BD FACSDiscove™ S8 Cell Sorter
with BD CellView™ Image Technology and BD SpectralFX™ Technology

Get deeper insights with real-time imaging, spectral flow cytometry
Achieve breakthrough discoveries with image-enabled cell sorting and advanced spectral flow cytometry

The BD FACSDiscovers™ S8 Cell Sorter expands the power of cell analysis and sorting to new dimensions by combining spectral flow cytometry with real-time spatial and morphological insights—empowering scientists to address previously impossible-to-answer questions.

**BD CellView™ Image Technology**
Expands the power of cell analysis and sorting by combining flow cytometry data with spatial and morphological insights

**Next Gen QC System**
Delivers pre-set gains and reduces setup complexity

**BD SpectralFX™ Technology**
Expands panel size and flexibility with 78 fluorescent detectors across five lasers with algorithmically optimized bandpass filters

**Trusted Partner**
Supported by over 45 years of flow cytometry expertise
Obtain insights on cell populations and characteristics that can be **visually confirmed in real time** during analysis and sorting.

Index flow and cell imaging **data** correlates immunophenotyping, imaging and downstream assay results.

**Flexible sorting:** 6-way 5-ml sort, index sorting and additional format options including 96-well and 384-well plates and slides.

Enhance spectral flow cytometry with **spatial and morphological insights** to interrogate and sort cell types that previously could not be identified or isolated.

Patented BD sorting technology features a **fixed-alignment gel-coupled cuvette** eliminating the need for operator to perform daily alignment and facilitating quick nozzle changes.

Combine **image features with flow parameters** for subset classification for statistical analysis and sorting.

Attain **high-dimensional analysis** with up to five lasers and 78 fluorescent detectors, six image detectors on the blue laser, FSC and SSC detectors.

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Real-time image-enabled sorting

See what you sort. Sort what you see.

The BD FACSDiscover™ S8 Cell Sorter leverages BD CellView™ Image Technology, a novel high-speed imaging technology that facilitates analysis and sorting through real-time integration of image and flow data.

**BD CellView™ Image Technology**

**IMAGING DETECTORS**

Image detectors with fluorescent, scatter and light loss to visualize events in real time and at high speed

3-color fluorescence imaging

- Light loss (LL)
- CH1: GFP (Golgi)
- CH2: Surface Marker
- CH3: DNA (DRAQ5™)

**NEW INSIGHTS**

New insights and image-based applications help to address previously impossible-to-answer questions

- Cell cycle
- Cell synapse
- Internalization
- Label-free
- Marine biology
- Morphology
- Phagocytosis
- Plant biology
- Polarization
- Quality control
- Tumor cell killing
- Co-localization
CELL MORPHOLOGY
Explore cell morphology with internal and external spatial characteristics

SAMPLE QC
Visualize and confirm images in real time to obtain sample data for flow cytometry and downstream assays

IMAGE FEATURES
Image features combined with traditional flow parameters open the door to new dimensions in single-cell analysis

ADDITIONAL IMAGE FEATURES
- Center of mass (X)
- Center of mass (Y)
- Forward scatter (FSC)
- Light loss (blue)
- Long moment
- Short moment
- Size
- Side scatter (SSC)
- Total intensity
Cell cycle analysis

Image feature analysis can provide insight into DNA distribution and morphology to differentiate the phases of the cell cycle.

Flow cytometry parameters used
- DAPI-Area
- H2B (NeonGreen)-Area
- Alexa Fluor ™ 647 (PS10H3)-Area

Image features used
- Radial Moment-H2B (NeonGreen)
- Max Intensity-H2B (NeonGreen)
- Eccentricity-H2B (NeonGreen)
- Eccentricity-FSC
- Eccentricity-SSC
Max intensity and diffusivity image features were used to sort HeLa cells (GFP+ Golgi apparatus) treated with BD FastImmune® Brefeldin A (BFA) Solution which exhibited a dispersed morphology.
Enhanced sorting performance and capabilities

QC and analyze cells

Combine flow cytometry data with spatial and morphological insights to visually confirm cells of interest, draw more accurate gates, and identify doublets and unwanted events.

Know what you sorted

Wells or a group of wells can be selected to display corresponding images along the image wall and to locate cells on the sort population plots panel.
Explore your data with spectral flexibility using BD SpectralFX™ Technology

BD SpectralFX™ Technology combines full-spectrum optics, next gen QC and system-aware spectral unmixing that manages spread by adapting to instrument performance and sample conditions in real time.

- **FULL-SPECTRUM OPTICS**
  Maximize the palette of colors and simplify the choice of fluorochromes detectable per laser

- **OPTIMIZED HARDWARE DESIGN**
  Combine 78 fluorescent detectors across five lasers with algorithmically optimized bandpass filters

- **GUIDED WORKFLOW**
  Drive users to learn quickly and use best practices in experimental setup

- **SYSTEM-AWARE ALGORITHM**
  Adapt to your sample and instrument in real time to manage spread

- **NEXT GEN QC SYSTEM**
  Uses LEDs and beads to measure noise, perform gain calibration and provide real time noise/signal hardware information
Six-way sorting of deep immunophenotyping panel

This 38-color spectral panel characterizes and sorts deep lineages of T cell and NK cell subsets.

The panel includes BD Horizon RealYellow™ and BD Horizon RealBlue™ Dye technology, engineered to work in tandem with the BD FACSDiagram™ S8 Cell Sorter for high-parameter spectral analysis to reveal biological information.
BD Technical Services is your partner for performance

BD Service teams enable you to better serve your customers and research partners. You can count on our deep knowledge and experience to help ensure your BD FACSDiscove™ S8 Cell Sorter delivers expected, timely results.

Accelerate uptime and maximize the value of your investment with robust service coverage. Service contracts optimize performance by providing regular preventive maintenance as well as remote and on-site support.

**Maximum uptime**

At BD, we understand the cost and consequences of unexpected downtime. Therefore, we are committed to maximizing your system uptime. Contract customers receive priority service compared to customers without a service contract. In addition, remote diagnostics help maximize system uptime by properly diagnosing instruments, reducing issue resolution time.

**Peace of mind**

No more wondering how and when your instrument will be repaired. Rest assured knowing you have access to BD service professionals whenever you need them. Having a dedicated project manager during installation helps with effective implementation, accelerates value realization and provides exceptional customer experience.

**Predictable expense**

Protect your budget from unexpected costs. Our fee that covers both corrective and maintenance-related service needs. Customers also have the option to lock-in their contract price for multiple years.

- Responsive on-site repair
- Remote service capability
- Preventive maintenance
- Email and chat support
- Unlimited repairs
- Local field service expertise
- No hidden charges
- Extends your service warranty
- Multi-year pricing available

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**SUPPORT**

- Local sales
- Applications
- Service
- FlowJo® Software applications
- Remote Support Services (RSS) with BD Assurity Linc® Software

**DATA ANALYSIS**

- Integrated with FlowJo® Software for data analysis needs

**REAGENTS**

- Compatible with the latest BD Horizon® Dye technology

**eCOMMERCE**

- Offers a rich online buying experience

**OPTIONS**

- Sample temperature control
- Class II Type A2 biological safety cabinet (BSC)
- BD® Aerosol Management Option (AMO)
- Instrument table

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Class 1 Laser Product.
For Research Use Only. Not for use in diagnostic or therapeutic procedures.

BD Life Sciences, San Jose, CA 95131, USA

bdbiosciences.com

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