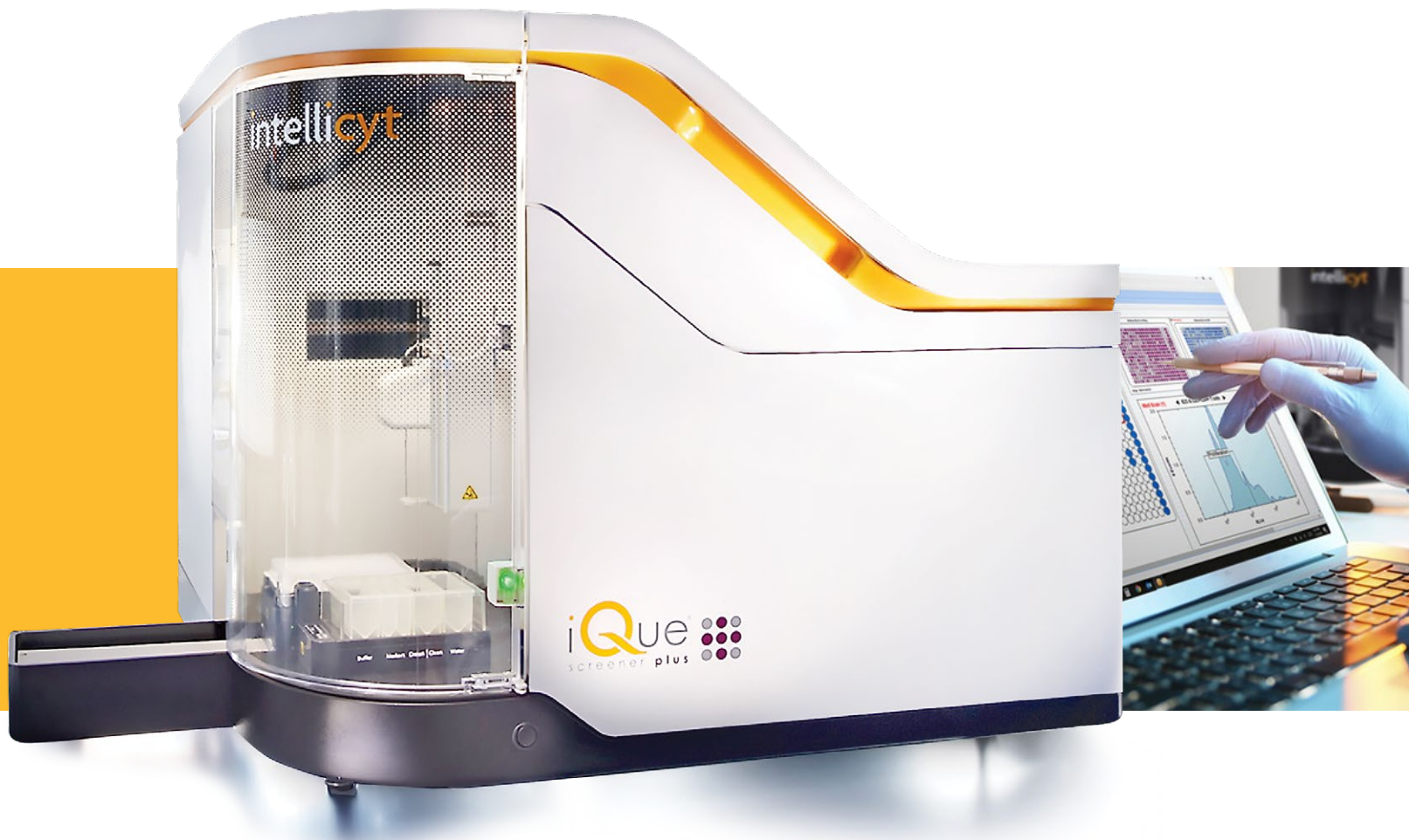# High Throughput Suspension Cell and Bead Analysis

Intellicyt® iQue Screener PLUS

High Throughput Suspension Cell and Bead Analysis

Intellicyt® iQue Screener PLUS – the fastest path to actionable results

Whether you are discovering a new therapeutic antibody, developing a specific checkpoint inhibitor or evaluating CAR T-cell function, driving your research forward hinges on the ability to rapidly evaluate more samples in a biologically relevant, reproducible and cost effective way. While flow cytometry is commonly used for analysis of cells and beads in suspension, it offers limited capabilities in screening applications for assay throughput, automation, sample/reagent volume requirements, and ease of use. The Intellicyt® iQue Screener PLUS is an integrated instrument, software and reagent platform for rapid, high-content, multiplexed analysis of cells and beads in suspension. The combination of speed and miniaturization, with powerful multi-parametric data analysis and visualization, gives you actionable results from a few microliters of sample, in record time.

