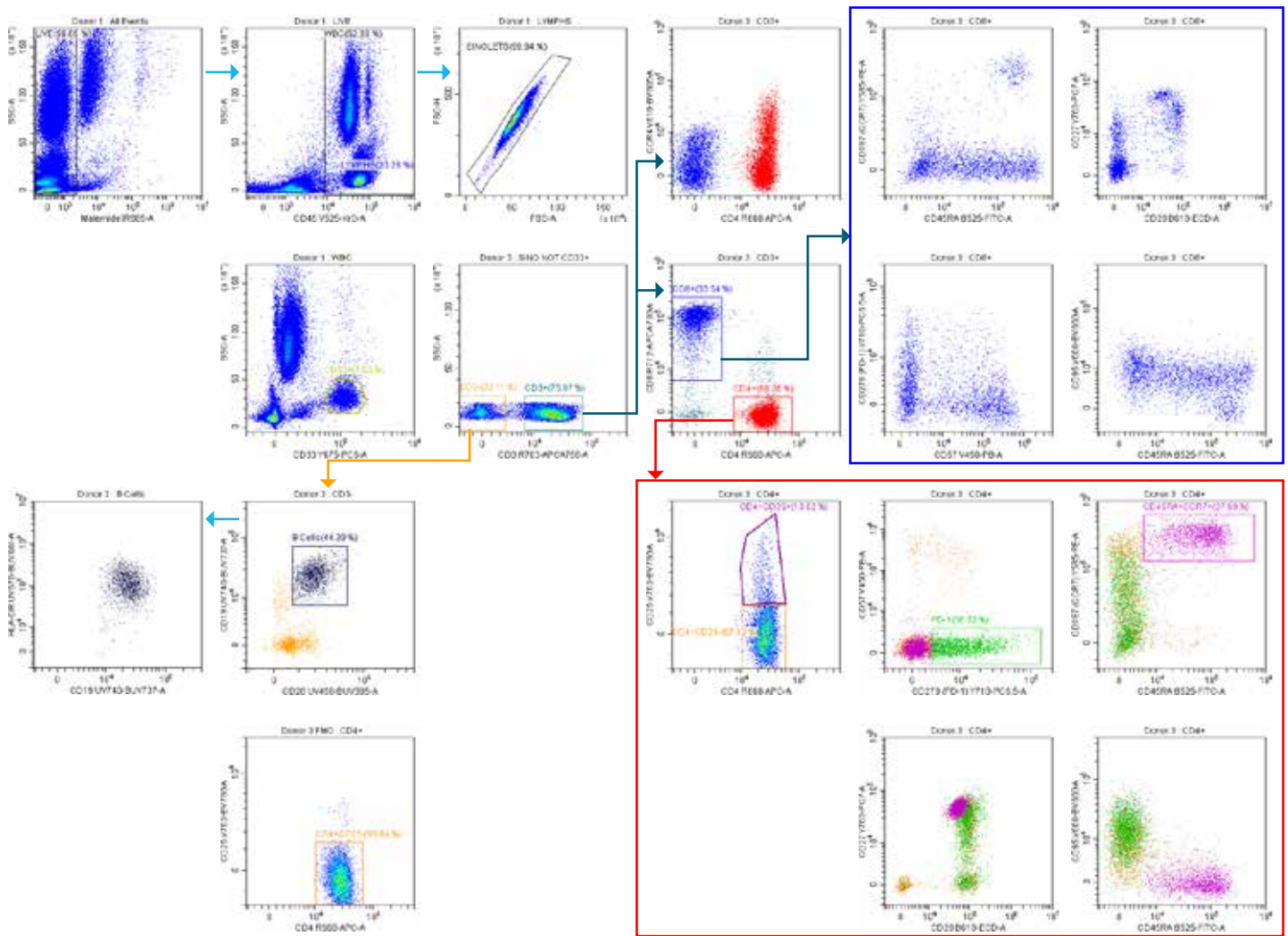
375 NM			405 NM					488 NM			561 NM					638 NM			808 NM	
405/ 305	675/ 30	740/ 35	450/ 45	525/ 40	601/ 20	660/ 10	763/ 43	525/ 40	610/ 20	690/ 50	585/ 42	610/ 20	675/ 20	710/ 50	763/ 43	660/ 10	712/ 25	763/ 43	840/ 20	885/ 40
BUV395	BUV661	BUV737	PAC BLUE	KROME ORANGE	BV605	BV650	BV786	FITC	ECD	B690	PE	Y610	PC5	PC5.5	PC7	APC	APC-A700	APC-A750	IR840	IR885/40
CD20	HLA-DR	CD19	CD57	CD45	CCR4	CD95	CD25	CD45RA	CD28		CCR7		CD33	CD279 (PD-1)	CD27	CD4	CD8	CD3		Viabillity

Multicolor Immunophenotyping. Deep immune cell immunophenotyping was performed on human blood (A). Using a DURAClone IM T Cell panel, red outline, additional markers were added to increase the breadth of cell types (B). The analysis was completed on the CytoFLEX LX configured with 6 lasers. Fluorochromes were spread across different lasers to reduce spectral overlap. Using CytExpert software,sSequential hierarchical gating was used to identify B and T cell populations including deep analysis of the T cell compartment.
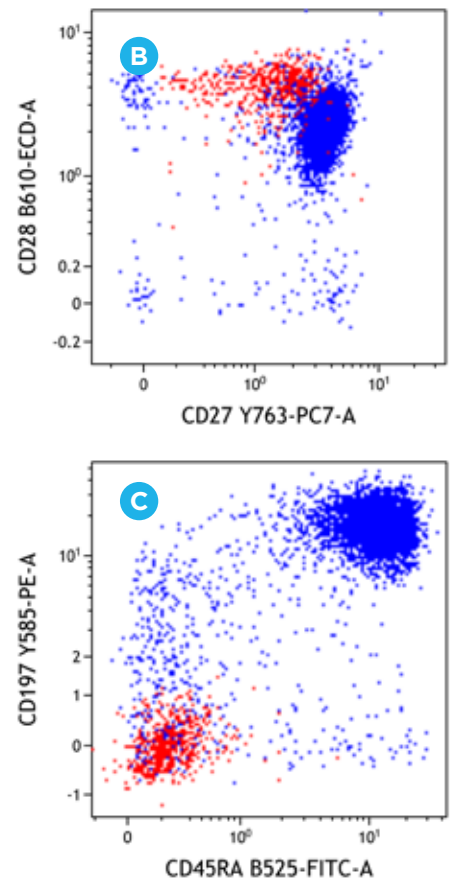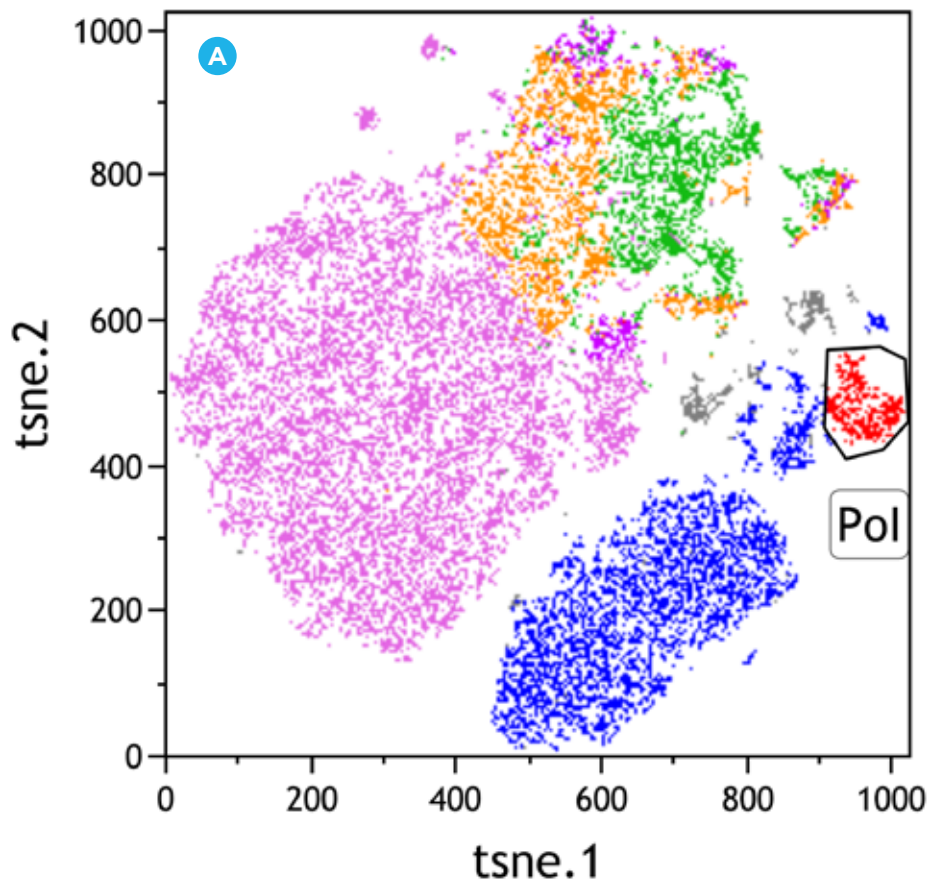
Dimensionality reduction using t-Distributed Stochastic Neighbor Embedding (tSNE). a) Pre-gating for doublet exclusion and the identification of viable CD3+ T-cells was performed on the same staining using Kaluza Analysis Software. The R Console plugin was used to perform tSNE analysis on pre-gated, compensated data and a new fcs file containing the tSNE parameters was generated. A population of interest (PoI) was gated on the tSNE plot. b) Expression patterns for CD8+ T-cells (blue) and the population of interest (red) were visulized for CD27 vs. CD28 and CD45RA vs. CCR7 using standard dot plots in Kaluza.

