

Cell-IQ®

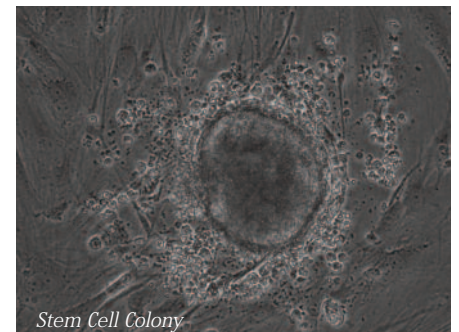
Continuous Live Cell Imaging & Analysis Platform



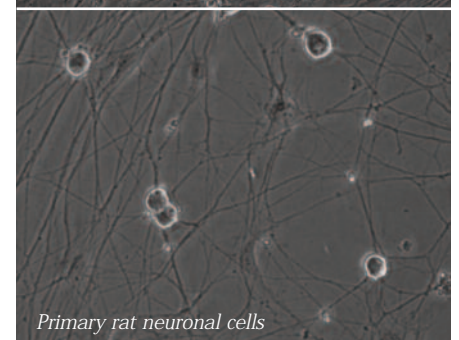
The Cell-IQ is an integrated, fully automated system for long term cell culture and analysis combining incubator, imaging and analysis components in one system. Operating the Cell-IQ is simple and straight forward and involves a minimum of labour time to set up. The analysis software is extremely powerful and enables simultaneous monitoring and analysis of multiple parameters on a continuous basis. Due to the flexibility of the system, it can be adapted to study a wide range of applications in areas from drug discovery, routine and clinical assays to stem cell research.

Cell-IQ has been designed so that multiple cellular parameters can be measured in parallel without the use of labels or markers. This feature has some important consequences:

- Omitting the use of labels dramatically reduces the cost per assay
- Omitting the use of labels minimises the external effects on the cell population
- Multiple parameter analysis can reduce the number of assays required
- Dynamic analysis increases the content of the data generated from each experiment



Stem Cell Colony



Primary rat neuronal cells

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

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
- Automatic vibration compensation via digital image processing

Environmental Control:

- Temperature, user selectable range of 20-40 °C ±0.2°C
- CO2, supplied via pre-mixed bottle or external mixer
- 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® XP Operating System
- Cell-IQ Imgen™ Software Package
- Cell-IQ Analyser® Software Package
- USB 2.0 and Ethernet connection
- Detailed manuals with quick start guides
- TCP/IP network compatible

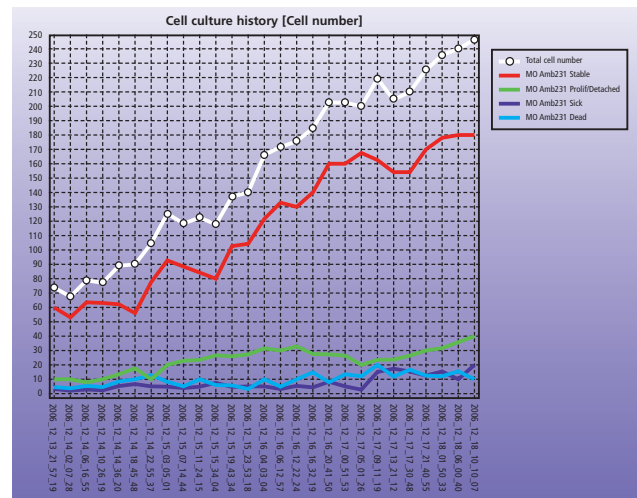
Analysis Functions:

- 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:

- CellLite™ Single-label Fluorescence module
- CellLite™ Multi-label Fluorescence module with three filter blocks. These filter blocks can be changed should other filters sets be required for an experiment
- 4x and 20x 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: 60 cm x 84 cm x 80 cm.
- Weight: 75 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 / 5 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 Continuous Live Cell Imaging System	110001
CellLite™ Single Label Fluorescence Module (Field Upgrade)	110002
CellLite™ Multi-Label Fluorescence Module (Field Upgrade)	110003

