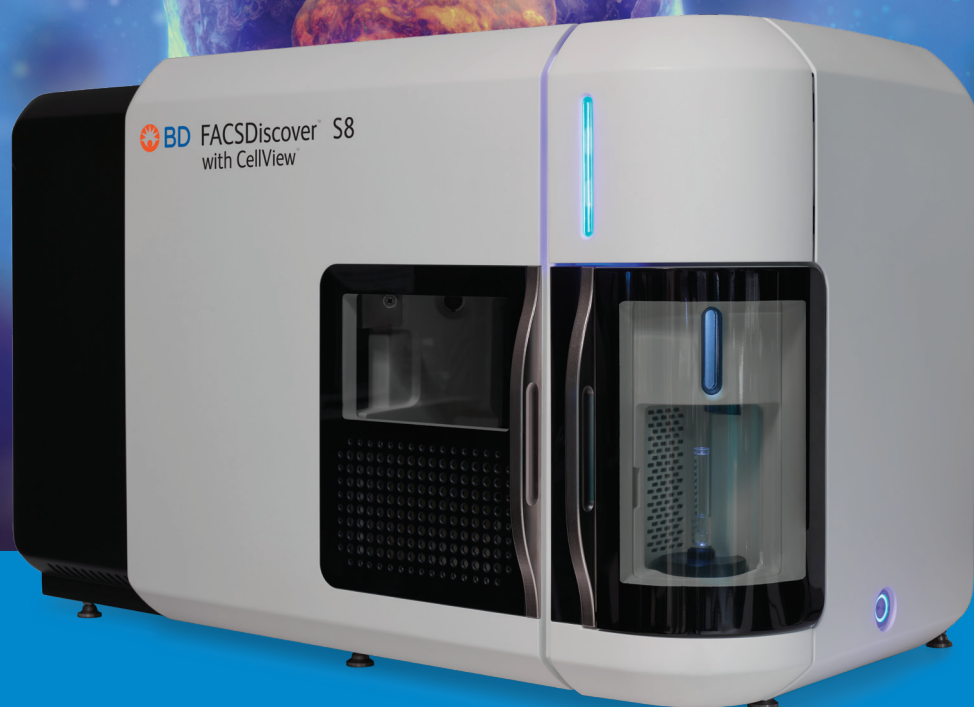




BD FACSDiscover™ S8 Cell Sorter with BD CellView™ Image Technology and BD SpectralFX™ Technology

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 FACSDiscover™ 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

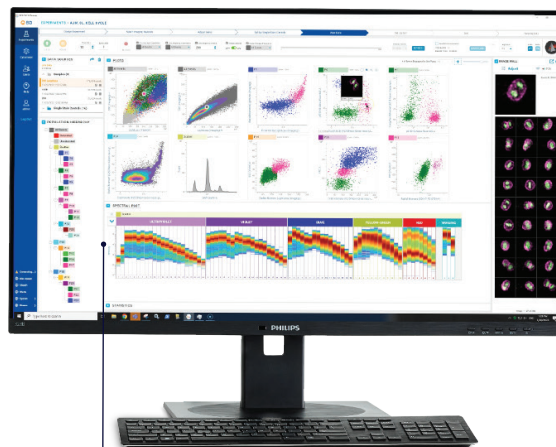
Expands the power of cell analysis and sorting by combining flow cytometry data with spatial and morphological insights



Trusted Partner
Supported by over
45 years of flow
cytometry expertise

Next Gen QC System

Delivers pre-set gains and reduces
setup complexity



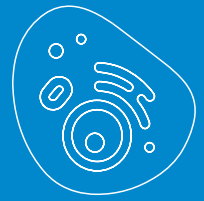
BD SpectralFX™ Technology

Expands panel size and flexibility with
78 fluorescent detectors across five
lasers with algorithmically optimized
bandpass filters

Obtain insights on cell populations and characteristics that can be **visually confirmed in real time** during analysis and sorting



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



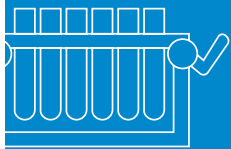
Index flow and cell imaging data correlates immunophenotyping, imaging and downstream assay results



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



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



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



Simplify your workflow with **built-in visual inspection capabilities, more flexible panel design, automated features and index sorting**



