

Main technical parameters

Semiconductor laser	High-power semiconductor laser with three-dimensional separation and TEC thermostatic control (25±0.3°C)	
Stable optical system	Independent optical fiber conduction, branch-shaped APD detector, TEC thermostatic control (25±0.3°C); Enclosed optical path system, avoiding dust interference	
Superior instrument performance	Fluorescence resolution	CV < 2.0%
	Carry-over rate	<0.05%
	Detectable particle diameter	0.1 ~ 50 μm, With VSSC capable of detecting particles smaller than 80 nm
Robust software system	Operating language	English and Chinese
	Fluorescence compensation	Full matrix compensation, supporting offline/online compensation, quick compensation, automatic compensation, and import/export of compensation library
	Voltage and threshold	Adjusted by default or freely
	Quality control and calibration	One-touch automatic QC to monitor the resolution of each fluorescent channel and the stability of median fluorescence intensity (MFI); Levey-Jennings graph tracks and monitors instrument performance
	Intensity quality control	Ensure that the relative deviation between the MFI of each assay result and the target value is less than 3%, realize the standardization and quality control of each assay item, and eliminate the error between different batches of machines to guarantee the reliability of the assay results
	Periodic fitting	One-touch periodic fitting of RCS, Mean, CV, and G2/G1 ratio with clear and intuitive results
	Absolute counting	Compatible with volumetric method and microsphere method for absolute counting
Audit trail	21 CFR Part 11	

Commonly used dyes

Laser	Channel	Fluorescent channel	Commonly used dyes
488nm	BL1	530/30BP	FITC,Alexa Fluor 488,CFSE,Fluo-3
	BL2	690/50BP	PerCP,PC5,PC5.5,PerCP-Cy5.5
638nm	RL1	660/20BP	APC,Alexa Fluor 647,eFluor 660
	RL2	710/20BP	APC-AlexaFluor 700,AlexaFluor700
	RL3	780/60BP	APC-Cy7,APC-AlexaFluor750,APC-H7,APC-eFluor780
561nm	YL1	585/20BP	PE,PI,DsRed,tdTomato
	YL2	610/20BP	mCherry,ECD,PE-CF594
	YL3	667/30BP	PC5.5, PC5,PerCP,PerCP-Cy5.5, PI
	YL4	780/60BP	PC7
405nm	VL1	450/50BP	Pacific Blue,V450,eFluor 450,BV421
	VL2	530/30BP	KromeOrange,AmCyan,V500,BV510
	VL3	610/20BP	Violet610,BV605,Qdot 605
	VL4	660/20BP	Violet660,BV650,Qdot 655



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Colorful World, Beautiful Life



Four-Laser Nano-particle Flow Cytometer

A powerful and exclusive research tool



FongCyte™ S Series

Beijing Challen Biotechnology Co., Ltd.

Colorful World
Beautiful Life

FongCyte™ S Series Flow Cytometer

To keep up with the expanding applications in single cell, protein and gene fields, the FongCyte™ S, as an upgraded version of the FongCyte™ series flow cytometer, features the new 561 nm all-solid-state laser and violet side scatter channel (VSSC) on top of the excellent performance of FongCyte™, pushing the domestic flow cytometry to a new level. The FongCyte™ S is equipped with 4 lasers including 488 nm, 638 nm, 405 nm and 561 nm, providing researchers with up to 13-color parameters for analysis. In addition, the FongCyte™ S series flow cytometer support customization of special lasers to create your own flow cytometer, which could greatly facilitating scientific research and bringing infinite possibilities for the research prospects.

Product advantages

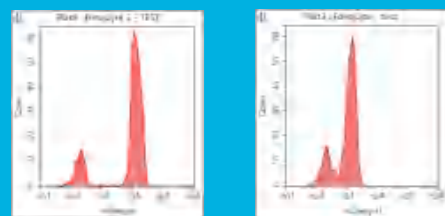
561nm laser allows more sensitive dye detection



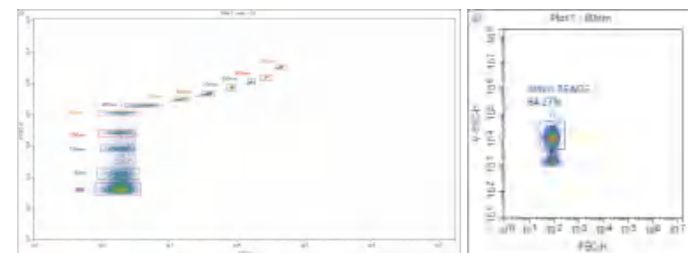
4-Laser Flow Cytometer features more flexible selectivity of dyes than the 3-Laser one

The application of 561 nm laser reduces the compensation between FITC and PE or PE series coupling dyes, increases the selectivity of dyes and reduces the complexity of panel design, thus simplifying the assay process.

