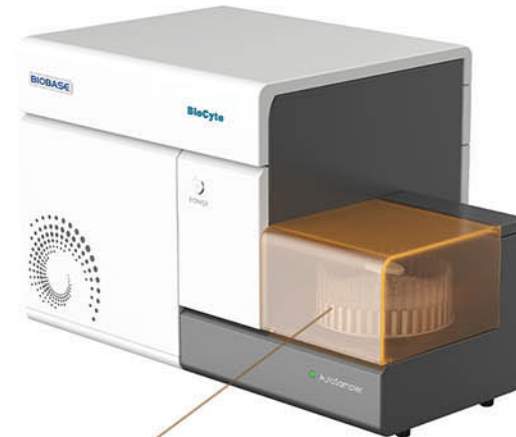


# Flow Cytometer

## BioCyte-B5R3/BioCyte-B5R3V7

### Introduction:

Flow cytometer is a high-precision analytical instrument widely used in life sciences, medicine, immunology, and other fields. It integrates fluid mechanics, optics, electronics, and computer technology to rapidly analyze and sort individual cells (or particles) in a liquid suspension. By detecting scattered light signals and fluorescent signals from cells labeled with specific probes, the instrument can quantitatively measure multiple physical and chemical properties of cells (such as size, granularity, surface antigens, and intracellular components) at a speed of thousands to tens of thousands of cells per second, enabling high-throughput, multi-parameter, and non-destructive cellular analysis.



The autosampler is optional

### Features:

#### Configuration Upgrade

Up to 3 lasers and 15 fluorescent channels are configured, with a maximum of 18 detection parameters for BioCyte-B5R3V7

#### Powerful Function

High resolution, high sensitivity and high stability

#### Automatic

Full-automatic detection process, synchronous collection/analysis

#### Automatic Analysis

Automatic fluorescence compensation adjustment function based on database, without changing the acquisition conditions

#### Absolute Counting

The absolute counting method based on the volume method of plunger pump is more accurate

#### Injection Options

The autosampler supports 40-tube Rotary/96-well microplate, which is simple and efficient

### BioCyte Design Innovation

#### New WDM splitter module

The new WDM splitter module not only reduces the number of filters used but also reduces energy loss, further improving the sensitivity of fluorescence detection

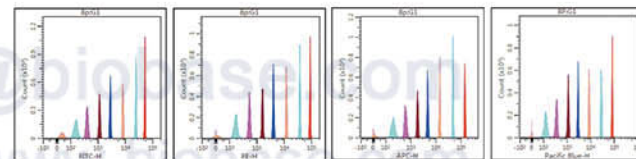


New autosampler with mixing function

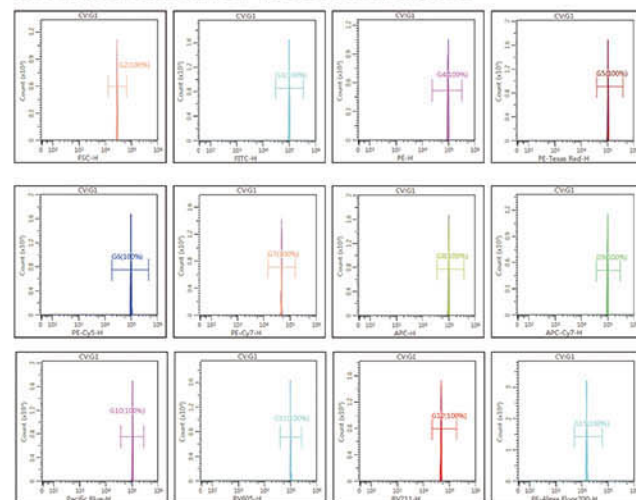
Highly efficient and time-saving, compatible with 40-tube rotary/96-well microplate autosampler

### High sensitivity and high resolution

Fluorescence sensitivity of Rainbow calibration particles (8 peaks)



### Resolution of Rainbow fluorescent particles

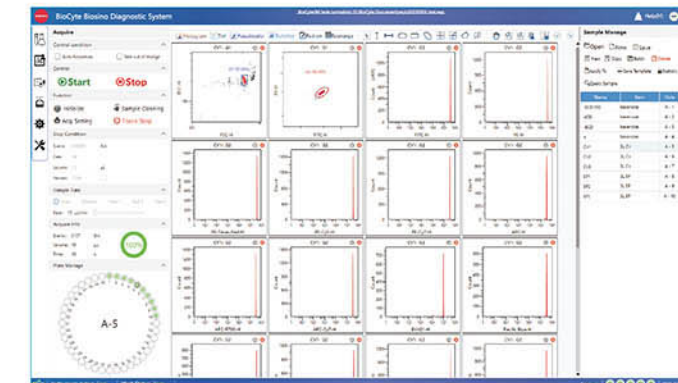


BioCyte-S-01/40 40-tube rotary autosampler(Optional)



BioCyte-S-96L-A/0 96-well microplate autosampler(Optional)

BioCyte-S-01-A/0 autosampler main body must be optional when selecting BioCyte-S-01/40 or BioCyte-S-96L-A/0



### Software Features

Chinese and English software, easy to learn and operate, can be switched freely

Modular design, fully automatic detection, simultaneous acquisition and analysis

One-click import of templates, custom editing reports based on needs

Automatic fluorescence compensation adjustment function, no need to change acquisition conditions