I enjoy the ability to swap out filters-that's a huge advantage of the instrument. I don't have to purchase additional filters, it already comes with all the filters that I would ever need. It also allows me to upgrade the instrument. Currently, I only have 2 lasers and I can upgrade to the violet laser, I can upgrade to a plate loader, I can upgrade to whatever I might need in the future, which is a huge advantage as a core manager.

Sarah Schuett, Core Lab Manager
North Carolina State Veterinary College

Nanoparticle Detection
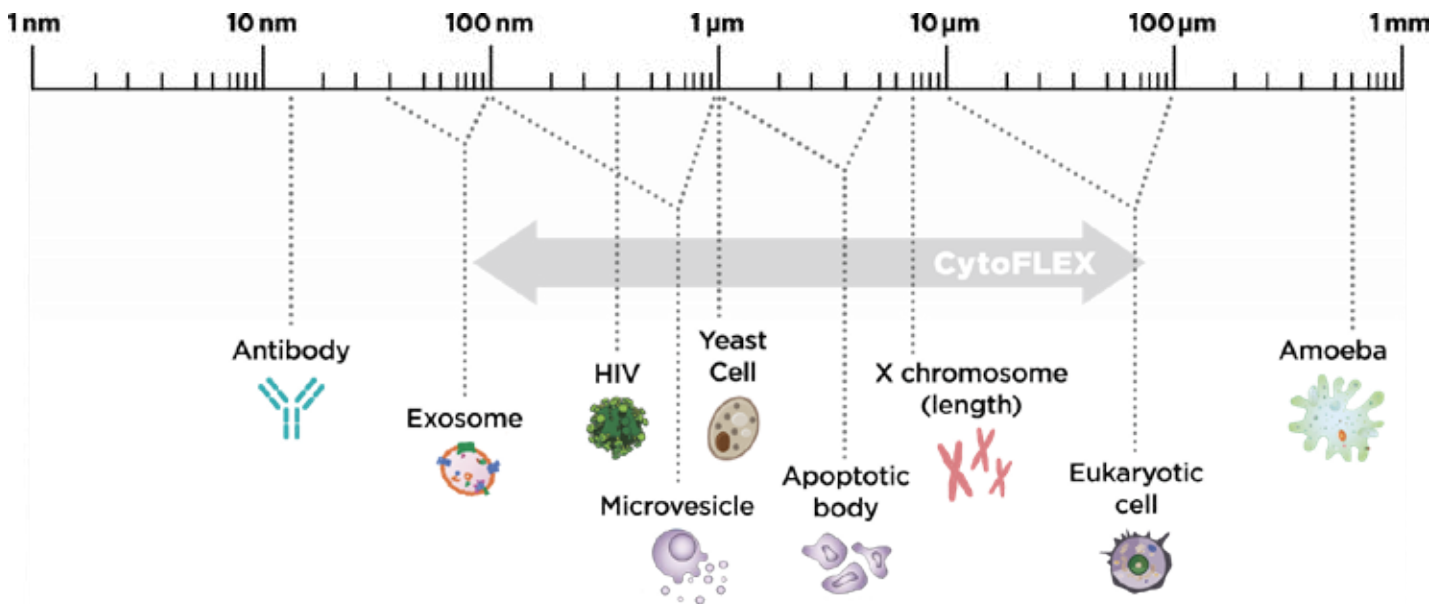
The advancement of flow cytometry into nanoparticle scale resolution, makes it possible to ask questions previously left to speculation. Several fundamental capabilities of flow cytometry make it an attractive platform for studying nanoparticles such as extracellular vesicles. That is the ability to detect large numbers of events, and discrimination of rare events, while simultaneously collecting information on phenotypic expression.
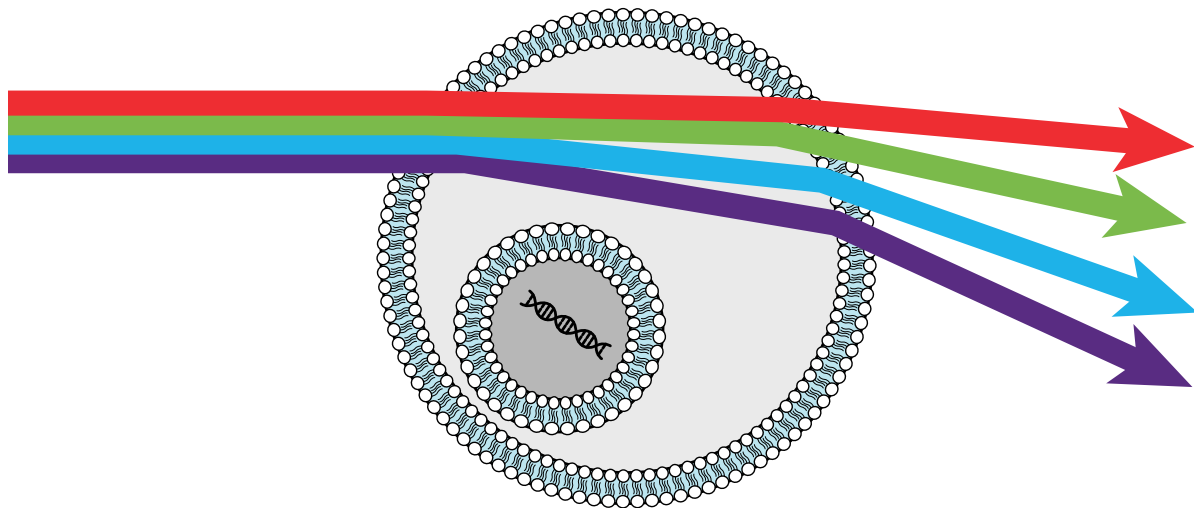

The CytoFLEX Platform of flow cytometers features the capability to measure side scatter off of the violet as well as the blue laser. This increases the range of particles that can be detected and analyzed within the sample. The smaller violet (405 nm) wavelength will result in more orthogonal light scattering at any given particle size than the blue (488 nm) wavelength.

