

# Cell-IQ<sup>®</sup> 2 NEW

## Continuous Live Cell Imaging & Analysis System



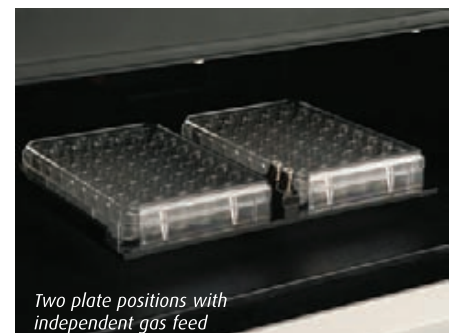
Cell-IQ 2 is a fully integrated, automated cell culture and analysis system for short and long term studies. The system comprises incubator and imaging hardware with powerful intuitive software for data capture and processing. Operating Cell-IQ 2 is simple requiring a minimum labour time to set up. Cells can be monitored continuously via the Imagen™ program, whilst the Analyser™ software allows users the ability to analyse multiple cellular parameters from phase contrast and fluorescence images in real time for maximum efficiency.

Cell-IQ 2 has been used to study a wide range of applications in areas from drug discovery, routine and clinical assays, regenerative and translational medicine through to stem cell research. Key features include:

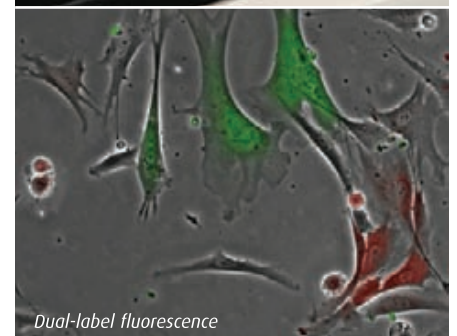
- Optimised incubator capable of short and long term cell studies, one image to a six week study
- Patented Cell-Secure lid delivering gas directly to microplate
- Independent gas feeds to two plate positions enabling comparative studies to be performed e.g. hypoxia
- Plate holder compatible with slides, dishes, flasks and microplates
- LED illumination for both phase and fluorescence imaging reducing external cell effects such as photo-toxicity and photobleaching
- 2D and 3D imaging and dynamic z-stack maximises the range of samples and culture conditions that can be monitored
- Automated analysis of multiple cellular parameters from label free phase contrast images and multi-label fluorescence images

The ability to analyse cellular behaviour using phase contrast imaging makes Cell-IQ 2 a truly label free technology. Cells or cellular structures are characterised and quantified by kinetically tracking changes in their morphology.

Cell-IQ 2 can benefit your research by increasing the content of the data generated from each and every experiment performed, whilst significantly reducing manual effort and assay costs.



*Two plate positions with independent gas feed*



*Dual-label fluorescence*

**Standard Features**

**Sample Handling:**

- Two positions available for simultaneous monitoring
- Compatible with 6, 12, 24, 48 and 96-well microplates
- Compatible with slides
- Compatible with cell culture flasks, dishes

**Imaging:**

- LED light source for long life-time, fast modulation and optimal wavelength
- CCD camera
- Automatic imaging with easy and flexible selection of ROIs
- Automatic focusing maintaining good focus throughout experiment
- All-in-focus imaging Z-stack images translated to give single result image with superior focus for entire field of view
- 10x objective, 0.7-0.9 µm resolution (x4, x20 and x40 are available)
- Automatic vibration compensation via digital image processing

**Environmental Control:**

- Temperature, user selectable range of 20-40°C ±0.5°C
- CO<sub>2</sub>, supplied via pre-mixed bottle or external mixer
- Each plate position has independent gas feed enabling comparative studies to be performed.
- Humidity, controlled within the plate via use of patented plate lid or external bottle
- Environmental data captured and reported for duration of experiment

**Software:**

- Microsoft Windows<sup>®</sup> XP Operating System
- Cell-IQ Imagen<sup>™</sup> Software Package
- Cell-IQ Analyser<sup>®</sup> Software Package
- Cell-IQ Analyser<sup>®</sup> Pro-Write<sup>™</sup> Package enabling independent protocol generation
- USB 2.0 and Ethernet connection
- Detailed manuals with quick start guides
- TCP/IP network compatible

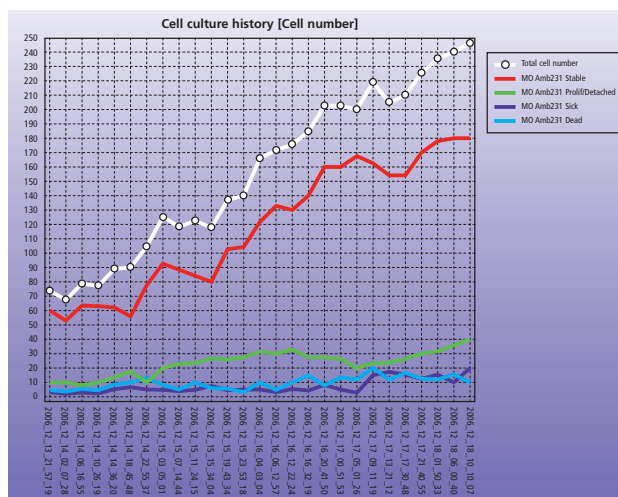
**Analysis Functions:**

- The Cell-IQ Analyser Software utilizes Machine Vision Technology (a form of artificial intelligence) to detect and quantify different cell type/phases from captured phase contrast images
- Cells are recognized by their surface structure and outer shape
- The system can be taught and refined as the user gains experience with their cell lines

**Accessories:**

- Cellite<sup>™</sup> Single-label Fluorescence module
- Cellite<sup>™</sup> Multi-label Fluorescence module with three filter blocks. These filter blocks can be changed should other filters sets be required for an experiment
- x4, x10, x20 and x40 objectives

**Result format:**



Results are displayed in graph format where the cell number (or area size or cell type number, etc) is represented as a function of time, see the image above. The data can also be exported to Excel for further statistical analysis.

**Physical and Environmental Specifications**

**Dimensions:**

- W x H x D: 70 cm x 113 cm x 88 cm
- Weight: 85 Kg

**Operating Conditions:**

- Relative humidity 5-50%, non-condensing
- Temperatures of 18°C to 30°C (64°F to 86°F)

**Power Input Requirements:**

- Cell-IQ 100-240 V AC / 4 Amps
- LCD Monitor 100-240 V AC / 0.5 Amps

**Safety Standards:**

- CE marked
- Meets EU regulations for electrical safety
- Meets FCC and EN 55011 requirements for electromagnetic compatibility

**Product Ordering Information**

Product	Cat. No.
Cell-IQ <sup>®</sup> 2 PC live cell imaging & analysis system	110004
Cell-IQ <sup>®</sup> 2 SLF single label fluorescence	110005
Cell-IQ <sup>®</sup> 2 MLF multi-label fluorescence	110006

