CELLCYTE X™

Harness the power of live cell imaging

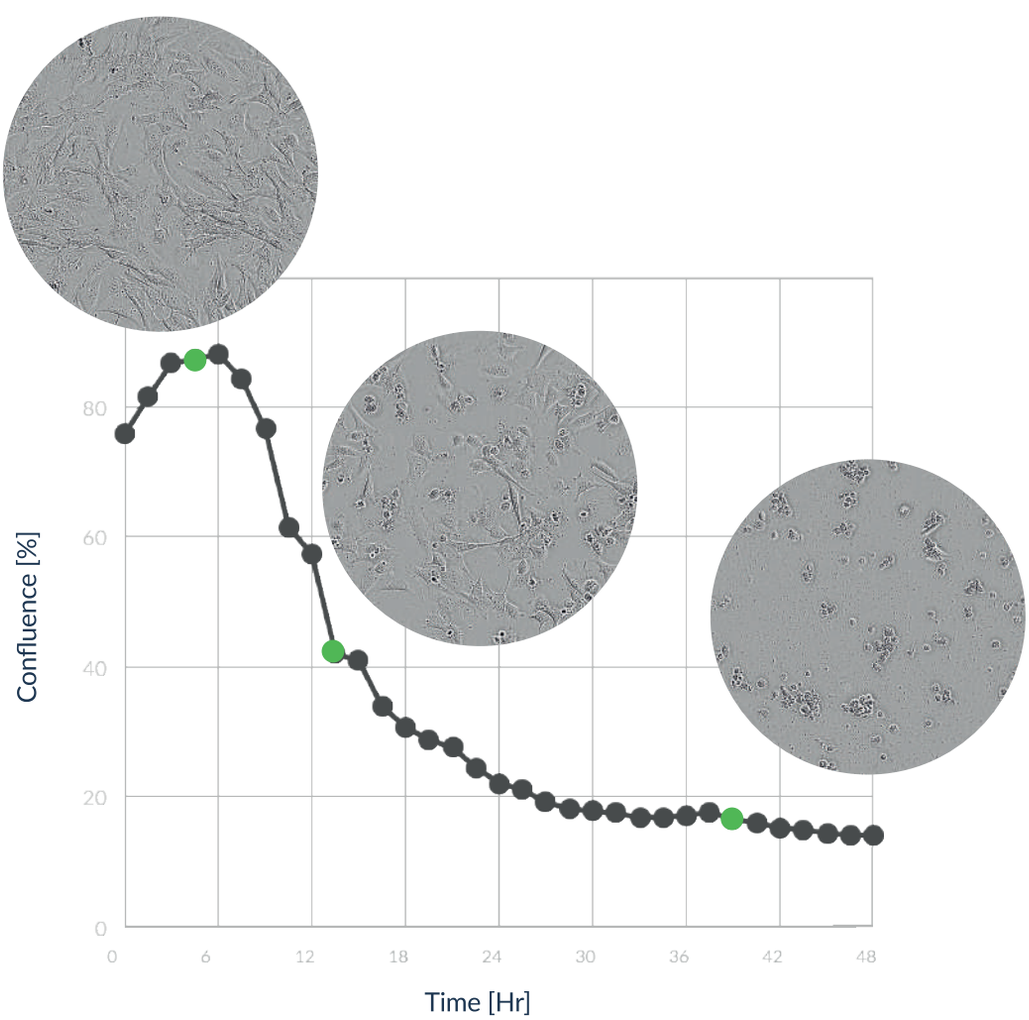
CYTENA
A BICO COMPANY

Real-time Live Cell Imaging

Unveil more answers with observations over time

At CELLINK, we recognize that science evolves with time and your research should as well. To leverage the power of continuity and address the most-pressing challenges in cell biology, we have developed the CELLCYTE X™, a high-throughput live cell imaging system centered around efficiency, affordability and convenience.

Cell biologists often run experiments using end-point assays, forcing them to draw conclusions about cellular behavior using a single time point. Instead, with a live cell imaging system hosted within the incubator, researchers are able to rewind and replay images acquired from multiple time points to better follow the sequence of biological events and get a comprehensive picture of cell kinetics.



Observing cells over time gives researchers a unique understanding of their experiment.

Key Features

Designed for your success

Open design: Ease of maintenance and improved control of cellular environment.