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



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



LL



LL
CH1



LL
CH2



LL
CH3



LL
CH1
CH3



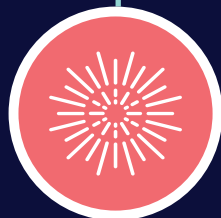
LL
CH1
CH2
CH3

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



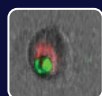
Label-free



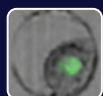
Marine biology



Morphology



Phagocytosis



Plant biology



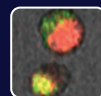
Polarization



Quality control



Tumor cell killing

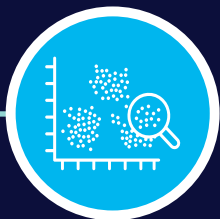


Co-localization



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

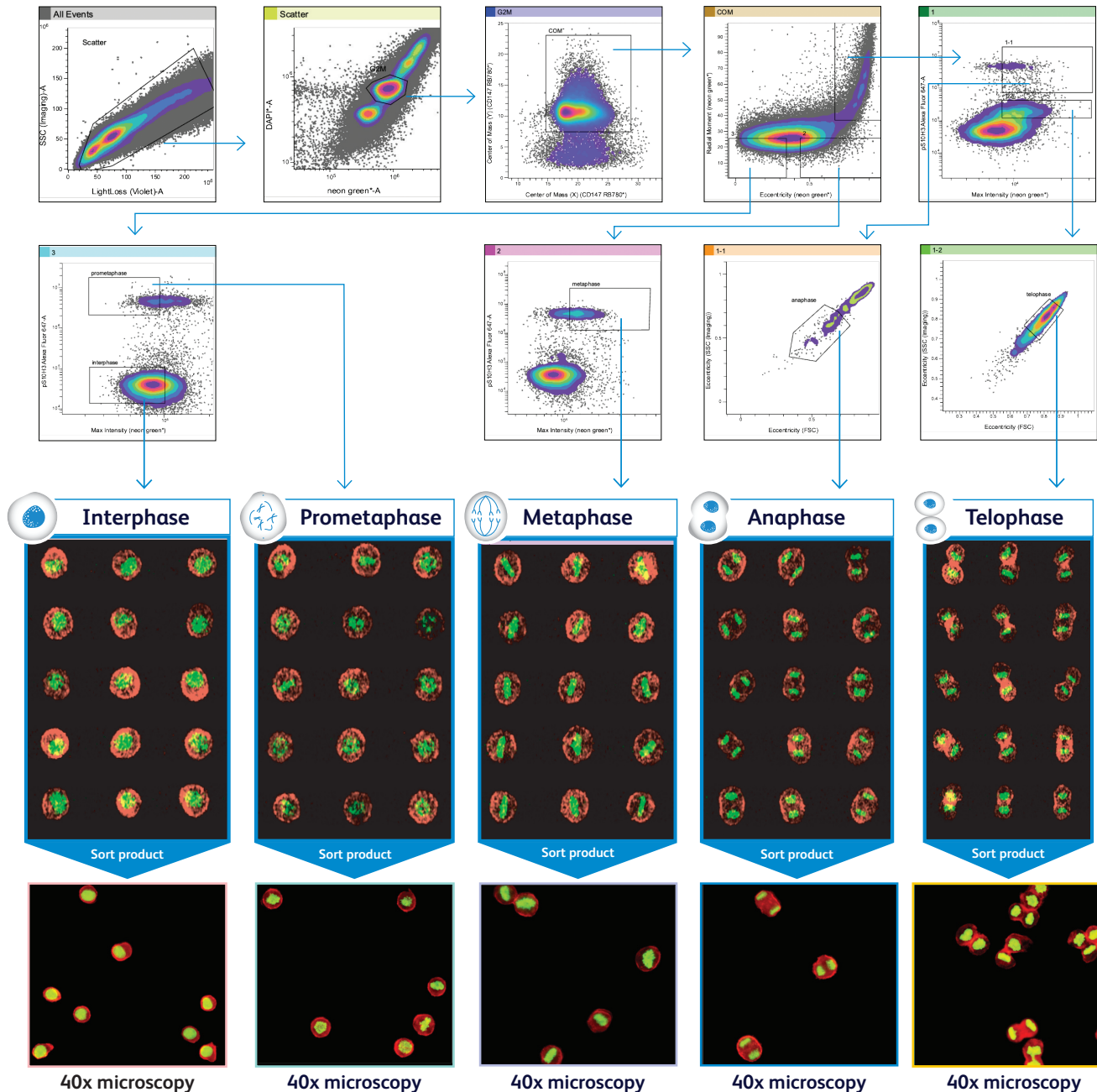


ADDITIONAL IMAGE FEATURES

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

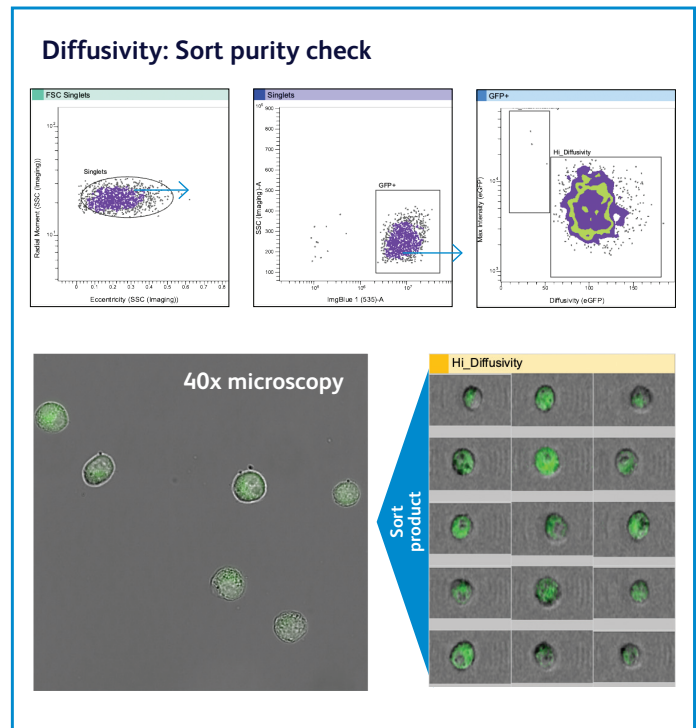
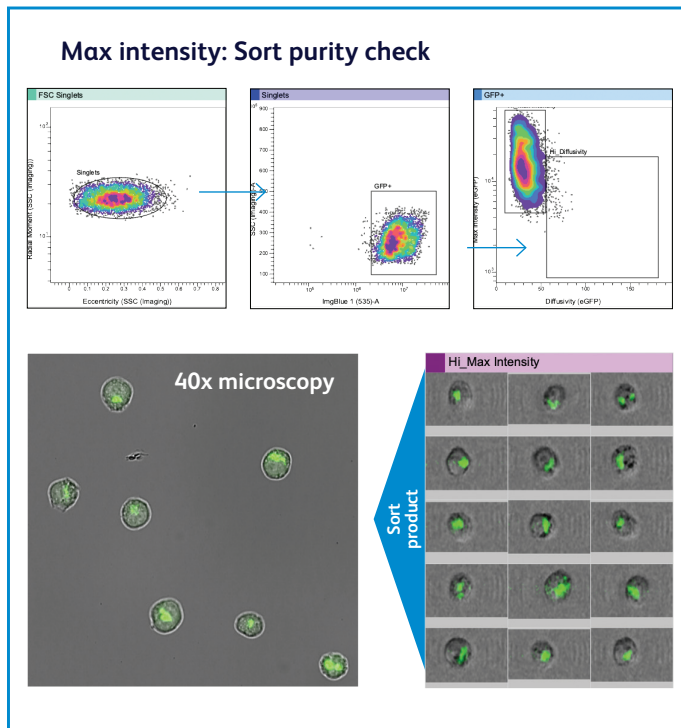
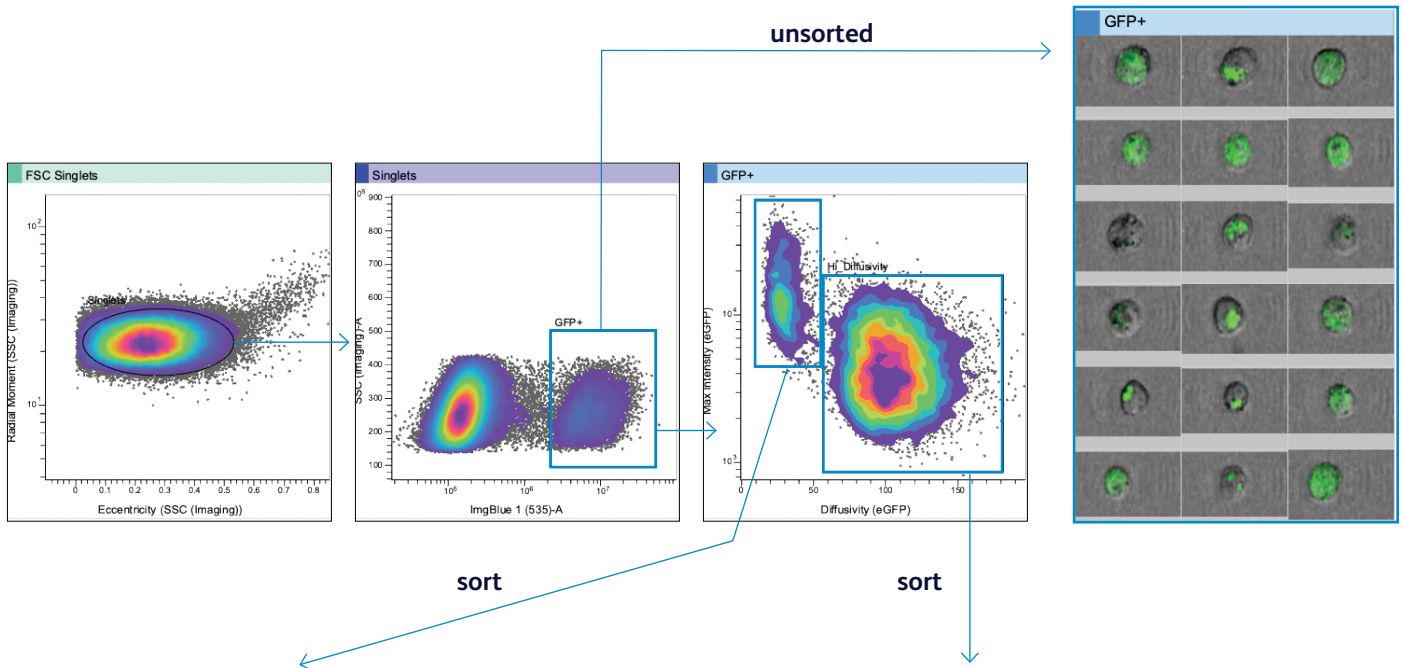
- DAPI-Area
- H2B (NeonGreen)-Area
- Alexa Fluor™ 647 (PS10H3)-Area