The Intellicyt Advantage

Speed
Relieve capacity bottlenecks with the fastest plate sampling, integrated analysis, multiplexed no-wash assays, and novel data reduction tools.

Miniaturization
Conserve precious samples and reagents by sampling as little as a single microliter from miniaturized assay volumes.

Content
Perform high content, multiplexed analysis of cells, beads and secreted proteins in suspension.

Usability
Enjoy a simple, scalable, multi-user environment with walkaway automation, comprehensive analysis and visualization tools, and other features not found in traditional solutions.

Insight
Dramatically reduce time to decision with novel visualizations that facilitate the fastest path to actionable results, even from complex data sets.

"The iQue Screener scales our project throughput in a way that is not possible using other methods."

— Matt Johnson, PhD,
   CTO Avacta Life Sciences

The Intellicyt iQue Screener PLUS Accelerates Your Research

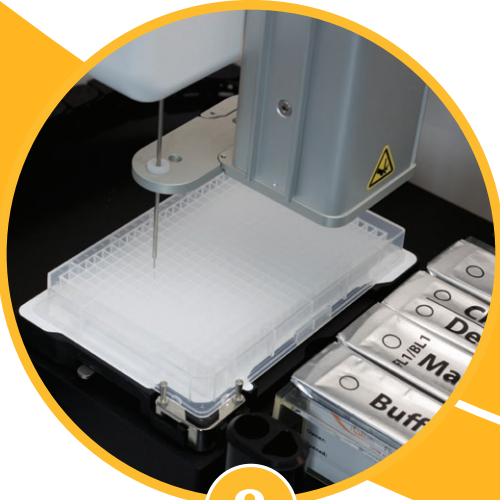## An integrated solution that supports you from the beginning

The iQue Screener PLUS comes in multiple optical configurations and flexible plate formats to match the diverse needs of researchers. The platform delivers a consistent process that translates into time and resource savings, with addition options like robotic integration, increased fluidic capacity, and centralized data storage that further extend productivity.

"The unique sampling method allowed us to get multi-parameter data on thousands of individual cells per assay well, with unprecedented speed and no sacrifice in quality."

— Nathaniel Hathaway, PhD,
Assistant Professor
University of North Carolina

1

Simple Assay Setup

- Optimized mix-and-read reagent kits with ready-to-use analysis templates
- Flexible fluorophore options with up to 3 laser excitation and 13 color emission channels
- No adjustment optics for scalable, reliable, and reproducible data collection in multi-user environments

2

Rapid, Walkaway Plate Sampling

- Patented sampling technology processes 96 wells in as little as 5 minutes; 384 wells in 20 minutes
- Automated plate calibration, QC, detector cleaning and shut down
- User definable sampling volume, shaking, washing and cleaning
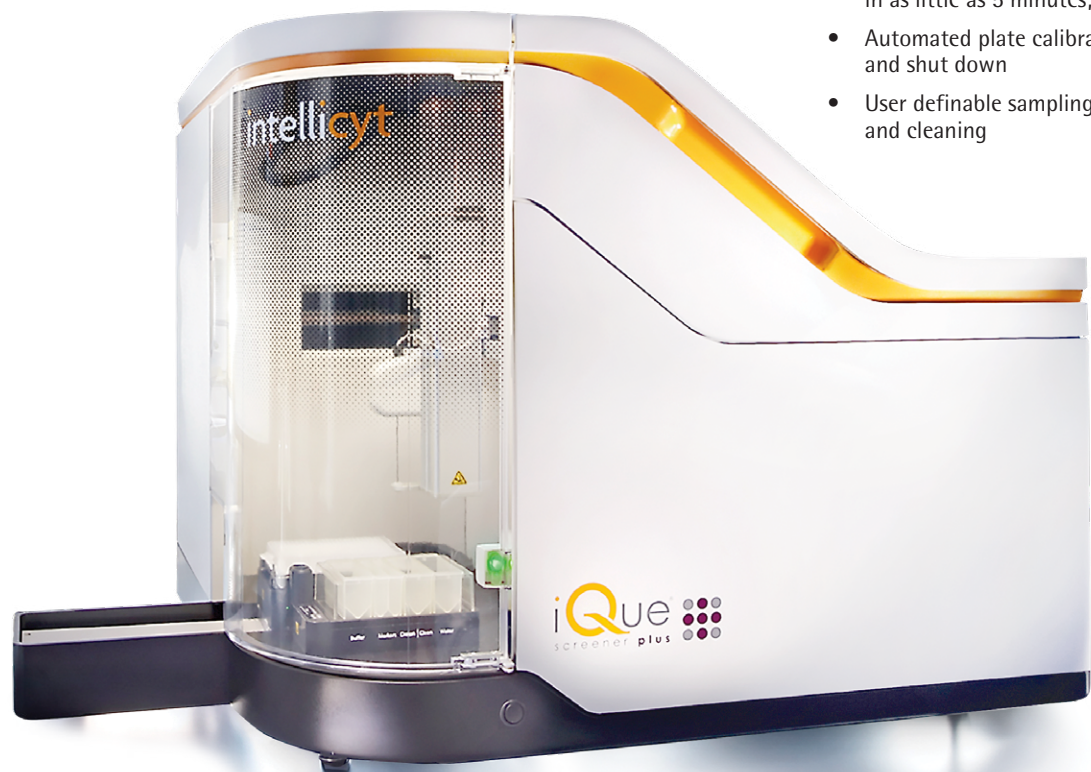
3

