

From Eye to Insight



TECHNICAL SPECIFICATIONS

Mateo FL base configuration

Light source	4-line LED (UV: 385/12nm; B: 472/28nm; G: 552/45nm; R: 635/20nm), white LED (for transmitted light)
Contrast methods	Transmitted illumination (brightfield and phase contrast) and incident fluorescence illumination
Condenser	S40/0.45, working distance 50 mm
Phase turret	Automated; 5-position
Filter cube turret	Automated; 5-position
Objective nosepiece	Encoded; 6-position nosepiece
Preinstalled objectives	None
Stage	Fixed stage (L*W) 262 mm x 212 mm
Focusing	Coarse and fine focusing; travel range 7 mm, min. adjustment 2 µm
Camera	6 megapixel color camera (integrated), 6 megapixel mono camera (integrated) CMOS, sensor size 1 / 1.8", pixel dimensions 2.4 µm x 2.4 µm H 3072 px, V 2048 px
Software	Embedded operating system. PC is not required.
Image / Video output	JPEG and TIFF / mp4
Display	Color monitor with adjustable tilt 1920 pixels x 1080 pixels
Onboard storage	500 GB
USB ports	1 x USB 3.0, 3 x USB 2.0
Dimension (depth x width x height)	395 x 375 x 615 mm
Weight	22 kg (with optional components)
Transportation aid	Supporting handle on the back of the microscope

Optional accessories

Object guide kit	Includes the object guide with two holding frames
Objectives	2.5x - 100x
Filter cubes	DAPI 390, GFP ET, Y3 ET, Y5 ET, TxR ET
Wi-Fi dongle	Wi-Fi dongle to share images; 5 GHz/2.4 GHz
Thermal plate	TPX Heating Frame Glass Type F

MATEO FL

Digital fluorescence inverted microscope for advanced cell culture experiments



■ Reliable, reproducible, advanced cell checks.

Boost your advanced cell culture research with the Mateo FL digital inverted microscope.

■ Benefits:

- > Save time and effort with multi-modal fluorescence and transmitted light imaging in a single platform.
- > Make your experiments easier with automated analysis tools.
- > Reduce contamination risks by at least 50% and double your workflow efficiency by capturing both monochrome and color images without needing to physically swap devices.
- > Experience secure data tracking and seamless data transfer.

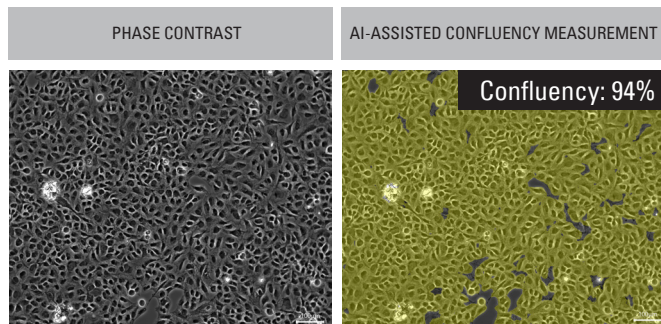
POWER UP YOUR CELL CULTURE EXPERIMENTS

Ensure precision and reproducibility for advanced cell culture experiments with automated analysis and multi-channel fluorescence imaging.

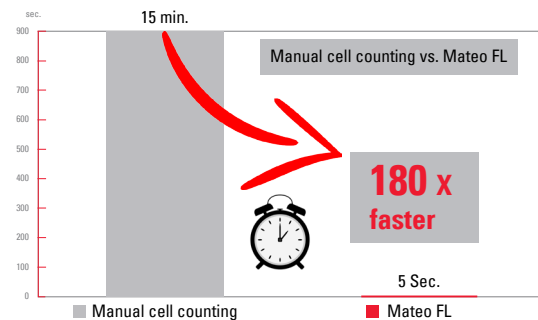
■ Make your experiments easier with AI-powered workflows

Boost reliability and consistency in your cell culture experiments with AI-powered algorithms and analysis.

