



DxFLEX Flow Cytometer

Add More Colors Without Adding More Concerns



ACCELERATING
answers

 **BECKMAN
COULTER**
Life Sciences

Keep your clinical lab at the forefront of high-complexity flow cytometry testing



Visit [Beckman.com/dxflex](https://beckman.com/dxflex)

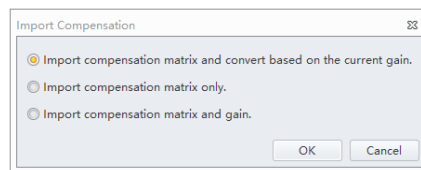
Pushing the boundaries of clinical flow cytometry

The DxFLEX flow cytometer streamlines high-complexity testing with a 13-color* capability and new detector technology for easier compensation. Our innovative APD-detectors (avalanche photodiode) offer advanced sensitivity and improve your diagnostic accuracy and keep your lab at the forefront of clinical flow cytometry.



High-Complexity Testing Made Easy

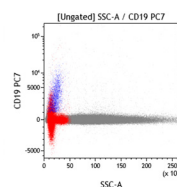
- Simplified compensation procedure (gain independent compensation)
- More information per tube with up to 13 colors*



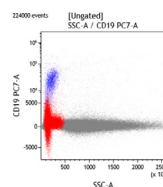
Advanced Sensitivity and Resolution

- Separation of dim populations
- Easier and robust gating

PMT-detector based system

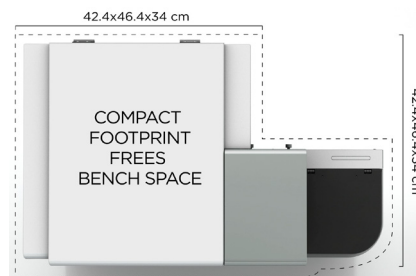


APD-detector based system



Compact Design

- Saves lab space
- No compressor cart
- Dimensions: 72 cm x 43.5 cm x 34 cm



*The DxFLEX flow cytometer is CE marked for 13-color in vitro diagnostic use. In U.S., the DxFLEX flow cytometer is intended for use as an in vitro diagnostic device for 10-color immunophenotyping with ClearLLab 10C Reagent System. Fluorescence channels FL11 - FL13 and all other uses are for research use only.

Simplified Compensation

The DxFLEX analyzer simplifies flow cytometry by gain independent compensation

The gains of the APD-detectors used in the DxFLEX flow cytometer can be calibrated for a linear response—leading to the predictability of the signals.

The benefit

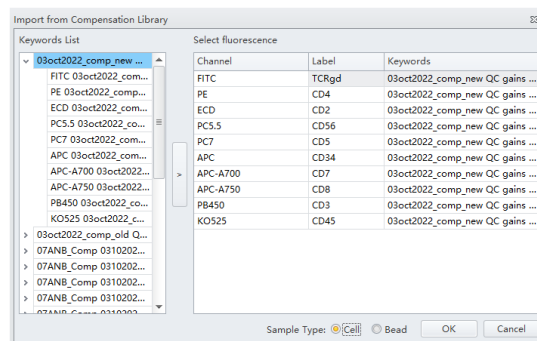
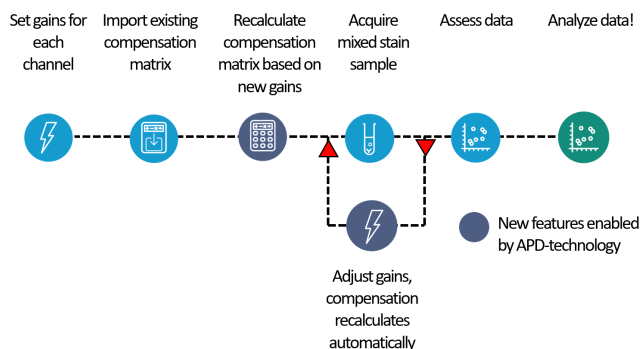
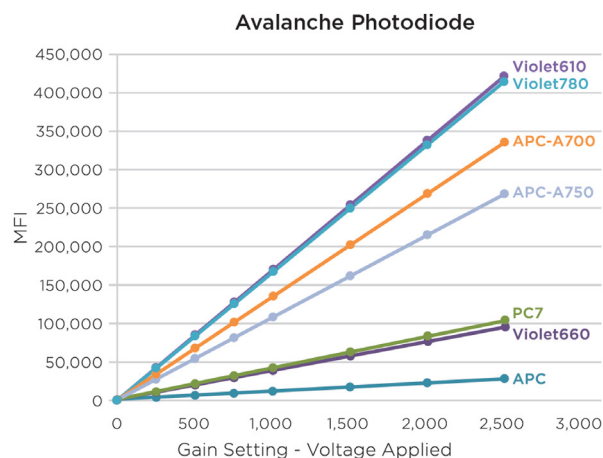
A compensation matrix obtained at one gain setting can be used for tests at different gain settings. The software automatically recalculates spillover values in real time as the gains are adjusted.