Improved cell viability: Less disturbances over the course of your experiment, reducing the chances of cellular abnormality.

Real-time data analysis: With data collected and processed in real time throughout the experiment.

High throughput: Run 6 vessels concurrently to maximize your throughput.

Uninterrupted workflow: Streamline image acquisition and analysis with our intuitive software platform.

Versatility: Multiplex your experiment with Enhanced Contour imaging mode plus 3 fluorescent channels.

Improved data output: Acquire and store thousands of images per experiment.

Simple hardware: Compact and easy to set up.

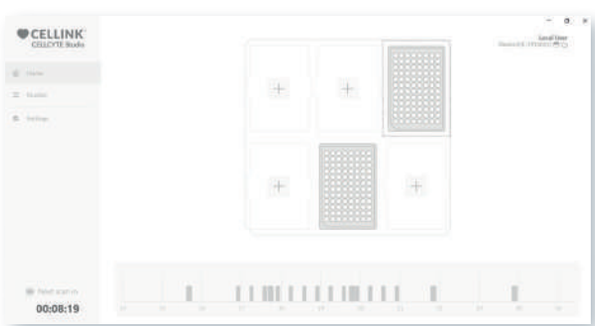
reddot winner 2020

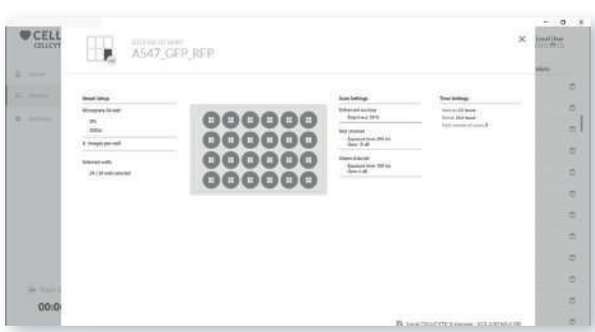
Optimized Workflows

Maximize efficiency, save time, uncover highly reproducible data

1 Easy setup

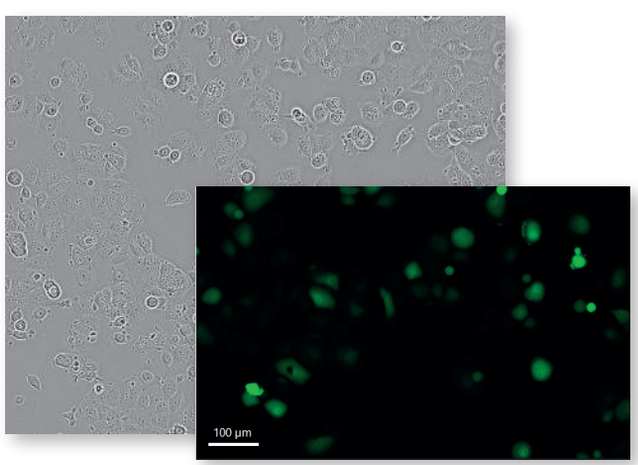
- Set up user-intuitive experiments
- Prepare up to 6 vessels concurrently
- Compatible with multiple vessel types and user protocols

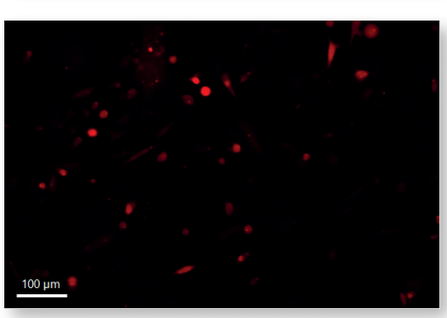




2 Monitor cell behavior in real time

- Automatically capture images at user-defined time points
- Acquire images from inside the incubator
- Maintain optimal environment and maximize cell viability



