



INCUCYTE® LIVE-CELL ANALYSIS SYSTEM

Assays for Immuno-Oncology Research

Real-time automated measurements of immune and tumor cell dynamics within your incubator



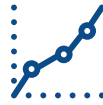
Know the whole story—Real-time tumor and immune cell analysis inside your incubator

Gain insight into the dynamic biological processes that drive the immune response against cancer with the IncuCyte® Live Cell Analysis System. Continuously monitor and analyze key events, from proliferation and activation, to migration and immune cell killing - without disturbing or exhausting your cells, or defining assay end-points.



Reveal the interplay between immune and tumor cells

- Generate direct, non-invasive measurements of dynamic immune/tumor cell interactions
- Assess morphology and visually confirm interactions in situ in your incubator



Get the answers you need

- Real-time continuous analysis—never miss a data point
- Maintain cells in optimal and stable conditions in the incubator, preserving them for downstream studies



Save time and money

- Simplify experiments with IncuCyte™ reagents, consumables and protocols - spend less time troubleshooting, more time investigating
- 96/384 well format assays use low cell numbers, preserving your precious cells
- Set up, walk away and review unbiased, automated analyses of up to six 96-well plates at once.

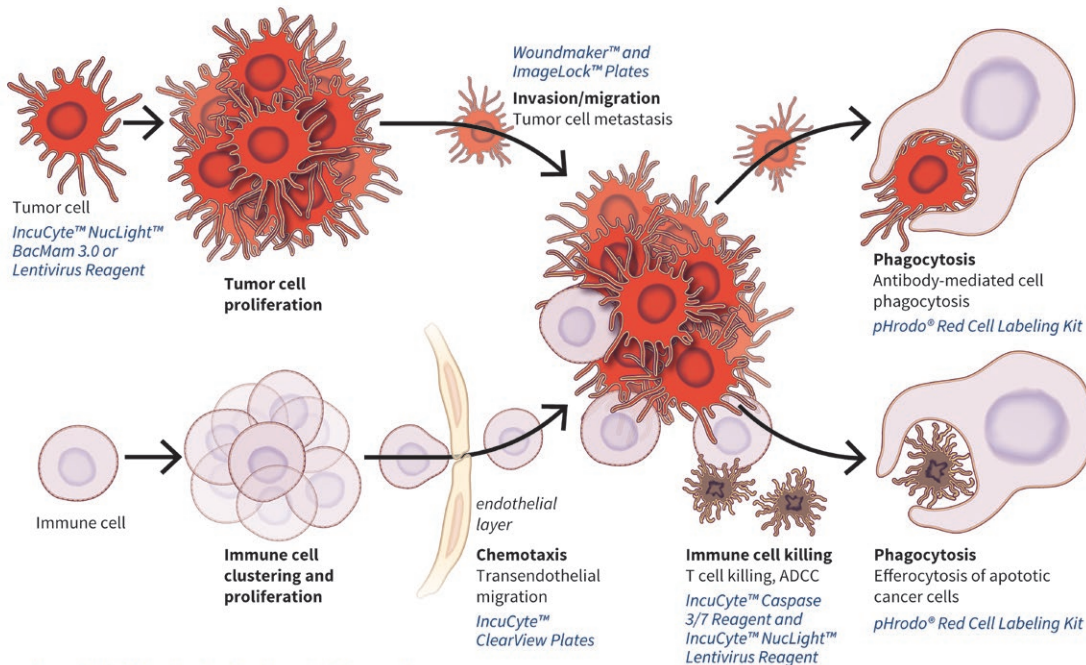


Protect your cells

- Maintain cell health and morphology with non-perturbing proprietary reagent formulations
- Reduce manipulations and loss of precious cells with mix-and-read reagents

Study key steps with a range of IncuCyte applications

Effective immunotherapies require the immune system to recognize, engage, kill, and remove unwanted tumor cells. IncuCyte provides a range of applications and reagents to study the key steps.



