# NAVIOS EX
## CLINICAL FLOW CYTOMETER

**RELIABLE, ACCURATE, EFFICIENT**

**EMPOWER**
*life-changing decisions.*

BECKMAN COULTER
Life Sciences

# BECAUSE EVERY EVENT MATTERS

The Navios EX flow cytometer offers a solution for advanced cytometry applications with workflows for high throughput laboratories. Navios EX delivers more of what matters to your lab—up to 12 parameters for high complexity assays*; sensitivity and resolution; and quality, reproducible results. Robust performance means peace of mind, because when analyzing important samples, every event matters.

With the 10 color capabilities of the Navios EX flow cytometer you can collect additional data points from each sample. This reduces the number of samples to prepare along with the possible errors that go with them.

# NAVIOS EX FLOW CYTOMETER

The Navios EX offers up to three high powered solid state, independently-focused diode lasers with an innovative integrated optics flow cell design. Navios EX is equipped with electronics that provide accurate and efficient digital signal processing at high event rates over a wide dynamic range of fluorescence intensities. These benefits are packaged in a compact analyzer that delivers stable performance over long periods of time and across a wide range of operating temperatures.

- Efficient workflow through automated data management from sample identification through to data reporting
- Up to 12 parameters for identification of populations in complex advanced applications*
- Innovative scatter detection technology provides flexibility for microparticle and dim fluorescent population analysis

| PART NUMBER | 488 nm EXCITATION | | | | | 638 nm EXCITATION | | | 405 nm EXCITATION | |
|---|---|---|---|---|---|---|---|---|---|---|
| | FITC | PE | ECD | PC5.5 | PC7 | APC | APC-A700[1] | APC A750[2] | PB[3] | KrO[4] |
| B47905[5] | • | • | • | • | • | • | • | • | • | • |
| B47904[6] | • | • | • | • | • | • | • | • | | |
| B47903[7] | • | • | • | • | • | • | | | | |

1. APC Alexa Fluor 700 2. APC Alexa Fluor 750 3. Pacific Blue 4. Krome Orange
5. Consisting of A52103 Navios EX 10 colors / 3 lasers, Acquisition Software Kit and Workstation
6. Consisting of A52102 Navios EX 8 colors / 2 lasers, Acquisition Software Kit and Workstation
7. Consisting of A52101 Navios EX 6 colors / 2 lasers, Acquisition Software Kit and Workstation

# WORKFLOW EFFICIENCY FOR CLINICAL LABORATORIES

## Startup

The Navios EX task scheduler warms up the system at a predetermined time so that it is ready to start when you are. The scheduler can also be used to shut down the instrument when a work list has finished for truly walk-away data acquisition.

## Sample Tracking

The Navios EX incorporates four-way on-board barcode identification (Carousel ID, Position ID, Primary Sample ID, and Daughter Tube ID). With the Navios EX Platform it's easy to track and maintain sample identification from order entry to report generation, and to trace sample status in real time. With its single tube vortex capability, sample integrity is maintained throughout the run.

## System Stability

The Navios EX's thermoregulation system maintains the optical area at a consistent temperature, assuring reliable data while minimizing laser downtime and maintaining compensation settings.

## Features

### Instrument reliability

Mean time between failure (MTBF) of 200 days, less than 1 unplanned service call per year

Constant environmental control of temperature and humidity

### Data consistency

Constant sheath pressure for consistent acquisition rate

Individual sample vortexing

### 4-way Sample identification

Built-in bar code scanner allows for identification of Carousel number, tube location, and tube barcode verified to worklist

### Reporting functions

Patient data reporting: Panel report (add patient database), Flowpage, LIS connectivity

QC Monitoring: create custom QC products and track; alignment bead and an assay specific bead product (FlowSet)

## LIS & Middleware Connectivity

The Navios EX is network ready and can be bi-directionally interfaced with Laboratory Information Systems. Bi-directional interface enables you to manage test orders, create work lists automatically, minimize manual data entry, track samples throughout the testing process, and eliminate transcription errors in the reporting process. The system automatically sends test requests and demographic information to the Navios EX, and transmits test results. Additionally, with the ability to map several Navios EX result databases to a networked review station in a centralized database, the system facilitates maximizing instrument usage, allowing review and release of test data offline to the LIS or other middleware solution.[1]

## Patient Data Security

The Navios EX software runs on a Microsoft Windows 10 workstation. Several security features have been included to protect patient data such as use of an encrypted patient database, installation of malware protection, availability of hard drive encryption, and periodic availability ofBeckman Coulter validated Microsoft Windows 10 operating system security updates.