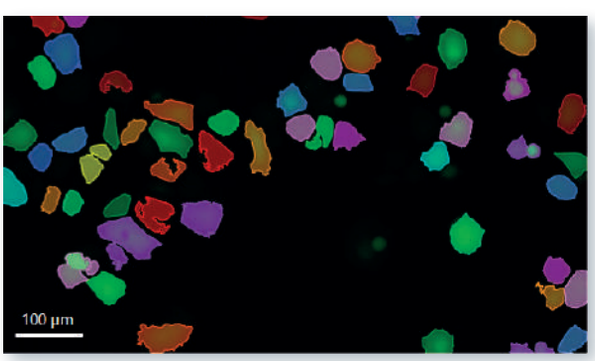


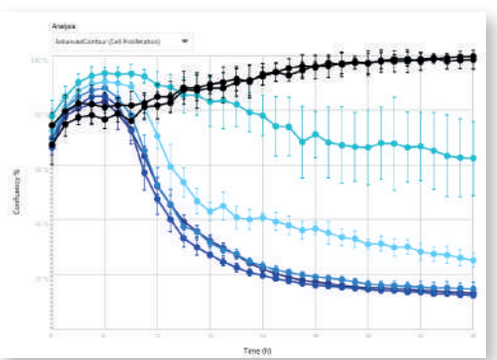
3 Comprehensive analysis setup

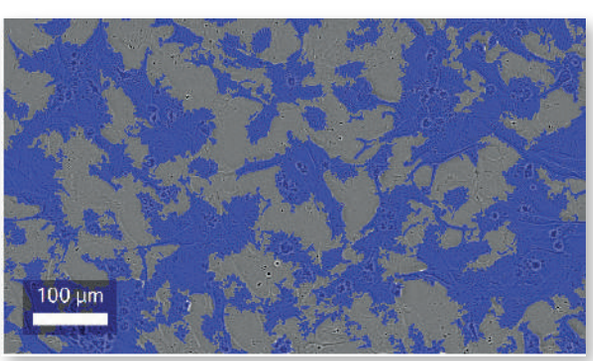
- User-friendly, robust CELLCYTE Analysis software
- Customizable masks to monitor relevant cellular metrics

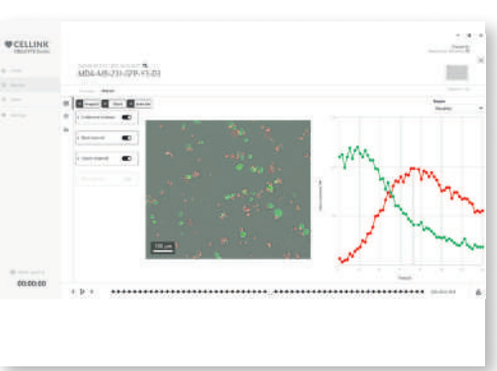
4 Immediate data visualization

- Guide users to conclusive observations/results
- Produce publication-quality graphs







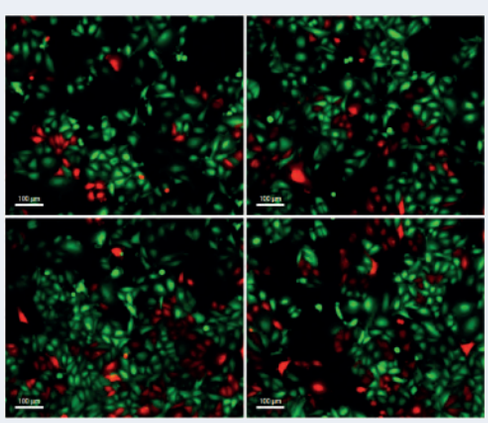


A new look to imaging software

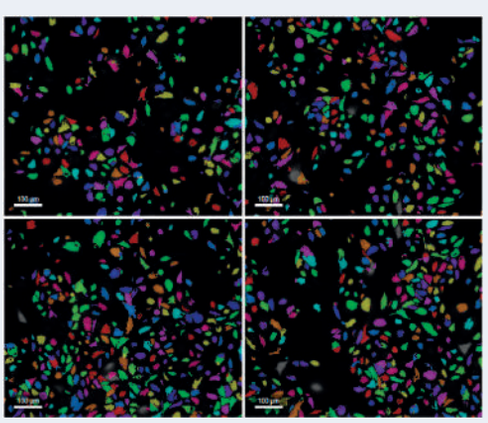
Acquire and analyze thousands of images with just one click

With CELLCYTE Studio, researchers are met with a comprehensive overview of all the images acquired at every single time point, allowing a quick assessment of various experimental conditions and results.

