iQue Screener PLUS Platform: For Cells and Beads in Suspension

The ability to profile and functionally characterize cells relevant to disease and drug mechanism of action (MOA), provides valuable insight needed to make more effective drug development decisions sooner in the process. At IntelliCyt, we believe that demystifying the highly complex cellular processes of disease does not have to be complicated, time-consuming, or out of reach for cost-conscious laboratories.

Meet the iQue* Screener PLUS platform—integrated instruments, software, and reagents designed to address key challenges across the suspension-cell screening workflow. When taken all together, they create the unmatched value that we call the IntelliCyt Advantage.





The IntelliCyt Advantage



Speed

- Faster plate processing, minutes, not hours
- Mix and read samples
- · Faster time to results



Miniaturization

- Consumes less reagents
- · Conserves precious cells
- Saves money



Content

- Rich, multiplexed, per-cell content
- Cell and beads together
- Secreted protein analysis



Usability

- Automated workflow
- · Validated reagents
- Easiest software you will ever love



Insight

- Link information
- · Run scenarios
- Create knowledge
- Make decisions

iQue Screener PLUS Platform

Ideal for laboratories with a need to get data from suspension-cell assays fast.

The iQue Screener PLUS platform is an integrated instrument, software and reagent system that enables rapid, high content, multiplexed analysis of cells and beads in suspension. Fast comes standard with the iQue Screener PLUS. It excels for those screens where cells are precious or limited in number. For scientists who want to focus on revealing the biology, not on the technology used to get there, software-assisted automation and experiment-based analyses deliver the deep insight needed to answer complex biological questions.

The iQue Screener PLUS (Blue-Red laser configuration) is a phenotypic screening and profiling workhorse that is ideal for applications that require up to 6-color detection, including immunophenotyping, cell health assessment, secreted protein analysis using QBead-based assays and many more applications. The iQue Screener PLUS delivers the ForeCyt® Software Workflow Advantage: a single data management workflow from input to output, which means you work faster and work smarter—not harder.

Content is king with the iQue Screener PLUS (Violet-Blue-Red and Violet-Yellow-Blue laser configurations). Three-laser configurations offer up to 13-color detection and are ideal for functional and phenotypic applications that demand more choice and flexibility in experimental design. By maximizing the detection and resolution of traditional and/or innovative new reagent dyes, tandem dyes, and fluorescent proteins, iQue Screener PLUS delivers both high performance multicolor analysis and the ForeCyt Software Workflow Advantage making it hands-down the choice of leaders in immune-based drug discovery, immuno-oncology, and cell therapy applications.

The iQue Screener PLUS HD (Blue-Red configuration) provides ultimate assay miniaturization and is the only high content, per-cell, 1536-well capable suspension screener available. Custom order only. Contact your sales representative to inquire about availability.

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iQue Screener PLUS Technical Specifications

	iQue Screener PLUS Configuration	Blue	& Red	Violet, Blue & Red		Violet, Yellow & Blue			
	Lasers	488 nm	640 nm	405 nm	488 nm	640 nm	405 nm	561 nm	488 nm
	445/45 nm			✓			1		
DETECTORS	530/30 nm	✓		✓	1		✓		✓
	572/28 nm	✓		✓	1				
	586/20 nm						1	1	
D.	615/24 nm			✓	1				
H	615/20 nm						1	1	✓
30	660/20 nm						1	1	✓
	675/30 nm	✓	✓	✓	1	✓			
	780/60 nm	✓	✓	✓	1	✓	1	1	
	Forward Light Scatter (relative size)	✓			1			1	
	Side Light Scatter (relative granularity)	1			1			1	

OPTICAL	Fluorescence Sensitivity	FITC < 75 MESF; PE < 50 MESF; APC < 20 MESF
	Minimum Particle Size Detection	0.5 µm
	Cell Detection Rate	Up to 35,000/second
	Dynamic Range of Detection*	> 7 Decades

^{*} This wide dynamic range and a Zoom function permit operation of the system without user adjustments of the voltage or gain of the detectors.

SAMPLING	Plate Compatibility	96-well and 384-well
	1536-well Plate Compatibility	Inquire
	Sampling	Continuous Air-gap Delimited
	Minimum Assay Volume Requirements	10 μL
	Minimum Sample Aspiration	1 μL
	Minimum Plate Sampling Time*	< 5 minutes / 96 wells < 20 minutes / 384 wells
	Carryover	< 2% for typical no-wash assays. Actual amounts are cell and assay dependent and are easily managed by including interwell rinses to reduce carryover to < 0.1%
	Automated Plate Shaker	Up to 3,000 RPM
	Foil-sealed Plate Processing	/
	Volumetric Cell Counting (< 10% CV)	✓ ·

^{*} The time required for sampling plates is both sample type and experiment dependent. A range of well-sampling times can be designated from 0.5 seconds – minutes.

DATA MANAGEMENT	ForeCyt® Software	✓
	Auto Compensation	✓
	Real-time Whole-plate Data Analysis	✓
	Dynamic Linked Gating	/
	Interactive Heat Maps, Profile Maps	/
	Export Files in FCS, CSV or ForeCyt Formats	/
	Customizable PDF Data Report	/
	ForeCyt Enterprise Edition Compatible	/
	Computer Workstation, Windows Compatible	Xeon Processor, Dual 256 GB SSD (RAID 0), 16GB RAM, 27" Monitor 2560 x 1400

OPERATIONAL	Weight (less computer)	205 lbs, 93 kg
	Dimensions	39" W x 25" D x 26" H • 99 cm W x 63 cm D x 66 cm H
	Power Requirements	100/115/230 VAC, 50-60Hz
	Environment Requirements	Temperature: 15–32°C (59–90°F), Relative Humidity: 80% Maximum
	CE Labeled	✓
	21 CFR Logging Option Compatible	/
	Robotic Integration Option Compatible	✓
	QMax Refill Module Option Compatible	✓



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IntelliCyt technology is protected under US patents: 6878556, 6890487, 7368084, 7842244, 8021872, 8268571, 8637261, 8823943, 9012235, D722515 and Patents Pending.