The use of violet light will help to amplify the differences in the refractive indices between the particles and their surrounding media, and in turn increases the ability to detect particles with a lower refractive index, such as exosomes, microvesicles and silica nanoparticles.

The CytoFLEX Flow Cytometer has the resolution to detect 80 nm polystyrene particles. This facilitates analysis of biological nanoparticles within a phenotypic context.
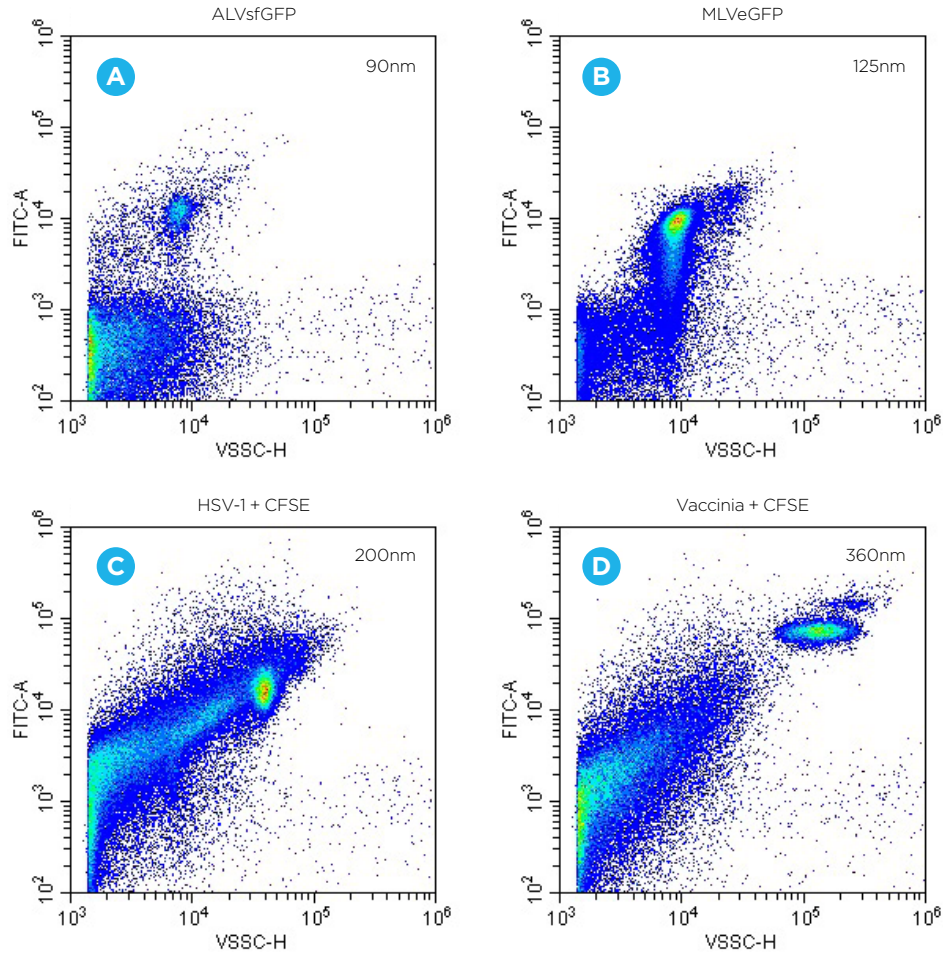

Analysis of fluorescently labeled enveloped viruses. (A) Avian leukosisvirus expressing superfolderGFP (ALVsfGFP). (B) Murine Leukemia Virus expressing eGFP(MLVeGFP). (C) HSV-1(TK-strain) and (D) Vaccinia (VVDD strain) labeled with the dye carboxyfluoresceinsuccinimidylester (CFSE). The diameter sizes for these viruses (top right of each panel) are as reported in literature and determined by electron microscopy.

Data kindly provided by Vera A. Tang, Ph.D. and Marc-André Langlois, Ph.D., University of Ottawa.

"The CytoFLEX is the first flow cytometer with an acceptable noise range on which we can clearly demonstrate detection of extracellular vesicles down to a size of 150 nm*. The potential to combine small particle analysis with the detection of up to 13 additional fluorescence parameters makes this cytometer an outstanding instrument for extracellular vesicle detection."

Andreas Spittler, MD, Associate Professor for Pathophysiology, Medical University of Vienna, Core Facility Flow Cytometry & Department of Surgery, Research Laboratories

In order to achieve detection smaller than 200 nm, modifications to the method and rigorous control of instrument set up and sample preparation are required. See Set-Up of the CytoFLEX for Extracellular Vesicle Measurement, Andreas Spittler.
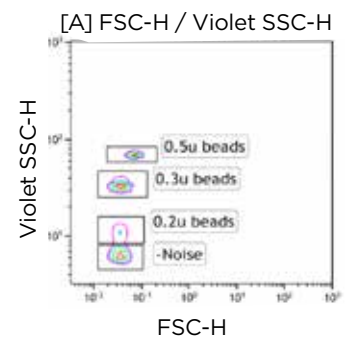
Multicolor Flow Cytometry Made Easy

Novice to experienced flow cytometrists can quickly learn to operate the system, and can confidently generate and export publication quality data. The user interface uses common ribbon and contextual menus which makes instrument operation intuitive. The CytoFLEX workflow is a streamlined experience that allows you to focus on your sample.

Everyone likes to use the CytoFLEX because it's so easy. With complex panels there is flexibility to change channels and gains, which makes it easy to transfer setup from one cell type to another. This is based upon the ability to optimize a previously generated compensation matrix without rerunning the compensation. This saves money on antibodies and time because challenging experiments are easily set up in minutes instead of hours.

The CytoFLEX frees up time to do other things because it is reliable and people need very little guidance to use the instrument. Advanced analyses can be run by junior scientists. Time is key. We get really good data because of the performance and resolution of the system. This results in fewer failed experiments which is especially important when working with primary cells.

