

Agilent Seahorse XF Technology Imaging and Data Normalization Solution

Agilent Seahorse XFe and XF Pro Analyzers:
Metabolic analysis in live cells

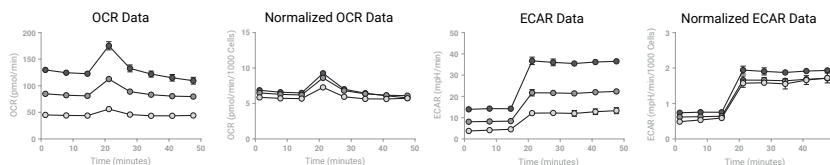
Agilent BioTek Cytation 1 and Cytation 5:
Cell imaging for normalization

- Agilent Seahorse XF Analyzers simultaneously measure the two major energy pathways of the cell – mitochondrial respiration and glycolysis – in live cells, in real time.
- Agilent BioTek Cytation 1/5 Imagers automate digital quantitative microscopy with fluorescence and high contrast brightfield cellular visualization from 1.25 to 60x without complexity.

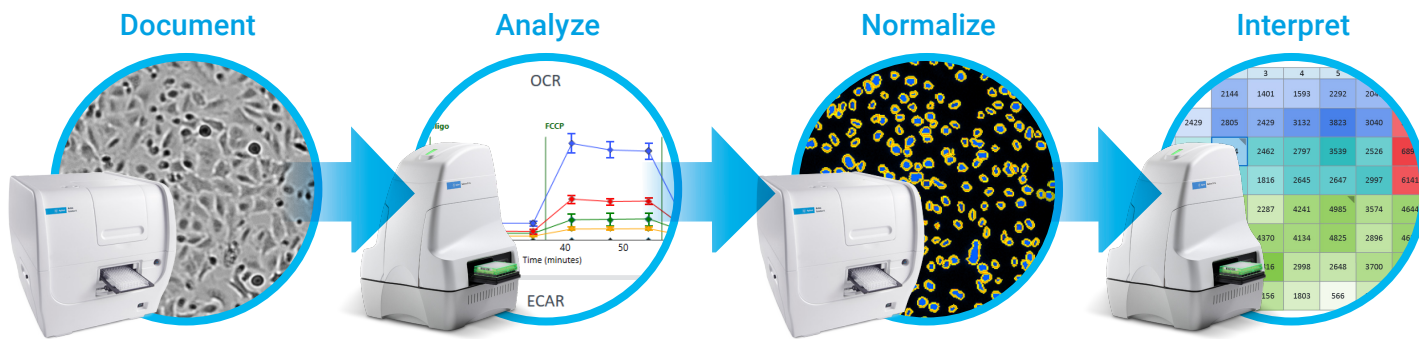
✔ Standardized normalization method

✔ XF data interpretation made easier

- Perform XF analysis with an easy-to-use, reliable, and supported cell count-based normalization solution.
- Improve XF data interpretation by applying cell count numbers directly to your XF data, enabling plate-to-plate, experiment-to-experiment, and well-to-well comparisons.
- Document the cell culture condition throughout the XF assay to quality control assay readiness and assist with finding outliers.
- Associate normalization values, brightfield, and fluorescence images in WAVE.
- Enhance live cell assay reproducibility.
- Simplify normalization workflow with uncomplicated software and single controller operation to communicate data between both devices.



SKOV3 cells were plated at 10, 20, and 30K cells per well. Raw OCR and ECAR change with injection of oligomycin + FCCP.



Agilent BioTek Cytation 1 technology

Cytation 1 and Cytation 5 cell imaging multimode readers offer fluorescence and high-contrast brightfield imaging with up to 60x magnification without the expense and complexity commonly associated with other digital microscopy systems. XY stage, focus, exposure, image capture, and LED intensity are all fully automated for ease of use. Powerful Agilent BioTek Gen5 software enables seamless capture to quantitative publication-ready data with no extensive training required. Temperature control to 45 °C and shaking are standard, and both CO₂/O₂ control and reagent injectors are optional. An available multimode detection module includes high sensitivity filter-based fluorescence and a monochromator system for UV-Vis absorbance. Cytation's unique, patented design provides both quantitative phenotypic cellular information with well-based quantitative data.

Agilent BioTek instruments contact info

For technical assistance or to place an order please call: 802-655-4740

For more information on Cytation 1 Imagers visit www.biotek.com/cytation1

For more information on Cytation 5 Imagers visit www.biotek.com/cytation5

Agilent Seahorse XF technology

The role of metabolism in cellular and physiological processes is well established, with many diseases now linked to metabolic dysfunction or reprogramming. Agilent Seahorse XF technology simplifies cell energy metabolic analysis. It uses label-free technology to measure changes in oxygen consumption rate (OCR) and Proton Efflux Rate (PER). Cells are seeded into wells and up to four drugs such as inhibitors or stimulators may be added to the cells automatically. In the sensor cartridge, each sensor tip is surrounded by four integrated drug injection ports. Drugs are released sequentially into the well and mixed into the media by the fiber optic probe. Changes in cellular metabolism induced by the drugs are measured kinetically and in real time.

Other features

- **Real-time results** – this integrated system reports metabolic rates in just minutes, without sample extraction or labeling. Wave software controls the instrument and performs rate measurements on the fly for same day results.
- **Live cell responses** – detect responses to substrates, inhibitors, and other compounds in real time via the 4-port injection system and automated mixing while maintaining physiologic temperature (37 °C).
- **Flexible assay design** – the 96-well or 24-well plate formats accommodate many conditions in a single run and are best for dose-response studies and compound screening.
- **High sensitivity** – analyze as few as 5,000 cells per well in the custom 96-well plate.
- Measure mitochondrial function with the [Seahorse XF Cell Mito Stress Test](#).
- Generate a metabolic phenotype with the [Seahorse XF Real-Time ATP Rate Assay](#).
- Determine the ability of cells to use the glycolytic pathway to meet energy demand with the [Seahorse XF Glycolytic Rate Assay](#).
- Quickly determine dependency of cellular energy production on mitochondrial substrates with the [Seahorse XF Substrate Oxidation Stress Test Kits](#).
- Assess mitochondrial toxicity with the [Seahorse XF Mito Tox Assay](#).

Agilent Seahorse contact info

For technical assistance or to place an order contact cellanalysis.support@agilent.com or call: 781-266-2855

For information on XF Analyzers visit www.agilent.com/en/product/cell-analysis/real-time-cell-metabolic-analysis/xf-analyzers

www.agilent.com/chem/normalization

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