### BioCyte Flow Cytometer Main applications

#### Oncology and Hematology

- Analysis of 6-color human peripheral blood immune cell subsets
- Analysis of 9-color human peripheral blood immune cell subsets
- Detection of dendritic cells (DC)
- Phenotypic characterization of natural killer cell(NK) populations
- Characterization of PBMC T cell receptors
- Detection of CD62P Platelet Activation

#### Immunology

- Detection of T cell proliferation(CFSE)
- Detection of B-cell antibody class
- NK cell-mediated clearance of spleen cells
- Detection of Treg cell subsets

#### Stem Cells

- Flow cytometry analysis of hematopoietic stem cells from mouse bone marrow
- Detection of CAR-T extracellular tumor killing
- Analysis of mesenchymal stem cells from bone marrow and endometrium of mice
- Flow cytometry analysis of mouse hematopoietic progenitor cells

#### Cell Biology

- Cell activity test
- Cell cycle detection
- Cell proliferation detection
- Cell apoptosis detection

#### Oceanography

- Detection of quantity, size and morphology of marine microorganisms
- Detection of DNA content in marine microorganisms
- Determination of Liposome Content in Marine Microalgae
- Detection of marine bacterial activity and membrane integrity

#### Environmental Monitoring

- Flow cytometric detection of bacterial life and death
- Absolute count of virus, bacteria and algae
- Detection of bacterial periodic ploidy
- Algae classification and counting

#### Clinical

- Lymphocyte subgroup analysis
- HLA-B27 detection
- Monocyte HLA-DR detection
- Detection of neutrophil CD64
- Regulatory T cell detection
- T cell activation and diseases
- Th1 Th2 detection
- Th17 cell detection
- Blocking Antibody Detection
- Cytokine detection
- Platelet-leukocyte adhesion
- Platelet autoantibody detection
- Platelet activation and diseases
- Paroxysmal nocturnal hemoglobinuria
- Leukemia immunotyping test
- Detection of residual focus of leukemia
- MDS immune typing
- Hematopoietic stem cell count
- Lymphoma immunotyping
- Detection of cell cycle and ploidy

Flow Cytometry Laser/Channel/Fluorochrome Configuration Table:

Laser Wavelength	Channel	Filter	Recommended Fluorescent Dyes	BioCyte-B5R3V7	BioCyte-B5R3
488nm	BL1	525/40	FITC, EGFP, BB515, Alexa Fluor 488	✓	✓
	BL2	575/30	PE, DsRed	✓	✓
	BL3	620/30	PE-Texas Red, ECD, PE-CF594, PI, 7-AAD	✓	✓
	BL4	697/60	PerCP, PE-Cy5, PerCP-Cy5.5, PE-Cy5.5, BB700, PerCP-eFluor710	✓	✓
	BL5	780/60	PE-Cy7, PE-Alexa Fluor 750	✓	✓
638nm	RL1	670/20	APC, Cy5, Alexa Fluor 647	✓	✓
	RL2	720/40	APC-R700, Alexa Fluor 680, Alexa Fluor 700	✓	✓
	RL3	780/60	APC-Cy7, APC-eFluor780, APC-H7	✓	✓
405nm	VL1	425/20	BV421	✓	/
	VL2	460/40	Pacific Blue, V450, BV480	✓	/
	VL3	525/40	BV51, V500	✓	/
	VL4	605/40	BV605	✓	/
	VL5	660/40	BV650	✓	/
	VL6	720/40	BV711	✓	/
	VL7	780/60	BV786, BV750	✓	/

Parameters:

Model	BioCyte-B5R3	BioCyte-B5R3V7
Software	English/Chinese	
PC	CPU i5/16G DDR4/1T hard disk+27 inches monitor	
Power Supply	AC220/110V±10%, 50/60Hz	
External Size(W*D*H)	530*450*470mm	
Net Weight	35kg	
Packing Size(W*D*H)	Main Instrument: 860*575*720mm	
	Accessories: 860*680*810mm	
	Reagent: 380*280*320mm	
Gross Weight	Main Instrument: 67kg	
	Accessories: 53.5kg	
	Reagent: 16kg	

Recommended Reagent Information:

Item	Recommended Reagent	Application Department
Lymphocyte Subset T Analysis	CD45 CD4 CD3 CD8	Clinical Laboratory Infectious Disease Department Oncology Department Department of Rheumatology and Immunology Department of Pediatrics Blood Specialty
	CD45 CD3 CD16 CD56 CD19	
Absolute Count of CD4+T Lymphocyte	CD45; CD4 CD3; CD8	CDC (AIDS) Infectious Disease Department
Cytokine Th1/Th2/Th17 Analysis	Th1: IL-2, IFN-γ, TNF-α Th2: IL-4, IL-6, IL-10 Th17: IL-17	Infectious Disease Department Oncology Department Department of Rheumatology and Immunology Department of Organ Transplantation Respiratory Department
	HLA-B27-FITC HLA-B7-PE IgG2a-FITC IgG1-PE	Department of Rheumatology and Immunology Orthopedics
DFI Analysis	Acridine orange (AO) Staining Solution	Reproductive Department; Infertility Department Reproductive Medicine Centre