Araceli Endeavor® Ultra

The Fastest Path to Breakthroughs—Now with Real-Time Assay Monitoring

Araceli Endeavor® Ultra is the fastest high-content imaging platform available, delivering 1536-well plate acquisitions in under four minutes with sub-micron resolution and unmatched well coverage. Paired with ClaireRT™, Ultra brings real-time assay monitoring into every run—automatically detecting issues like poor focus, low cell count, or overexposure as they happen.

Catch problems early, avoid reruns, and generate clean, reliable data at the speed of discovery.

Smarter Imaging, Faster Science

Ultra-Fast Imaging Engine

Sub-4-minute acquisition of 1536-well plates enabled by a high-speed workstation optimized for parallel processing and data throughput.

Unmatched Throughput

Process up to 280 plates/day with up to 4 fluorescent channels, plus transmitted light.

Speed Without Compromise

The fastest high-content imaging platform on the planet, acquiring entire plates in minutes, without compromising resolution, channels, or well coverage.

Submicron Resolution

0.27 µm/pixel digital resolution, capture subcellular detail typically reserved for slower confocal systems.

Instant Assay Feedback

ClaireRT detects issues early, prevents failed runs, and ensures reliable results during high-throughput imaging.

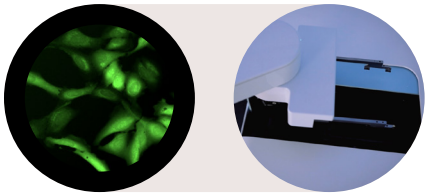
Invest Smarter, Waste Less

Avoid expensive re-plating, using more costly reagents, time to grow new cells, and unnecessary downstream analysis.

Designed for Automation and Scale

Endeavor Ultra and ClaireRT™ seamlessly integrate into live-cell kinetic pipelines and timepoint-based studies.

Fully compatible with SiLA 2.0 and automation vendors (BioSero, HighRes, Automata, AnalytikJena, or PAA).



Learn more about the Endeavor portfolio »

REAL TIME INSIGHT with ClaireRT™

Evaluate every well for:

- **Cell count**
- **Signal-to-background ratio**
- **Focus quality**
- **Saturation**
- **Automated alerts and heatmaps:** Course correct in real time—not days later

Filter Compromised Wells from analysis workflows.

Prevent Failed Runs before wasting plates, reagents, or time.

RESULTS with ClaireRT™

Shorter timepoints, faster iteration.

Greater screening confidence.

Massive cost savings.

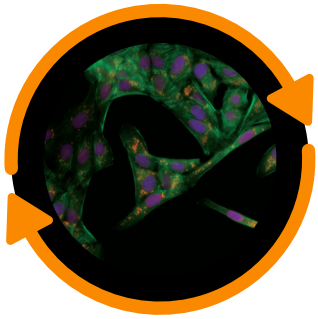
Cleaner datasets.

Unlock the Araceli Ecosystem

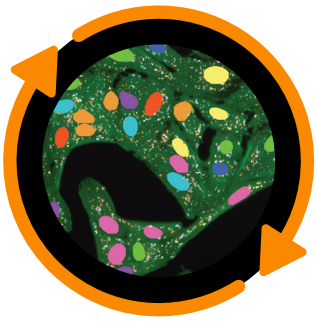
Pair Endeavor Ultra with Clairvoyance™, Araceli's AI-powered image analysis platform.

Visualize the Data You Need

Visualize plate maps, wells, sites, and results, all in one view and customizable data plots.



Clairvoyance™ ANALYSIS



Batch Process

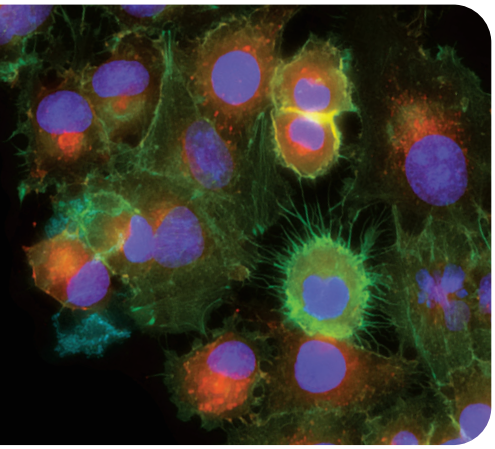
Batch process plates with minimal setup.

Find the Most Effective Analysis Method

Combine machine learning with traditional algorithms for the most effective analysis.

Data moves as fast as your science. And we make sure of it.

Araceli platforms are built for the scale and speed of next-generation high-content imaging. From large image sets to real-time analytics, we optimize data flow end to end—working with your IT team to ensure fast, seamless integration via high-speed 100 Gbps offloading solutions and connectivity.



Introducing ClaireRT

Real-Time Clarity for Confident Imaging

In ultra-high-throughput screening, time lost is discovery delayed—yet confirming assay quality still means "spot-checking a few wells" and learning days later that images are flawed; wasting reagents, stalling momentum, extending timelines. **ClaireRT eliminates the wait.**

Coupled with **Araceli Endeavor® Ultra**, the fastest high-content imaging platform on the planet, ClaireRT scrutinizes every image as it's captured, serving up live image quality metrics in real time.