Image features used

- Radial Moment-H2B (NeonGreen)
- Max Intensity-H2B (NeonGreen)
- Eccentricity-H2B (NeonGreen)
- Eccentricity-FSC
- Eccentricity-SSC

Image-enabled cell sorting

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.

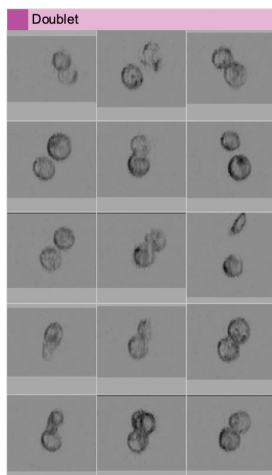
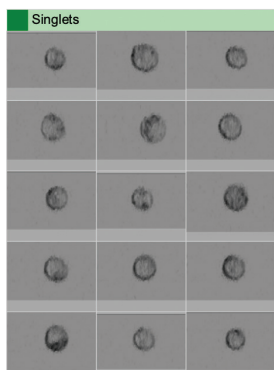
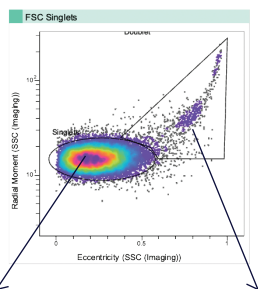


