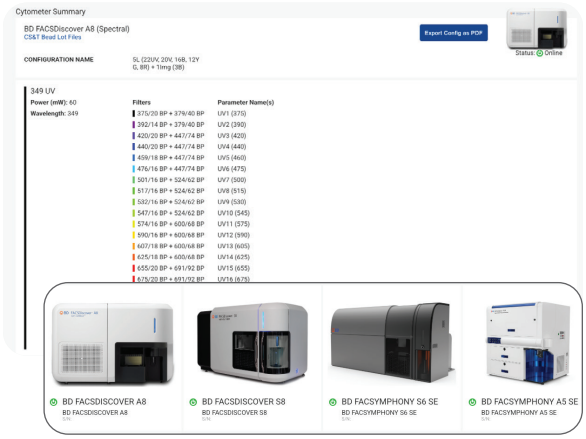
BD® Research Cloud with BD Horizon™ Panel Maker

Accelerate your workflow with BD® Research Cloud (BD RC) panel creation module, now featuring BD Horizon™ Panel Maker, an intelligent solution for automated panel design. Enjoy seamless integration with instrument configurations, strategic reagent recommendations and scientifically validated resources; all crafted to save time and deliver high-performing panels.

Note: All panels should be validated experimentally based on your specific experimental conditions.

BD

Instrument selection



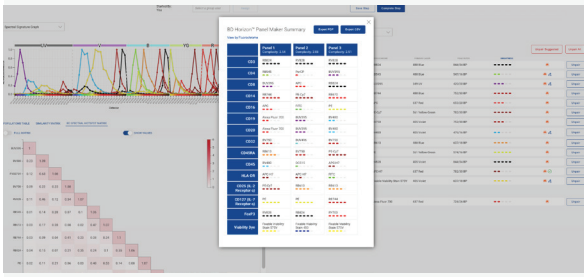
Instrument optical performance

- Get optimized panel recommendations driven by preloaded, measured data for enhanced accuracy. Cytometer-specific* spectral signature data generated using fluorochrome-stained cells.

  *BD Horizon™ Panel Maker is available for BD FACSDiscover™ S8 Cell Sorter, BD FACSDiscover™ A8 Cell Analyzer, BD FACSymphony™ A5 SE Cell Analyzer, BD FACSymphony™ S6 SE Cell Sorter and Cytek Aurora flow cytometers. Measured data was generated using surface-stained CD4 and human PBMCs.

- Achieve spectral results that closely reflect real-world performance by leveraging your instrument's optical configuration.
- Simplify complex workflows with the only panel designer that supports integrated imaging and spectral panel design for BD FACSDiscover™ Instruments.

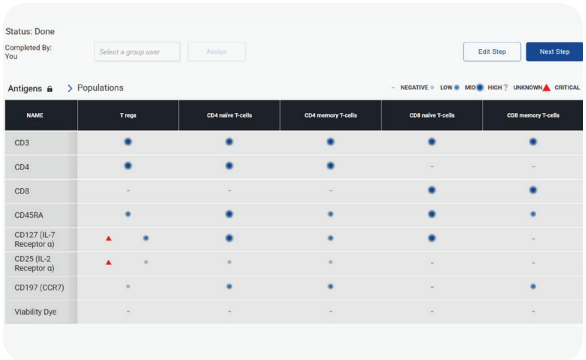
Reagent optimization



Strategic reagent recommendations

- Get up to three optimized panel suggestions quickly based on your selected markers and inputs.
- Rapidly compare and evaluate panels using visualization tools like the BD® Spectral Hotspot Matrix.
- Streamline your workflow with direct access to BD's extensive reagent catalog.
- Enjoy flexibility and choice with the ability to select dyes from multiple manufacturers.

Antigen population guide



Scientific resources

- Design with confidence whether starting from scratch or using curated databases of published panels and populations phenotypes.
- Leverage BD Horizon™ Panel Maker design rules and tools backed by decades of BD expertise for reliable results.
- Leverage high-quality scientific insights throughout the panel design process.

Guided workflow

1 Select a cytometer

Cytometer-specific, preloaded measured data is combined with instrument optical configurations for results that closely mirror real-world performance.

2 Select targets and define populations

Input key biology and experiment details: imaging marker selection, clones, antigen density, and exclusion markers.

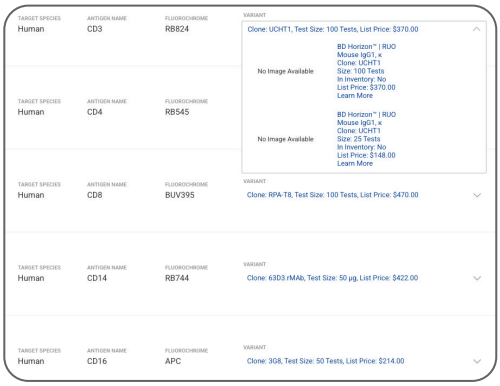
BD Horizon™ Panel Maker (Automated Panel Design)

3 Create Panel

Use the BD Horizon™ Panel Maker automation to pair your biological and experimental inputs with ideal fluorochrome combinations. Then use powerful imaging and spectral tools like BD Spectral Hotspot Matrix, heat maps and spectral graphs to visualize panel recommendations and evaluate their performance.

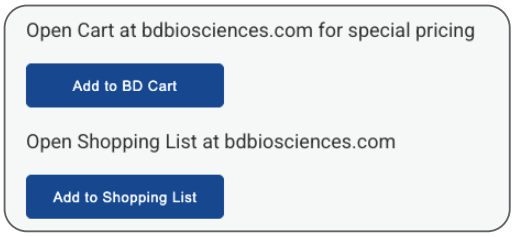
4 Select reagents and fluorochromes

View and choose reagents from your current inventory, BD's integrated catalog, your custom catalog and dyes from multiple manufacturers.



5 Create shopping list

Generate quotes and purchase directly through BD's eCommerce platform or send a shopping list to your procurement team.



Leverage proven best practices with BD Horizon™ Panel Maker optimization

Capitalizing on over 50 years of BD's panel design expertise, the BD Horizon™ Panel Maker algorithm incorporates our experts' tools, rules and best practices into its framework.

	Key panel design considerations		Algorithm attributes / inputs
Signal management	Spectra		Spectral signatures on actual instruments, including fluorochromes for CellView imaging
	Brightness and Expression		Measured fluorochrome brightness and user-defined antigen densities
Spreading management	Fluorochrome performance chart		Metrics for fluorochrome resolution and spreading
	Spillover Spreading		Measured instrument-specific spreading error from real biological samples
Unmixing tools	BD® Spectral Hotspot Matrix		Prediction of panel-specific unmixing to avoid unmixing-dependent spreading
	Similarity Matrix		Metric for compatible fluorochrome pairs

Algorithm Output:

- Multiple optimized panel recommendations
- Panel comparison summary tables
- Complexity scores
- Performance visualization charts

Resources

FlowJo University
flowjo.com/learn/flowjo-university/bd-research-cloud

Webinars
flowjo.com/learn/webinars

Documents
flowjo.com/learn/marketing-materials

Sign-up for free: bdresearchcloud.com/login

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