# iQue Screener Platform: For Cells and Beads in Suspension

The ability to profile and functionally characterize cells relevant to disease and drug 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 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.
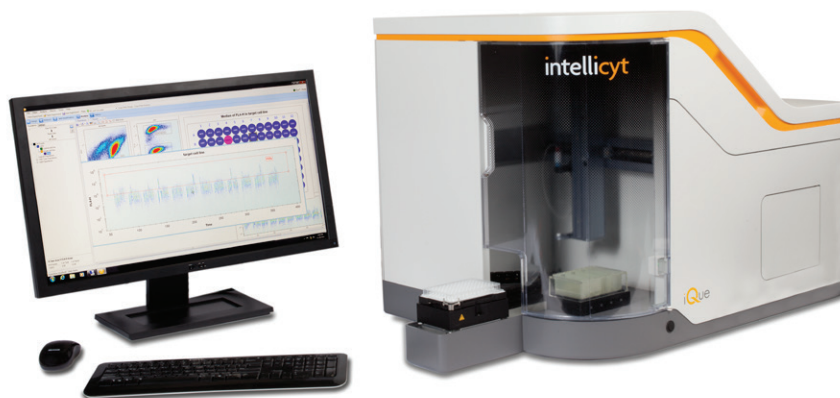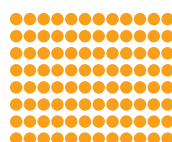
The IntelliCyt Advantage

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 Platform

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

The iQue Screener 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. It is deal for laboratories that need to obtain rich multiplexed information about each cell, including secreted proteins. It excels for those screens where cells are precious or limited in number. For those 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.

Content is king with the iQue Screener PLUS, which offers additional analytical capabilities, including three lasers and 15 detection channels, that mean even more choice and flexibility in experimental setup and higher order dimensions of content generation. Multiple laser configurations are available to maximize the detection and resolution of various dyes, tandems, and auto fluorescent proteins.

The iQue Screener HD provides ultimate assay miniaturization and is the only high content, per-cell, 1536 well-capable suspension screener commercially available.

Look on the other side for detailed specifications.

intellicyt®

Technical Specifications

C 1 = Violet, Blue, & Red • C 2 = Violet, Yellow & Blue

		iQue Screener PLUS				iQue Screener		iQue Screener HD	
	Lasers	405 nm	488 nm	561 nm	640 nm	488 nm	640 nm	488 nm	640 nm
DETECTORS	445/45 nm	C 1 & C 2							
	530/30 nm	C 1 & C 2	C 1 & C 2			✓		✓	
	572/28 nm	C 1	C 1						
	585/40 nm					✓		✓	
	586/20 nm	C 2		C 2					
	615/24 nm	C 1	C 1						
	615/20 nm	C 2	C 2	C 2					
	660/20 nm	C 2	C 2	C 2					
	675/30 nm	C 1	C 1		C 1		✓		✓
	780/60 nm	C 1 & C 2	C 1	C 2	C 1		Option		Option
	> 670 nm					✓		✓	
	Forward Light Scatter (size)		C 1	C 2		✓		✓	
	Side Light Scatter (granularity)		C 1	C 2		✓		✓	

		iQue Screener PLUS	iQue Screener	iQue Screener HD
OPTICAL	User-exchangeable Optical Filters		✓	✓
	Fluorescence Sensitivity FITC < 150 MESF; PE < 100 MESF	✓	✓	✓
	Minimum Particle Size Detection	0.5 µm	0.5 µm	0.5 µm
	Cell Detection Rate	Up to 35,000/sec	Up to 10,000/sec	Up to 10,000/sec
	> 7 Decades Dynamic Range of Detection*	✓	✓	✓

* This wide dynamic range and a Zoom function permit operation of the system without user adjustments of detectors.

		iQue Screener PLUS	iQue Screener	iQue Screener HD
SAMPLING	96- and 384-well Plate Compatible	✓	✓	✓
	384- and 1536-well Plate Compatible			✓
	Continuous Air-gap Delimited Sampling	✓	✓	✓
	Minimum Assay Volume Requirements	10 µL	10 µL	6 µL
	Minimum Sample Aspiration	1 µL	1 µL	1 µL
	Minimum Plate Sampling Time*	5 min. / 96 wells 20 min. / 384 wells	5 min. / 96 wells 20 min. / 384 wells	20 min. / 384 wells 80 min. / 1536 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	Up to 3,000 RPM	Up to 5,000 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 sec– minutes.

		iQue Screener PLUS	iQue Screener	iQue Screener HD
DATA MANAGEMENT	ForeCyt® Software	✓	✓	✓
	Windows Compatible	✓	✓	✓
	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	✓	✓	✓
	iDM Data Manager Option Compatible	✓	✓	✓
	Computer Workstation	Xeon Processor Dual 256 GB SSD (RAID 0), 16GB RAM, 27" Monitor 2560 x 1400	i5 Processor 256 GB SSD, 8 GB RAM 23" Monitor 1920 x 1080	Xeon Processor Dual 256 GB SSD (RAID 0), 16GB RAM 27" Monitor 2560 x 1400

		iQue Screener PLUS	iQue Screener	iQue Screener HD
OPERATIONAL	Weight (less computer)	205 lbs, 93 kg	180 lbs, 82 kg	180 lbs, 82 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	✓	✓	✓

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