Compensation workflow reimagined

A streamlined workflow that decreases the technical barriers for beginners and advanced flow cytometrists.

A library for your compensation values

Spillover values of measured fluorophores can be stored in a compensation library and can be used to calculate any compensation matrix on the DxFLEX flow cytometer.

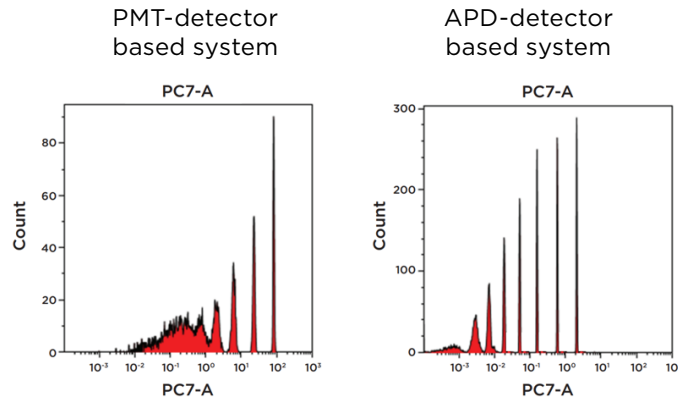


*For ClearLLab 10C applications, specimen-by-specimen compensation setting is not recommended. Once the system is standardized and verified, any deviations from expected pattern should be investigated to determine the appropriate remediation.

Advanced Sensitivity and Resolution

The DxFLEX flow cytometer helps you find dim populations

A unique assembly of technologies is used to minimize light loss and maximize sensitivity. A new approach to light management underpins every decision in the design. The result is an instrument with resolving power to separate dim and bright populations. The separation facilitates setting gates and calculating statistics.



DxFLEX Analyzer Sensitivity:

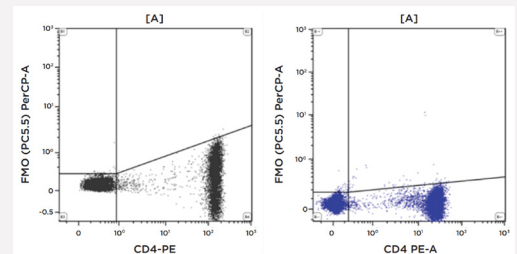
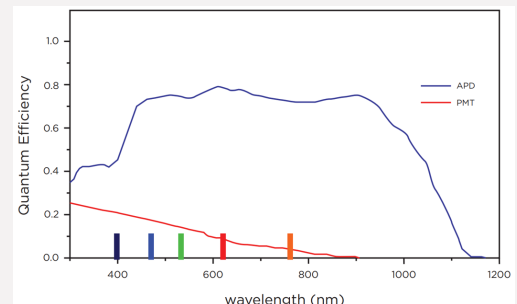
FITC: ≤ 30 MESF-FITC; PE: ≤ 10 MESF-PE; PB450: <50 MESF-PB450, APC: <25 MESF-APC

Higher sensitivity and resolution helps to be less dependent on the panel design.

Innovation
contributes to the
sensitivity and
resolving power

One hallmark of the APD-detectors is the high quantum efficiency in excess of 80%, especially for red/far-red wavelengths.

Higher quantum efficiency leads to less noise and reduced data spreading.



Paperless Data Transmission

Full connectivity for the digital world

Bi-directional LIS connectivity for transferring Specimen ID and test request from the LIS to the DxFLEX instrument, and push results back to LIS.

CytExpert Software

Fully featured proprietary application with exportable file formats for offline analysis.

