

# 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  $5 \times 10^6$  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  $\mu$ 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- $\mu$ m ID quartz capillary

### Minimum Detectable Particle Size

0.5  $\mu$ m

### Minimum Sample Volume

50  $\mu$ L

### Pre-Set Flow Rates and Core Sizes

Slow: 14  $\mu$ L/min, 10- $\mu$ m core

Medium: 35  $\mu$ L/min, 16- $\mu$ m core

Fast: 66  $\mu$ L/min, 22- $\mu$ m core

### Custom Sample Flow Rates

10–100  $\mu$ L/min

### Custom Core Diameter

5–40  $\mu$ m

### Recommended Sheath Fluid

0.2- $\mu$ 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

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