BIOTECH中生

Research flow cytometer solution

SinoCyte Flow cytometer

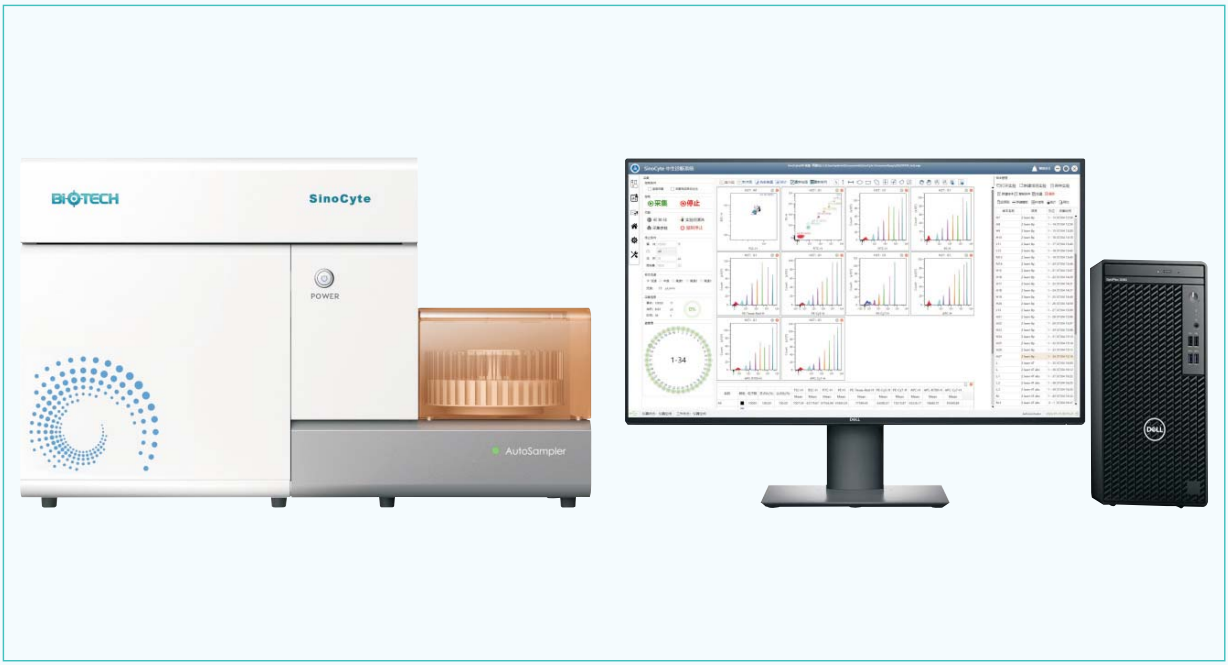
A new generation of high-end intelligent flow cytometer

Boost your research

Biosino (Suzhou) Medical Technology Inc

SinoCyte Flow cytometer

We are committed to building a high-end flow cytometer for scientific research and testing, and strive to become a professional flow cytometry system solution provider and leader.
The operation of SinoCyte flow cytometry is simple and efficient, and the detection results are accurate, boosting your research.

