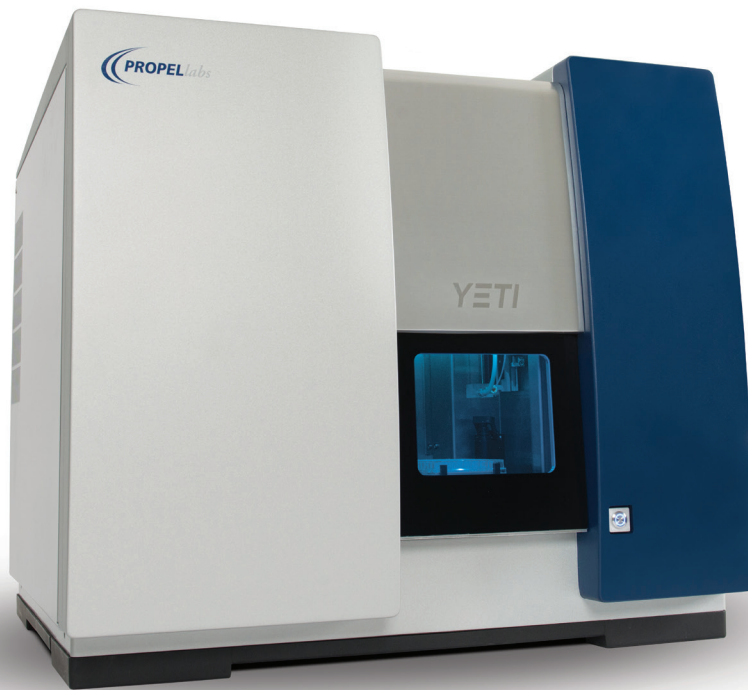



YETI

CELL ANALYZER






The Propel Labs **YETI** Cell Analyzer with **EVO** software provides the features, power, performance and flexibility to fit the ever changing needs of your lab.

State-of-the-art, integrated high-throughput sample loader can easily handle your samples in any type of microtiter plate up to 384 wells, including standard or deep 96 well, 5mL tube racks, and single 5mL tubes. Sample integrity is maintained with on-board agitation and temperature control.

With the smallest benchtop footprint in its class and high speed system design enabling event rates of >100,000/second, **YETI** provides unmatched performance in limited lab space.

YETI can be configured with up to five spatially separated lasers and 30 detectors providing the flexibility you need for multi-laser fluorescence detection without compromise. Its dual Forward Scatter design allows either simultaneous standard and small particle detection or multi-laser scatter detection. The innovative **YETI EYE** profiles your instrument with 10 distinct wavelengths of LEDs to verify the optical filter configuration and track detection performance over time.

Propel Labs' intuitive **EVO** software provides unattended start-up and quality control, automated fluorescence compensation, a fluorochrome selector panel, and a runlist design wizard. Integrated training modules, remote access capability, and the ability to analyze files while acquiring saves time and streamlines your workflow.



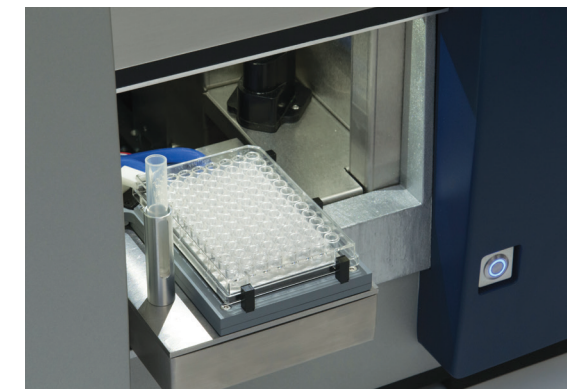
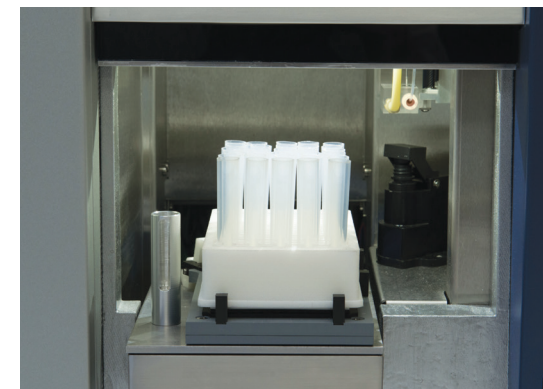
Loader