Anssi Kailaanmäki, Ph.D.
Head of Immunotherapy
Kuopio Center for Gene and Cell Therapy, FINLAND
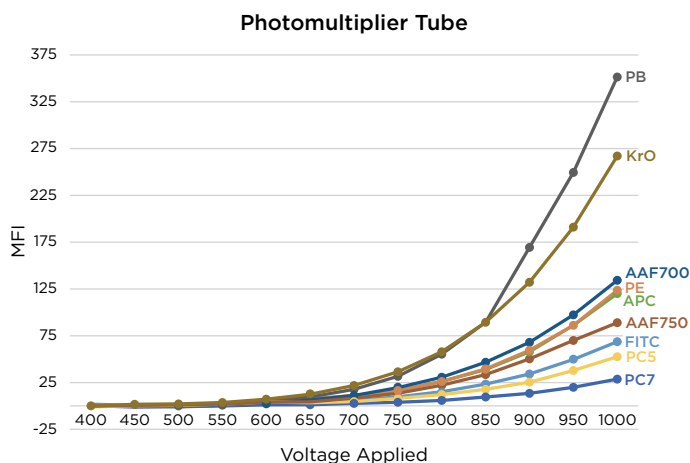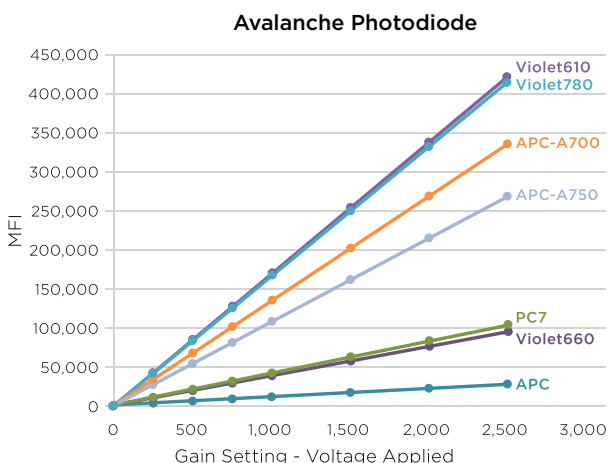
Avalanche Photodiode

Photomultiplier Tube

The fluorescence intensities measured on the CytoFLEX Platform are linear to the corresponding detector gain settings. The software automatically recalculates spillover values in real time as the gains are adjusted. Due to the highly reproducible semiconductor process, the fluorescence intensities measured on the CytoFLEX Platform are linear to the corresponding detector gain settings. The non-linearity of the PMT based detection means that voltages need to be determined empirically.

Startup	Verify System Performance	Create Compensation	Startup Experiment	Shutdown
8 minutes	1-2 minutes			1-2 minutes

Our end-users have found the software very easy to learn and reliable. In our opinion, a researcher who has not done flow cytometry in the past typically needs about half the time to become proficient on CytoFLEX. We are very pleased with the wide dynamic range of the detectors and the capability of adjusting the gains of the detectors while seeing that the compensation matrix is recalculated virtually in real time. Although most users run panels with less than 15 colors, having an instrument capable of detecting the great majority of fluorochromes available on the market for flow cytometry assays is a major plus for a shared facility where we have many users with a great variety of applications.

After using the CytoFLEX LX in our lab several individual investigators at our institution either purchased or are in the process of purchasing CytoFLEX S cytometers for their exclusive use since their lab have a high volume of flow assays and they like the convenience of having a cytometer next to the bench where the actual samples are processed.

Florin Tuluc, MD, PhD
Flow Cytometry Core Laboratory
Children's Hospital of Philadelphia Research Institute, USA

Besides human-blood-multiparametric immunophenotyping and MV detection and characterization we routinely use our CytoFLEX for PI-cell cycle; calcium-production detection; mollusk-hemolymph-cell viability; dog/mouse immunophenotyping; mycobacterium/mycoplasma/ leishmania viability and counting analyses; and saliva immunophenotyping experiments.

In addition to the nanoscale scatter resolution of CytoFLEX, the instrument has a extreme-high-fluorescence sensitivity, allowing rare-event and low-expression-molecule detection, as well as a low consumption of monoclonal antibodies and reagents.

Alvaro Luiz Bertho, PhD
Senior Investigator and Vice-Head of Lab. of Immunoparasitology
Director of Flow Cytometry Core Facility
Oswaldo Cruz Institute, FIOCRUZ, Rio de Janeiro, BRAZIL
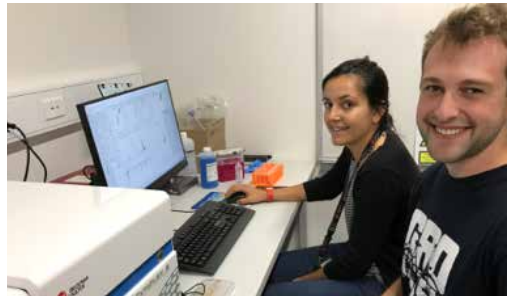
CytoFLEX Flow Cytometer

The CytoFLEX model provides the traditional laser palette and a number of channels to accommodate most basic flow cytometry assay needs.

Violet-Blue-Red (V-B-R) Series

The fully activated instrument includes five channels from the 488 nm (Blue) laser, three from the 638 nm (Red) laser, and five from the 405 nm (Violet) laser. The instrument includes 13 band pass filters which can be repositioned as needed. You can activate the lasers and detectors that you need now and add more channels later as your research needs grow. See the Configuration Table for a current list of available standard configurations.

Bandpass Filters

450/45	585/42	660/10 (2)	712/25
525/40 (2)	610/20 (2)	690/50	780/60 (3)

Standard Configurations

PART NUMBER	LASERS	FLUORESCENCE CHANNELS	405 NM VIOLET	488 NM BLUE	638 NM RED
B53000	3	13	5	5	3
B53001	3	12	4	5	3
B53002	3	12	5	4	3
B53003	3	11	4	4	3
B53004	3	11	5	3	3
B53006	3	10	3	4	3
B53005	3	10	2	5	3
B53037	2	10	5	5	
B53007	3	9	3	3	3
B53008	3	9	2	4	3
B96622	2	8		5	3
B53009	3	8	2	3	3
C02945	3	8	2	4	2
B53010	3	7	2	3	2
B53011	2	6		3	3
B53013	2	6		4	2
B53012	2	6	3	3	
C02944	2	6	2	4	
C02946	3	6	2	2	2
B53018	1	5		5	
B53014	2	5		3	2
B53019	1	4		4	
B53015	2	4		3	1
B53016	2	4		2	2
B53017	2	4	2	2	

VIOLET CHANNELS

B690   B780   R660   R712   R780   V450
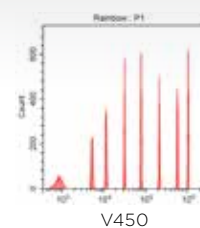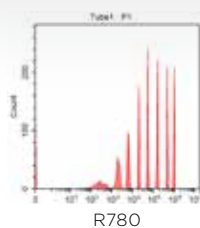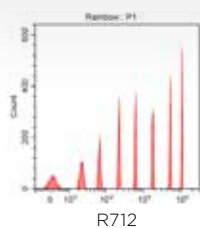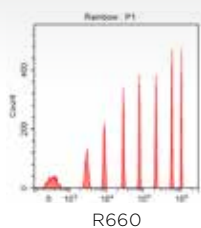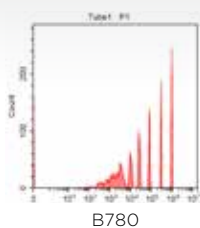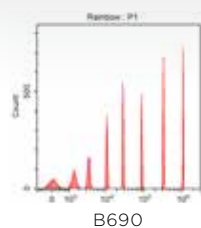
Excellent resolution of 8-speak SPHERO™ Rainbow Calibration Particles.

Plate Loader Options for the CytoFLEX Platform

These optional accessories are compatible with all CytoFLEX platform models, CytoFLEX, CytoFLEX S and CytoFLEX LX. The sample loader fits inside of the instrument preserving the compact footprint and can be installed at any time. Three options are available depending on your needs.

