BD FACSDiscover™ S8 Cell Sorter
with BD CellView™ Image Technology
and BD SpectralFLEX™ 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 FACSDiscove™ 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

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

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

**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.

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Real-time image-enabled sorting

See what you sort. Sort what you see.

The BD FACSDiscove™ 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

**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 FACSDescr™ S8 Cell Sorter for high-parameter spectral analysis to reveal biological information.
Class 1 Laser Product.
For Research Use Only. Not for use in diagnostic or therapeutic procedures.