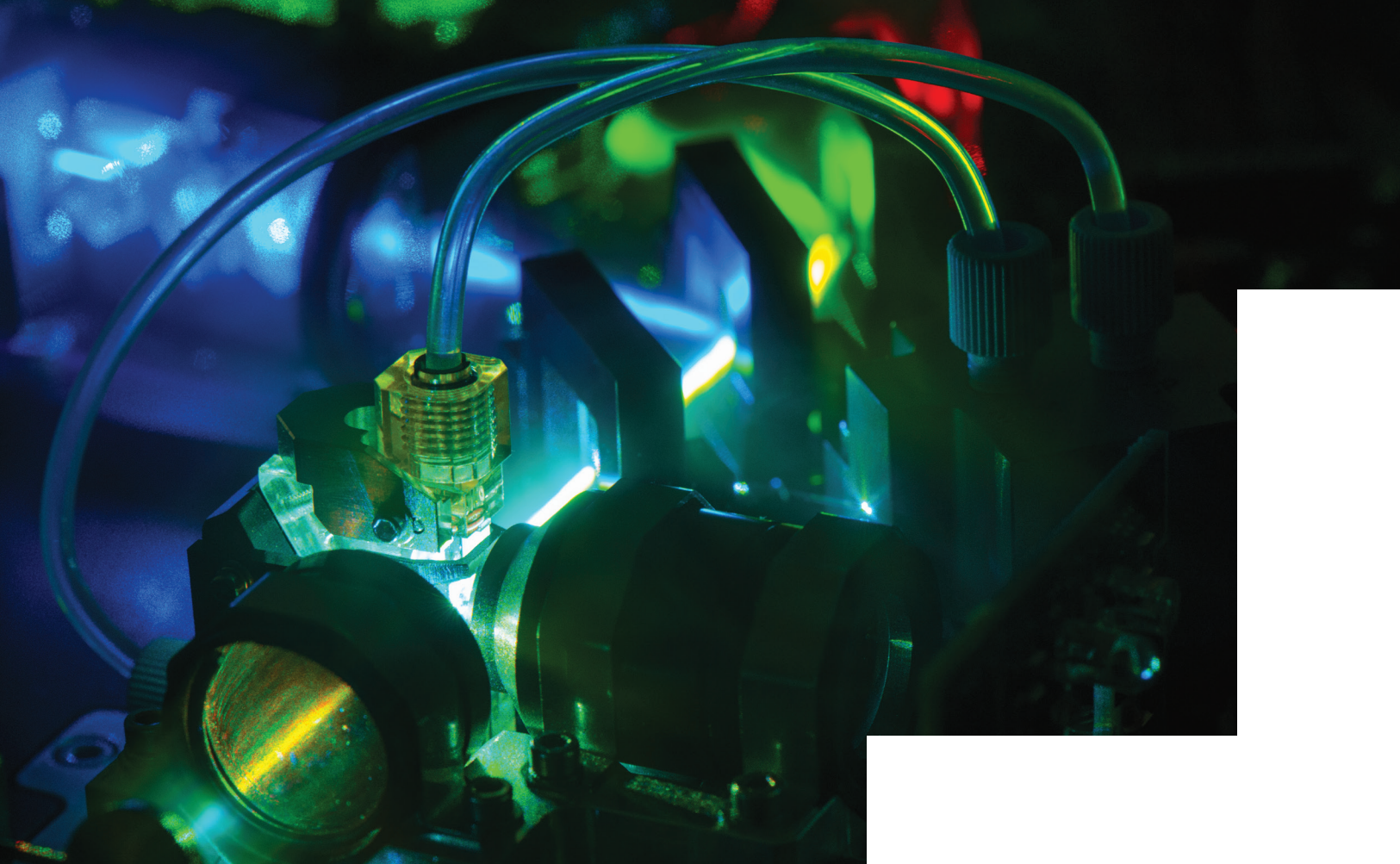
High Throughput

- **Fully automated acquisition** enables sampling from **5mL tube racks** and any type of microtiter plate up to **384 wells** including deep well plates and custom configurations, giving you the flexibility you need.
- Patent pending **automatic probe calibration** and **built-in crash detection** increase up time and reduce service needs.
- Integrated, **programmable wash station** reduces carryover and time between samples, improving the quality of your data and increasing the capacity of your lab.
- Time-saving **high throughput** mode can analyze a 96 well plate with < 0.5% carryover in less than 15 minutes.
- **Temperature control** maintains the integrity of your samples from start to finish.
- True **plate shaker agitation** resuspends your samples, reducing clogs.



