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Technical Specifications

iQue® 3

Truly Fast. Simply Effortless.

High-Throughput Screening (HTS) by Cytometry

A Cytometry Technique to Speed Up Entire Workflows

The iQue® 3 Platform is the fastest cytometry platform – with a focus on speed from setup, to acquisition and analysis. It combines a patented sampling method, which allows for the fastest sample acquisition in the industry. It has the ability to handle 96, 384, or 1536-well plates, and enables continuous plate loading through connection with any automation system. The Enhanced Rinse Station (ERS) provides continuous monitoring of liquid levels to ensure sufficient volumes prior to each run.



When used with the pre-configured iQue® reagent kits, samples can be analyzed instantly through the use of customizable templates following acquisition.

The included iQue Forecyt® Software enables dynamic data visualizations with an ease of use that allows all users to identify samples of interest without having to export to multiple software packages.

The iQue® Advantage

Speed



- Faster plate processing, minutes, not hours
- cessing, Consum
- minutes, not hours
 Mix and read samples
 S
- 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® 3 Platform

The iQue® 3 Platform is an integrated instrument, software and reagent system that enables rapid, high content, multiplexed analysis of cells and beads in suspension. Our unique, software-assisted automation and experiment-based analyses deliver the deep insight needed to answer complex biological questions.

The iQue® 3 BR (Blue-Red laser configuration) is a phenotypic screening and profiling workhorse that is ideal for applications that require up to 6-color detection, including antibody and biologics discovery, cell health assessment, secreted protein analysis using iQue® Qbead-based assays, and many more applications. Our platform delivers the iQue 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® 3 VBR and VYB (Violet-Blue-Red and Violet-Yellow-Blue laser configurations). Three-laser systems offer up to 13-color detection and are ideal for functional and phenotypic applications that demand more choice and flexibility in experimental design. These systems combine high performance multi-color analysis with the iQue Forecyt® Software Workflow Advantage making them hands-down the choice of scientists in immune-based drug discovery, immuno-oncology, and cell therapy applications.

The iQue® 3 HD (Blue-Red laser configuration) provides the ultimate assay miniaturization and is the only high content, per-cell, 1536-well capable suspension screener available.

iQue® 3 Technical Specifications

	iQue® 3 Configuration	Blue a	nd Red	Viol	et, Blue and	Red	Violet, Yell	ow and Blue	Detectors
Detectors	Lasers	488 nm	640 nm	405 nm	488 nm	640 nm	405 nm	561 nm	488 nm
	445/45 nm								
	530/30 nm								
	572/28 nm								
	586/20 nm								
	615/24 nm								
	615/20 nm								
	660/20 nm								
	675/30 nm								
	780/60 nm								
	Forward light scatter (relative size)								
	Side light scatter (relative granularity)								
Optical	Fluorescence sensitivity	FITC < 75 M	IESF; PE < 50	D MESF; AP	C < 20 MESF	-			
	Minimum particle size detection	0.5 µm							
	Cell detection rate	Up to 35,00	0/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, 384-well or 384-well, 1536-well (iQue® 3 HD BR)							
	Sampling	Continuous air-gap delimited							
	Minimum assay volume requirements	10 µL							
	Minimum sample aspiration	1μL							
	Minimum plate sampling time*	<5 minutes	96 wells	<20 minute	s 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 (Up to	5000 rpm o	n iQue® 3 H	D BR)			
	Features	Foil-sealeVolumetri		-	V)				
	* The time required for sampling plates is both sample	e type and experim	ent dependent.	A range of well-	sampling times	can be designat	ed from 0.5 seco	nds-minutes.	
Enhanced Rinse Station	Features	Reduces evaporationMonitors fluid levels					ed QC bead	vortexing	
iQue Forecyt® Software	Features	 Auto compensation Real-time whole-plate data analysis Dynamic linked gating Interactive heat maps, profile maps 				 Cross plate analysis Export files in FCS, CSV or iQue Forecyt[®] formats Customizable PDF data report iQue Forecyt[®] Enterprise Edition compatible 			
Operational	Computer workstation, Windows compatible	Xeon proce	ssor, dual 25	6 GB SSD (I	RAID 0), 16	GB RAM, 27	" monitor 25	560×1400	
	Weight (less computer)	205 lbs, 93	kg						
	Dimensions	39" W×25"	D×26"H 9	9 cm W×63	cm D×66 c	m H			
	Power requirements	100 115 2	230 VAC, 50) – 60 Hz					
	Environment requirements	Temperatur	e: 15-32 °C	(59-90°F)	, Relative hu	imidity: 80%	maximum		
	Features	CE labele21 CFR P					 Robotic integration option compatible iQue[®] Qmax refill module option compatible 		

iQue® technology is protected by the following patents and other patents pending: 6,890,487, 6,878,556, 7,368,084, 7,842,244, 8,021,872, 8,268,571, 8,637,261, 8,823,943, 9,012,235, D,722,515

Learn why iQue[®] is the choice of leaders in Immuno-Oncology, Antibody Discovery and Immune Target Screening at: **sartorius.com/ique** Specifications subject to change without notice. °2024, Essen BioScience, Inc., part of the Sartorius Group. All Rights Reserved. Intellicyt, iQue, iQue3, Forecyt, and all names of Intellicyt products are registered trademarks and the property of Essen BioScience unless otherwise specified. Intellicyt is a Sartorius brand. Printed in the EU or US on paper bleached without chlorine. Publication No.: 11460-K | Status: 07 | 2024