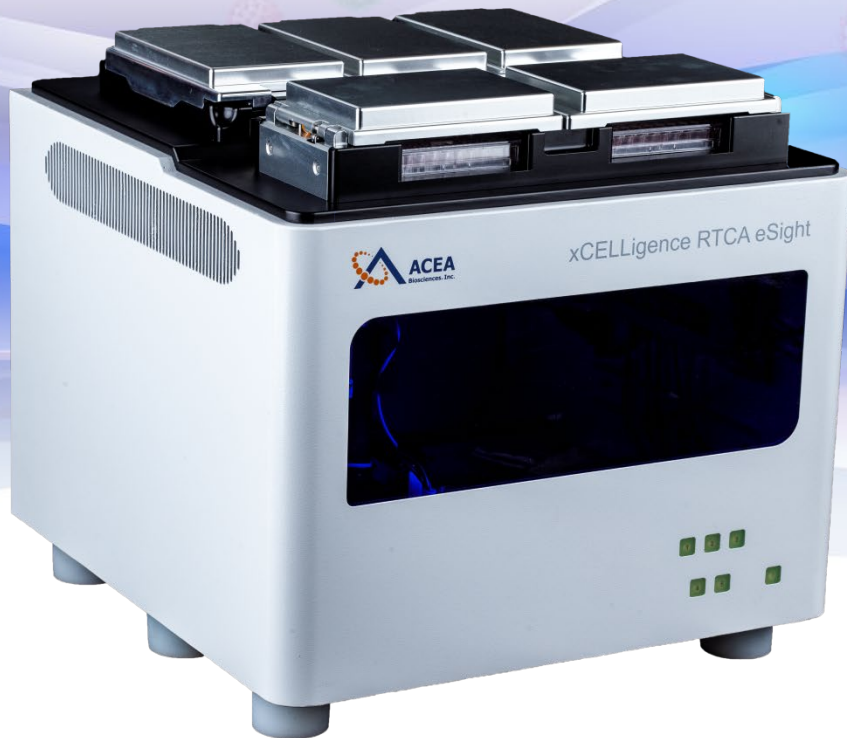


# xCELLigence RTCA eSight™

Multimode Real-Time Cell Analyzer



Biosensor Technology meets Live Cell Imaging

# The Power of Live Cell Imaging is now combined with

## Introducing the xCELLigence RTCA eSight™



**EXCEPTIONAL VERSATILITY:** Providing label-free, real-time biosensor measurements and kinetic imaging of the same live cell populations, independently or simultaneously.

**GENERATE PHYSIOLOGICALLY RELEVANT DATA:** Easily monitor cell health, adhesion, morphology, proliferation and cytolysis in primary or native cells alone or in co-culture, providing unprecedented insight into cellular mechanisms and functionality.

**MORE IN LIVE CELL IMAGING:** The imaging platform supports 3 fluorescence channels, a plethora of well plate formats, an array of reporter reagents, and flexible user-defined schedules.

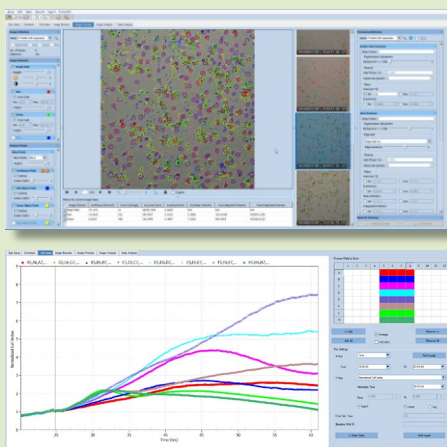
**VERY FAST:** Can read a 96 well plate in 15 seconds with the xCELLigence biosensor technology.

