Your Research, Revolutionized

CytoFLEX
Your research needs are evolving — and with the CytoFLEX flow cytometer you’ll see just how far your data can take you.

CytoFLEX has the advanced detection technology you need to drive leading edge discoveries and position your lab at the forefront of cellular research. The unique design of CytoFLEX offers progressive application capabilities, from one to 3 lasers and from 4 to 13 colors, enabling you to get the most out of your multicolor analysis.

CytoFLEX’s compact size, low maintenance requirements, superior sensitivity, and resolution for robust performance throughout all configurations give it the edge over other cytometry systems. CytoFLEX allows you to expand easily as your research takes you forward.

The proprietary Wavelength Division Multiplexing (WDM) detection module uses solid-state, high efficiency, low-noise Fiber Array Photodiode Detectors (FAPD), giving you exceptional resolution for more precise data and better detection of rare events.
Resolve to get more from your data

Breaking new ground, breaching the frontiers of cellular analysis, getting there first — does that sound like what you want from your research?

Exceptional instrument sensitivity: baseline resolution of all peaks even in violet and far red channels detectors using SPHERO™ Rainbow 8-peak beads.

CytoFLEX delivers the versatile performance and advanced sensitivity you need for the results you want.
Maintain Your Pace Of Discovery

With its high sensitivity and ease of upgrading, CytoFLEX lets you perform research on your own terms, today and well into the future.

Scale up sensitivity for single-laser applications:
- Viability
- Cell Proliferation
- Cell Cycle Analysis
- Apoptosis
- DNA Analysis
- Bacteria Analysis
- Yeast and Algae Analysis

See what you’ve been missing
CytoFLEX’s compact size, low maintenance requirements, superior sensitivity, and resolution for robust performance throughout all configurations give it the edge over other cytometry systems. CytoFLEX allows you to expand easily as your research takes you forward.

The proprietary optics design includes an innovative integrated optics flow cell. The revolutionary detection system presents optimal excitation and emission, minimizing light loss and maximizing sensitivity. Whether fully configured as a 13-color, 3-laser system, or as a 4-color, one-laser system, CytoFLEX’s compact bench-top footprint affords cutting edge sensitivity similar to or better than market-leading cytometers four times its size.

- Gain confidence with accurate, reproducible results from alignment stability
- Expand fluorochrome choice with up to 13 band pass filters and distinguish 200nm particles with the 405nm violet side scatter parameter
- Realize robust data

Acquire accurate data through innovation
CytoFLEX’s advanced optical system minimizes light loss and maximizes data resolution, giving you ultra-high sensitivity for increased detection.

- 7 decades of tunable dynamic range
- <30 MESF FITC
- <10 MESF PE
- 200nm particle detection

“
There’s really no questioning [CytoFLEX] performance in terms of fluorescence detection.”
— Ryan Duggan, University of Chicago
**Ultimate flexibility for total control**

CytoFLEX gives you robust performance for all configurations, regardless of complexity, as well as easy upgradeability so you can maintain your pace of discovery over time. Power up your performance and expand your high complexity capacity — up to 15 parameters for future-proof adaptive detection capabilities.

### Excitation Fluorescence Channels

<table>
<thead>
<tr>
<th>Lasers</th>
<th>Total FL Channels</th>
<th>488nm FL Channels</th>
<th>638nm FL Channels</th>
<th>405nm FL Channels</th>
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</table>

Up to 21 available configurations to support your research.

### Fluorochromes

- **525/40 BP**: FITC, Alexa Fluor 488, CFSE, Fluo-3
- **585/40 BP**: PE, PI
- **610/20 BP**: ECD, PE-Texas Red, PE-CF594, PI
- **690/50 BP**: PC5, PC5.5, PerCP, PerCP-Cy5.5, PI
- **780/60 BP**: PC7
- **660/20 BP**: APC, Alexa Fluor 647, eFluor 660
- **712/25 BP**: APC-Alexa Fluor 700, Alexa Fluor 700
- **780/60 BP**: APC-Alexa Fluor 750, APC-Cy7, APC-H7, APC-eFluor 780
- **450/45 BP**: Pacific Blue, V450, eFluor 450, BV421
- **525/40 BP**: Krome Orange, AmCyan, V500, BV510
- **610/20 BP**: Violet610, BV605, Qdot 605
- **660/20 BP**: Violet660, BV650, Qdot 655
- **780/60 BP**: Violet780, BV785, Qdot 800

The CytoFLEX system can accommodate a variety of fluorophore options. Chart is not all inclusive of potential fluorophore options.
Cell Cycle Analysis of proliferating cells by BrdU incorporation and 7-AAD staining of Human peripheral blood mononuclear cells (PBMCs).
Sharpen Your Application Sensitivity

CytoFLEX analyzes and integrates data from a variety of applications and sample types. Detect rare events and easily accommodate a variety of fluorochromes. Reliable sample acquisition and fluidics delivery allows for acquisition from microtiter tubes and 96-well plates. With excellent fluorescent sensitivity across any configuration you choose, your results will surpass current systems. CytoFLEX also boasts a large variety of multi-parameter applications, with up to 15-parameter detection and detection of particle sizes as small as 200 nm.

Nanoparticle Detection

Cytometric Detection Of Regulatory T Cells

Optimal resolution for low expressed antigens. Regulatory T cells characterized by low levels of expression were easily identified.

Microparticle Detection. Bead based small particles were detected using side scatter and VSSC. Data provided by Dr. Huang Yijun, Sun Yat-Sen University, School of Medicine, Guangzhou, China.
12 color antibody detection of Naïve/Memory T cells and T regulatory cells showing human PBMCs stained with CD57 FITC, CD25 PE, CD10 PerCP-Cy5.5, CD45RO PE-Cy7, CD56 APC, CCR7 AF700, HLA-DR APC-Cy7, CD127 BV421, CD8 V500, CD4 BV650, CD16 BV711, and CD19 BV785.