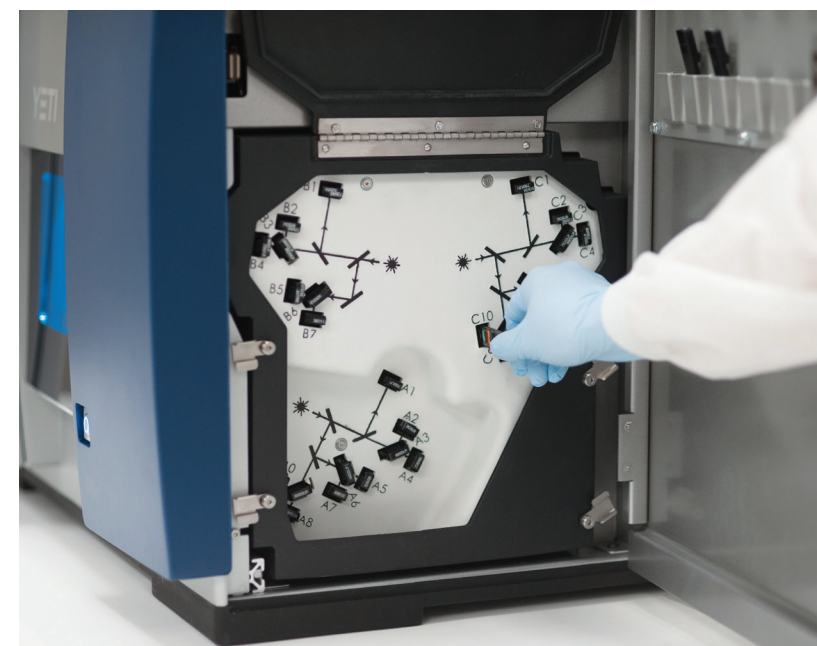
- Volumetric sample uptake allows automatic concentration calculation and **absolute counting without beads**.
- **No dead volume** requirement, **no wasted aspirated sample**, and the ability to **automatically return unused sample** to the tube or well eliminates wasted sample.
- Single tube load position provides the flexibility to interrupt a plate, run one sample, and resume the microtiter plate to **streamline workflow**.
- **Add reagents real-time** to your samples for kinetic experiments.
- On-board calibration beads provide automated **QC without user intervention** to reduce setup time.
- **Volume tracking for on-board beads** provides an alert when replacement is needed and helps conserve usage to **reduce consumable cost**.
- Innovative continuous sampling allows **unlimited volume acquisition** at a **stable flow rate**.





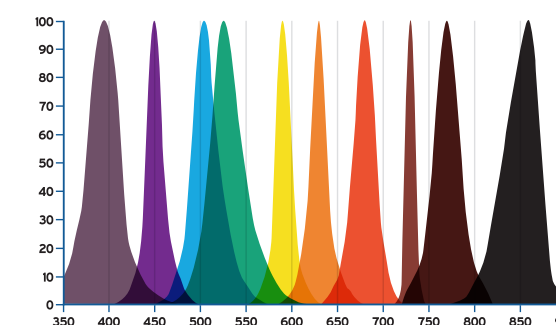
Scalable & Sensitive

- **YETI** offers free-space excitation with up to **five spatially separated lasers** ranging from 355nm to 640nm, allowing **optimal wavelength selection** for your multi-color experiments.
- Integrated beam shaping and focusing optics for each laser **increase excitation stability**.
- With up to **28 fluorescence detectors**, **YETI** has out-of-the-box flexibility for your multi-color applications.



- **Rapidly verifying the optical filter configuration and tracking the detection performance over time**, the patent pending **YETI EYE** profiles your instrument with 10 distinct wavelengths of LEDs.
- **YETI EYE** technology enables system to system detector calibration giving you **consistent results between multiple instruments**.
- **Dual forward scatter** design allows standard FSC detection while simultaneously collecting small particle or alternate wavelength scatter data.

- **Field upgrades are simplified** with modular excitation and detection components.