- Create report sheets
- Link gates
- Link settings
- Analyze and review information
- Search function
- Auto export
- Extend files



IMPROVE YOUR
ANALYSIS ACCURACY

Analyze Millions Of Cells

The DxFLEx flow cytometer helps to *find the needle in the haystack*
with up to 20M events/file and 30K particles/sec



Productivity Tools For The Clinical Workflow

Startup

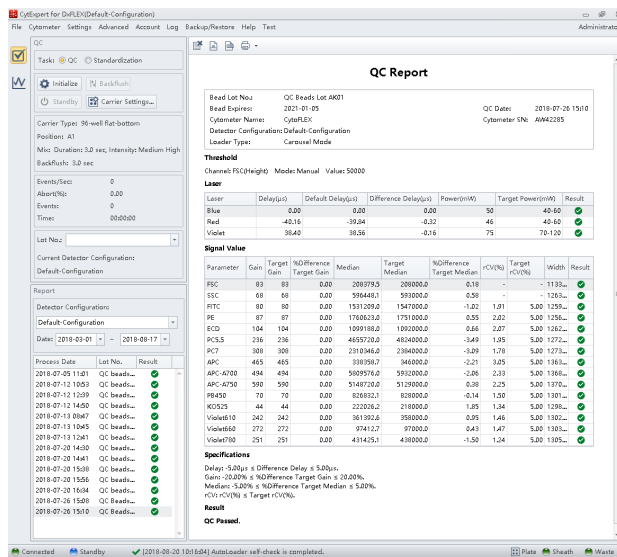
- Running the daily setup procedure primes and cleans the system and warms up the lasers
- Operator is notified when the fluidic system is stable and the instrument is ready

Instrument QC

- Use Levey-Jennings charts to monitor performance indicators for several instruments
- Daily QC procedure assesses laser power, laser delay, rCV of all fluorescent channels
- Use the Standardization procedure to monitor Median Fluorescent Intensity (MFI) and track gain changes

Acquisition

- Automated sampling for walk-away processing, tube carousel and 96-well plates supported
- Display up to 500,000 events on the plots during acquisition to help identify small populations
- Compensation automatically adjusts based upon instrument settings
- Compensation library stores values for single color controls, which can be applied to future analyses*



Prepare the standardization sample

Enter the standardization experiment

Select target values

Acquire data

Import standardization settings into associated experiments

*For ClearLLab 10C applications, specimen-by-specimen compensation is not recommended. Once the system is standardized and verified, any deviations from expected pattern should be investigated to determine the appropriate remediation.

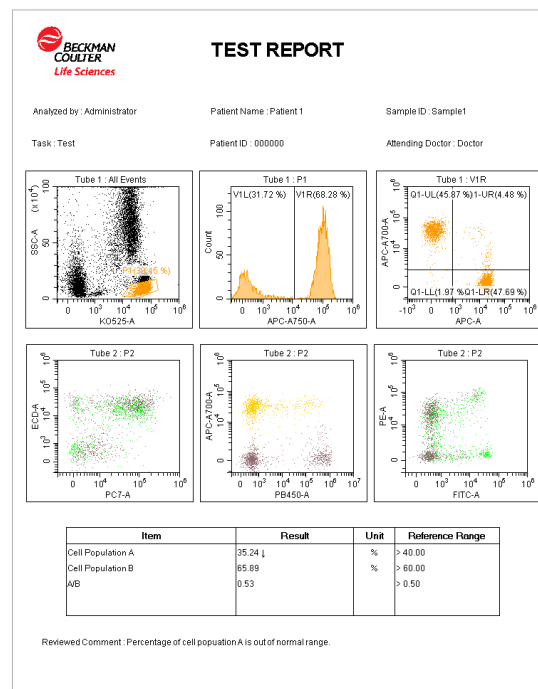
Analysis

- Gates on acquisition sheets are linked to report sheets
- Store up to 20 million events per file with 13* colors, more events can be saved when using less channels
- Plots on the reports are linked to the acquisition page so that changes are reflected on the report
- CytExpert for DxFLEx software, fully featured proprietary application with exportable file formats for offline analysis

Reporting

- User accounts provide controlled access and tracks user activities
- Reference ranges can be saved in the report, with out-of-range results flagged for easy identification
- Panel experiment used to report multi-tube acquisitions per sample
- Bi-directional LIS connectivity for transferring specimen ID and test request from the LIS to the DxFLEx instrument, and push results back to LIS
- Reports can be exported as PDF or CSV

Shutdown



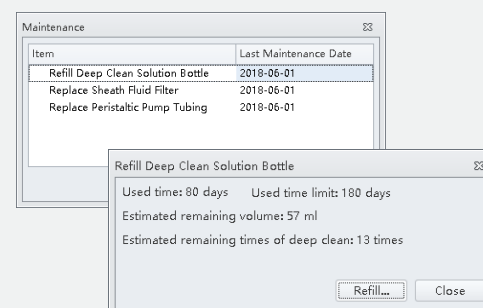
Kaluza C Analysis Software*

With the power to process multicolor files of up to 20 million events in real time, Kaluza C software streamlines quality control (QC) reporting requirements and enables you to analyze any flow cytometry standard (FCS) compliant file.