Enhanced sorting performance and capabilities

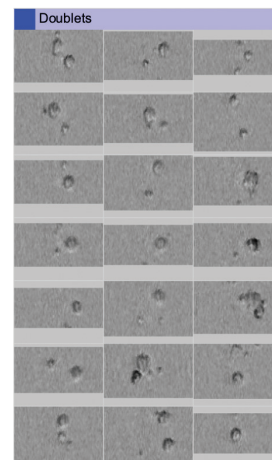
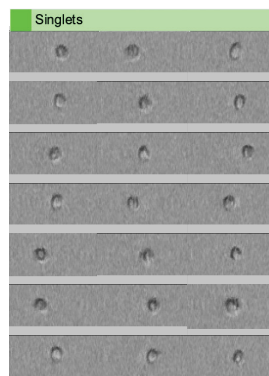
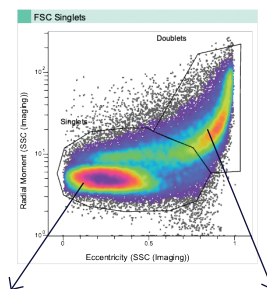
QC and analyze cells

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.

HeLa cells



PBMCs



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.

SORT OUTCOME

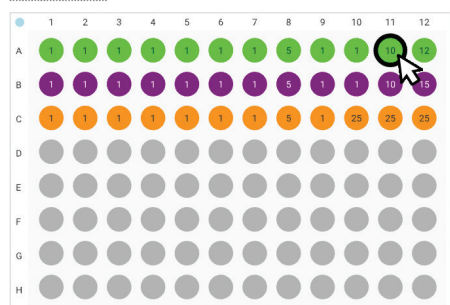
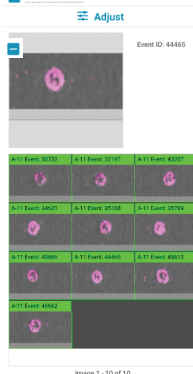
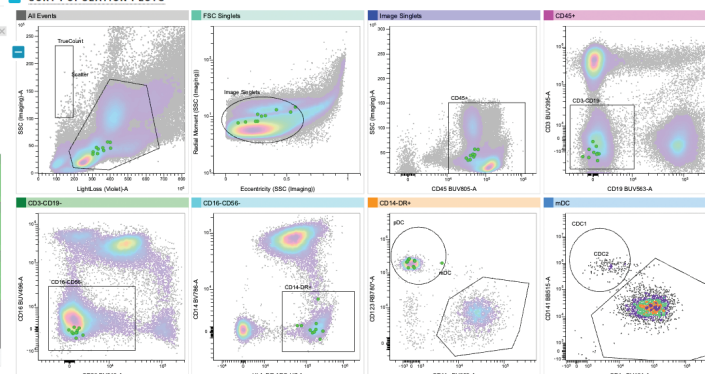


IMAGE WALL



SORT POPULATION PLOTS



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.