Fluidics



Innovative & Integrated

- Patent pending sample delivery system allows **stable, continuous flow** from 0.0025 to 2.5 $\mu\text{L/s}$ and provides a direct sample path to the flow cell.
- High velocity sheath flow delivers **unparalleled analytical throughput** to collect more data in less time.
- Hot-swappable bulk fluid bottles allow **uninterrupted system use**.
- Built-in ports to connect to a **house DI and waste system** can eliminate the need to fill and empty bulk fluid tanks.
- On-board cleaner and additive bottles allow dilution for sheath fluid with an anti-microbial and surfactant as well as **hands-free automated cleaning and rinsing**.
- Bi-directional flow to the cuvette provides **built-in high pressure unclogging** and cleaning capabilities.
- Sleep mode **conserves laser hours and fluids** when the system is not in continuous use.

Electronics

Uncompromised Accuracy

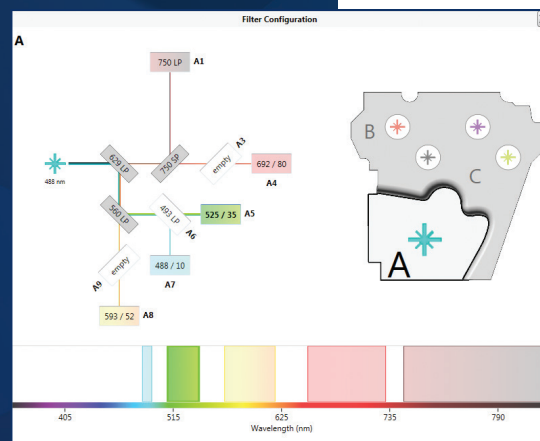
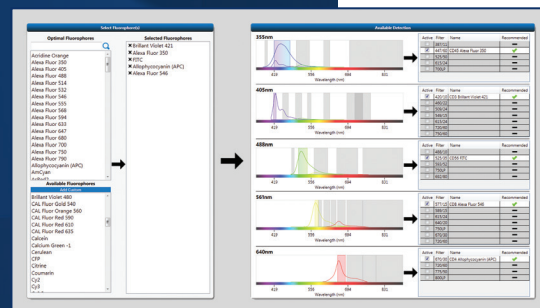
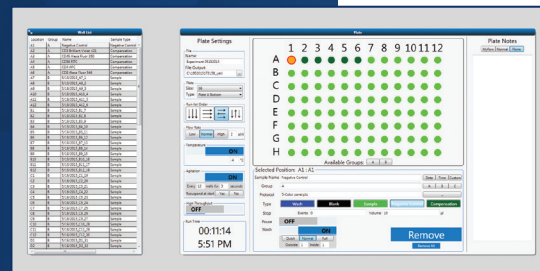
- Measured peak, area, and width parameters available simultaneously for every channel to **accurately characterize samples**.
- Proprietary digital processing with 24-bit data **maximizes dynamic range** and **reduces channel noise** for superior dim population resolution.
- **Zero dead-time** processing with dynamic window extension ensures full data collection for every sample.
- Massively parallel, pipelined architecture **eliminates hard aborts** to provide more data in less time.
- **Unassisted laser delay system** configures optimal delays with no user interaction.
- Real-time hardware system control **enables accurate, repeatable sampler operation**.



Intuitive & Powerful

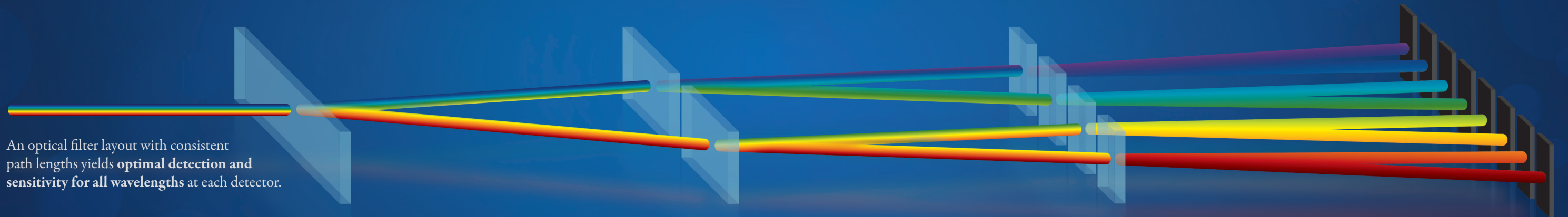
- **Scheduled startup and quality control** eliminates waiting for system warm up.
- **Elegant and intuitive user interface** with quick action buttons of suggested next steps to simplify use.
- **Fluorochrome selector assists with experiment design** and worklist setup giving users a head start.
- **Automated PMT voltage adjustment and compensation** simplifies and shortens the setup required for multi-color experiments.
- **Adjustable region based event monitoring** ensures the quality of your data from well to well.
- **Remote monitoring, status and control** from your phone or tablet give you the freedom to walk away from the system.
- **Acquire and store files with up to 100 million events** with all parameters enabled at high speed, reducing rare event detection time.
- **Analyze saved files while acquiring new data** to improve your workflow and reduce analysis only time on your systems.
- **Patent pending Threshold plot** shows you everything the electronics see to give you full confidence in setting the proper threshold.