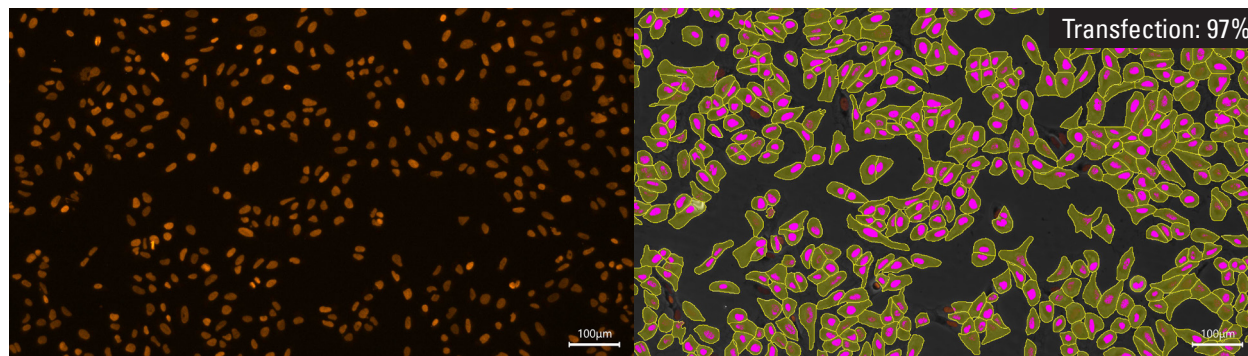
> Eliminate guesswork with AI-assisted confluency measurements and increase confidence in your downstream experiments.



> Get an accurate, automated cell count in 5 seconds per image, saving you an average of 15 minutes of manual cell counting.

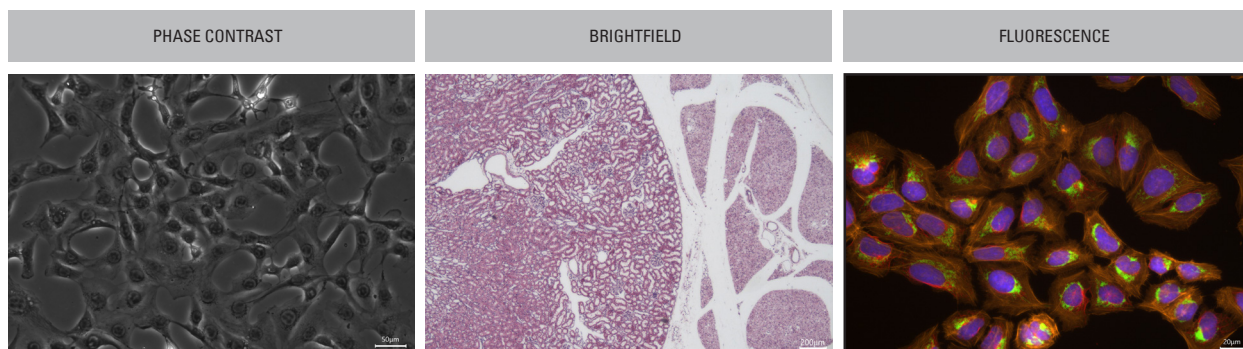


> Optimize your transfection process with smart insights.



■ Save time and effort with multi-modal imaging

Mateo FL offers multi-modality fluorescence and transmitted light imaging in a single platform. Save time and enjoy more flexibility in experimental design with channels that are optimized for specific fluorophores.



■ See more with less fuss

The automated phase contrast saves you time, offering you label-free imaging without fluorescent markers. It also enhances the visibility of unstained, transparent, translucent or low-contrast specimens. Additionally, the built-in dual camera system eliminates the need for physical camera changes and alignment, streamlining processes and improving efficiency.

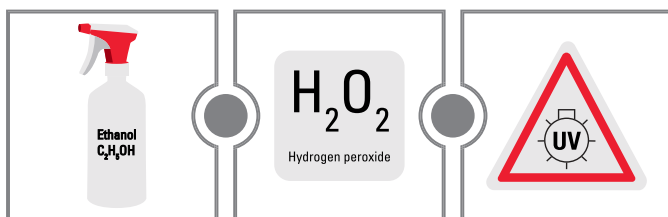
KEEP A LID ON CONTAMINATION

Maintain a sterile workspace with the compact design of Mateo FL, for reliable, reproducible research.

■ Prevent sample contamination for consistent results

Elevate your cell culture research outcomes by avoiding the inconvenience of contamination-related lab downtime.

- > Mateo FL can be used in biosafety level BSL 1 and BSL 2 laboratories as it is compatible with UV, ethanol and hydrogen peroxide decontamination methods.



- > Protect your sample from contamination and save valuable experiment time thanks to streamlined workflows and an integrated dual camera, eliminating the need for sample transfers mid-experiment.

■ Optimize your space and workflow with an integrated design

The compact and integrated design of Mateo FL helps reduce contamination risks by at least 50%. Workflow efficiency is doubled by capturing both monochrome and color images without the need to physically swap devices mid-experiment.



DATA MANAGEMENT YOU CAN COUNT ON

Step up reliability and efficiency through enhanced data tracking with audit trails and sharing on the go.