Standard and Deep Well Plates with Tube/Plate Switch Control	Standard Plates with Tube/Plate Switch Control	Standard Plates with Manual Conversion between Tube/Plate Runs
Part Number C16574	Part Number C02396	Part Number B63215
Sample Injection Mode can be changed by using the Sample Injection Mode Control Switch.	Sample Injection Mode can be changed by using the Sample Injection Mode Control Switch.	Sample Injection Mode can be changed manually.
CytExpert version 2.2 or above	CytExpert version 2.0 or above	CytExpert version 1.1 or above

Inside the CytoFLEX. Transparent view of the CytoFLEX showing internal components of the fluidics and sample loading systems. The optional plate loader module is installed inside the main instrument preserving the overall compact footprint of the flow cytometer.

BLUE CHANNELS   RED CHANNELS

V525   B610   V660   V780   B525   B585   B610
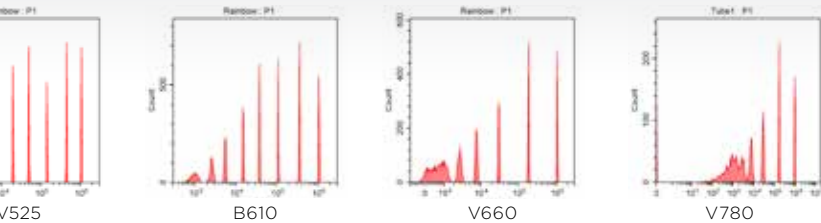
CytoFLEX S Flow Cytometer

The CytoFLEX S models bring up to four laser instruments to the research community expanding the fluorochrome palette for special applications.
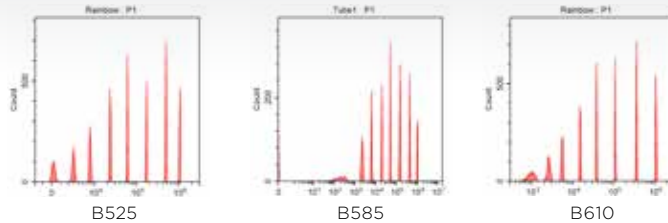
Violet-Blue-Yellow Green-Red (V-B-Y-R) Series

The fully activated instrument includes four fluorescent channels from the 405 nm (Violet) laser, two from the 488 nm (Blue) laser, four from the 561 nm (Yellow Green) laser, and three from the 638 nm (Red) laser. The instrument includes 13 band pass filters which can be repositioned as needed. You can activate the number of lasers and detectors that you need now and add more channels later as your research needs grow. See the Configuration Table for a current list of available standard configurations.

Includes 13 Repositionable Bandpass Filters

450/45	585/42	660/10 (2)	712/25
525/40 (2)	610/20 (2)	690/50 (2)	780/60 (2)

Standard Configurations

PART NUMBER	LASERS	FLUORESCENCE CHANNELS	405 NM VIOLET	488 NM BLUE	561 NM YELLOW GREEN	638 NM RED
B75408	4	13	4	2	4	3
B96620	3	10	4	2	4	
B75811	3	9		2	4	3
B96621	4	9	2	2	3	2
C02948	3	9	4	2		3
B75812	2	6		2	4	
C02947	3	6	2	2	2	

The **Yellow Green 561 nm** laser excites RFP and RFP derivatives such as DsRed and HcRed more efficiently than the **Blue 488 nm** laser. An additional benefit of spatially separated lasers is increased sensitivity, thus minimizing inter-laser compensation. Therefore, cells expressing GPF, YFP, DsRed, and HcRed, may be analyzed, resulting in superior resolution of simultaneously expressed multicolor fluorescent protein signals.
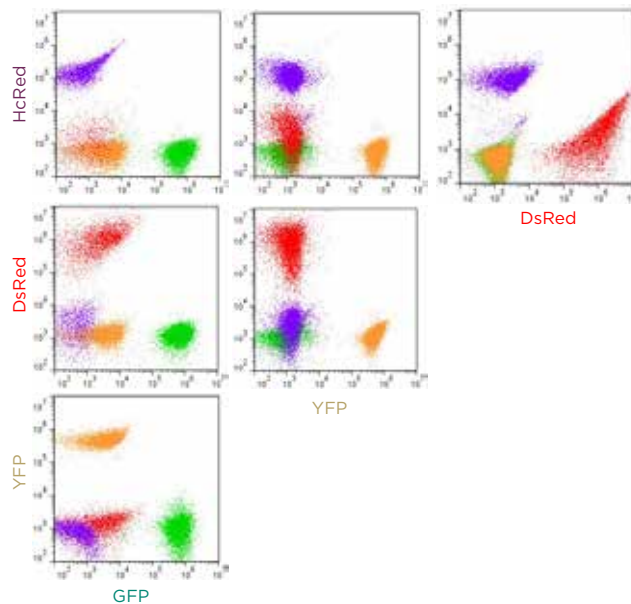
■ YELLOW GREEN CHANNELS

PE-A · ECD-A · PC5.5-A · PC7-A
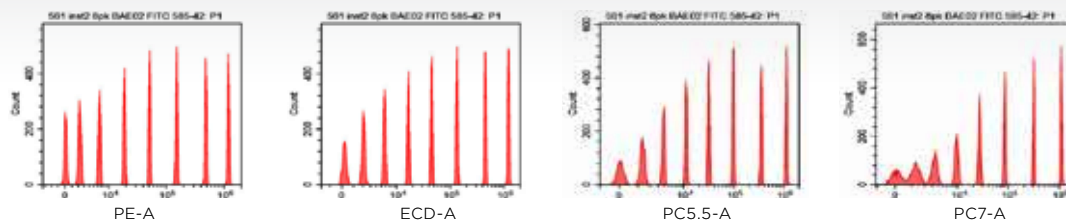
Excellent resolution of 8-speak SPHERO™ Rainbow Calibration Particles.

Near UV-Violet-Blue-Red (N-V-B-R) Series

The fully activated instrument includes two fluorescent channels from the 375 nm (Near UV) laser, three from the 405 nm (Violet) laser, five from the 488 nm (Blue) laser, and three from the 638 nm (Red) laser. The instrument includes 13 band pass filters which can be repositioned as needed. The instrument has the capacity for 15 parameters, including 13 for fluorescence detection. You can activate the number of channels that you need now and add lasers and channels later as your research needs grow. See the Configuration Table for a list of available standard configurations.

Includes 13 Repositionable Bandpass Filters

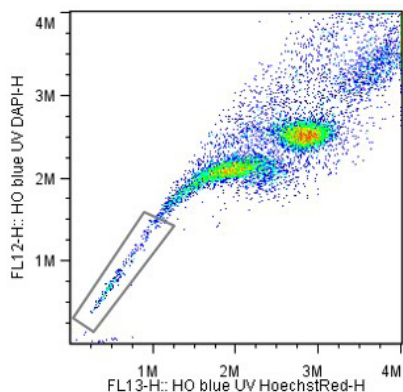| 450/45 (2)	585/42	660/10	690/50	780/60 (2)
525/40 (2)	610/20 (2)	675/30	712/25	

Standard Configurations

PART NUMBER	LASERS	FLUORESCENCE CHANNELS	375 NM NEAR UV	405 NM VIOLET	488 NM BLUE	638 NM RED
B78557	4	13	2	3	5	3
B78559	3	10	2		5	3
B78558	2	6	2		4	

The addition of the **375 nm near UV** laser, in a spatially separated discrete beam spot, enables excellent excitation of Hoescht, DAPI and brilliant UV dyes allowing for use of these dyes without incurring the cost of a 355 nm true UV laser. Dye Cycle Violet, while useful for performing side population analysis without a 355 nm laser, requires researchers to compromise on immunophenotyping as it spills over into the FITC and PE channels. Using the **375 nm** laser, researchers can go back to Hoescht for traditional side population analysis. Results are indistinguishable from data collected using a 355 nm laser.