**Economic Efficiency**
- **Save Sample**
  - As little as 10µL sample volume
- **Save Reagent**
  - Up to 50% less reagent*
- **Save Maintenance**
  - Alignment free
- **Save Space**
  - 16.7in / 40cm cube
- **Save Time**
  - Self installable
- **Save Training**
  - Run assays in minutes
- **Save Costs**
  - CytExpert analysis software is free
- **Save Sanity**
  - Easy to learn, easy to use

*compared to five- or six-color analysis approach.

FLEX Your Throughput Options

CytoFLEX Plate Loader option can analyze a 96-well plate in as little as 32 minutes with walk-away convenience providing flexibility and freeing up your time.

All CytoFLEX systems are integration-ready for the Plate Loader option for easy upgradability without added space. The plate loader fits inside its small footprint design. CytExpert Software fully integrates with for plate setup tools providing simplified set-up of all your experiments.

- Switch between single tube and plate acquisition in 5 minutes
- Easy Virtual plate layout setup with customizable wash and mix cycles
- Define multiple experiments on a single plate
- Compatible with 96-well flat-bottom, U- and V-bottom standard plates
Ready. Set. Flow!

CytoFLEX is ready to run in less than an hour after opening the box, and its compact size fits most biosafety cabinets. Plus, with CytExpert acquisition and analysis software, you won’t miss a beat.

CytExpert acquisition software

CytoFLEX’s easy-to-run, easy-to-learn software enables cytometrists at all experience levels—even novice users—to get up and running quickly. The innovative and intuitive software lets you set up high color applications with confidence using the unique Compensation Library.

CytExpert analysis software

Powerful CytExpert software delivers high quality, publication-ready data, and ultimate ease of use.

Compensation Library lets you store a repository of compensation spillover values of dyes in a library to easily determine the correct compensation matrix with new gain settings.
## Working Together Sets Us Apart

<table>
<thead>
<tr>
<th>CytExpert Feature</th>
<th>Your Advantage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Auto Delay</strong></td>
<td>The system reads and automatically adjusts laser delay during QC. You can also read the laser delay value while acquiring sample.</td>
</tr>
<tr>
<td><strong>Auto-mixing when loading sample</strong></td>
<td>You can enable and adjust the sample mixing time.</td>
</tr>
<tr>
<td><strong>Auto Threshold</strong></td>
<td>Easily find target population. No need to worry about the threshold setting while adjusting gains when this function is enabled.</td>
</tr>
<tr>
<td><strong>Axis Pan</strong></td>
<td>An ideal tool for visualizing across a high dynamic range axis. You can easily pan across the axis range to search if there is important data out of range. A tool for &quot;gold panning&quot;.</td>
</tr>
<tr>
<td><strong>Batch Function</strong></td>
<td>Many batch processing functions can be selected to improve efficiency of setup and analysis, such as batch exporting plots and statistics, batch creating plots.</td>
</tr>
<tr>
<td><strong>Compensation experiment configuration can be modified after data collection.</strong></td>
<td>Add new single stained tubes to a previously saved compensation experiment. Save time, reagents and sample.</td>
</tr>
<tr>
<td><strong>EMF File Format</strong></td>
<td>Vector format graphic output supports publication ready data.</td>
</tr>
<tr>
<td><strong>Intuitive GUI tools for compensation and gain threshold.</strong></td>
<td>GUI hand tool helps you easily adjust cytometer settings.</td>
</tr>
<tr>
<td><strong>Linear Gain/Voltage</strong></td>
<td>Compensation values automatically modified following gain setting changes so no need to adjust compensation manually.</td>
</tr>
<tr>
<td><strong>Multiple sample types (bead/cell) can be used in compensation experiment.</strong></td>
<td>The background of cell sample and compensation beads can be quite different requiring compensation with both cells and beads. The software will use the right negative population to calculate the correct compensation values.</td>
</tr>
</tbody>
</table>
Quality assured for today and tomorrow

Beckman Coulter is a leading provider of innovative flow cytometry solutions. We offer a wide variety of conjugated antibodies, fluorochromes, and services to help drive your success in cutting-edge cell analysis. In particular, Beckman Coulter tandem dyes are well suited for optimal excitation on CytoFLEX, making the most of your data.

Our Custom Design Services draw on our wide-ranging expertise in dry reagent processing, dye technology, conjugation, and multicolor cocktail design to develop stable cocktails using high-quality antibodies and custom fluorochrome conjugates in either wet or dry reagent format.

For more information please visit www.BeckmanCustomDesign.com

Comprehensive CytoFLEX system accessories

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
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<tr>
<td>CytoFLEX Sheath Fluid 10L</td>
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<tr>
<td>CytoFLEX Daily QC Fluorospheres</td>
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<td>Contrad 70 Cleaning Solution</td>
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<td>FlowClean Cleaning Agent</td>
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<tr>
<td>VersaComp Antibody Capture Bead Kit</td>
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</tbody>
</table>

For over 75 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.
Choose Beckman Coulter For Benchmark Expertise And Innovation

Get higher quality data — whatever configuration you choose. Get superior fluorescence sensitivity and excellent resolution of nanoparticles and dim fluorescence — in a surprisingly small footprint. Get revolutionary application capabilities with maximum configurability that rival any current cytometer — in a system that's easy to set up, learn, use, and maintain. Get time saving, field-installable upgrades — for built-in investment protection. Get CytoFLEX — and get ready to transform your research.

Contact your local Beckman Coulter sales representative.

www.CytoFLEXFlow.com