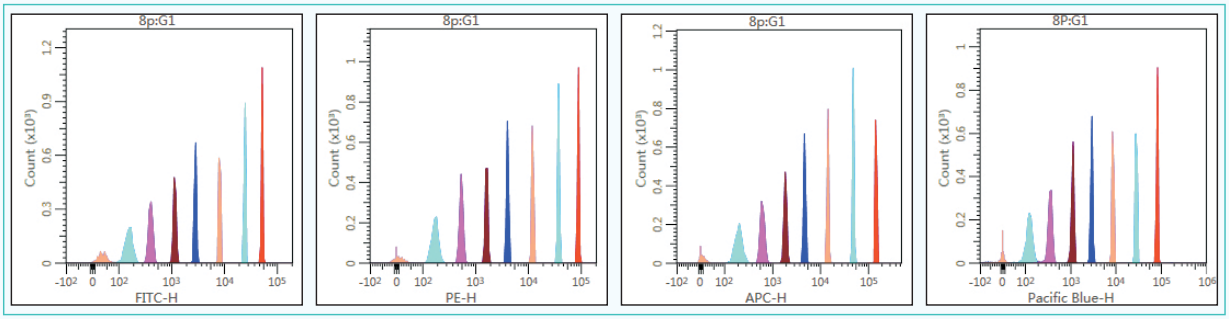


- **Configuration upgrade** → Up to 3 lasers and 15 fluorescent channels are configured, with a maximum of 18 detection parameters
- **powerful function** → High resolution, high sensitivity and high stability
- **Automatic** → Full-automatic detection process, synchronous collection/analysis
- **Quick loading** → Up to 50000 events/s injection speed, greatly improving injection efficiency
- **automatic analysis** → Automatic fluorescence compensation adjustment functionbased on database, without changing the acquisition conditions
- **Absolute count** → The absolute counting method based on the volume method of plunger pump is more accurate
- **Injection options** → The automatic sampler supports 40 tubes auto sampler/96 holes plate, which is simple and efficient

SinoCyte Flow cytometer–High sensitivity and high resolution

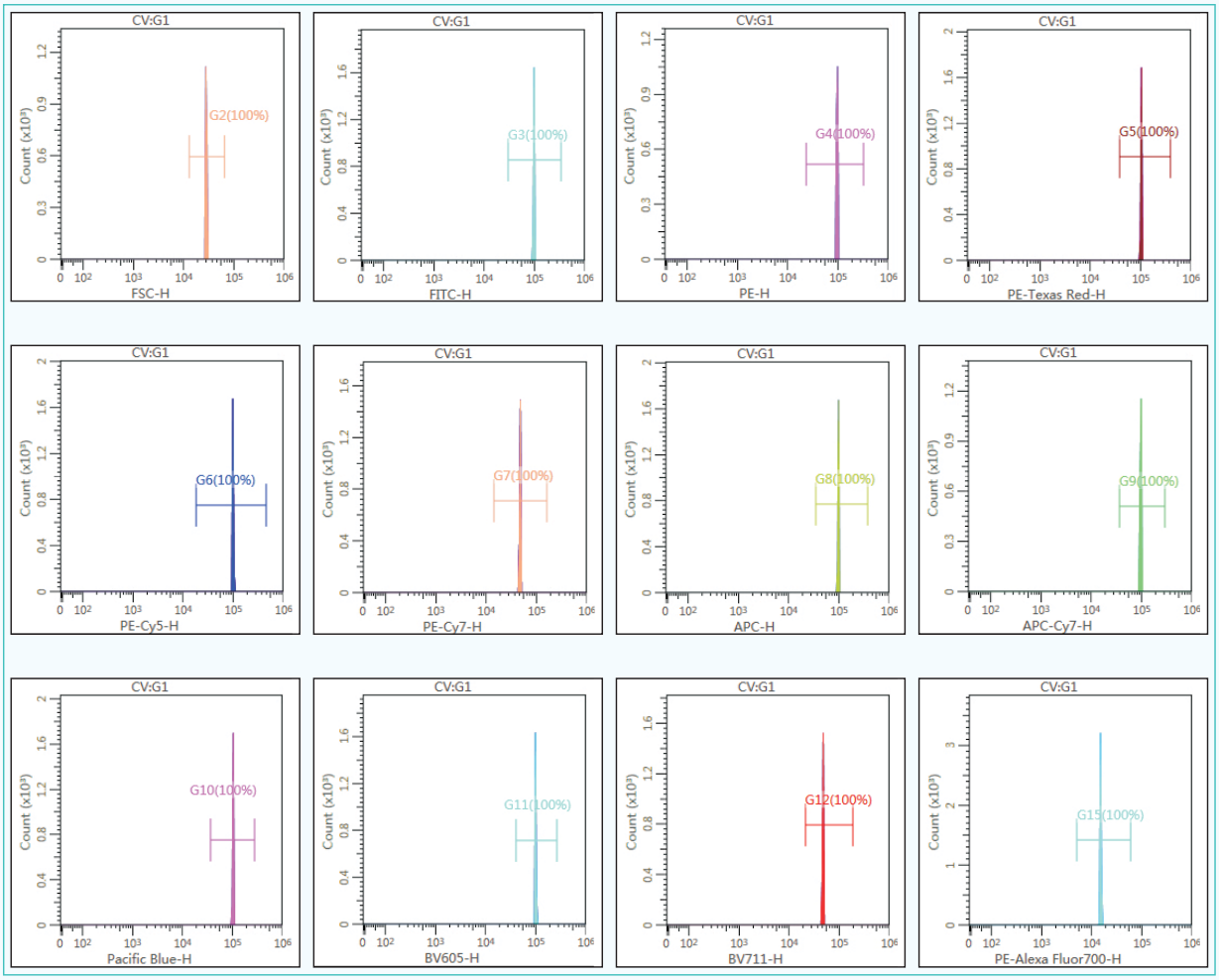
Fluorescence sensitivity of eight-peak rainbow microsphere:

FITC<50MESF，PE<30MESF，APC<30MESF



Resolution of single-peak rainbow microsphere detector:

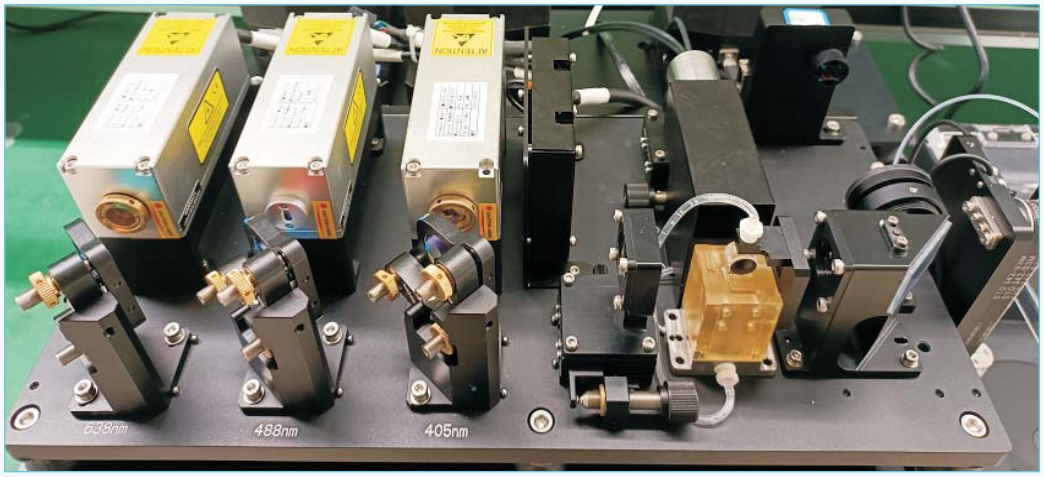
CV＜2%



SinoCyte Flow cytometer–Design innovation

New elliptical spot laser

The external beam shaping of the laser is extremely simple. The polychromatic laser beam shares a focus lens, and the optical path is stable and reliable.



New WDM beam splitter module

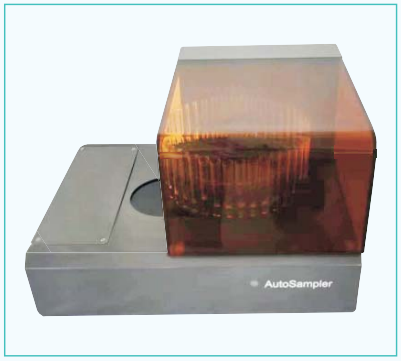
Only one dichroic filter is used in each WDM, and the subsequent spectral separation is based on the transmission characteristics of the band–pass filter inside the band and the reflection characteristics of the band–pass filter outside the band, which not onlyreduces the number of filters used, but also reduces the energy loss, and further improves the fluorescence detection sensitivity.