NEAR UV CHANNELS

DAPI-A   HoechstRed-A
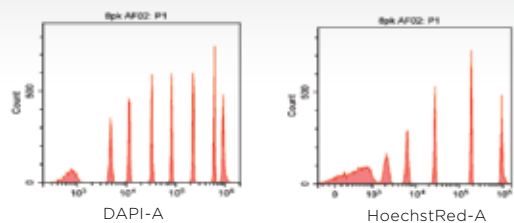
Excellent resolution of 8-speak SPHERO™ Rainbow Calibration Particles.

CytoFLEX S Flow Cytometer

Violet-Blue-Red-Infrared (V-B-R-I) Series

The fully activated instrument includes four fluorescent channels from the 405 nm (Violet) laser, four from the 488 nm (Blue) laser, three from the 638 nm (Red) laser, and two from the 808 nm (Infrared) laser. The instrument includes 13 band pass filters which can be repositioned as needed. You can activate the number of lasers and detectors that you need now and add more channels later as your research needs grow. See the Configuration Table for a current list of available standard configurations.

Includes 13 Repositionable Bandpass Filters				
450/45	585/42	660/10 (2)	712/25	840/20
525/40 (2)	610/20	690/50	763/43 (2)	885/40

Standard Configurations

PART NUMBER	LASERS	FLUORESCENCE CHANNELS	405 NM VIOLET	488 NM BLUE	638 NM RED	808 NM INFRARED
C01161	4	13	4	4	3	2
C01160	3	10	4	4		2
C01159	3	9		4	3	2
C01158	2	6		4		2

The addition of the 808 nm laser to the CytoFLEX S IR and CytoFLEX LX NUV or UV series provides additional fluorescent channels not only for use of viability dyes but also bright markers with minimal spectral overlap into traditional channels.

INFRARED CHANNELS

AF790-A   PF840-A
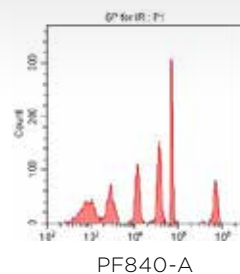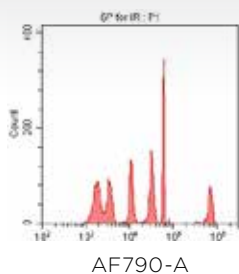
Resolution of SPHERO™ Fluorescent IR Flow Cytometer Particles.
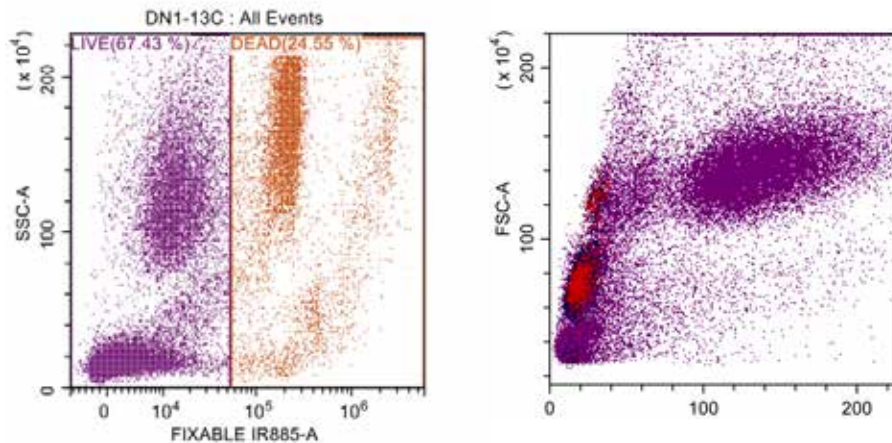
Near UV-Violet-Blue-Yellow Green (N-V-B-Y) Series

The fully activated instrument includes two fluorescent channels from the 375 nm (Near UV) laser, two from the 488 nm (Blue) laser, four from the 405 nm (Violet) laser, and four from the 561 nm (Yellow Green) laser. The instrument includes 12 band pass filters which can be repositioned as needed. You can activate the number of lasers and detectors that you need now and add more channels later as your research needs grow. See the Configuration Table for a current list of available standard configurations.

Includes 13 Repositionable Bandpass Filters

450/45 (2)	585/42	660/10	690/50 (2)
525/40 (2)	610/20 (2)	675/30	780/60

Standard Configurations

PART NUMBER	LASERS	FLUORESCENCE CHANNELS	375 NM NEAR UV	405 NM VIOLET	488 NM BLUE	561 NM YELLOW GREEN
B78560	4	12	2	4	2	4
B96619	3	10		4	2	4
B78561	3	8	2		2	4
B96618	2	6			2	4
C02949	2	4			2	2

For Even Higher Throughput Applications

Gain flexibility in your day by integrating your CytoFLEX Flow Cytometer to the Biomek i-Series Instruments for automated sample processing and data acquisition. Assay plates are transferred with the Biomek gripper directly to the CytoFLEX Flow Cytometer. Sample preparation [well] data, such as sample ID, is correlated with the information collected from the flow cytometer. Automate your complete cellular workflow with one trusted partner.

If you already have an automation solution, the CytExpert is an open platform. Our sales team can assist you in integrating the CytoFLEX Flow Cytometer based upon your workflow requirements.

Visit **biomek.beckman.com** to learn more about the i-Series
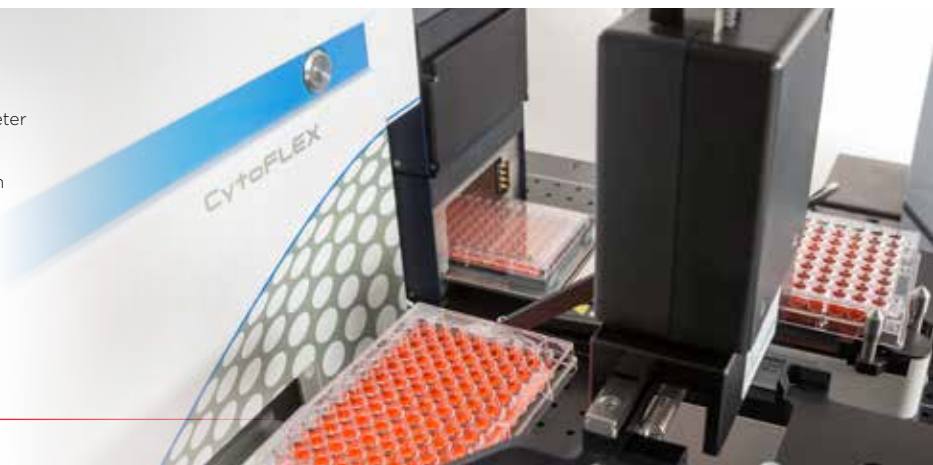
CytoFLEX LX Flow Cytometer

The CytoFLEX LX models bring configurations with up to six laser s and 21 fluorescent parameters to the research community.

Near UV-Violet-Blue-Yellow Green-Red-Infrared (N-V-B-Y-R-I) Series

The fully activated instrument includes three fluorescent channels from the 355 nm (UV) laser, five from the 405 nm (Violet) laser, three from the 488 nm (Blue) laser, five from the 561 nm (Yellow Green) laser, three from the 638 nm (Red) laser, and two from the 808 nm (Infrared) laser. Instruments with as few as 14 fluorescent channels activated are available with the ability to activate additional parameters as needed by purchasing an activation key. The instrument includes 22 band pass filters which can be repositioned as needed. You can activate the number of lasers and detectors that you need now and add more channels later as your research needs grow. See the Configuration Table for a current list of available standard configurations.