- **Multi-channel triggering** gives the option to use a combination of inputs for complex experiments.
- Custom heat map display gives a **visual presentation of acquired data** for plates and tube racks to quickly and clearly summarize experimental results.
- Analysis features including **overlays, color-gating, and ratio** provide the capability to display data in the way you choose.
- **Batch analysis** allows quick summaries and reports for multiple samples reducing the tedious work of manually opening and analyzing individual files.
- **Publish features** provide flexible outputs and high resolution images to export and present your data with ease.
- **Integrated tutorials** guide new users through the software basics, runlist creation, compensation, and advanced features **saving training time**.
- **Offline mode** lets you create **runlists and experimental design from your desktop** before sitting down at the system.
- **Automation ready** with API for integration with robotics or custom analytical systems.

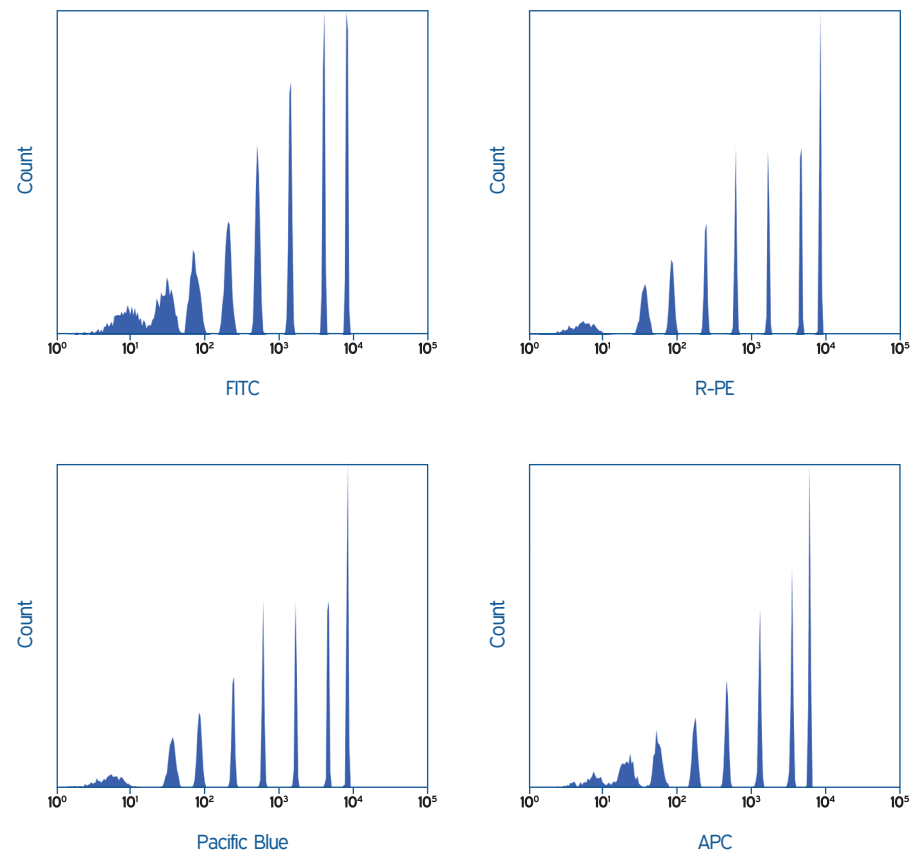


Application Data

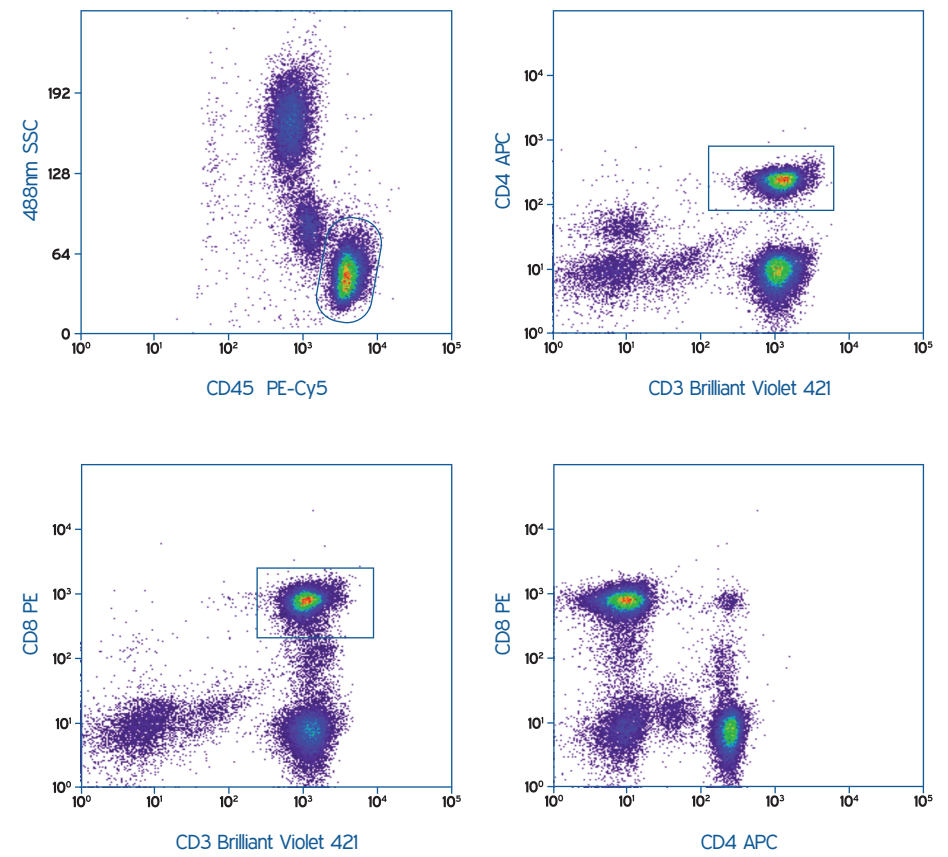
An optical filter layout with consistent path lengths yields **optimal detection and sensitivity for all wavelengths** at each detector.



8-peak bead resolution in key channels



4 color panel run on a 5-laser **YETI** with a 355nm, 405nm, 488nm 561nm, 640nm laser configuration. The panel shown requires no compensation and defines T-cell subsets using lysed whole blood from a normal donor.



Analysis of human blood

Technical Specifications

System	Fluorescence Sensitivity	<100 MESF for FITC, PE, APC
