

# Spheroid Growth, Invasion and Immune Cell Killing

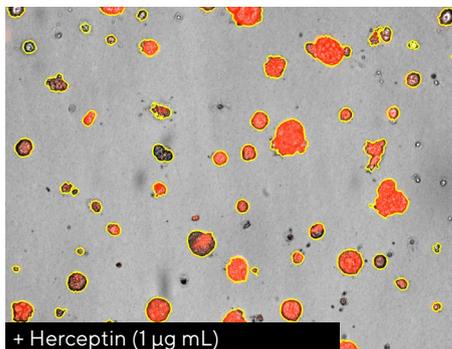
The Incucyte® Spheroid Analysis Software Module is designed to acquire and analyze label or label-free spheroids to automatically monitor and quantify the formation, growth, shrinkage and invasive properties of advanced cell models in real time inside your tissue culture incubator.

- Flexible acquisition mode to enable studies of both single and multi-spheroid assays
- Enable long-term imaging with enhanced depth of focus brightfield (DF® Brightfield) image acquisition
- Analyze relevant spheroid metrics using intuitive Incucyte® processing definitions

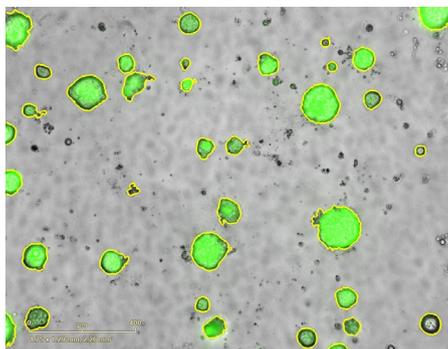
## Application Spotlight: 3D Immune Cell Killing

Quantify and visualize immune cell-mediated killing of solid tumors in real time using non-perturbing reagents and purpose-built, integrated Incucyte® Spheroid Analysis Software Module.

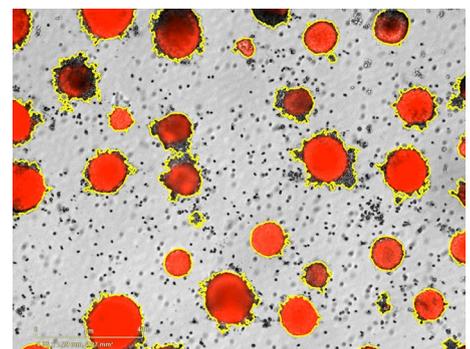
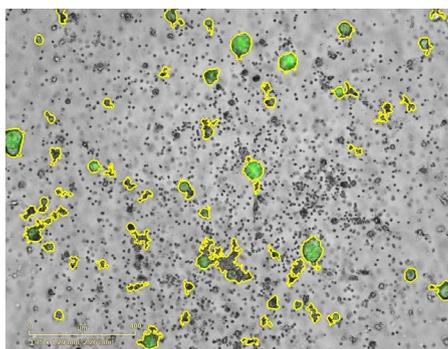
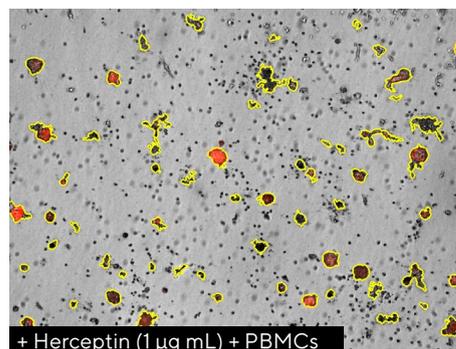
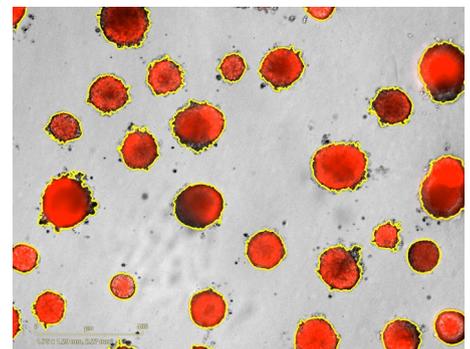
SKOV3-NR