Includes 22 Repositionable Bandpass Filters

405/10	450/45 (2)	525/40 (3)	585/42	610/20 (3)	660/10 (2)	675/30 (2)
690/50	710/50	712/25	763/43 (3)	840/20	885/40	

Standard Configurations

PART NUMBER	LASERS	FLUORESCENCE CHANNELS	375 NM NEAR UV	405 NM VIOLET	488 NM BLUE	561 NM YELLOW GREEN	638 NM RED	808 NM INFRARED
C00445	6	21	3	5	3	5	3	2
C00446	5	19	3	5	3	5	3	0
C23009	4	16	0	5	3	5	3	0

Simplify Complex Experiments. Panel A demonstrates spectral overlap of 6 common fluorochromes, FITC , PE , Texas Red, APC, PC5 and APC –Cy7 excited by two lasers, 488 nm and 638 nm. Cross laser excitation of PC-Cy5 into the APC channel is also indicated. In Panel B, expanding the available color palette provides flexibility to optimize panel design for efficient marker detection. The fluorochromes, BUV496, Pacific Blue, PE-Texas Red, PE-Cy7, APC, and AF790, are excited by six different lasers to minimize compensation requirements.

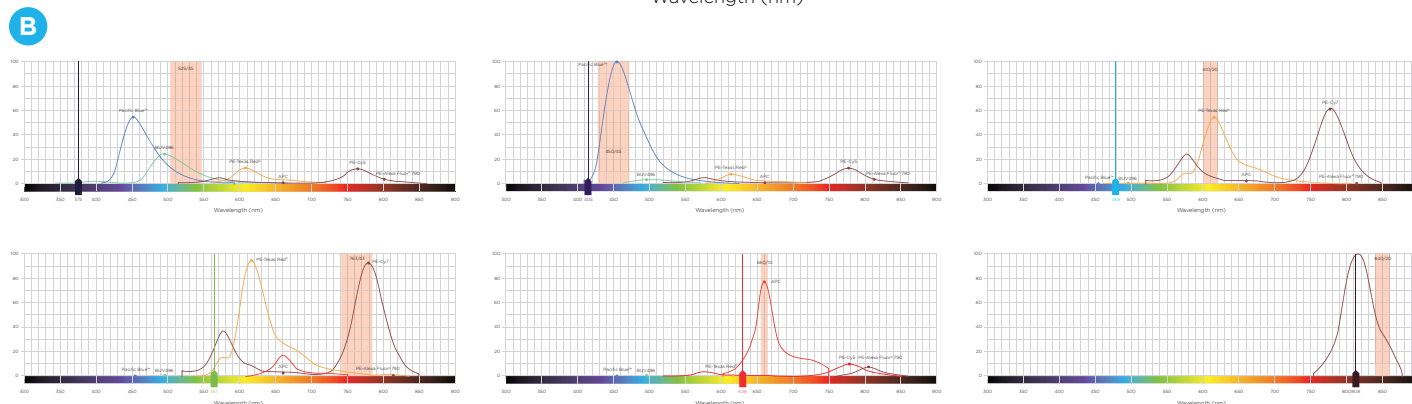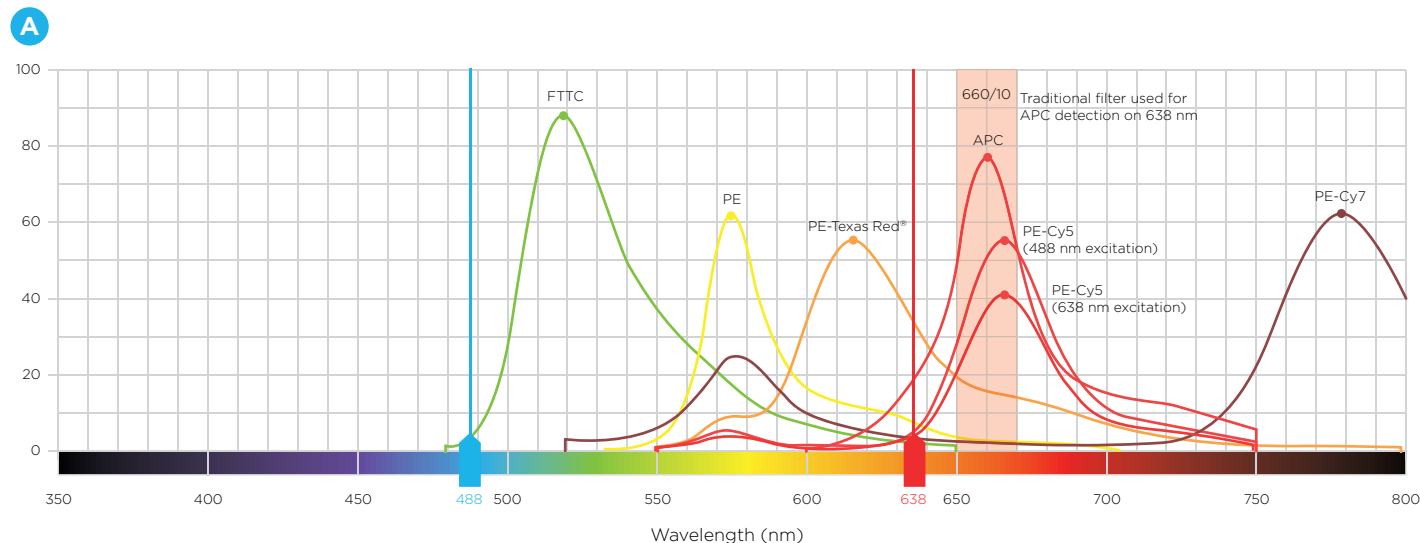# UV-Violet-Blue-Yellow Green-Red-Infrared (U-V-B-Y-R-I) Series

The fully activated instrument includes three fluorescent channels from the 355 nm (UV) laser, five from the 405 nm (Violet) laser, three from the 488 nm (Blue) laser, five from the 561 nm (Yellow Green) laser, three from the 638 nm (Red) laser, and two from the 808 nm (Infrared) laser. The instrument includes 22 band pass filters which can be repositioned as needed. You can activate the number of lasers and detectors that you need now and add more channels later as your research needs grow. See the Configuration Table for a current list of available standard configurations.

Includes 25 Repositionable Bandpass Filters

405/10	405/30	450/45	525/40 (3)	585/42	610/20 (3)	660/10 (2)	675/30 (2)
690/50	710/50	763/43 (3)	712/25	763/43 (3)	840/20	885/40	

Available Configurations

PART NUMBER	LASERS	FLUORESCENCE CHANNELS	355 NM UV	405 NM VIOLET	488 NM BLUE	561 NM YELLOW GREEN	638 NM RED	808 NM INFRARED
C11186	6	21	3	5	3	5	3	2
C11185	5	19	3	5	3	5	3	
C11183	4	14	3	5	3		3	
C11184	4	14	3	5	3	3		

UV CHANNELS
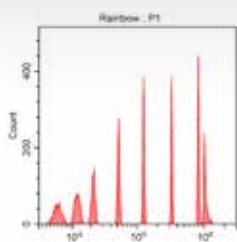
UV405-A

UV525-A

UV675-A

Accessories and Consumables

Start up kits are available to ensure that when your unit arrives you will be ready to start your experiments. We also offer kits and consumables for the routine use and maintenance. Each instrument contains standard band pass filters. We also offer a variety of non-standard filters for specialized applications.