Real-time Data Acquisition and Analysis

- Single-software solution for all your aquisition and analysis needs
- Rapid assay optimization - adjust a gate to see updated plate-wide analysis in real time
- Guided creation of metrics, statistics, visualizations and reports

4

Dynamic Visualization of Results

- Easily identify wells of interest using multiple selection criteria
- Compare, identify and rank wells in all plates across your experiment
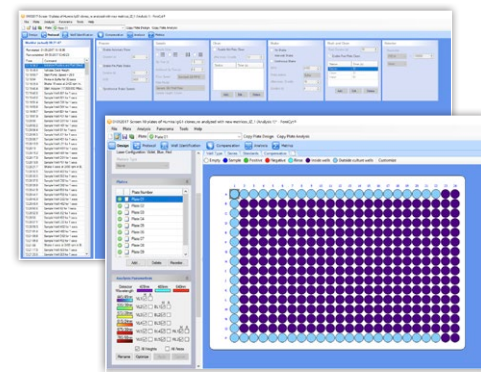- Drill down from experiment level, to plate level, to well level, to cell level

ForeCyt® Software – actionable results, faster

One of the key features of the Intellicyt platform is the ForeCyt Software; which delivers a fully integrated experience, from data acquisition to plate-level analytics and multi-parametric data visualization. In addition, ForeCyt Software is available as an enterprise edition option that provides multi-user access and multi-instrument data management.
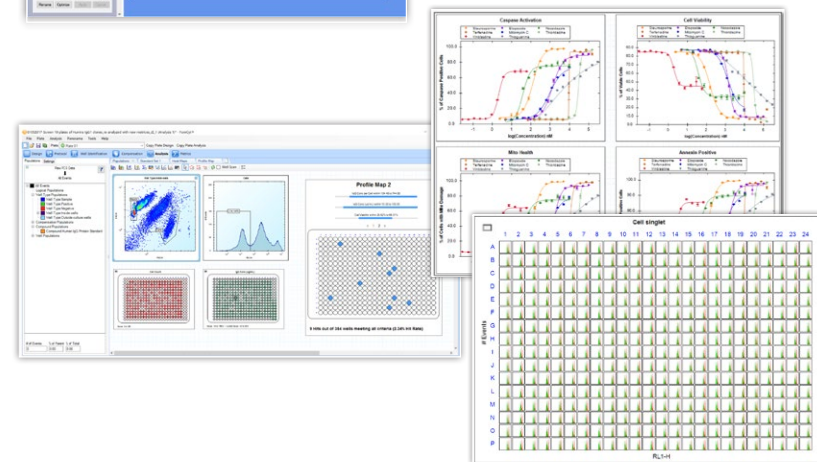
Acquire

