

BD Accuri™ C6 Plus Flow Cytometer

Technical specifications



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

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-Cy5.5 and APC. A compact optical design, fixed alignment and pre-optimized detector settings make the system easier to use.

A 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 is 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-Cy7)
- 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.
For Research Use Only. Not for use in diagnostic or therapeutic procedures.

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