

BD Accuri™ C6 Plus Flow Cytometer

Technical specifications



The **BD Accuri™ C6 Plus flow cytometer** is easy to use, simple to maintain and affordable.

Small and easily transportable, the BD Accuri C6 Plus cytometer measures 11 x 14.75 x 16.5 in. (27.9 x 37.5 x 41.9 cm) (H x W x D) and weighs just 30 pounds (13.6 kg). It is small enough to easily fit on a benchtop, and can be placed in a laminar flow hood. The system is equipped with a blue laser and a red laser, two scatter detectors and four fluorescence detectors with interference filters optimized for the detection of FITC, PE, PerCP-Cy™5.5 and APC. A compact optical design, fixed alignment and pre-optimized detector settings make the system easier to use.

A unique low-pressure pumping system drives the fluidics. A sheath-focused core enables event rates of up to 10,000 events per second and a sample concentration over 5×10^6 cells per mL. The optional BD CSampler™ Plus accessory streamlines sample processing with reliable and easy-to-use automation.

BD Accuri™ C6 Plus software has an intuitive user interface designed with the researcher in mind. The tabbed interface provides quick access to the collection, analysis and statistics functions. Analysis can be performed on the BD Accuri C6 Plus flow cytometer or can be exported into third-party programs such as FCS Express™ or FlowJo™.

Optics

Laser Excitation

488 nm, 640 nm

Laser Profile

10 x 75 μ m

Light Scatter Detection

Forward (0°, \pm 13°)

Side (90°, \pm 13°)

Emission Detection

Four colors, user-changeable optical filters

Standard set installed:

- FL1 533/30 nm (eg, FITC/GFP)
- FL2 585/40 nm (eg, PE/PI)
- FL3 >670 nm (eg, PerCP, PerCP-Cy5.5, PE-Cy™7)
- FL4 675/25 nm (eg, APC)

Optical Alignment

Fixed alignment

Fluidics

Flow Cell

200- μ m ID quartz capillary

Minimum Detectable Particle Size

0.5 μ m

Minimum Sample Volume

50 μ L

Pre-Set Flow Rates and Core Sizes

Slow: 14 μ L/min, 10- μ m core

Medium: 35 μ L/min, 16- μ m core

Fast: 66 μ L/min, 22- μ m core

Custom Sample Flow Rates

10–100 μ L/min

Custom Core Diameter

5–40 μ m

Recommended Sheath Fluid

0.2- μ m filtered DI water with BD™ Sheath Additive

Maximum Events Per Sample

1 million events

Fluid Bottle Capacity

2-L sheath fluid

2-L waste

250-mL cleaner

250-mL decontamination fluid

Performance

Fluorescence Sensitivity, MESF*

FITC <75; PE <50

Scatter Resolution

Resolves human peripheral blood lymphocytes, monocytes and granulocytes

Fluorescence Linearity

2 \pm 0.05% for chicken erythrocyte nuclei (CEN)

Fluorescence Precision

<3% CV for CEN

Data Acquisition Rate

Up to 10,000 events/second

Signal Processing

24-bit data path

Data Management**

Workstation Specifications

Dell OptiPlex 7450 All-in-One Desktop

Processor and Memory

Intel® i7 6700 3.4 GHz Quad Core, 8MB with HD graphics 530

8 GB (1 x 8 GB) 2,400 MHz DDR4

Hard Drive and Data Storage Options

500-GB 2.5-inch Serial ATA (7,200 RPM)

8x Slimline DVD+/-RW Drive

Display and USB Ports

23-inch Wide Viewing Angle, Full HD 1,920 x 1,080 resolution with anti-glare coating

8 USB ports (2 USB 3.0 side, 4 USB 3.0 and 2 USB 2.0 rear)

Networking

Intel Dual Band Wireless-8260 (802.11ac)

Bluetooth 4.1

Operating System

Microsoft® Windows® 7 Professional English, 64 bit

BD Accuri C6 Plus Software

Minimum Run Requirements

64-bit Microsoft® Windows® 7

Minimum screen resolution 1,280 x 1,024

8 GB RAM

CD or DVD ROM

26 GB of free hard disk space

3 USB 2.0 or USB 3.0 ports

Computer Interface

USB 2.0 or USB 3.0

*MESF values determined using Thermo Scientific Cyto-Cal™ Multifluor Plus Violet Beads.

**Minimum configuration listed. Workstation may include upgraded specifications.

Installation Requirements

Power Requirements

100–240 VAC, 50/60 Hz

Typical Power Consumption

154 VA

Heat Output

240 BTU/hour maximum output

Operating Ranges

15–30°C; <80% relative humidity

Instrument Size (H x W x D)

11 x 14.75 x 16.5 in. (27.9 x 37.5 x 41.9 cm)

Footprint with Fluid Bottles (H x W x D)

11 x 21.5 x 16.5 in. (27.9 x 54.6 x 41.9 cm)

Weight

30 lb (13.6 kg)

Options

BD CSampler Plus Accessory

Power Requirements

No additional power necessary

Software Requirements

BD CSampler™ Plus software

Compatible Plate Types

Standard 96-well plates (flat, round and v-bottom)

Deep-well 96-well plates

48-well plates

Plates manufactured to the guidelines published by the American National Standards Institute, submitted by the Society for Biomolecular Screening, should be compatible with the BD CSampler Plus.

12 x 75-mm tubes can also be accommodated using the supplied 24-tube rack.

Space Requirements

Minimum bench depth 28 in. (71 cm)

Minimum width (cytometer with BD CSampler Plus) 19.5 in. (49.5 cm)

Processing Time

<90 minutes for 96-well plate, utilizing 30-second acquisition time per well

Weight

7 lb (3.2 kg)

Minimum Sample Volume

50 µL for tubes or plates

Wash Cycle

Up to 3 wash cycles per well

Agitate Cycle

Up to 3 agitate cycles per well

Class 1 Laser Product.

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