

# Attune® Acoustic Focusing Cytometer

High speed and precision for faster data collection

## Key performance features include:

- Breakthrough acoustic technology that focuses cells or particles
- Highest sample delivery rates commercially available (up to 1,000 µL/minute)
- User-selectable collection rates
- Equipped with one of two configurations:
  - Blue/Violet: 488 nm (20 mW) and 405 nm (50 mW) lasers
  - Blue/Red: 488 nm (20 mW) and 638 nm (50 mW) lasers
- 8 parameters—6-color detection plus side scatter and forward scatter
- User-changeable bandpass and dichroic filters
- Simplified fluorescence compensation
- Manual and automated compensation
- Adjustable PMT voltage settings
- Detection of up to 20,000 events/sec and 20 million events/file
- Electronic resolution of 6 decades
- Low fluid consumption (about 1 L/day); self-contained fluids
- Countertop instrument—fits on standard lab bench or in laminar flow hood

## System attributes

### Physical characteristics

- Footprint (H x W x D): 16 x 23 x 17 in (40 x 58 x 43 cm)
- Weight: 64 lb (29 kg)
- Operating temperature: 15–30°C
- Operating humidity: <80% noncondensing
- Electrical requirements: 100–240 VAC, 50/60 Hz, <300 W

### Optics

- Excitation lasers: 405 nm (50 mW) and 488 nm (20 mW); 638 nm (50 mW) and 488 nm (20 mW) lasers
- No alignment by customer required

### Fluidics

- Sample rates: 25–1,000 µL/min
- Calibrated delivery volumes for volumetric analysis and absolute cell counts
- Standard and sensitive laser transit times
- Sample loading volume: 100 µL–4 mL per run
- Fluid storage within instrument, with level sensing
- Nominal fluid consumption of 1 L per day
- Designed to accommodate 17 x 100 mm to 8.8 x 45 mm tubes

### Service

Supported by Applied Biosystems® (AB) Assurance Plan, with 48–72 hour response, depending on region.

One-year warranty with purchase of new instrument.

AB Assurance is our premium repair plan designed to maximize instrument performance and ensure availability of critical systems.

AB Assurance will help keep your laboratory running smoothly with preventive maintenance and fast response should one of your instruments require repair. This plan is ideal for laboratories that depend on their instruments and need to reduce the risk of production downtime.

### Key features:

- Planned maintenance visit(s)
- Priority phone and email access to instrument technical support
- Phone and email access to application technical support

### Computer

Minitower Windows® XP with 24-inch flat panel monitor

### Electronics

- Data acquisition up to 20,000 events/sec
- Resolution of at least 6 decades
- User-adjustable PMT voltage
- Flash upgradeable firmware

### Performance

Sensitivity: MESF (Mean Equivalent Soluble Fluor) FITC <100 PE <50

### Regulatory

Research use only; CE-, UL-, RoHS-compliant

### Attune® Cytometric Software

Controls instrument for acquisition and analysis (width, height, and area measurements for all scatter and fluorescent channels). Analysis features include overlay plots, backgates, and customized parameters.

- Up to 20 million events per file.
- No software licensing fees
- Output file format: FCS 3.0
- Live gating with automatic saving
- User and administrator log-in

### Regulatory

Research use only; CE-, UL-, RoHS-compliant

### Attune® Cytometric Software

Software controls instrument for acquisition and analysis (width, height, and area measurements for all scatter and fluorescent channels).

Analysis features include overlay plots, backgates, and customized parameters.

- Up to 20 million events per file.
- No software licensing fees
- Output file format: FCS 3.0
- Live gating with automatic saving
- User and administrator log-in

Detectors	Filter (center/bandpass)	Filter range	Designed to detect
Forward scatter (FSC) and side scatter (SSC)			
BL1 (off 488 nm laser on B/V and B/R*)	530/30	515–545	Alexa Fluor® 488, Fluorescein, Calcein, Fluo-3/Fluo-4, TO-PRO®-1 iodide CFSE, GFP, JC-1/DiOC <sub>2</sub> (3), SYTOX® Green, DyeCycle™ Green, Rhodamine 123, YO-PRO®-1 Iodide, Fixable Green Dead Cell Stain, Click-iT® Alexa Fluor® 488
BL2 (off 488 nm laser on B/V and B/R*)	574/26	561–587	PE, PI, Fura Red™ AM cell permeant, DyeCycle™ Orange, JC-1/DiOC <sub>2</sub> (3), pHrodo™ Phagocytosis Particle Labeling Kit, SNARF® (low pH), SYTOX® Orange Dead Cell Stain
BL3 (off 488 nm laser on B/V*)	640LP	>640	PE-Alexa Fluor® 610, PerCP, PE-Alexa Fluor® 700, PE-Cy® 5.5, TRI-COLOR® antibody, PerCP-Cy®5.5, PE-Cy®7, PE-Alexa Fluor® 750, Qdot® 655, Qdot® 705, Qdot® 800, JC-1/DiOC <sub>2</sub> (3), Fixable Red Dead Cell Stain, 7-AAD, SNARF® (high pH) isomers, SYTOX® AADvanced™ Dead Cell Stain, DyeCycle™ Ruby
BL3 (off 488 nm laser on B/R*)	690/50	665–715	Qdot® 705, PerCP, TRI-COLOR® (TC, PE-Cy®5), PerCP-Cy®5.5, PE-Cy®5.5, Vybrant® DyeCycle™ Ruby
BL4 (off 488 nm laser on B/R*)	780/60	750–810	Qdot® 800, PE-Cy®7, Vybrant® DyeCycle™ Ruby, PE-Alexa Fluor® 750
RL1 (off 638 nm laser on B/R*)	660/20	650–670	Allophycocyanin (APC), Alexa Fluor® 647, Fixable Far Red Dead Cell Stain, Click-iT® Alexa Fluor® 647, FxCycle™ Far Red, SYTOX® Red Dead Cell Stain, TO-PRO®-3
RL2 (off 638 nm laser on B/R*)	780/60	750–810	APC-Alexa Fluor® 750, APC-Cy®7, APC-H7, Fixable Near-IR Dead Cell Stain, Vybrant® DyeCycle™ Ruby
VL1 (off 405 nm laser on B/V*)	450/40 nm	430–470	Pacific Blue™, Alexa Fluor® 405, PO-PRO™-1, DyeCycle™ Violet, Fixable Violet Dead Cell Stain, CellTrace™ Violet, Calcein Violet, SYTOX® Blue, FxCycle™ Violet, Click-iT® Pacific Blue™
VL2 (off 405 nm laser on B/V*)	522/31 nm	507–537	Qdot® 525, BD Horizon™ V500, Fixable Aqua Dead Cell Stain, F2N12S (apoptotic)
VL3 (off 405 nm laser on B/V*)	603/48 nm	579–627	Pacific Orange™, Qdot® 605, F2N12S (live)

\*B/V: blue/violet configuration, B/R: blue/red configuration

Life Technologies offers a breadth of products DNA | RNA | PROTEIN | CELL CULTURE | INSTRUMENTS

For Research Use Only. Not intended for any animal or human therapeutic or diagnostic use.

© 2011 Life Technologies Corporation. All rights reserved. The trademarks mentioned herein are the property of Life Technologies Corporation or their respective owners. BD Horizon is a trademark of BD Biosciences. Cy is a registered trademark of GE Healthcare. Printed in the USA. C023645 0811

