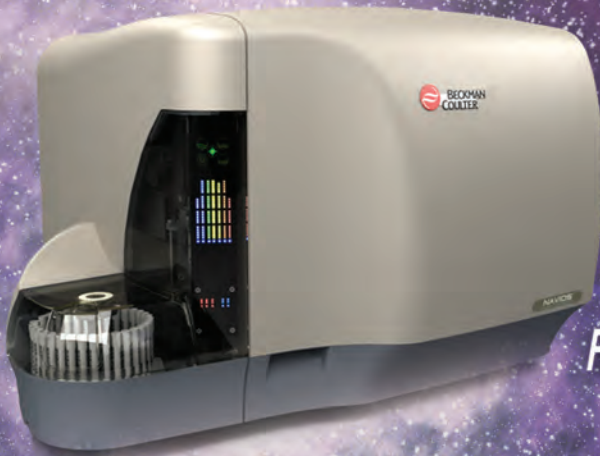


Taking Clinical Flow Cytometry to a new frontier

Navios Flow Cytometer



Chemistry
Lab Automation
Information Systems
Molecular Diagnostics
Immunodiagnosics
Centrifugation
Disease Management
Hematology
Hemostasis
Flow Cytometry
Primary Care

Remote diagnostics

Total automation solution

Powerful, easy-to-use software

Enhanced scatter detection

Fast, accurate, efficient digital electronics

Extraordinary sensitivity and resolution

Fixed, spatial solid state lasers

Up to 10 -color analysis

Flexibility, accuracy and quality

Clinical and clinical research solutions

LIS-ready

Navios* Flow Cytometer Specifications and Performance Characteristics

Optics

Lasers

- Lasers/Power output
 - Blue Solid State Diode, 488nm, 22mW laser output
 - Red Solid State Diode, 638nm, 25mW laser output
 - Violet Solid State Diode, 405nm, 40mW laser output**

Configuration

125 µm spatially separated beam spots

Minimum laser power at flow cell

- Blue >20mW
- Red >20mW
- Violet >30mW**

Flow Cell

150 x 460 micron rectangular quartz

Collection Optics

Gel coupled 1.2 NA lens

Optical filters

- Easy interchangeable optical filters
- Optimal 18 degree reflective optics for minimal light loss

Detector filters

Forward scatter: 488/10

Blue laser: 525/40, 575/30, 620/30, 675/20***, 695/30, 755LP
Dyes: FITC, PE, ECD, PC5 or PEC5.5, PECy7

Red laser: 660/20, 725/20**, 755 LP**

Dyes: APC or Alexa647, APCAlexa700, APCCy7, APCAlexa750

Violet laser**: 450/50, 550/40

Dyes: Pacific Blue, Pacific Orange

Detectors

Forward Scatter Detector

Fourier design providing up to 3 measurements of forward angle

Side Scatter Detector

Independently focused high performance photodiode with electronic attenuation

Fluorescence Detectors

FL1 – FL10 Fluorescent Detectors (7-10 optional**)

Sample Processing

Flow Rates

Continuous pressure is applied to the sample tube based on user selected flow rates.

Low, Medium and High

Sheath consumption

Acquisition: 780mL / hour

Carryover

<0.1%

Compatibility

12 x 75mm tubes

Acquisition Modes

- 32 tube Multi Carousel Loader (MCL)
- Single tube sampling mode
- Automated worklist acquisition
- Manual worklist mode

Mixing

The MCL patented design vortexes each tube individually before sample acquisition

Barcode reading

Carousel number, tube location and tube barcode

Biosafety

Biohazard contained wash station thoroughly rinses sample probe

Fluidics

- 10L IsoFlow external sheath container
- 20L Waste container
- 1.5L FlowClean cleaning fluid tank
- 1.5L Internal sheath tank

Signal Processing

Dynamic range 20-bit data acquisition

Workstation resolution 1,048,576 channels

Digital Sampling rate 40Mhz

Digital Accuracy <5% error

Parameters

- 5 different signals available from each detector: Integral linear and logarithmic, Peak linear and logarithmic and True Time of Flight linear.
- Time, Ratio
- Selection of upto 62 parameters

Performance Characteristics†

Throughput

Throughput of 10k normal lymphocytes is 80 tubes/hour

Up to 88 tubes an hour at 10,000 events per second

Scatter Resolution

Resolves 0.404µm diameter particles from background noise using forward scatter, with maximum detection up to 40µm diameter particles

Fluorescence Sensitivity Threshold Levels

FITC	112 MESF	PE	78 MESF
PECy5	15 MESF	APC	75 MESF

Acquisition Rate

25,000 events per second

Remote Diagnostics

ProService compatible; high speed internet connectivity with optional hardware for remote system monitoring, diagnostics and repair

Workstation (minimum specification)

Operating System	Windows Vista Business
RAM size	4 GB
Processor frequency	Pentium Core™ 2 Duo 2.13GHz
Hard drive	160 GB
Removable media support	DVD 18X, CD 40X
Network ports	3, 2 available for networking
Video card	PCI express x16, 256MB DDR2 64 bit on board memory
Support for 1680 x 1050 resolution dual monitors	
USB ports	8
RoHS	Compliant
Monitor	22 inch flat panel LCD monitor

Installation Requirements

Power	Universal power supply (100-240 VAC, 50-60Hz)
Operating Temperature	16– 32°C (60-90°F)
Noise	Less than or equal 60 db
Physical Dimensions	Cytometer

	kg		lbs	
	104	230	30	67
Weight	cm	in	cm	in
Width	95	38	49.5	19.5
Height	61	24	72.4	28.5
Depth	70	28	29.8	11.75

Ordering Information

Part Number/Description		
A80704	6 colors, 2 lasers	(5+1 configuration)
A80705	8 colors, 2 lasers	(5+3 configuration)
A80706	10 color, 3 lasers	(5+3+2 configuration)

* Pending submission and clearance by U.S. FDA, Canadian licensure and other regulatory registrations. Not yet available for *in vitro* diagnostic use.

** Optionally available depending on upgraded system configuration

*** Optional filter included

† These characteristics can be influenced by a number of factors relating to instrument setup, sample type, number of parameters selected, protocol definition and number of events acquired. Refer to Instrument Instructions for User for more information on Performance Characteristics

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