- Annotate plate wells for downstream analysis
- Select channels and define sampling, washing and cleaning routines
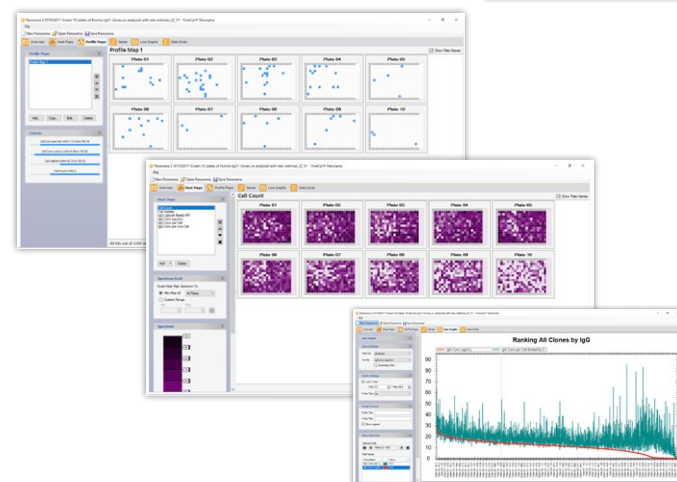- Apply analysis templates for instantaneous multi-plate processing

Analyze

- Intuitive workflow with plate visualizations including heat maps, whole plate views, dose response and standard curves
- Interactive gating with real-time results
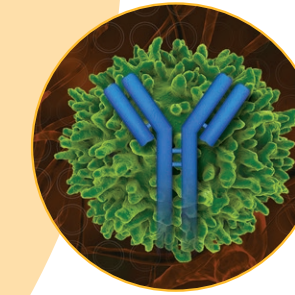- Easy report generation and data export

Visualize

- Link visualizations together to rapidly interrogate results
- Locate wells and arrays of interest
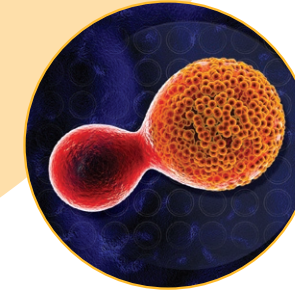- Compare, identify and rank wells across your entire experiment

Applications for the Intellicyt iQue Screener PLUS

Antibody Discovery & Development

Increase data throughput and quality by multiplexing antibody binding, function, and titer across the process.
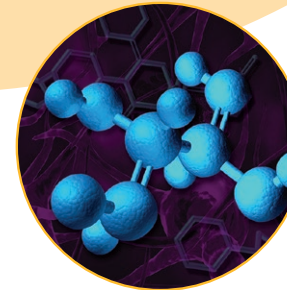
- Antibody screening
- Functional Profiling
- Cell line development

Adoptive Cell Therapy

Assess multiple cell parameters faster, with fewer cells and less reagents.

- Immune cell killing
- Immune cell assessment
- Cytokine profiling

Small Molecule Screening

Perform high-content phenotypic screening of immune biology across the drug discovery process.

- Primary immune cell screening
- Yeast and bacterial assays
- Target identification with siRNA and CRISPR

Mix-and-read screening kits for cell and bead based applications

Intellicyt® kits include optimized reagents that are validated on the iQue Screener PLUS platforms, with flexible formats. No wash protocols save time, reduce variability and allow for miniaturization. Kits can be multiplexed to increase assay content and reduce sample requirements.

Bead-Based Kits	Cell-Based Kits	Cell and Bead-Based Kits
QBeads PlexScreen	**MultiCyt Cell Assay Kits**	**Cell Line Development**
— Human Secreted Proteins	— Cell Cycle	— Cy-Clone™ PLUS
— Mouse Secreted Proteins	— 4-Plex Apoptosis	
— Rat Secreted Proteins	— Single plex Apoptosis (Mix & Match)	**Antibody Screening**
	— Cell Membrane Integrity	— Mouse IgG Type and Titer
QBeads DevScreen	— Cell Encoder	
— SAv (Streptavidin)	— Cell Proliferation	**Cell and Cytokine Profiling**
— SH (Sulfhydryl)		— Human T Cell Activation

To view a complete listing of our reagents and consumables visit: **intellicyt.com/reagents**

Ordering information

Product	Laser	Channel	Plate Formats	Cat. No.
iQue® Screener PLUS 110V Blue–Red Configuration	2	8	96, 384	91220
iQue® Screener PLUS HD 110V Blue–Red Configuration	2	8	384, 1536	91203
iQue® Screener PLUS 110V Violet–Blue–Red Configuration	3	15	96, 384	91051
iQue® Screener PLUS 110V Violet–Yellow–Blue Configuration	3	15	96, 384	91218

Optional Product	Cat. No.
ForeCyt® Enterprise Edition with 5 Floating Client Licenses	91131
Robotic Integration API license	90208
Robotic Plate Handling Modules	90291, 90363
QMax Refill Module	91309

To place an order or request additional information

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