	Scatter Sensitivity	<0.2µm FSC resolution with small particle detection module
	Loader	Integrated sample loader with agitation and temperature control. Up to 384 well plates; 40 tube rack for 5mL 12 x 75mm tube loading. Stat tube position for single tube loading
Optics	Excitation	Up to five spatially separated lasers. Standard options include: 355nm, 50mW 405nm, 100mW 561nm, 50mW 375nm, 50mW 488nm, 60mW 640nm, 100mW
	Detection	Up to 30 detectors including FSC and SSC; optional second FSC detector
	Cuvette	Fused silica with 145 x 265µm channel
Electronics	Speed	>100,000 events per second with all parameters enabled
	Data processing	Simultaneous measured peak, area, and width for every channel. 24 Bit data for peak and area. 17 Bit data for width with high resolution linear interpolation at the half height.
Fluidics	Sample Flow Rates	0.0025-2.5µL/sec
	Bulk Fluids	4 x 4L bulk fluid tanks on board for sheath and waste. On board additive concentrate and cleaner. Optional ports for connecting to house DI and waste.
Installation	Power	95-240VAC, 50-60Hz, <500W
	Dimensions (H x W x D)	26 x 29 x 27 in; 66 x 74 x 69 cm
	Weight	<200 lbs; <90 kg
	Temperature & Humidity	18-25°C; 20-60% RH
	Air & vacuum supply	Included, on-board
Software	Operating System	Windows 7 Pro
	Software	EVO v 1.1
	FCS format	FCS 3.1
	QC	Automated quality control with on-board calibration beads
	Workstation	Intel Core i5-4590 Quad Core; 3.3 GHz; 8 GB RAM DDR 1600 MHz; 1 TB Storage
Regulatory		CE, Class I (I) laser product
		Research Use Only





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