Mask off



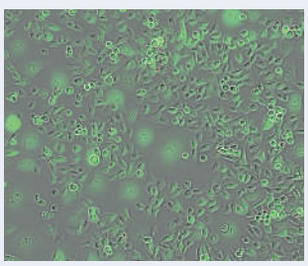
Mask on

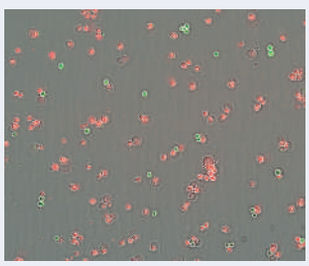


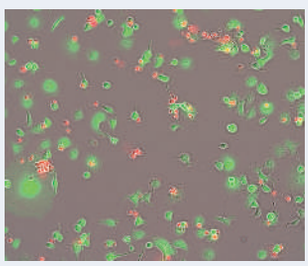
Visualize trends instantly

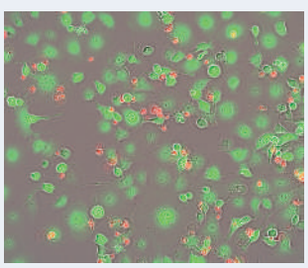
Follow cell kinetics in real time

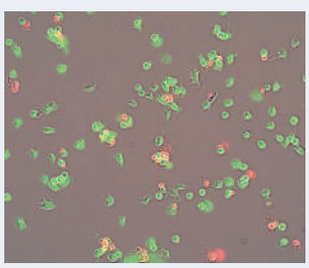
Representative images of MDA-MB-231 breast cancer cells (Green) treated with different compounds; Necrotic cell indicator (Red) was added to report cytotoxicity. Images were acquired at 48 hours post treatment.

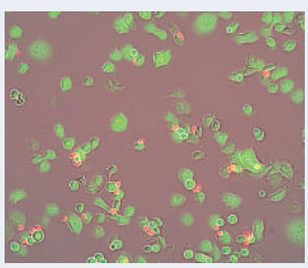

Control


Staurosporine

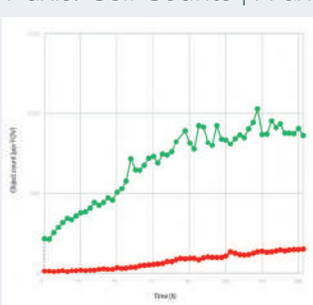

Camptothesin

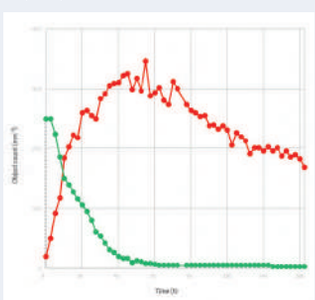

Etoposide

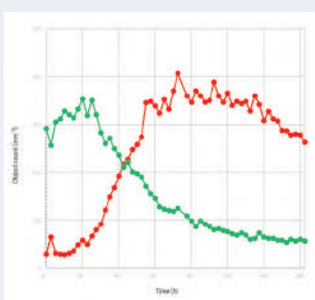

Cycloheximide

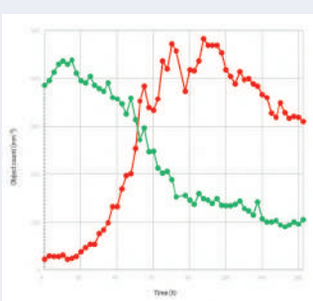

Paclitaxol

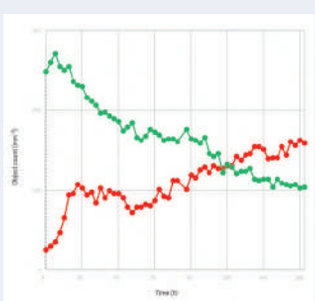
Real-time reporting of live cell count (Green) vs. dead cell count (Red).
Y-axis: Cell Counts | X-axis: Time (Hr)

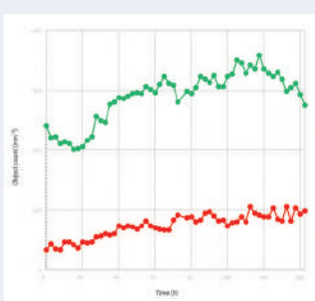

Control


Staurosporine


Camptothesin


Etoposide


Cycloheximide

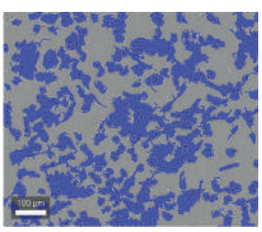

Paclitaxol

Expand Your Research

Addressing critical questions across key applications

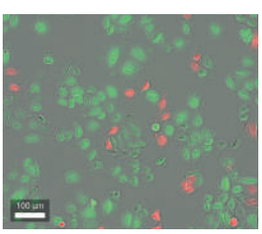
Cell culture quality control

Monitor cell morphology and growth over time from inside your incubator.



