

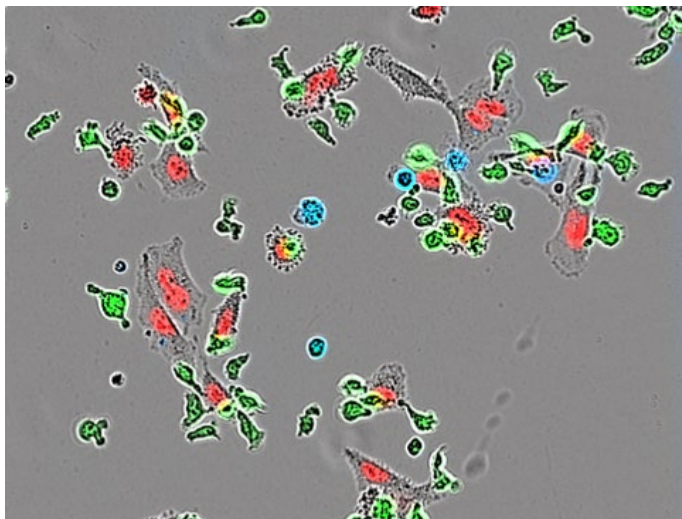
Immune Cell Activation, Killing and NETosis

Incucyte® Immune Cell Assays are an integrated solution for real-time visualization and automated analysis of a range of immune cell functions from T cell activation and killing to programmed neutrophil cell death.

- Derive meaningful data with sensitive, non-perturbing reagents and HD phase images
- Make multiplexed measurements of death, viability and proliferation in 2D or 3D *in vitro* assay models
- Visualize and quantify dynamic cell interactions overtime in complex co-cultures

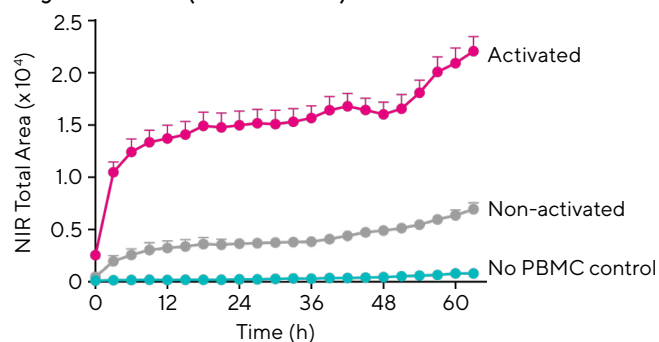
Application Spotlight: Incucyte® Immune Cell Killing

Capture, visualize and automatically quantify dynamic biological changes and cellular interactions of immune cell-mediated killing of tumor cells. With Incucyte® cell health and proliferation reagents you can make multiplexed measurements of tumor cell death (Annexin V NIR Dye), tumor cell proliferation/viability (Incucyte® Nuclight Orange Lentivirus) and immune cell health (Incucyte® Cytolight Rapid Green Dye) in the same population of cells over time.

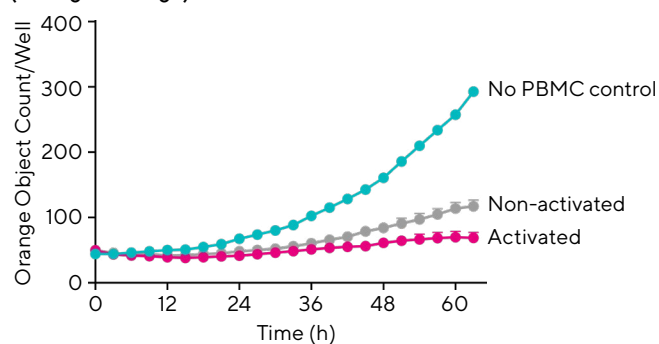


MDA-MB-231 adenocarcinoma cells transduced with Incucyte® Nuclight Orange co-cultured with Incucyte® Cytolight Rapid Green labeled activated or non-activated PBMCs in the presence of Incucyte® Annexin V NIR. Quantification of NIR (pseudo-colored blue) fluorescence area indicates target cell death and object count of orange (pseudo-colored red) fluorescence, target cell proliferation/viability (pseudo-colored green). Effector cell proliferation was quantified based on green object count over the course of the experiment.