## Increase Uptime with BeckmanConnect

The optional BeckmanConnect software permits remote diagnostic capability. This customer installable option will allow support associates to remotely view and control the instrument computer after the lab user provides a one-time use password. To enroll or learn more about BeckmanConnect visit www.beckman.com/BeckmanConnect

## Standardization

The Navios EX platform is the culmination of 20 years of flow cytometry developments in standardization presented in a 10-color system. The result is a system that automates the standardization workflow using target channels to enable consistent results over time as well as across sites using shared targets.

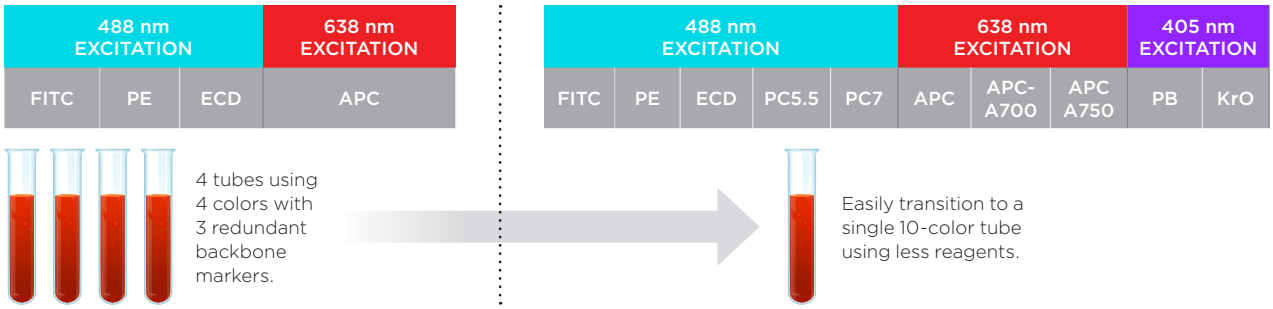
The current state of the art provides:

- Multi-site comparable results
- Assay Quality Assurance
- Day-to-day stability
- Minimized user variability
- Minimized user interactions

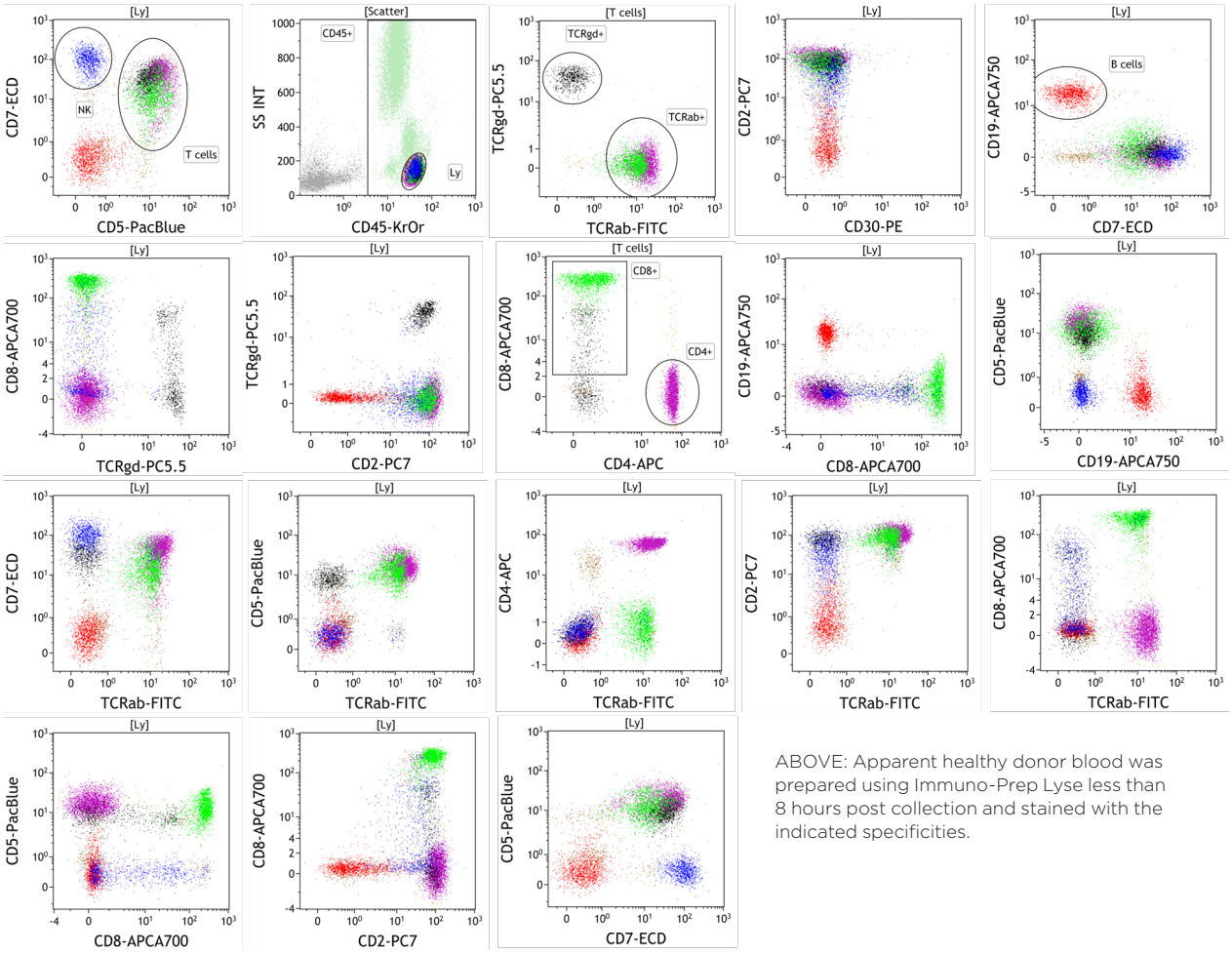
1. Beckman Coulter recommends that all results be reviewed prior to release.