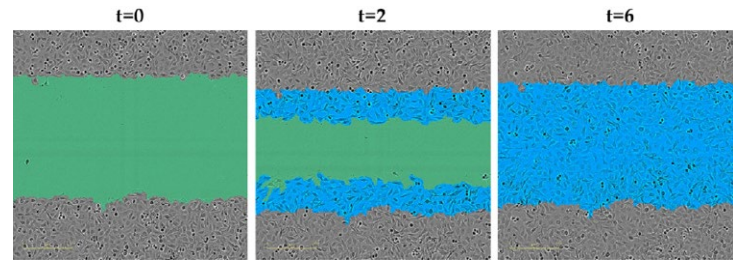
IncuCyte™ Products Accelerate Research

Visualize and quantify tumor cell proliferation, migration, and invasion with movies and automated analysis

- Quantify proliferation with label-free confluence measurements or direct cell counting using NuLight™ fluorescent labels
- Visualize and measure tumor cell migration and invasion in a 96-well format using the IncuCyte™ Scratch Wound kit

Scratch Wound Kit includes:

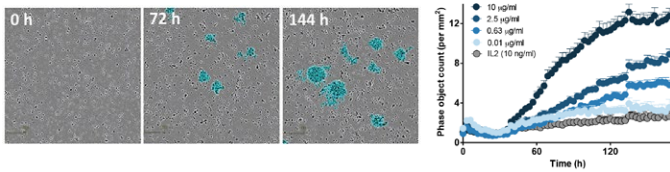
- WoundMaker™—a 96-pin woundmaking tool
- Scratch Wound analysis software module,
- Starter batch of 96-well ImageLock™ plates.



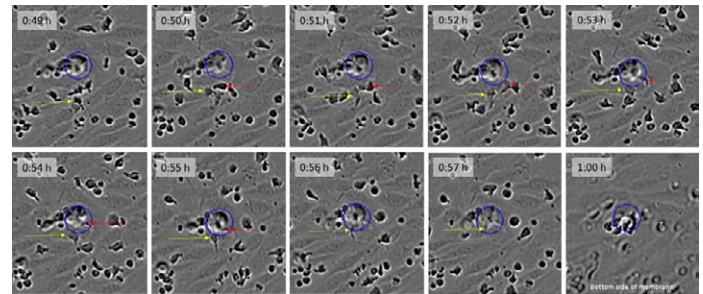
Tumor cell migration. HT-1080 fibrosarcoma cells cultured in ImageLock plates migrate into the wound region created by the WoundMaker, complete closure is observed at six hours.

Observe and measure the expansion, activation, and chemotactic migration of immune cells

- Measure T cell proliferation and clustering without labelling, washing, or cell lifting. Harvest cells or supernatants for complimentary downstream flow cytometry or chemokine analyses.
- Visually confirm and automatically measure chemotactic and transendothelial migration of immune cells towards chemoattractants with the IncuCyte™ Chemotaxis Cell Migration Software Module and ClearView 96-well Chemotaxis Plates



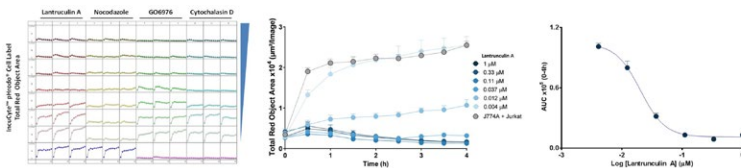
Immune cell clustering. PBMCs activated with anti-CD3 antibody and IL-2 induce T cell aggregation. Label free clusters are automatically quantified over time (blue analysis mask) observed at six hours.



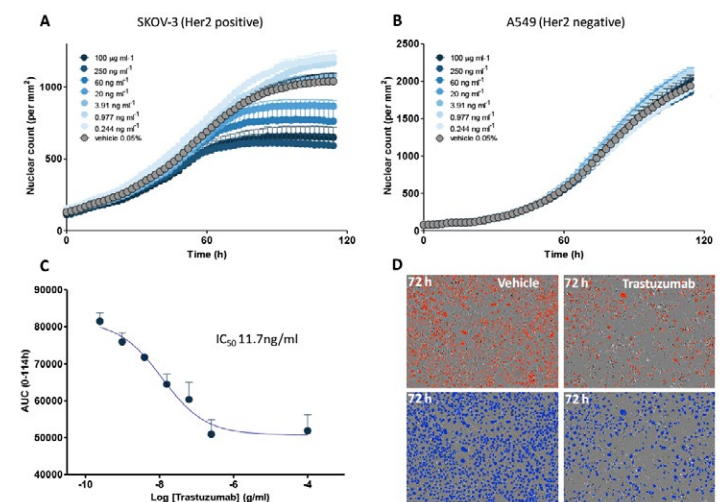
Leukocyte chemotactic transendothelial migration. Leukocytes migrate through a HUVEC monolayer and through the pore (blue circle) of a ClearView Chemotaxis plate.