Features

- Seamless integration with laboratory information systems (LIS)
- Powerful, real-time processing
- Compliant with FCS standard 3.1 or earlier

*In the US, Kaluza C Analysis Software is a Class I exempt medical device and is classified as a Class II medical device when used with ClearLLab 10C Reagent System.



Configurations

DxFLEX Flow Cytometer

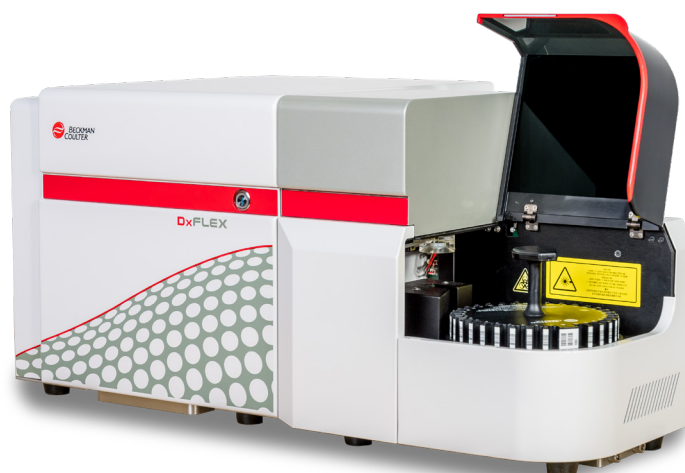
The DxFLEX flow cytometer is designed for clinical applications. It offers performance, compact design, and streamlined installation and operation. System settings, data acquisition and result exporting functions are integrated into the CytExpert for DxFLEX software workflow. Two configurations are available with up to 3 lasers and 13 detectors.* You can upgrade your configuration at a later date to activate additional channels, including more lasers or optical filters.

		FITC	PE	ECD	PC5.5	PC7	APC	APC-A700	APC-A750	PB450	K0525	Violet610	Violet660	Violet780
P/N	Detector	488nm Laser					638nm Laser			405nm Laser				
		525/40 BP	585/42 BP	610/20 BP	690/50 BP	780/60 BP	660/10 BP	712/25 BP	780/60 BP	450/45 BP	525/40 BP	610/20 BP	660/10 BP	780/60 BP
C78505	13*	X	X	X	X	X	X	X	X	X	X	X	X	X
D04951	10	X	X	X	X	X	X	X	X	X	X			

Sample Autoloader Module

The autoloader module accepts a standard 32-tube carousel, or with an additional optional adapter can support sample loading from 96-well plates**. When using the carousel, an integrated barcode reader can be used for extra verification of sample identity or to populate the worklist with the sample ID from the barcode.

Item	P/N	Comment
Workstation + Display Sales Group	D04985	Contains workstation C93453 and display C93456
Optional 10l Waste Container	C87187	
Plate Adapter for Autoloader	D09560	



**In the US, the DxFLEX flow cytometer is cleared for 10-color in vitro diagnostic use with the ClearLLab 10C Reagent System. Fluorescence channels FL11-FL13 and all other applications are for Research Use Only