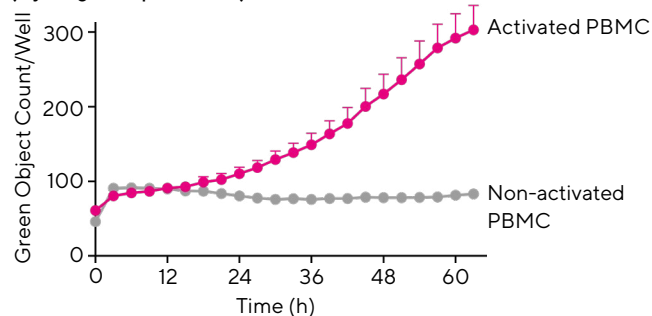
Target Cell Death (Annexin V NIR)



Target Cell Proliferation/Viability (Nuclight Orange)



Effector Cell Proliferation (Cytolight Rapid Green)



Ordering Information

	Product	Description	Cat. No.	Instrument Compatibility
Software	Perform label-free cell counts and subsequent cell-by-cell classification to evaluate changes in proliferation, morphology and cell surface protein expression for evaluation of immune cell activation and proliferation in mono-cultures or track subsets of cells in complex immune-cell killing models with Cell-by-Cell Analysis Software Module. Perform counts and track changes in adherent cell morphology via label-free image segmentation and multivariate analysis of cell shape. Classifier is trained using control wells. Advanced Label-Free Classification Software Module an add-on and requires Incucyte® Cell-by-Cell Analysis Software Module (Cat. No. 9600-0031).			
	Incucyte® Cell-by-Cell Analysis Software Module	1 module	9600-0031	SX5, S3, SX1
	New! Incucyte® Advanced Label-Free Classification Analysis Software Module	1 module	BA-04867	SX5, S3, SX1
*Nuclear Lentivirus Labeling Reagents	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 (puro)	0.2 mL	4805	SX5	
Cytoplasmic Dye Labeling Reagents	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. Use to label either target or effector cells.			
	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
	Incucyte® Cytolight Rapid Orange Dye	One vial: 1 mg	4839	SX5
Caspase Activity Reagents	Inert, non-fluorescent (DEVD) substrates that freely cross the cell membrane where they can be cleaved by activated caspase-3/7 to release a DNA-binding fluorescent label. Recommended for quantifying apoptosis in adherent target cells.			
	Incucyte® Caspase-3/7 Green Dye	One vial: 20 µL (100–200 tests)	4440	SX5, S3, SX1
	Incucyte® Caspase-3/7 Red Dye	One vial: 20 µL (100–200 tests)	4704	SX5 (configured with Green/Red Optical Module), S3, SX1
Apoptosis Plasma Membrane Integrity Reagents	Membrane impermeable, highly-selective phosphatidylserine (PS) cyanine fluorescent dyes label PS exposed on the extracellular surface of cells undergoing apoptosis. Recommended for quantifying apoptosis in non-adherent target cells.			
	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
Cytotoxicity Reagents	Highly sensitive cyanine-based dyes enter the cell when cell membrane is compromised, and become fluorescent upon binding to DNA. Dye does not enter cells with intact cell membranes. Allows for rapid visualization and quantification of NETosis as extracellular DNA is released and undergoes fluorescence enhancement.			
	Incucyte® Cytotox Green Dye	Five vials: 5 µL (100 tests each)	4633	SX5, S3, SX1
	Incucyte® Cytotox Red Dye	Five vials: 5 µL (100 tests each)	4632	SX5 (configured with Green/Red Optical Module), S3, SX1
	Incucyte® Cytotox NIR Dye	One vial: 100 uL (500–100 tests)	4846	SX5

* Pre-labeled Nuclight cell lines are also available for purchase. Please visit www.sartorius.com/shop for more information.