8 Channels WDM

SinoCyte Flow cytometer–Design innovation

Plunger pump sample injection system

Precise sample injection ensures the accuracy of absolute counting by volume method



New automatic sampler with mixing function

40 tubes auto sampler/96 holes plate

High efficiency

40 Test tube samples can be tested within 30mins

96 hole samples can be tested within 40mins

Injection probe with rinsing swab

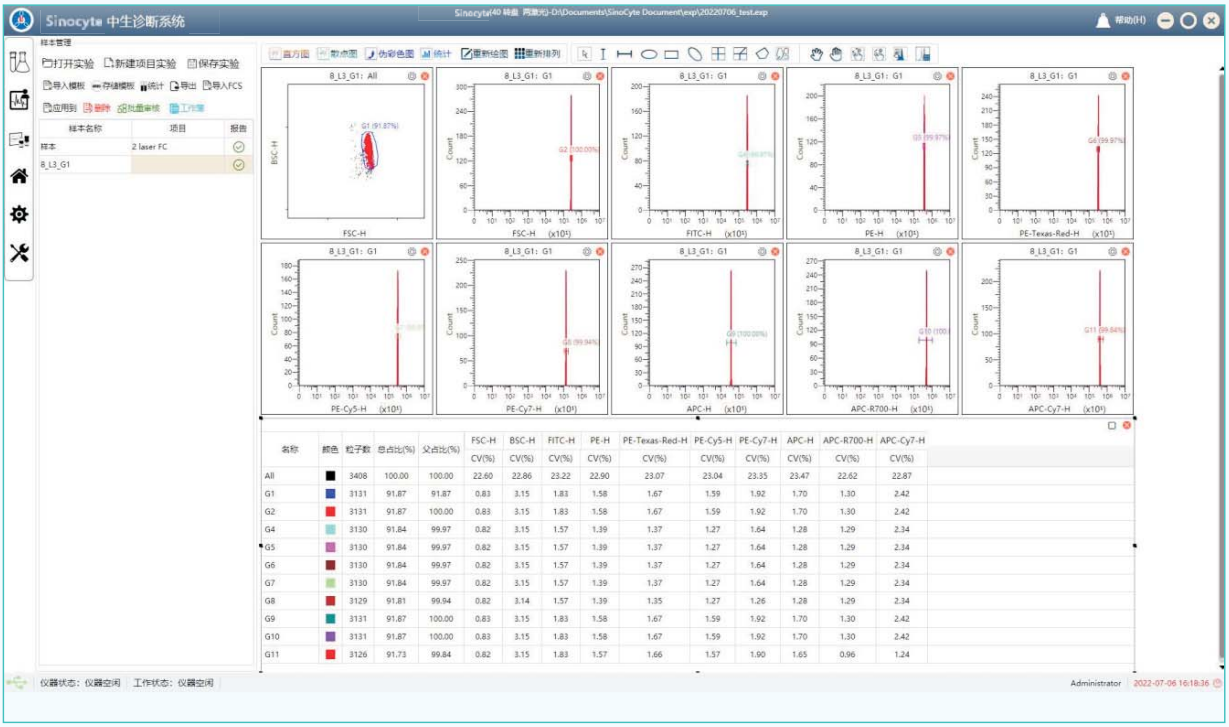
The inner and outer walls of the injection probe can be cleaned at the same time, effectively reducing the probability of needle plugging

Automatic cleaning between experiments can effectively reduce the cross contamination rate < 0.1%