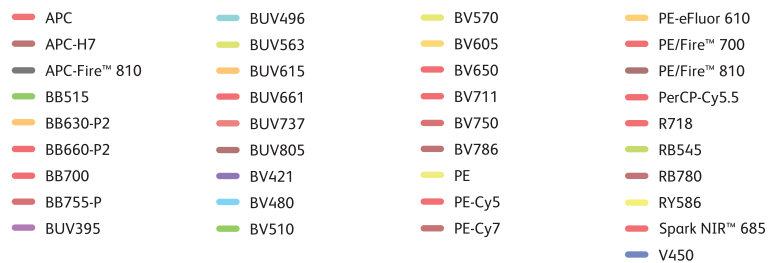
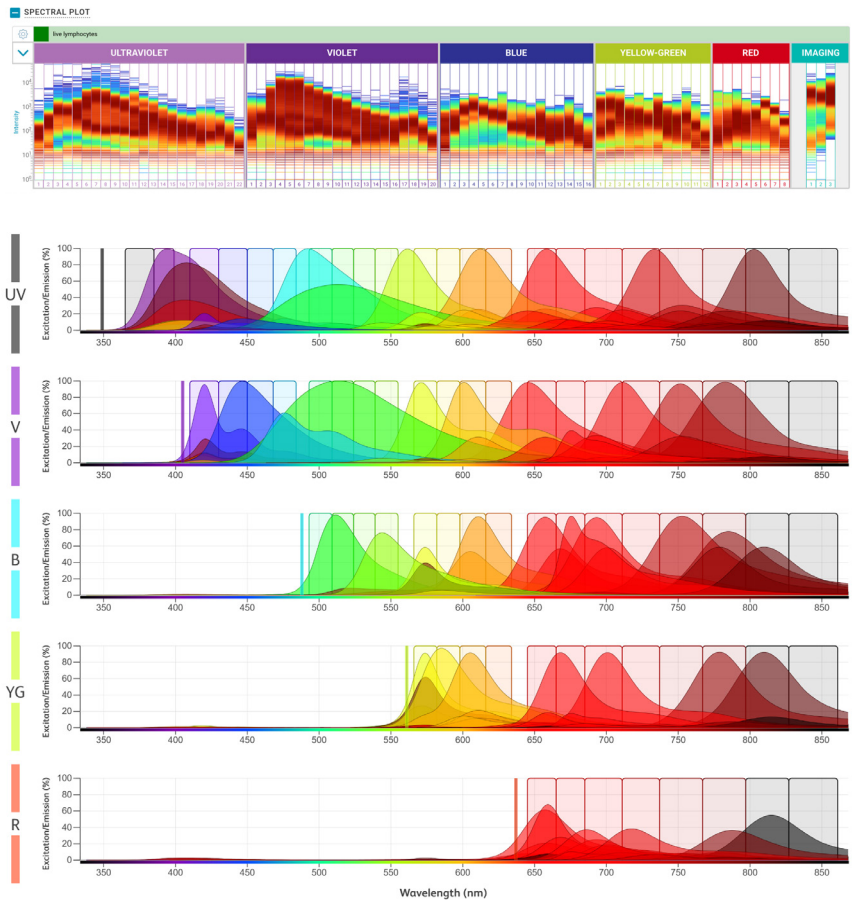
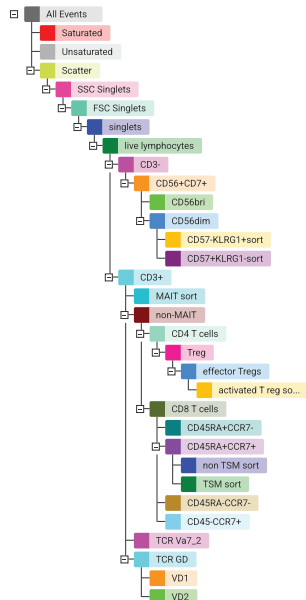
Six-way sorting of deep immunophenotyping panel

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 FACSDiscover™ S8 Cell Sorter for high-parameter spectral analysis to reveal biological information.

Laser	#	Fluorochrome	Marker
UV	1	BUV395	CD27
	2	FV5440UV	FV5440UV
	3	BUV496	CD8
	4	BUV563	CD16
	5	BUV615	CCR7 (CD197)
	6	BUV663	NKG2C
	7	BUV737	CCR5
	8	BUV805	CD161
Violet	9	BV421	PD1
	10	V450	CD7
	11	BV480	CD45RA
	12	BV510	CD15s
	13	BV570	CD57
	14	BV605	TCRgd
	15	BV650	TCR V-α24
	16	BV711	NKG2A
Blue	17	BV750	NKG2D
	18	BV786	CD28
	19	BB515	HLA-DR
	20	BB630	CD94
	21	BB660	CD194
	22	PerCP-Cy5.5	TCR Vg9
	23	BB700	TCR Vα7.2
	24	BB755	CD196
Yellow/Green	25	RB780	CD95
	26	RB545	CD3
	27	PE	CD25
	28	PE-Cy5	CD185
	29	PE-Cy7	CD38
	30	RY586	KLRG1
	31	PE-Fire 810	CD39
	32	PE-eFluor 610	TCR VD1
Red	33	PE-Fire 700	CD127
	34	APC	TCR VD2
	35	R718	CD183
	36	APC-H7	CD4
	37	SNIR-685	CD56
	38	APC-Fire 810	CD14_CD19

POPULATION HIERARCHY



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 FACSDiscover™ 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.

- Responsive on-site repair
- Remote service capability
- Preventive maintenance

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.

- Email and chat support
- Unlimited repairs
- Local field service expertise

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.

- No hidden charges
- Extends your service warranty
- Multi-year pricing available



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

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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