

xCELLigence

Real-time cellular analyzer



Obtain more information about your cells than ever before. Acquire data that endpoint analysis alone could never realize, and advance your cell-based research. Expand your resources with the revolutionary **xCELLigence System** from ACEA Biosciences.

Perform real-time, label-free cellular assays to:

- Generate more physiologically relevant data.
- Measure short-term and long-term cellular effects.
- Continuously monitor cell responses without the use of exogenous labels.
- Determine optimal time points for endpoint assays.

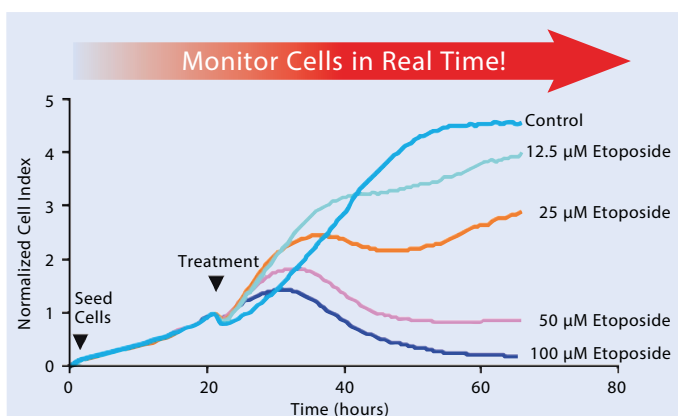


Figure 1: Continuous monitoring reveals cytotoxicity caused by DNA damage. Etoposide is a DNA-damaging agent that induces apoptosis at high concentrations, while at lower concentrations it leads to S-Phase and/or G2 arrest.

Join the growing number of researchers using xCELLigence System time-dependent cell response profiles (TCRPs) (Figure 1) and flexible throughput options to advance discovery in a broad range of applications.

- Cell invasion and migration assays
- Compound- and cell-mediated cytotoxicity
- Cell adhesion and spreading
- Cell viability, proliferation, and differentiation
- Receptor-mediated signaling
- Virus-mediated cytopathogenicity
- Cardiotoxic compound effects
- High-throughput screening
- Continuous quality control of cells in culture



Discover what
you've been missing



Accelerate your biomedical research



Advanced Plate Design: Sensitivity & Versatility

xCELLigence E-Plates and CIM-Plates feature an innovative microelectrode configuration (Figure 3). Impedance across the electrodes is measured in real time, providing sensitive, immediate detection of the cellular condition and response from low cell numbers to confluency.

- Choose from 16-, 96- or 384-well plate formats (Table 1).
- Observe cell status with the E-Plate VIEW (Figure 4).
- Combine different plate types on one instrument (Table 1).



Figure 2: Cellular analysis under optimal environmental conditions ensures physiologically relevant results. RTCA Plate Stations* can be placed inside standard cell culture incubators (RTCA MP Plate Station is shown), creating a temperature-, CO₂-, and humidity-controlled environment throughout an experiment.

* The RTCA HT Plate Station integrates with robotic platforms, and is not designed for placement in an incubator.

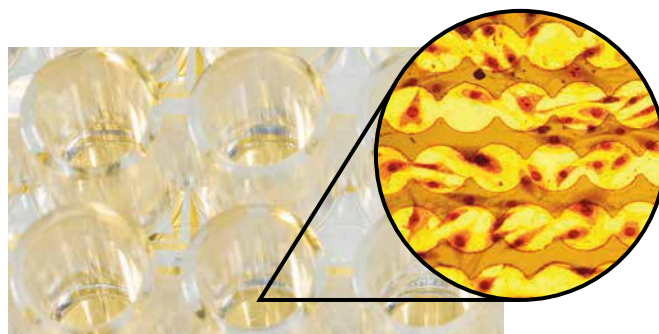


Figure 3: Innovative plate design enables sensitive real-time cell monitoring. xCELLigence E-Plates and CIM-Plates feature unique gold microelectrodes that cover approximately 80% of each well bottom, maximizing sensitivity (inset). Cell activity is monitored by measuring impedance across the electrodes.

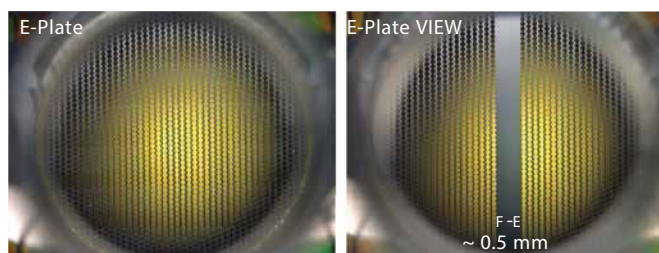


Figure 4: E-Plate VIEW technology enables cell visualization by microscopy while measuring cell response. A clear inspection window on each well bottom facilitates optical detection of cellular changes (e.g., viability, morphology, proliferative state) indicated by xCELLigence System time-dependent cell response profiles.

Instrument	Plate Type / Format	Throughput / Samples per Run	Applications
RTCA SP Instrument	(1) E-Plate 96 or E-Plate VIEW 96	96	• Cellular Assays
RTCA MP Instrument	(6) E-Plates 96 or E-Plates VIEW 96, or any combination	up to 576 (6 x 96)	• Cellular Assays
RTCA DP Instrument	(3) E-Plates 16, E-Plates VIEW 16, or CIM-Plates 16, or any combination	48	• Cellular Assays • Cell Invasion and Migration
RTCA HT Instrument	(1) 384-well E-Plate 384	384	• High-Throughput Screening • Robotics Integration
	Integrate up to (4) RTCA HT Instruments	up to 1,536	
RTCA Cardio Instrument	(1) E-Plate Cardio 96	96	• Cardiomyocyte Beating • Compound Evaluation

Table 1: The xCELLigence System offers a variety of format options to meet application and throughput needs.

For life science research only.
Not for use in diagnostic procedures.



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