In terms of excitation effect on mCherry-expressing cell lines, the FongCyte™ S equipped with a 561 nm laser generally produces better signal-to-noise ratio and resolution of mCherry excitation than the FongCyte™ equipped with a 488 nm laser.



VSSC realizes resolution of nano-particle detection

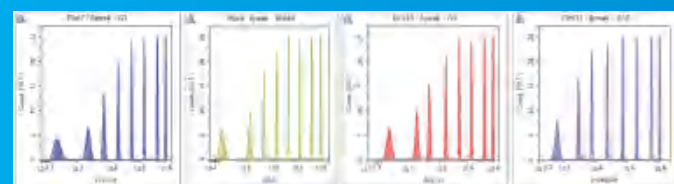


Enable the detection of particles smaller than 80 nm

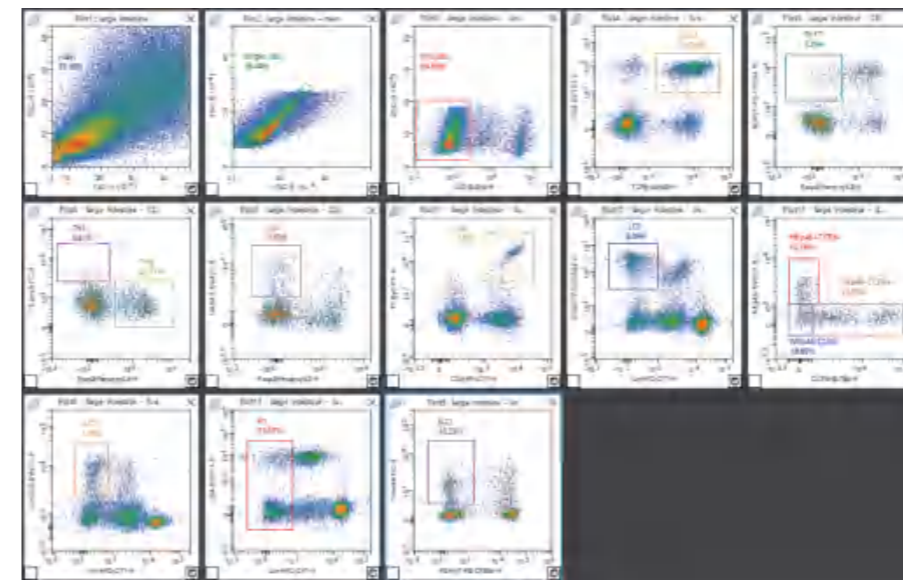
The violet side scatter channel (VSSC) improves the ability to identify small particles, enabling easier and more accurate detection of particles smaller than 80 nm.

The design concept of the VSSC of the FongCyte™ S broadens the application of flow cytometer in nano-particle such as bacteria, viruses, nanomedicines, extracellular vesicles (EVs).

Superior instrument sensitivity. SPHERO™ Rainbow Calibration Particles (8 peaks) are used to evaluate the fluorescence detection limits of commonly used channels.



Reliable multi-color analysis

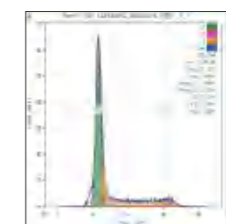


Multi-color assay with ease

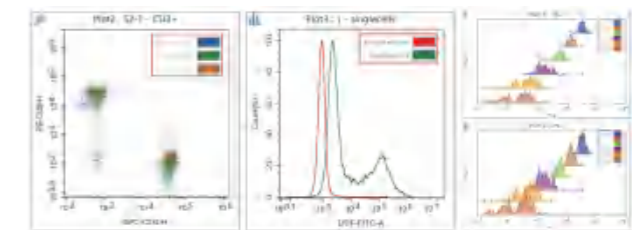
With 4-laser and 13-color configuration, it helps researchers to easily perform multi-color analysis of immunologic function, drug target screening, cytobiology, tumor marker, etc., expanding the infinite possibilities of flow cytometry applications.

Newly upgraded intelligent analysis software

One-touch cell cycle fitting of RCS, Mean, CV, and G2/G1 ratio with clear and intuitive results.



Supports the overlay of histograms and scatter plots in cascade/semi-cascade/tiled formats to visually display differences among samples.



ModelFlower



One-click switching between single tube and high-throughput modes without waiting only by software.



Unattended automatic startup/shutdown maintenance, simplifying the workflow.