■ Experience secure data tracking and seamless data transfer

Mateo FL has built-in audit trails and user management functionalities that support FDA 21 CFR Part 11 compliance, making data management easier and more secure.

Catalog	Description	User	Role	Date created
File	Save file: Atlas500 040325_2025-05-18 103140_PPI.JPG	Max	User	2025-05-18 10:31:47
File	Save file: Atlas500 040325_2025-05-18 103135_BLUE.JPG	Max	User	2025-05-18 10:31:39
User	Login	Max	User	2025-05-18 10:31:27
User	Logout	Julia	Advanced user	2025-05-18 10:31:02
File	Save file: Atlas500 040325_BLUE_2025-05-18 103058.JPG	Julia	Advanced user	2025-05-18 10:30:58
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File	Save file: Atlas500 040325_Overlay_2025-05-18 103051.JPG	Julia	Advanced user	2025-05-18 10:30:52
User	Login	Julia	Advanced user	2025-05-18 10:30:44
User	Logout	Adrian	Admin	2025-05-18 10:30:15
User	Login	Adrian	Admin	2025-05-18 10:30:08
User	Login	Adrian	Admin	2025-05-18 09:52:50
File	Save file: Atlas500 040325_GREEN_2025-05-17 160001.JPG	Adrian	Admin	2025-05-17 16:00:02

- > Store large volumes of data without the need to frequently transfer or delete files. With 500 GB of built-in storage, you could save up to 3 million images on the system, eliminating the need to invest in a high-performance tablet or cloud storage.

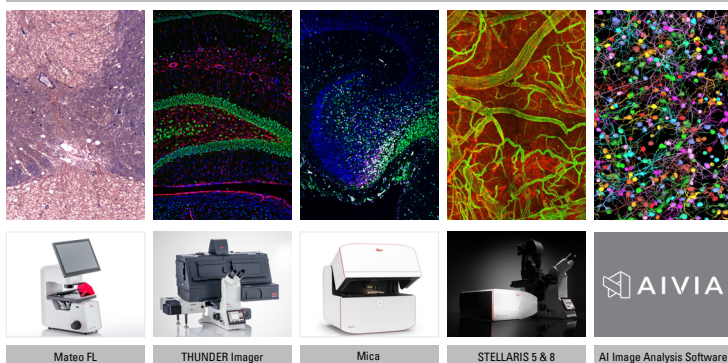


- > Effortlessly track and manage your samples with the bar code reader function.
- > Collaborate and share data more easily by seamlessly transferring your microscope data to any mobile device with QR codes.

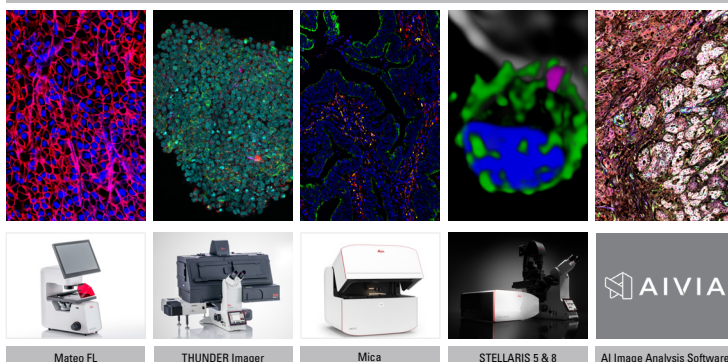
HOW DOES MATEO FL FIT INTO YOUR WORKFLOWS?

Mateo FL seamlessly integrates into a comprehensive imaging workflow, serving as an initial observation step before transitioning to advanced imaging systems like THUNDER, Mica, and STELLARIS.

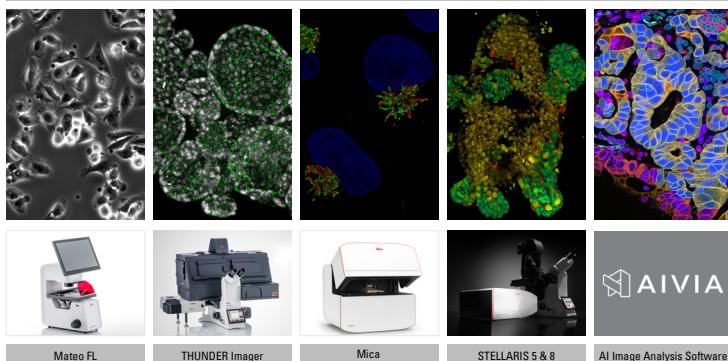
NEUROSCIENCE



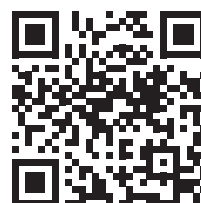
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