## Two Complementary Modalities, One Experiment, Easy Workflow

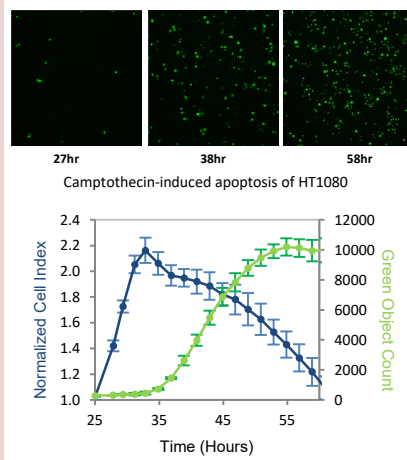
Single Set Up For Dual Measurements

Multi-modal Data Acquisition

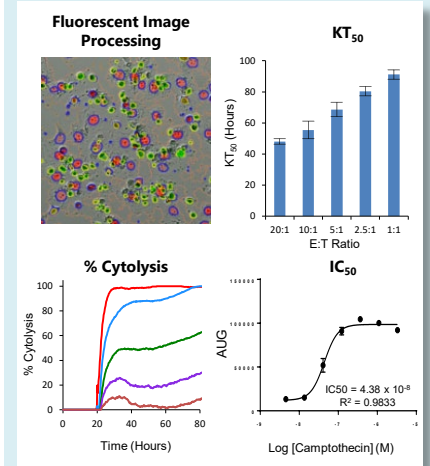
Information Rich & Powerful Analysis



Live cell imaging and real-time biosensor measurements can be performed on the same cell populations, which provides insightful information on cell behavior. Simply, place plates in incubator, set up real-time data acquisition & analysis parameters, then walk away.



Automatically acquires biosensor signal and images over time. Powerful software integrates two data types in one temporal display.



Cell analysis can be displayed and exported in diverse formats, such as fluorescent images, KT<sub>50</sub> (time to reach 50% cytolysis at a given E:T ratio), % Cytolysis dose response, or IC<sub>50</sub> dose response curves.

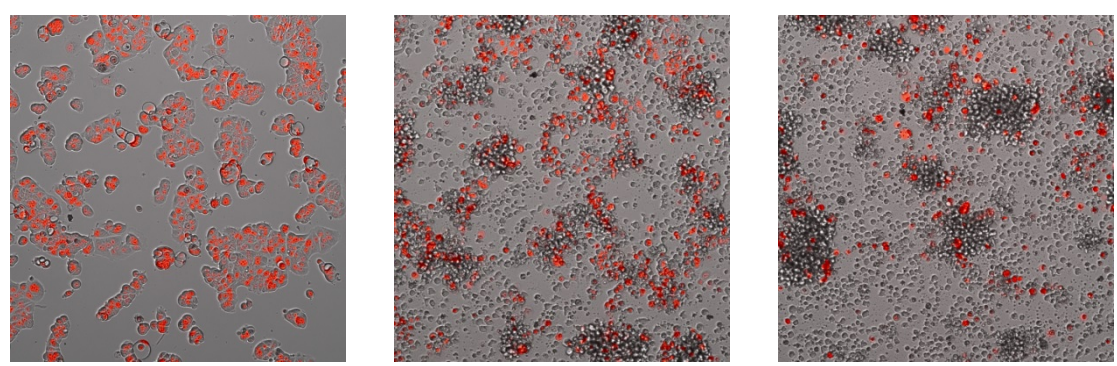
# the Sensitivity of xCELLigence Biosensor Technology