At the first sign of trouble, it can:

- Stop imaging a problematic plate
- Alert the lab of emerging issues
- Enable filtering of compromised wells from downstream analysis

With real-time heatmaps and and automated alerts, scientists can ensure quality data **while the experiment runs**, iterate the same day, and course-correct before errors multiply.

No invisible errors. No delayed discoveries. No waiting weeks for what can be fixed today.

ClaireRT turns data quality from hindsight into foresight—so your lab doesn't just keep up with high-throughput science, **it sets the pace.**

Reduce Waste

Prevent failed runs before they happen —no more lost plates, reagents, or lab time due to avoidable errors.

Save Costs

Avoid expensive re-plating, using more costly reagents, time to grow new cells, and unnecessary downstream analysis.

Boost Efficiency

Increase screening throughput by iterating faster, if needed, and ensuring quality data for in-depth analysis.

Save Time

Real-time feedback allows scientists to adjust and re-image during the experiment—not days later.

Improve Accuracy

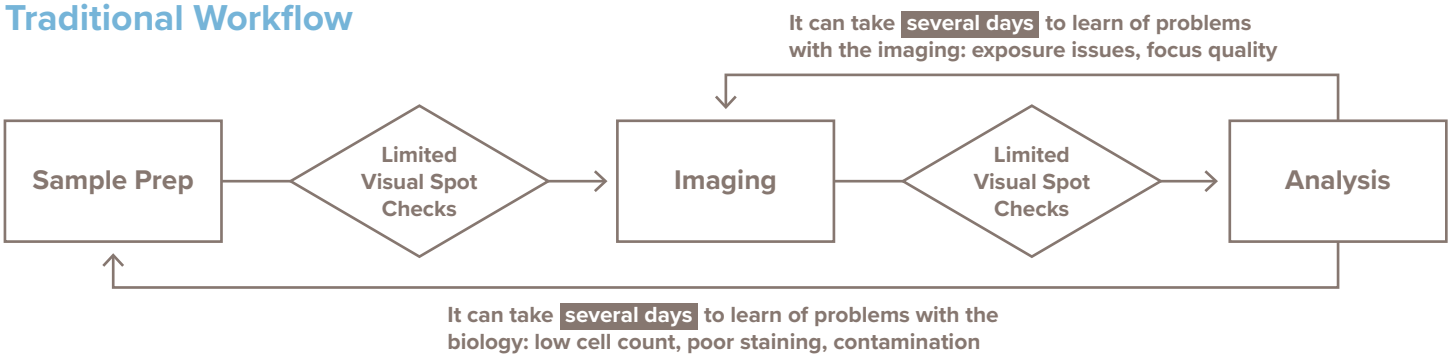
Capture high-quality data from the start to drive more reliable and confident analysis.

Efficient Use of Data Storage

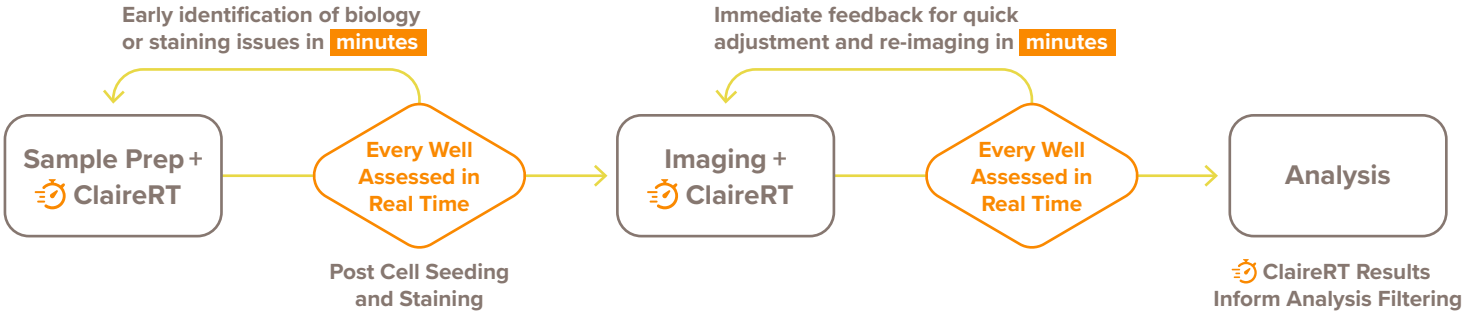
Filter out poor-quality images early to reduce storage burden and keep datasets clean.

Learn more about the Endeavor portfolio »

Traditional Workflow



Endeavor Ultra and ClaireRT Workflow



ClaireRT in Action

Cell Count
Ensure valid sample sizes for your experiment and detect issues with liquid handling systems (e.g., pipette strikes, clogged tips, etc.).

Signal to Background Ratio (SBR)
This metric is critical to ensure that downstream analysis can accurately extract features using classical methods or AI segmentation.

Saturated Pixels
This metric can be used to determine if an image can be used for analysis or if it needs to be re-imaged with different exposure settings.

Focus Quality
Identify issues with warped plates, dirty plate bottoms, and empty wells that may negatively impact analysis results.