

Celigo™ Adherent Cell Cytometer

Synopsis

The Celigo™ adherent cell cytometer enables *in situ* brightfield and fluorescent analysis of adherent cells with minimal sample manipulation. The system measures multiple cell-based parameters providing significant flexibility.

Benefits

- Analyze cell cultures *in situ*, with minimal disturbance
- Eliminate enzymatic disruption of sample during preparation procedures
- Image cells in brightfield and fluorescence on the same platform
- Analyze every cell in every well in brightfield mode with no 'edge effect'

Applications

Brightfield Label-Free Assays for Live Cells

- Cell counting for adherent cells and for non-adherent cells
- Cell growth tracking
- Colony counting

Fluorescence Assays

- Cell counting
- Cell viability (toxicity)
- DNA synthesis (cell proliferation)
- PS externalization (apoptosis)

Cell Secretion Assay

- Measurement of antibody secretion from individual cells

Specifications

Cellular Analysis Parameters

Total Cell Number (all cells)
Gated Cell Number (cells within user specified gates)
Average Cell Density (cells/well)
Average Cell Area Density (cells/cm²)
Average Cell Diameter (μm)
Average Cell Area (μm²)
Average Cell Perimeter (μm)

Detection Modes

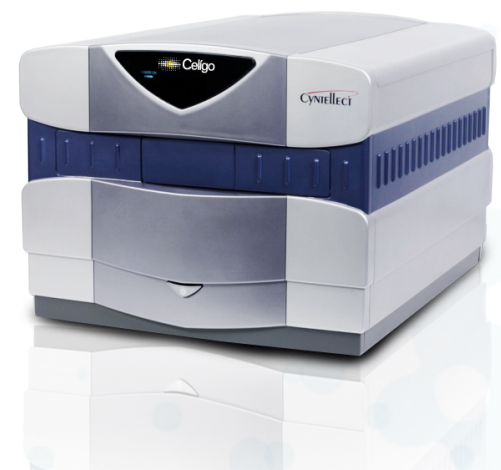
LED-based enhanced brightfield imaging with uniform illumination across well
LED-based fluorescent imaging with 3 excitation filters and 3 emission filters

Plate Formats	384, 96, 24, 12, 6 well plates (coming soon 1536 well plates) T-25 and T-75 flasks
Plate Scan Time	As little as 5 - 15 min across a range of microplate formats
Magnification	3.5x magnification (1 μm /pixel; 0.25 NA)
Fluorescence Detection Range	3 excitation filters and 3 emission filters, to allow for 1, 2, or 3 channels of fluorescence data. Multiple channels of image data can be a combination of brightfield and fluorescence, which will allow 3 fluorescence and 1 brightfield channels.

Fluorescence wavelengths available

<i>Channel</i>	<i>Excitation</i>	<i>Emission</i>	<i>Example Dyes</i>
1	377	447	Hoechst, DAPI
2	483	536	FITC, Calcein, Alexa 488
3	531	629	PI, Texas Red, Alexa 568

Computer Hardware	Dell Precision T3500 or similar
Software Output	Image export file format: TIFF Image format for database storage: JPEG 2000
Dimensions	Enclosure Dimensions: 19" x 25" x 20" (48 cm x 64 cm x 51 cm) Weight: 117 lb (53 kg)
Power Requirements	110-220 VAC 50-60 Hz



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