## Functionality Overview

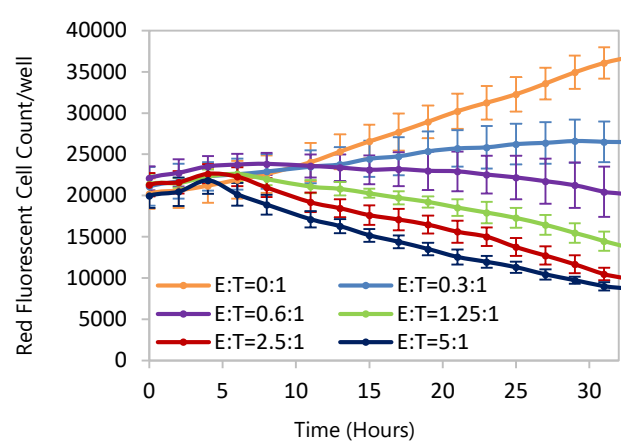
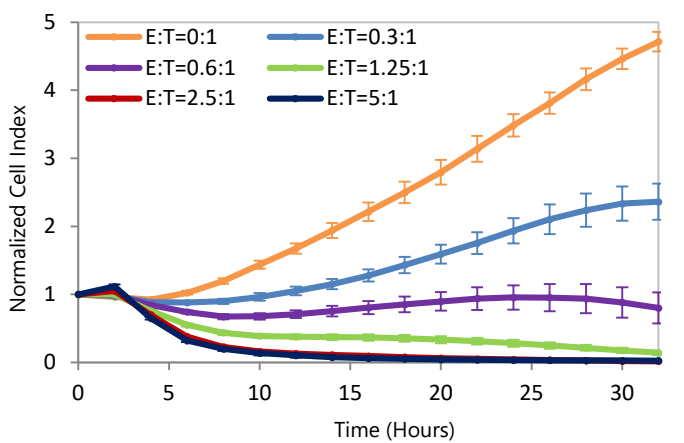
The xCELLigence technology utilizes proprietary microtiter plates (E-Plates®) embedded with gold biosensors at the bottom of each well, which serve to non-invasively quantify cell behavior. Over the course of an experiment, the biosensors monitor cell metrics such as proliferation, adhesion, morphology, migration, differentiation and much more. The measurement is exceptionally fast and provides exquisite temporal resolution so that all relevant responses can be measured in seconds, minutes, hours, and days. In concert with the biosensor measurements, cell images can be captured in real-time, thereby providing a spatial and temporal dynamic view of the cell populations and validating time-dependent cell health and behavior at an unprecedented level of details for any cell based assay.

## Broad Applications

The streamlined workflow, high reproducibility, and quantitative kinetics of the eSight system makes it ideal for a wide range of cell-based assays such as proliferation, cytotoxicity and apoptosis. The example below illustrates the monitoring of immune cell-mediated killing of cancer target cells in real-time. MCF7 breast cancer cells were transfected with a lentivirus expressing a red fluorescent protein (eLenti Red, Cat# 8711011), seeded on an E-Plate for 25 hours, and then treated with NK92 cells at different Effector:Target (E:T) ratios.



Images taken before (left), or 12hr (center) and 30hr (right) after NK92 effector cells addition at an E:T ratio of 2.5:1 allow visualization of target cell (red) death over time.



Effectors addition causes cancer cell death in a E:T ratio-dependent manner as shown by biosensor (left) and imaging (right) measurements. Red fluorescent cell count indicates number of living target cells.

## Ordering Information

Instruments – Bundled Products	DESCRIPTION	CAT. No.
xCELLigence RTCA eSight Instrument Bundle	xCELLigence RTCA eSight Instrument xCELLigence RTCA eSight Control Unit (desktop; software pre-installed) & Monitor	00380601600

Reagents	DESCRIPTION	CAT. No.
eLive Green	Live cell labeling reagent. 50µl/vial	8711003
eLive Red	Live cell labeling reagent. 50µl/vial	8711004
eCaspase-3 NucView® 488	Apoptotic cell labeling reagent. 20µl/vial	8711005
eAnnexin V Green	Apoptotic cell labeling reagent. 5µg/vial lyophilized	8711006
eAnnexin V Red	Apoptotic cell labeling reagent. 5µg/vial lyophilized	8711007
eTox Green	Dead cell labeling reagent. 10µl/vial (4-pack)	8711008
eTox Red	Dead cell labeling reagent. 10µl/vial (4-pack)	8711009
eLenti Green	Green Lentivirus (EF1α promoter, puromycin selection, nucleus-localized fluorescence)	8711010
eLenti Red	Red Lentivirus (EF1α promoter, puromycin selection, nucleus-localized fluorescence)	8711011
eLenti Blue	Blue Lentivirus (EF1α promoter, puromycin selection, nucleus-localized fluorescence)	8711012



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