BT-474-CyG



MCF7-NR



Tumor cells either stably expressing Incucyte® Nuclight Red Lentivirus (SKOV3-NR, MCF7-NR) or Incucyte® Cytolight Green Lentivirus (BT-474-CyG) were seeded on a bed of Matrigel® in flat bottom 96-well plates. Multi-spheroids were allowed to form (3 d) prior to addition of freshly isolated PBMCs (E:T, 5:1) and Herceptin. Incucyte® BF and fluorescence images (7 d; SKOV3-NR, MCF7-NR or 10 d; BT-474-CyG) compare the effect of Herceptin on spheroid proliferation in absence (top panel) and presence (bottom panel) of PBMCs (BF outline mask shown in yellow).

## Ordering Information

	Product	Description	Cat. No.	Instrument Compatibility
<b>Spheroid Software</b>	Analyze growth, viability and invasion of single spheroids in round-bottom multi-well formats or measure multiple spheroids in flat bottom plates to detect changes in growth and viability.			
	Incucyte® Spheroid Analysis Software Module	1 module	9600-0019	SX5, S3, SX1
<b>*Nuclear Lentivirus Labeling Reagents</b>	Lentivirus reagents provide homogenous expression of a nuclear-restricted fluorescent protein without altering cell function for live-cell quantification of cell proliferation and viability.			
	Incucyte® Nuclight Green Lentivirus (puro)	0.2 mL	4624	SX5, S3, SX1
		0.6 mL	4475	SX5, S3, SX1
	Incucyte® Nuclight Red Lentivirus (puro)	0.2 mL	4625	SX5 (configured with Green/Red Optical Module), S3, SX1
		0.6 mL	4476	
	Incucyte® Nuclight Green Lentivirus (bleo)	0.2 mL	4626	SX5, S3, SX1
		0.6 mL	4477	SX5, S3, SX1
	Incucyte® Nuclight Red Lentivirus (bleo)	0.2 mL	4627	SX5 (configured with Green/Red Optical Module), S3, SX1
		0.6 mL	4478	
Incucyte® Nuclight Orange Lentivirus (puro)	0.2 mL	4771	SX5	
Incucyte® Nuclight NIR Lentivirus Reagent (puro)	0.2 mL	4805	SX5	
<b>Apoptosis Plasma Membrane Integrity Reagents</b>	Membrane impermeable, highly-selective phosphatidylserine (PS) cyanine fluorescent dyes label PS exposed on the extracellular surface of cells undergoing apoptosis.			
	Incucyte® Annexin V Green Dye	One vial: 100–200 tests	4642	SX5, S3, SX1
	Incucyte® Annexin V Red Dye	One vial: 100–200 tests	4641	SX5 (configured with Green/Red Optical Module), S3, SX1
	Incucyte® Annexin V Orange Dye	One vial: 100–200 tests	4759	SX5
	Incucyte® Annexin V NIR Dye	One vial: 100–200 tests	4768	SX5
<b>Cytoplasmic Dye Labeling Reagents</b>	Live-cell cytoplasmic labeling dyes that freely pass through cell membranes and into cells, where they are transformed into a cell membrane-impermeant form, providing spatial context for cell-to-cell interactions.			
	Incucyte® Cytolight Rapid Green Dye	One vial: 15 µg	4705	SX5, S3, SX1
	Incucyte® Cytolight Rapid Red Dye	Five vials: 50 µg	4706	SX5 (configured with Green/Red Optical Module), S3, SX1
<b>Cytoplasmic Lentivirus Labeling Reagents</b>	Lentivirus reagents provide homogenous expression of a fluorescent protein without altering cell function for live-cell quantification of spheroid growth and shrinkage.			
	Incucyte® Cytolight Green Lentivirus (puro)	0.6 mL	4481	SX5, S3, SX1
	Incucyte® Cytolight Red Lentivirus (puro)	0.6 mL	4482	SX5 (configured with Green/Red Optical Module), S3, SX1

\* Pre-labeled Nuclight cell lines are also available for purchase. Please visit [www.sartorius.com/shop](http://www.sartorius.com/shop) for more information.