

# Incucyte®

Empower Live-Cell Analysis Inside Your Incubator

Simplifying Progress

SARTURIUS

### Innovation Never Takes a Break

Analyze your cells for days, weeks or even months as they sit stationary in the stable environment of your tissue culture incubator. With Incucyte's user-friendly interface and robust instrument portfolio, any cell biologist can gain dynamic insights into the health, morphology, movement and function of their cell models.



#### Ask new questions

- Explore both routine and complex questions with a single flexible platform
- Devise new experiments with up to five live-cell fluorescence channels plus HD phase imaging.



#### **Protect Your Cells**

- Leave cells undisturbed and stationary in the incubator during analysis.
- Maintain cell health and reduce artifacts with specially-formulated live-cell reagents or label-free assays.



#### **Get New Answers**

- Never miss a data point with real-time continuous analysis.
- Profile cell type-specific and time-dependent biological activity.



#### **Improve Productivity**

- Accommodate multiple users and applications in up to six microplates in parallel.
- View experiments live from any networked PC, with unlimited user licenses.

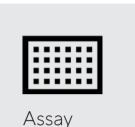


# Insight and Accuracy at Every Step

Whether you simply want to improve experimental outcomes with enhanced cell culture quality control, or study complex cell-cell interactions, the Incucyte can meet your needs. Seamlessly transition from one step in your workflow to the next with interchangeable trays to support tissue culture flasks, dishes, or multi-well plates.







Endpoint





#### Real-time



Comparison of typical cell workflows using

real-time cell analysis

analysis, observations

and measurements are generated throughout

the cell culture workflow,

phenotypic parameters

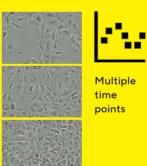
in addition to the

in the assay.

traditional end-point and

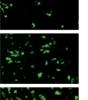
methods. With real-time

Multiple points









Multiple





#### Monitor growth, cell health and morphology

- Visualize cell morphology.
- Automatically quantify confluence.
- Verify monoclonality via limiting dilution.

#### Ensure high-quality downstream analysis

- Determine optimal seeding densities.
- Quantify transfection efficiency and reporter gene expression.
- Monitor targeted differentiation of stem cells via morphology or fluorescent markers.

#### Probe phenotypic parameters

- Enjoy walk-away convenience with automated image acquisition and analysis.
- Multiplex measurements in 96and 384-well assay formats.

# Push the Boundaries of Research and Development

Incucyte's suite of applications can fast-track your next discovery. Rapidly generate new insights with a system designed for a range of cell types - from proliferating tumor cells to non-adherent immune cells to sensitive primary cells. Incucyte's design features a fixed sample stage and uninterrupted incubation for minimal disturbance to precious cells.

### Cell Counting Viability Apoptosis Cytotoxicity Tumor Spheroid Cell Cycle ATP Metabolism New Therapeutic Areas Mitochondrial Membrane Potential New Oncology Cell Function Immune Cell Killing Antibody Internalization Immuno-Oncology Phagocytosis NETosis Neuronal Activity Angiogenesis Immunology Live-Cell Immunocytochemistry Cell Movement Neuroscience and Morphology Scratch Wound Migration Invasion Chemotaxis Immune Cell Activation → Neurite Outgrowth Spheroid Invasion

Cell Health

and Proliferation

### Around-the-Clock Analysis

With Incucyte's Powerful, Automated Workflow, Research Continues Day and Night.



#### 1. Simple, Flexible Sample Prep

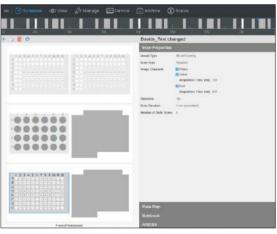
- Reduce troubleshooting with labtested protocols.
- Reduce artifacts with Incucyte's non-perturbing live-cell reagents.

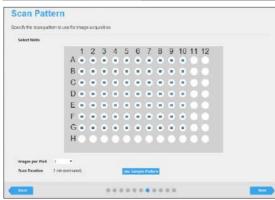


# Find out more For more information, please visit www.sartorius.com/Incucyte

#### $\rightarrow$ 2. Set up and Walk Away

- User-friendly, guided experimental setup.
- Compatible with over 600 vessels.

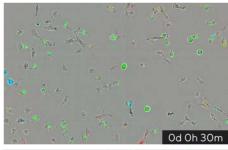


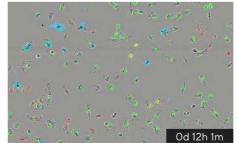


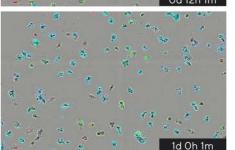
Guided interface enables rapid experimental set up, even for first time users.

### 3. Acquire and View Images Over Time

- Choose from up to five fluorescence channels combined with HD phase.
- Vessel View for quick visual survey of results.