# MORE COLORS, MORE INFORMATION

With the 10-color capability of the Navios flow cytometer you can collect additional information from your assays. When using a 10-color solution, sample preparation is reduced along with possible errors that go with it.




Complex mixtures of populations can be clearly resolved using 10 colors reducing reagent redundancy across tubes.




ABOVE: Apparent healthy donor blood was prepared using Immuno-Prep Lyse less than 8 hours post collection and stained with the indicated specificities.

# RESOLUTION THROUGH INNOVATION

## NAVIOS TETRA SYSTEM

Get the fast answers you need for timely, confident treatment decisions with the proven reliability and precision of Beckman Coulter's Navios tetra system for simultaneous identification and enumeration of T, B and NK lymphocytes in whole blood, available for the Navios EX flow cytometers.

Navios tetra system delivers an easy-to-use solution for multicolor flow cytometric analysis of lymphocyte subsets as well as CD4+ and CD8+ T cell subsets ratios. Navios tetra system's fully automated instrument set-up, easy sample preparation, innovative cluster tracking, and single platform standardization help streamline your workflow. At the same time, the absolute count robustness and on-board quality control tracking helps you make confident treatment decisions. Fully automated instrument set-up using our Flow Check Pro and Flow Set Pro Fluorospheres provides fast automated instrument set up. Reduce sample processing time with ready-to-use pre-optimized reagents that make sample preparation easy and reduce sample handling with no wash protocol and improve laboratory safety.

## ClearLLab 10C System

A Powerful Solution for Optimizing Your Lab's L&L* Workflow

The IVD ClearLLab 10C System is the only FDA cleared and CE marked integrated L&L* immunophenotyping solution which offers all components needed from quality controls, sample preparation, antibody panels to analysis software and training material. The ClearLLab 10C dry pre-mixed antibody panels use the DURA Innovations technology, eliminating the need to pipette antibodies, improving efficiency while reducing potential for human error.

- Four premixed, dry ClearLLab 10-color panels: Lymphoid (B-cells, T-cells), Myeloid (M1, M2)
- Fluorescence standardization and color compensation setup kits
- ClearLLab Control Cells are the first application specific normal and abnormal IVD controls cells as a liquid preparation of stabilized human erythrocytes and leukocytes
- Validated for the use on the Navios EX flow cytometers
- Kaluza C analysis software for data analysis and reporting

Powered By
**DURA Innovations**
Dry Unitized Reagent Assays

* For Non-Hodgkin's lymphoma only

## Beckman Coulter Offer

| Part Number | Description |
|---|---|
| 8547008 | IsoFlow™ Sheath Fluid (4 x 1.8 L) |
| A63493 | Flow-Check Pro Fluorospheres |
| A63492 | Flow-Set Pro Fluorospheres |
| A64669 | FlowClean Cleaning Agent |

## Choose Beckman Coulter for Benchmark Expertise and Innovation

For over 80 years Beckman Coulter has driven innovation. We remain committed to shaping flow cytometry technology to fit seamlessly into your lab's workflow and to provide an optimal user experience. When you choose a Beckman Coulter solution you receive the a high level of expertise, innovation, and quality assurance.

**Contact your local Beckman Coulter sales representative.**

**beckman.com**

** Navios EX is CE marked for 10-color in-vitro diagnostic use. In the U.S., Navios EX is intended for use as an in-vitro diagnostic device for immunophenotyping with ClearLLab 10C, as well as Navios tetra software and CYTOSTAT tetraCHROME reagents. All other uses are for research use only.*

The device is not available for sale in all markets, please contact your Beckman Coulter representative for availability.

CLASS 1 LASER PRODUCT

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FLOW-6845SB05.20

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