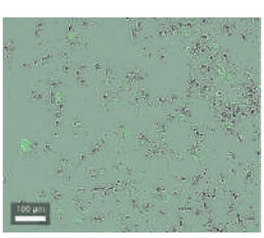
Label-free cell confluence

Use label-free segmentation metrics to track cell confluence.



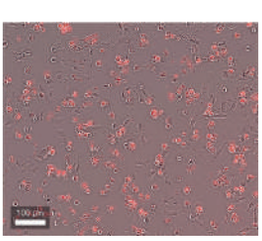
Fluorescence cell counting

Measure how live cell populations are growing with or without labels and markers.



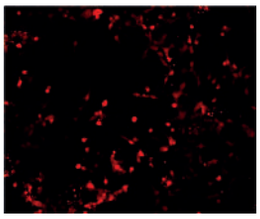
Apoptosis

Monitor the process of cells undergoing a timely programmed cell death by measuring the signal from the activation of caspase-3/7.



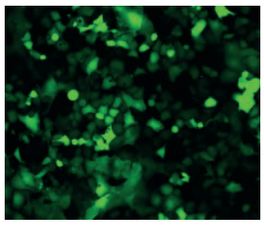
Cytotoxicity

Monitor and quantify the number of cells dying over a period of time.



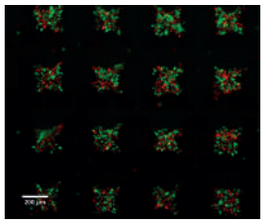
Transfection efficiency

Monitor the ability of mammalian cells to update foreign nuclei acids such as DNA and RNA by quantifying expression levels and comparing efficiency.



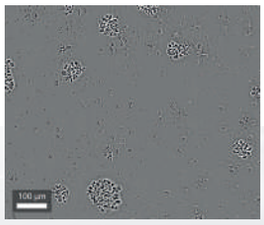
Reporter genes

Quantify and assess the dynamics of multiple biochemical signals, such as expression of genes or activity of proteins of interest in real time.



Spheroid growth

Monitor and quantify single spheroid formation and growth.



Immune cell cluster formation

Visualize and quantify immune cell interactions and proliferation to understand the mechanisms of immune cell activation, regulation, and differentiation.

Technical Specifications

Fluorescence Microscopy Channels	Blue	Ex 370-410 nm Em 429-462 nm
	Green	Ex 473-491 nm Em 502-561 nm
	Red	Ex 580-598 nm Em 612-680 nm
Enhanced Contour	Contrast rich transmission imaging mode	
Objective	4X	Resolution: 0.862 µm/pixel Field of View: 2.1 x 1.77 mm
	10X	Resolution: 0.345 µm/pixel Field of View: 0.8 x 0.7 mm
Camera System	5 megapixel 0.66-inch mono CMOS sensor	2448 X 2048 pixels
Exported Image Format	Time lapse Single image	TIFF TIFF, PNG
Exported Movie Format	AVI	
Exported Data Format	CSV, XLXS	
CELLCYTE X Imaging Unit	Dimensions (H x W x D)	340 x 410 x 500 mm
	Operating Conditions	10-40° C, RH up to 95%
CELLCYTE X Controller Unit	Dimensions (H x W x D)	90 x 250 x 250 mm
	Internal Storage	10 TB
	Operating Conditions	Intended for indoor use 20-40° C
Power Input	100-240 VAC, 50-60 Hz, 70 W	
System Recommendations	OS: Microsoft Windows 10 Operating System (64-bit) CPU: 2 GHz or faster Intel Core Duo Processor RAM: 8 GB or more	Storage: 500 GB SSD (or larger) GPU: Nvidia GPU with 8 GB* of VRAM or more *Required for CELLCYTE Analysis.

www.cytena.com/cellcyte-x

Contact

Email: info@cytena.com

U.S. phone: +1 833-235-5465

E.U. phone: +46 31-128 700

CYTENA

A BICO COMPANY