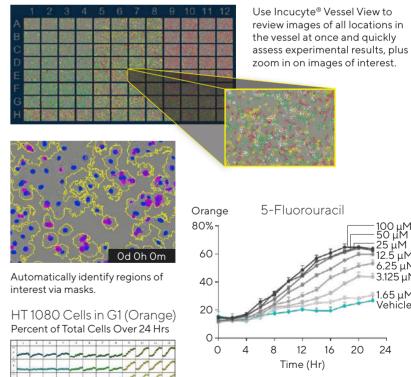




Automatically acquire images over time.

#### $\rightarrow$ 4. Analyze in Real Time

- Efficient and reproducible image analysis.
- Powerful visualization of images and kinetic measurements, including IC50.
- Monitor your work from anywhere with secure remote software access.



Generate presentation-ready timelapse graphs.

View all 96- or 384-well kinetic trends at once with Incucyte® Plate Graph and export data to calculate EC50 or IC50 response values.

# Incucyte® System Portfolio

A Range of Systems to Meet Varied Needs and Budgets

From our workhorse, the Incucyte S3, to our economical SX1, to the newest member, the frontier-breaking SX5, we deliver real-time insights to simplify progress for labs of any size.



Support an entire research team via concurrent, remote network access.

Make real-time decisions from the comfort of your office or home.



### Incucyte® SX5

### Leading the Way With Living Cells.

More Colors.

More Insights.

More Possibilities.

#### Go Where Your Research Takes You

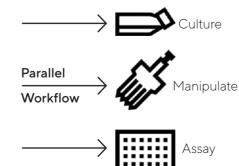
See more information in every sample and explore more applications. Leverage up to 5 different fluorescence channels, up to 3 at a time, for long term timelapse experiments.

Study complex immune-tumor cell interactions, synaptic activity in neuronal co-cultures, metabolism in cancer cells, and much more — with a single platform.

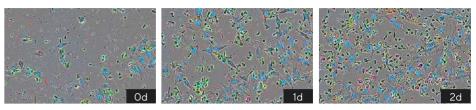
Our new 3-color, patent-pending optical module includes a long wavelength, low phototoxicity NIR channel and optimized reagents for turnkey 3-color applications.

### Key Features

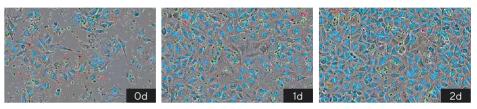
- Our most advanced application offering.
- Multi-user support.
- Up to 5 different fluorescent channels, up to 3 simultaneously.
- 4x, 10x, 20x objectives on an automated turret.
- Support for 3 interchangeable vessel trays and over 600 vessels, up to 6 microplates in parallel.

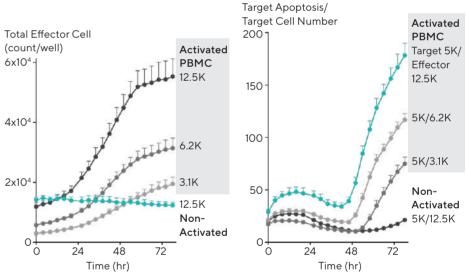


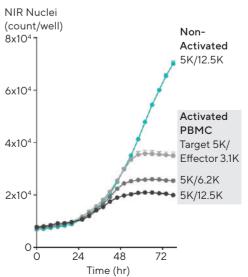
#### Activated PBMC



Non-activated PBMC







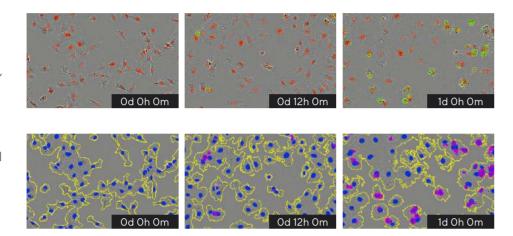
Find out more
For more information, please visit
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### Incucyte® S3

# See What Your Cells Are Doing and When They Do It.

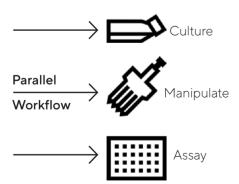
Our flexible assay platform sits inside a standard tissue culture incubator, analyzing even the most sensitive living cells, around the clock, for days, weeks, or months.

This workhorse can support your team throughout the cell culture workflow, from cell culture QC, to cell manipulation, to microplate assays. Plus all users can remotely view experiments as they unfold.

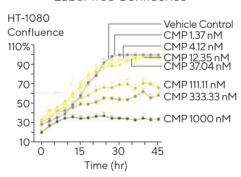


#### **Key Features**

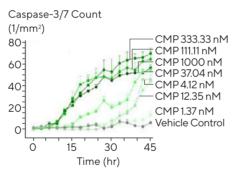
- Robust application suite.
- Multi-user support.
- Two-color Red/Green OR Orange/ NIR fluorescence plus HD Phase imaging.
- 4x, 10x, 20x objectives on an automated turret.
- Support for 3 interchangeable vessel trays and over 600 vessels, up to 6 microplates in parallel.