Startup Kits* & Preventive Maintenance Kits

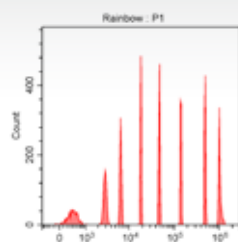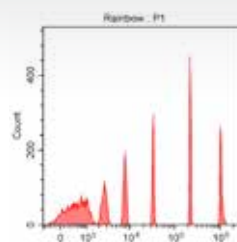| Part Number	Description
B55031	CytoFLEX Startup Reagents (tubes)
C14907	CytoFLEX Startup Reagents (plates)
C14908	CytoFLEX Startup Reagents (IR/tubes)
C14909	CytoFLEX Startup Reagents (IR/plates)

Part Number	Description
C02943	Preventive Maintenance Kit
A04-1-0048	Peristaltic Sample Tubing Replacement Kit
A04-1-0041	Sheath Filter

*Includes daily QC, sheath fluid, FlowClean, Contrad, and sample tubes or plates

Consumables & Miscellaneous Replacement Parts

Part Number	Description
81911	Contrad 70
B53230	CytoFLEX Daily QC Fluorospheres
C06147	CytoFLEX Daily IR QC Fluorospheres
B51503	CytoFLEX Sheath Fluid
A64669	FlowClean Cleaning Agent
609844	Microtiter Plates, 96-well Flat Bottom
609801	Microtiter Plates, 96-well V Bottom
B63213	Plate Loader Sample Probe (with tubing to attach to plate assembly)

Part Number	Description
B71294	Sample Needle, 113 mm (orange bead)
A04-1-0034	Sample Needle, 115 mm (blue bead)
A04-1-0038	Deep Clean Solution Bottle Kits
A04-1-0036	Sheath Bottle Kit
A04-1-0037	Waste Bottle Kit
7547155	10 L Waste Tank
B86549	10 L Waste/Sheath Tanks Wiring Harness

Optional Bandpass Filters

Part Number	Description
A01-1-0048	405/10 nm Bandpass Filter
B99146	405/30 nm Bandpass Filter
A01-1-0049	450/45 nm Bandpass Filter
B90300	450/45 nm Bandpass with OD1 Filter
A01-1-0050	488/8 nm Bandpass Filter
B76128	510/20 nm Bandpass Filter
B90294	510/20 nm Bandpass with OD1 Filter
B76124	515/20 nm Bandpass Filter
A01-1-0051	525/40 nm Bandpass Filter
B90303	525/40 nm Bandpass with OD1 Filter
B76139	550/30 nm Bandpass Filter
B72627	561/6 nm Bandpass Filter
B76121	585/15 nm Bandpass Filter
B71089	585/30 nm Bandpass Filter
A01-1-0052	585/42 nm Bandpass Filter

Part Number	Description
B76117	595/20 nm Bandpass Filter
A01-1-0053	610/20 nm Bandpass Filter
B90297	610/20 nm Bandpass with OD1 Filter
A01-1-0054	638/6 nm Bandpass Filter
A01-1-0055	660/10 nm Bandpass Filter
B78244	675/30 nm Bandpass Filter
A01-1-0056	690/50 nm Bandpass Filter
B71092	710/50 nm Bandpass Filter
A01-1-0057	712/25 nm Bandpass Filter
B78217	740/35 nm Bandpass Filter
B99143	763/43 nm Bandpass Filter
A01-1-0058	780/60 nm Bandpass Filter
B78220	819/44 nm Bandpass Filter
B99144	840/20 nm Bandpass Filter
B99145	885/40 nm Bandpass Filter

Part Number	Description
C30171	Custom Optical Filter Holder (1) with Screws (2)
C30249	Custom Optical Filter Holder Mounting Fixture
C32857	Custom Optical Filter Holder Screws (2)

DURAClone Antibody Panels

Beckman Coulter offers expertly designed and optimized pre-formulated antibody panels using our DURA Innovation dry formulation technology. Each panel provides key markers for characterizing the specified cellular population and includes enough reagents for 25 tests. Depending on your CytoFLEX configuration you may extend the panels with additional markers of interest in liquid format.

405 NM		488 NM					638 NM					
450/45	525/40	525/40	585/42	610/20	690/50	780/60	660/10		712/25		780/60	
PB	KrO	FITC	PE	ECD	PC5.5	PC7	APC	AF647	AF700	APC-A700	APC-A750	AF750
DURAClone Immunophenotyping (IM)												
Basic Tube (Part Number B53309)												
-	CD45	CD16	CD56	CD19	-	CD14	CD4	-	CD8	-	CD3	-
B Cell Tube (Part Number B53318)												
IgM	CD45	IgD	CD21	CD19	-	CD27	CD24	-	-	-	CD38	-
T Cell Subsets Tube (Part Number B53328)												
CD57	CD45	CD45RA	CCR7	CD28	PD1	CD27	CD4	-	CD8	-	CD3	-
Dendritic Cells Tube (Part Number B53351)												
HLA-DR	CD45	CD16	Lin**	-	CD1c	CD11c	Clec9A	-	-	CD123	-	-
TCRs Tube (Part Number B53340)												
TCRVδ2	CD45	TCRγδ	TCRαβ	HLA-DR	-	TCRVδ1	CD4	-	CD8	-	CD3	-
Treg Tube (Part Number B53346)												
Helios	CD45	CD45RA	CD25	-	CD39	CD4	-	FoxP3	-	-	CD3	-
Granulocytes Tube (Part Number B88651)												
CD15	CD45	CD294	-	CD16	CD33	CD11b	PD-L1	-	-	Lin***	CD62L	-
Count Tube (Part Number C00162)												
-	-	CD45	Counting Beads	-	7-AAD	-	-	-	-	-	-	-
DURAClone Immune Function (IF)												
T Activation (Part Number B88649)												
CD4	-	IFNγ	TNFα	-	-	IL-2	-	-	CD8	-	-	CD3
T Helper Cell (Part Number C04666)												
IL-17A	-	IFNγ	-	-	-	IL-4	CD4	-	-	-	-	CD3
If Monocytes Activation C21858 (25 tests PUO)												
CD14	CD45	-	HLA-DR	-	-	-	-	-	-	TNFα	-	-
If Basophil Activation C23406 (25 tests PUO)												
CD63	CD45	-	CD203c	-	-	CD3	-	CD294	-	-	-	-
DURAClone Rare Event (RE)												
CLB Tube (Part Number B80393)												
CD20	CD45	CD81	ROR-1	-	CD79b	CD19	CD5	-	-	-	CD43	-
PC Tube (Part Number B80394)												
CD38	CD45	CD81	CD27	-	CD19	CD200	CD138	-	-	-	CD56	-
ALB Tube (Part Number C00163)												
-	CD45	CD58	-	CD34	CD10	CD19	-	-	-	CD38	CD20	-

** CD3/CD14/CD19/CD20/CD56 | *** CD3/14/CD19/CD56

DURActive

Part Number	Description
C11101	DURActive 1 (PMA, Ionomycin, Brefeldin A)
C11102	DURActive 2 (PMA, Ionomycin)
C21857	DURACtive 3 (LPS, Brefeldin A)

Part Number	Description
C36614	ViaKrome 405 Fixable Viability Dye
C36620	ViaKrome 561 Fixable Viability Dye
C36624	ViaKrome 638 Fixable Viability Dye
C36628	ViaKrome 808 Fixable Viability Dye

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REVOLUTION

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

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