

## Incucyte® Cell-by-Cell Analysis

### Answer More Questions About Your Heterogeneous Cell Models With Incucyte® Cell-By-Cell Analysis

The Incucyte® Live-Cell Analysis System, Incucyte® Cell-by-Cell Analysis Software Module, and Incucyte® Reagents provide a new, enabling, end-to-end solution for analyzing heterogeneous cultures with microplate throughput.

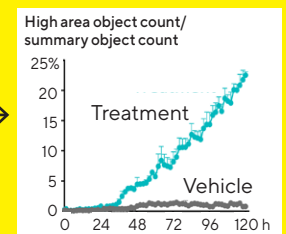
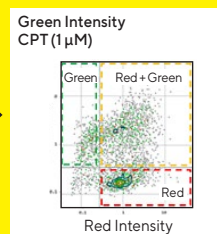
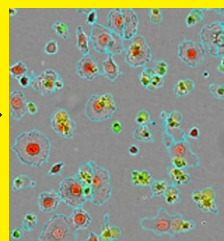
#### With the Incucyte® Cell-by-Cell Analysis, You Can:

- Perform label-free counts of adherent or non-adherent cell models
- Make subsequent cell-by-cell classifications based on shape, size or fluorescent intensity
- Study dynamic changes during activation or differentiation
- Complete kinetic phenotyping in mixed cultures



### Study Dynamic Changes in Cell Subpopulations

Identification, classification, and analysis of subsets of cells is easily accomplished with a purpose-built software and guided workflow.



**1. Prepare assay plate**  
Leverage propriety non-perturbing reagents and protocols. Enable multiplexed analysis in living cells.

**2. Acquire images**  
Maintain the field of view while keeping cells stationary during imaging, leveraging Incucyte's mobile optical train.

**3. Identify objects**  
Identify individual cells in HD phase for label-free quantification of the total cell population.

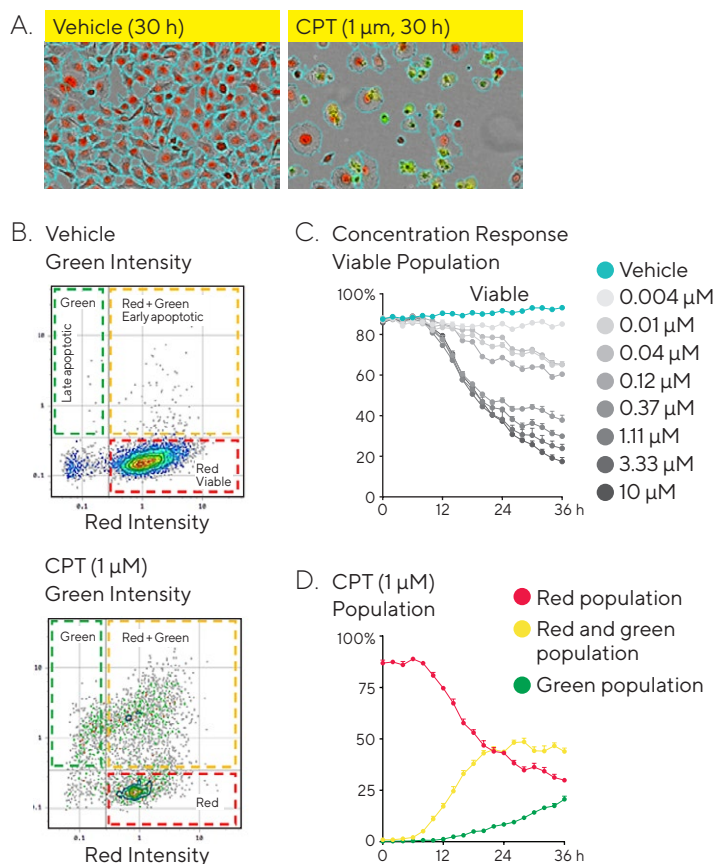
**4. Measure and classify**  
Group cells into subsets using size, shape or fluorescence intensity, and link subset phenotype to function or health.

**5. Visualize data**  
Verify and graph changes in subsets over time.

# Utilize the Incucyte® Cell-by-Cell Analysis Software Module to Enable a Range of Applications

Visualize and quantify dynamic, phenotypic and morphological changes of cell subsets over time to quantify the process and effects of cellular heterogeneity. Gain new insights into activation or differentiation, or understand how cell subsets respond to treatment.

Time course of apoptotic index following Camptothecin (CPT) treatment. Cell health was determined with multiplexed readouts of Incucyte® Nuclight Red (nuclear viability marker) and non-perturbing Incucyte® Caspase 3/7 Green Reagent (apoptotic indicator) following CPT treatment (A). Cell subsets were classified using Incucyte® Cell-by-Cell Analysis Software tools (B). Control cells exhibiting red fluorescence are suggestive of healthy cells (top panel B), while cells after CPT treatment yield populations with both red and green fluorescence indicating early apoptosis, as well those with only green fluorescence indicating late apoptosis (lower panel B). Concentration response time courses of apoptotic index are shown (percentage of total cells exhibiting green fluorescence – C), as well as the time course of the changing subpopulations after CPT treatment (D).



Product	Quantity	Cat. No.
Incucyte® Cell-by-Cell Analysis Software Module	1 module	9600-0031
Incucyte® SX5 Live-Cell Analysis System	1 instrument	4816
Incucyte® Nuclight Green Lentivirus (EF-1α, Bleo)	0.2 mL	4626
	0.6 mL	4477
Incucyte® Nuclight Red Lentivirus (EF-1α, Bleo)	0.2 mL	4627
	0.6 mL	4478
Incucyte® Nuclight Green Lentivirus (EF-1α, Puro)	0.2 mL	4624
	0.6 mL	4475
Incucyte® Nuclight Red Lentivirus (EF-1α, Puro)	0.2 mL	4625
	0.6 mL	4476
Incucyte® Nuclight Orange Lentivirus (puro)	0.2 mL	4771
Incucyte® Nuclight NIR Lentivirus (puro)	0.2 mL	4805
Incucyte® Nuclight Rapid Red Dye	50 μl	4717
Incucyte® Nuclight Rapid NIR Dye	50 μl	4804
Incucyte® Caspase-3/7 Green Dye	20 μl	4440

Product	Quantity	Cat. No.
Incucyte® Caspase-3/7 Red Dye	20 μl	4704
Incucyte® Caspase-3/7 for Metabolism	20 μl	4776
Incucyte® Annexin V Green Dye	1 vial	4642
Incucyte® Annexin V Red Dye	1 vial	4641
Incucyte® Annexin V Orange Dye	1 vial	4759
Incucyte® Annexin V NIR Dye	1 vial	4768
Incucyte® Cytotox Red Dye	5 μl x 5	4632
Incucyte® Cytotox Green Dye	5 μl x 5	4633
Incucyte® Cell Cycle Green   Orange Lentivirus (puro)	0.2 mL	4809
Incucyte® Cell Cycle Green   Red Lentivirus (puro)	0.2 mL	4779
Incucyte® Mouse IgG2a Fabfluor-488 Antibody Labeling Reagent Dye	1 vial (50 μg)	4743
Incucyte® Mouse IgG2b Fabfluor-488 Antibody Labeling Reagent Dye	1 vial (50 μg)	4744
Incucyte® Mouse IgG1 Fabfluor-488 Antibody Labeling Dye	1 vial (50 μg)	4745

Learn more at  
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