Reveal the dynamic interplay between tumor and immune cells—analyze immune cell killing and clearance of tumor cells

- Visualize and quantify immune cell killing using protocols developed for PBMCs and cytotoxic T lymphocytes co-cultured with adherent or suspension tumor cell types
- Observe and measure clearance of tumor cells via phagocytosis in real time using the pHrodo® Red Cell Labeling Kit.



Clearance of dying cells via phagocytosis. Measure engulfment of dying cancer cells over time with the pHrodo® red Cell Labeling Kit. Quickly assess treatment effects using the microplate readout.



Immune cell killing. Kinetic concentration response curves reveal the cytotoxic effect of trastuzumab (Herceptin®) via antibody-dependent cell-mediated cytotoxicity in SKOV-3 ovarian cancer cells transduced with NuLight™ Red Lentivirus.

Key applications using the IncuCyte ZOOM® Live-Cell Analysis System

Learn more at www.essenbioscience.com/applications



Proliferation

Automatically measure label-free growth or count living cells with NuLight™ nuclear labeling in real time



Cell Migration & Invasion

Characterize the metastatic potential of tumor cells and investigate treatment effects on migration across a 2D substrate or invasion through a 3D gel matrix



Immune Cell Clustering

Visualize and quantify expansion and clustering without removing your cultures from the incubator



Immune Cell Killing

Detect tumor cell death directly by counting NuLight™ nuclear-labelled cells or measuring apoptosis with IncuCyte™ Caspase 3/7 reagent



Chemotaxis

Visually confirm the chemotactic migration of immune cells towards chemoattractants with ClearView 96-well plates



Phagocytosis

Continuously analyze and generate movies of immune cells engulfing pHrodo® labelled target tumor cells

Ordering information

Contact us at sales@essenbio.com to place an order or for more information.

APPLICATION	PRODUCT	QTY	CAT. NO.
Proliferation - Label and count living cells in real time	IncuCyte NuLight™ Red BacMam 3.0 Reagent	1mL	4621
	IncuCyte NuLight™ Green BacMam 3.0 Reagent	1mL	4622
	IncuCyte NuLight™ Green Lentivirus Reagent (EF-1 α, Puro)	0.2mL	4624
	IncuCyte NuLight™ Red Lentivirus Reagent (EF-1 α, Puro)	0.2mL	4625
	NuLight Green Lentivirus (EF-1 Alpha Promoter, Bleomycin)	0.2mL	4626
	NuLight Red Lentivirus (EF-1 Alpha Promoter, Bleomycin)	0.2mL	4427
	NuLight Green Lentivirus (EF-1 Alpha Promoter, Puromycin)	0.6 mL	4475
	NuLight Red Lentivirus (EF-1 Alpha Promoter, Puromycin)	0.6 mL	4476
	NuLight Green Lentivirus (EF-1 Alpha Promoter, Bleomycin)	0.6 mL	4477
	NuLight Red Lentivirus (EF-1 Alpha Promoter, Bleomycin)	0.6 mL	4478
Cell Migration & Invasion - Conduct scratch wound experiments in 96 well format with ImageLock plates and Woundmaker	ImageLock 96-well Plates	50 plates	4379
	IncuCyte Scratch Wound Cell Migration Kit	1 each	4493
	IncuCyte ClearView 96-Well Cell Migration Plate	1 plate	4582
Chemotaxis - Visualize in real-time and automatically analyze chemotactic migration	IncuCyte ClearView 96-well Cell Migration Plates - Case of 10 Plates	10 plates	4582
	IncuCyte ClearView 96-well Cell Migration Plates - Case of 50 Plates	50 plates	4599
	IncuCyte ClearView Reservoir Plate	10 plates	4600
	IncuCyte ClearView Reservoir Plate - Case of 100 Plates	100 plates	4601
	IncuCyte Chemotaxis Software Module	1 each	9600-0015
Immune Cell Killing, Clustering and Proliferation - Directly measure tumor cell killing and proliferation in real time, analyze chemotactic migration	IncuCyte Caspase-3/7 Apoptosis Assay Reagent	1 each	4440
	NuLight Red Lentivirus (EF-1 Alpha Promoter, Bleomycin)	0.2mL	4427
	NuLight Red Lentivirus (EF-1 Alpha Promoter, Puromycin)	0.6 mL	4476
	NuLight Red Lentivirus (EF-1 Alpha Promoter, Bleomycin)	0.6 mL	4478
Phagocytosis - Measure clearance of labelled tumor cells	IncuCyte pHrodo® Red Cell Labeling Kit	1 kit	4649