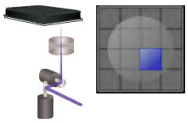
Streamlined detection of single cell derived colonies.

The benchtop Celigo™ image cytometry system provides high-throughput, whole-well imaging and quantitative data through image analysis in brightfield and up to four fluorescent channels. The instrument can be used in cell line development and bioprocessing workflows to screen single-cell derived colonies.

Core technology

Proprietary optics

Whole-well images are captured moving the plate once per well.



Illumination

Flat Illumination and excellent edge-to-edge contrast images in every well.

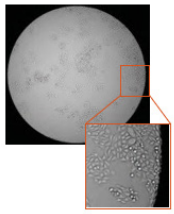
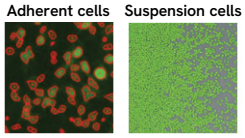
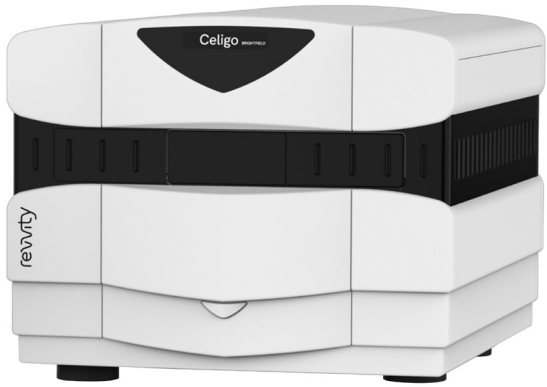


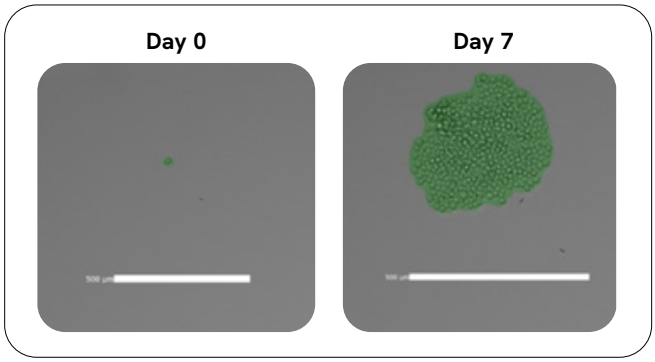
Image segmentation

Brightfield and fluorescence algorithms for segmentation of adherent and suspension cells.

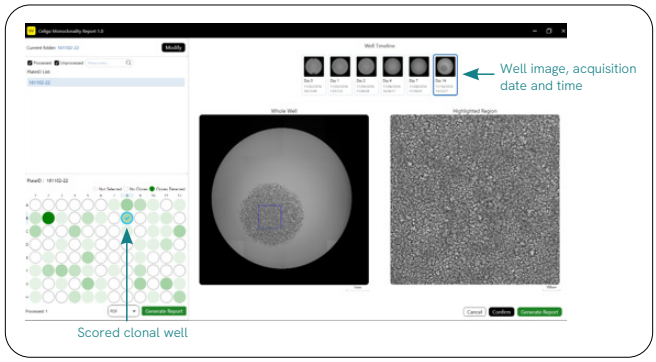




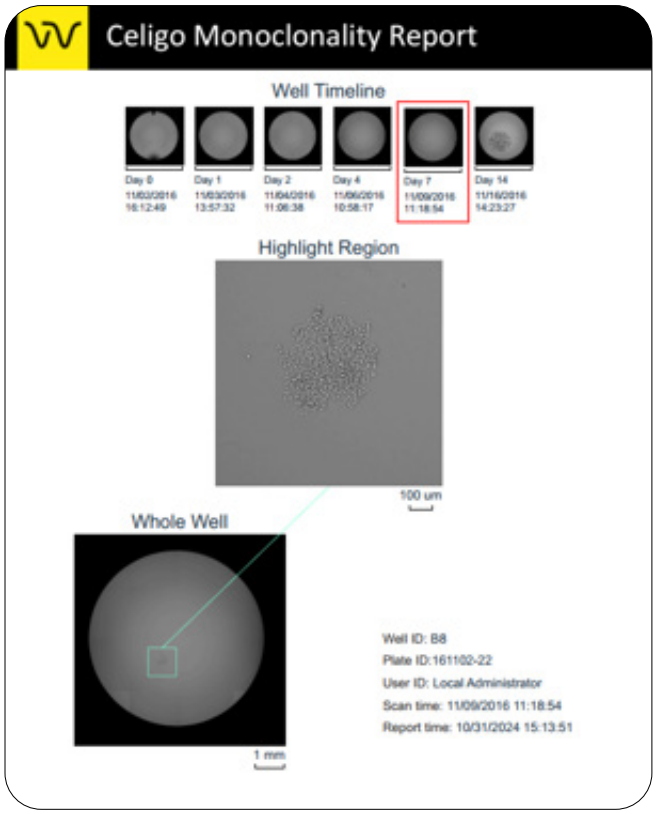
The Celigo image cytometer generates images that can be used to track monoclonality. This data provides evidence of clonality by automatically generating documentation for each clone identified for cell line development, expediting the selection process for further downstream analysis.



Cropped day 0 image displays a single counted cell within the whole well using brightfield imaging on Celigo. The cell was tracked over a 7-day period, as it formed into a colony. Identified single cell and colony are shown with green overlays.



The Celigo monoclonality reporter categorizes wells for cellular growth using a heatmap, providing users with a visual cue for easier identification of clones of interest.



Clones of interest are selected for report export and provide users with well level documentation of colony formation.

Within the Celigo software, the Single Colony Verification application creates and captures the scans for time course monitoring. The Celigo *Monoclonality Report* streamlines the detection and screening of single cell derived colonies over the course of multiple timepoints. Clones confirmed as monoclonal in origin are selected for report export to produce a detailed image timeline. Colony formation data includes traceability to the Celigo scan acquisition date, time, and well location.