Streamlined Leukemia and Lymphoma Analysis

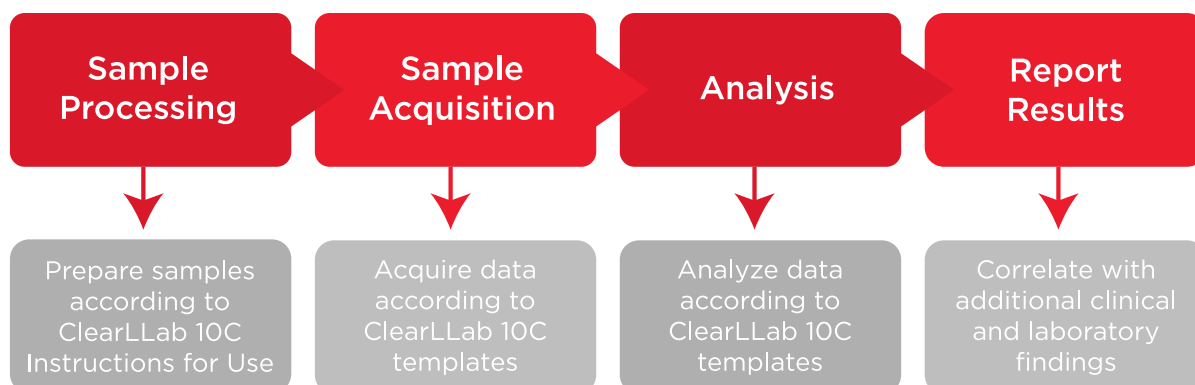
The DxFLEX flow cytometer is intended for use as an in vitro diagnostic device for 10-color immunophenotyping with the ClearLLab 10C Reagent System

With ClearLLab 10C Panels, You Can Analyze Diseases Such As:

- Chronic Leukemia
- Myeloma
- Acute Leukemia
- Non-Hodgkin's Lymphoma
- Myeloproliferative Neoplasm
- Myelodysplastic Syndrome



Streamline And Standardize Your L&L Workflow



DxFLEX and ClearLLab 10C Components

The IVD ClearLLab 10C system is the only FDA cleared and CE marked integrated L&L immunophenotyping solution that covers lymphoid and myeloid lineages and offers all components needed from quality controls, sample preparation, antibody panels to analysis software and training material.



The ClearLLab **compensation beads** used in conjunction with a ClearLLab compensation kit to perform color compensation and enhance assay performance of the ClearLLab 10C system. The ClearLLab **control cells** are the first L&L application-specific normal and abnormal IVD process controls. They are liquid preparations of stabilized human erythrocytes and leukocytes.



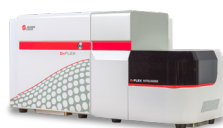
ClearLLab 10C **panels** can aid in the differential diagnosis of hematologically abnormal patients having or suspected of having hematopoietic neoplasms.



	FITC	PE	ECD	PC5.5	PC7	APC	APC-A700 ⁽¹⁾	APC-A750 ⁽²⁾	PB ⁽³⁾	KRo ⁽⁴⁾
B Cell Tube Part# B96805	Kappa	Lambda	CD10	CD5	CD200	CD34	CD38	CD20	CD19	CD45
T Cell Tube Part# B96806	TCRγδ	CD4	CD2	CD56	CD5	CD34	CD7	CD8	CD3	CD45
M1 Cell Tube Part# B96807	CD16	CD7	CD10	CD13	CD64	CD34	CD14	HLA-DR	CD11b	CD45
M2 Cell Tube Part# B96808	CD15	CD123	CD117	CD13	CD33	CD34	CD38	HLA-DR	CD19	CD45



ClearLLab 10C panels use DURA Innovations technology—a proprietary method to dry reagents that does not involve the process of lyophilization. This eliminates the need for refrigerated storage, improves efficiency and reduces the potential of human error.



ClearLLab 10C panels have been validated on peripheral whole blood, bone marrow and lymph node specimens on Navios, Navios EX & DxFLEX flow cytometers.



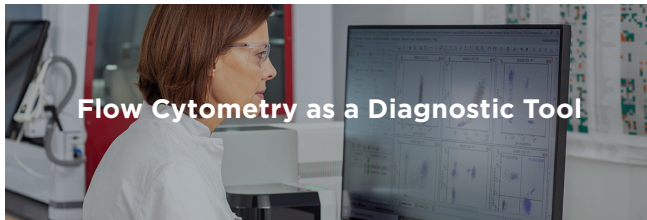
The **casebook** has been designed to assist in the analysis of flow cytometric immunophenotyping data generated using Beckman Coulter's ClearLLab 10C Panels for Leukemia and non-Hodgkin's lymphoma analysis on the Beckman Coulter Navios, Navios EX and DxFLEX flow cytometers.



Kaluza C software offers QC reports to help detect issues that can lead to inaccurate data analysis and the option to add electronic approval signatures to reports to protect your data.

Additional Resources

Visit our Leukemia and Lymphoma Learning Center



<https://becls.co/leukemia-and-lymphoma>



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