SinoCyte Expert Software

Software Interface

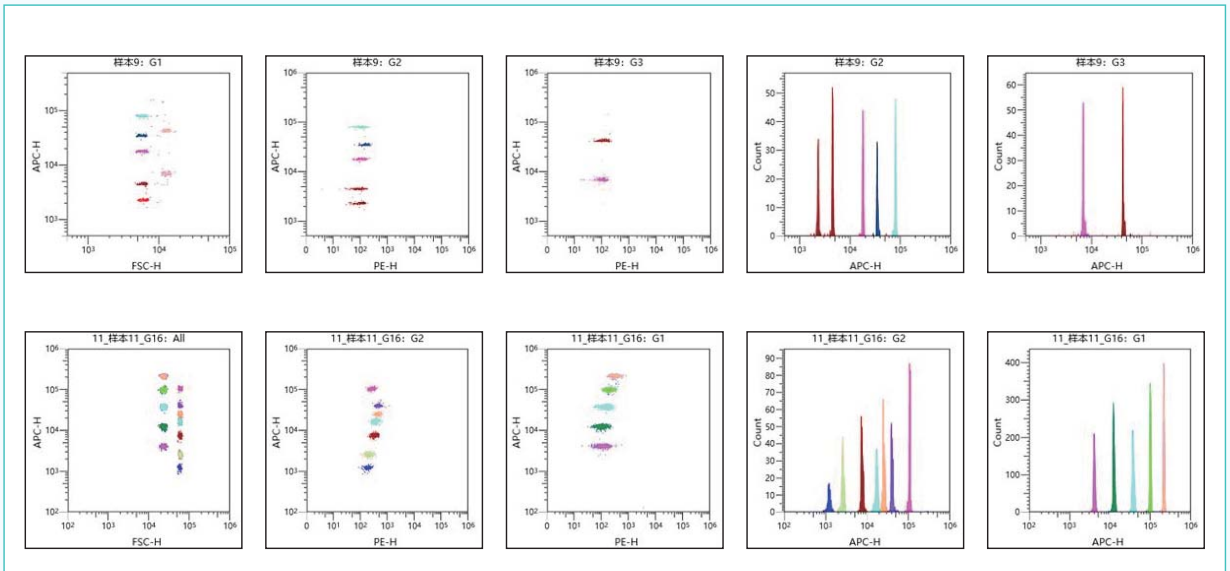
Software analysis interface



SinoCyte Flow cytometer test items graphic example

Detection of 6-color lymphocyte subgroup TBNK

Cytokine 7 factor/12 factor detection



SinoCyte 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 bacteriallife 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 no0cturnal 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

SinoCyte Flow cytometer-Laser and fluorescent channel configuration

Laser wavelength	channel	filter	Recommended Fluorescent Dyes	3 lasers (Max) 15 colors	2 lasers (Max) 8 colors	1 laser (Max) 5 colors
488nm	BI1	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	BV510、V500	√		
	VL4	605/40	BV605	√		
	VL5	660/40	BV650	√		
	VL6	720/40	BV711	√		
	VL7	780/60	BV786、BV750	√		

SinoCyte Flow cytometer-Technical Parameters

Name	Main parameter indicators
Laser configuration	Up to 3 lasers 405nm（100mW），488nm（60mW），638nm（80mW）
Instrument resolution	＜2%
Fluorescence detection limit	FITC＜50MESF； PE＜30MESF； APC＜30MESF
Fluorescence linearity	≥0.99
Detector	APD Detector
Forward scattered light resolution	＜0.45μm
Detection particle range	0.2-50μm
Carryover rate	＜0.1%
Absolute count	Compatible with volumetric and microsphere absolute counting
Detection speed	>50000 events/s
Signal range	Maximum10^7
Injection speed	Low：15μL/min； Medium： 30μL/min； High 1：60μL/min； High 2： 90μL/min； High 3： 120μL/min Adjustable speed range：15-120μL/min
Threshold setting	Supports dual thresholds to minimize cell debris
Fluorescence compensation	Support automatic online compensation, offline compensation and visua compensation tools
Project template	Support project template function, one-click calling of acquisition conditions/fluorescence compensation information
Instrument quality control	Automatic daily QC inspection, tracking and recording through Levery-Jennings
Injection mode	Single tube manual sampling
	40 tubes auto sampler with single sample mixing function
	96-hole plates
Software	English interface, support acquisition and analysis at the same time
File format	Support FCS3.1/FCS3.0 and FCS2.0 format files
Maintenance method	Startup initialization, startup cleaning, cleaning between experiments, shutdown cleaning, exhaust bubble, etc
	Automatic maintenance procedure for monthly cleaning (deep cleaning)
Computer configuration	DELL/CPU I5/Memory 8G/HDD 1T/27 inch monitor
Size and weight	760mm*450mm*470mm(length*width*height)，40KG

After-sales service

Free application training

Regular after-sales service

Active care service

Professional technical support

BIOTECH will continue to launch more new flow cytometer products to serve our customers!

ZS-AE7S Clinical flow cytometer

(Maximum configuration single laser 5 colors)

(Product registration No.: 20182400723)

SinoCyte Scientific research flow cytometer

(Up to 3 laser 15 colors, manual sample loading)

SinoCyte Scientific research flow cytometer

(Up to 3 laser 15 colors, automatic sample loading)

Professional Flow Cytometer Manufacturer

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