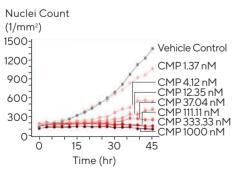
#### Label-free Confluence



Incucyte Caspase-3/7 Apoptosis



NucLight Red Lenti Nuclei Counts

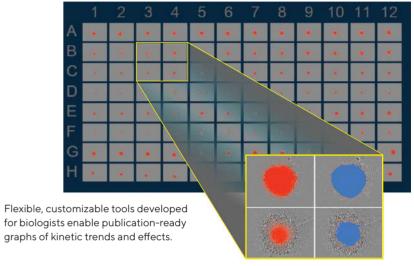


### Incucyte® SX1

# An Economical Choice for Live-Cell Analysis.

Designed with the small lab in mind, the Incucyte SX1 empowers your cell culture workflow. Never miss important insights again.

Seamlessly transition from cell culture QC to assay with interchangeable trays for tissue culture flasks, dishes, or multi-well plates.



#### **Key Features**

- Robust application suite.
- Two-color Red/Green fluorescence plus HD Phase imaging.
- 4x, 10x, or 20x objectives, single position use.
- Interchangeable tray to support over 600 vessels, up to 2 microplates in parallel.

#### Serial Workflow

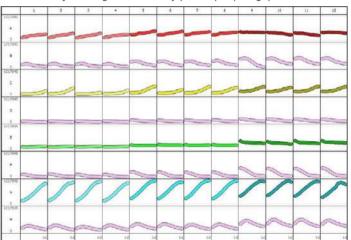


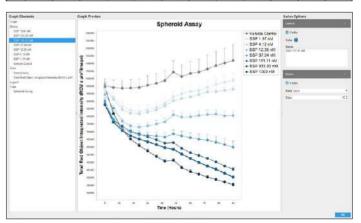
Manipulate

Culture

Assay

### Incucyte Spheroid Assay Analysis Total Red Object Integrated Intensity (RCU x µM²/Image)





### Incucyte® Ordering Information

#### Live-Cell Analysis Systems & Accessories Software Modules

Product	Description	Cat. No.
All Incucyte® Live Cell Analysis Systems include:	<ul> <li>Unlimited software licenses for standard acquisition and basic analyzer (additional modules are required for certain applications).</li> <li>One year manufacturer's software and service warranty.</li> <li>Onsite installation and training.</li> </ul>	
Incucyte® SX5 Live-Cell Analysis System*	Includes image acquisition and analysis system with:  HD Phase/Green/Orange/Near IR Optical Module.  4x, 10x, and 20x objectives on an automated turret.  Controller with 27TB storage.	4816
Incucyte® S3 Live-Cell Analysis System	Includes image acquisition and analysis system with:  HD Phase/Green/Red Optical Module.  4x, 10x, and 20x objectives on an automated turret.  Controller with 16 TB storage.	4647
Incucyte® S3 Live-Cell Analysis System for Neuroscience	Includes image acquisition and analysis system with:  HD Phase/Orange/Near IR Optical Module.  4x, 10x, and 20x objectives.  Controller with 16 TB storage.	4673
Incucyte® SX1 Live-Cell Analysis System	Includes image acquisition and analysis system with:  HD Phase/Green/Red Optical Module. Controller with 16 TB storage. Minimum of one objective and one tray must be purchased separately.	4788
Incustore® Storage Unit	<ul> <li>Additional 33 TB storage for Incucyte SX5, S3 or SX1</li> </ul>	4689

<sup>\*</sup> additional optical modules available, please contact your technical sales specialist

Description	Cat. No.
Perform label-free cell counts and subsequent classification and analysis of cell subsets over time.	9600-0031
Quantify spheroid growth , health, and invasion over time.	9600-0019
Quantify cell movement into cell-free zones (requires Woundmaker and Imagelock plates).	9600-0012
Quantify the dynamics of chemotactic migration (requires Clearview™ Chemotaxis plates).	9600-0015
Quantify the dynamics of neurite outgrowth.	9600-0010
Quantify the dynamics of neuronal activity.	9600-0032
Quantify the dynamics of tube formation during angiogenesis.	9600-0011
Quantify cell type-specific ATP content over time.	9600-0033
	Perform label-free cell counts and subsequent classification and analysis of cell subsets over time.  Quantify spheroid growth, health, and invasion over time.  Quantify cell movement into cell-free zones (requires Woundmaker and Imagelock plates).  Quantify the dynamics of chemotactic migration (requires Clearview™ Chemotaxis plates).  Quantify the dynamics of neurite outgrowth.  Quantify the dynamics of neurite outgrowth.  Quantify the dynamics of tube formation during angiogenesis.

Harness the power of live-cell analysis with a full range of Incucyte reagents and consumables to revolutionize the way you quantify cell behavior. To view a complete listing of our reagents and consumables visit:

www.essenbioscience.com/reagent

### Sales and Service Contacts

For further contacts, visit www.sartorius.com/Incucyte



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