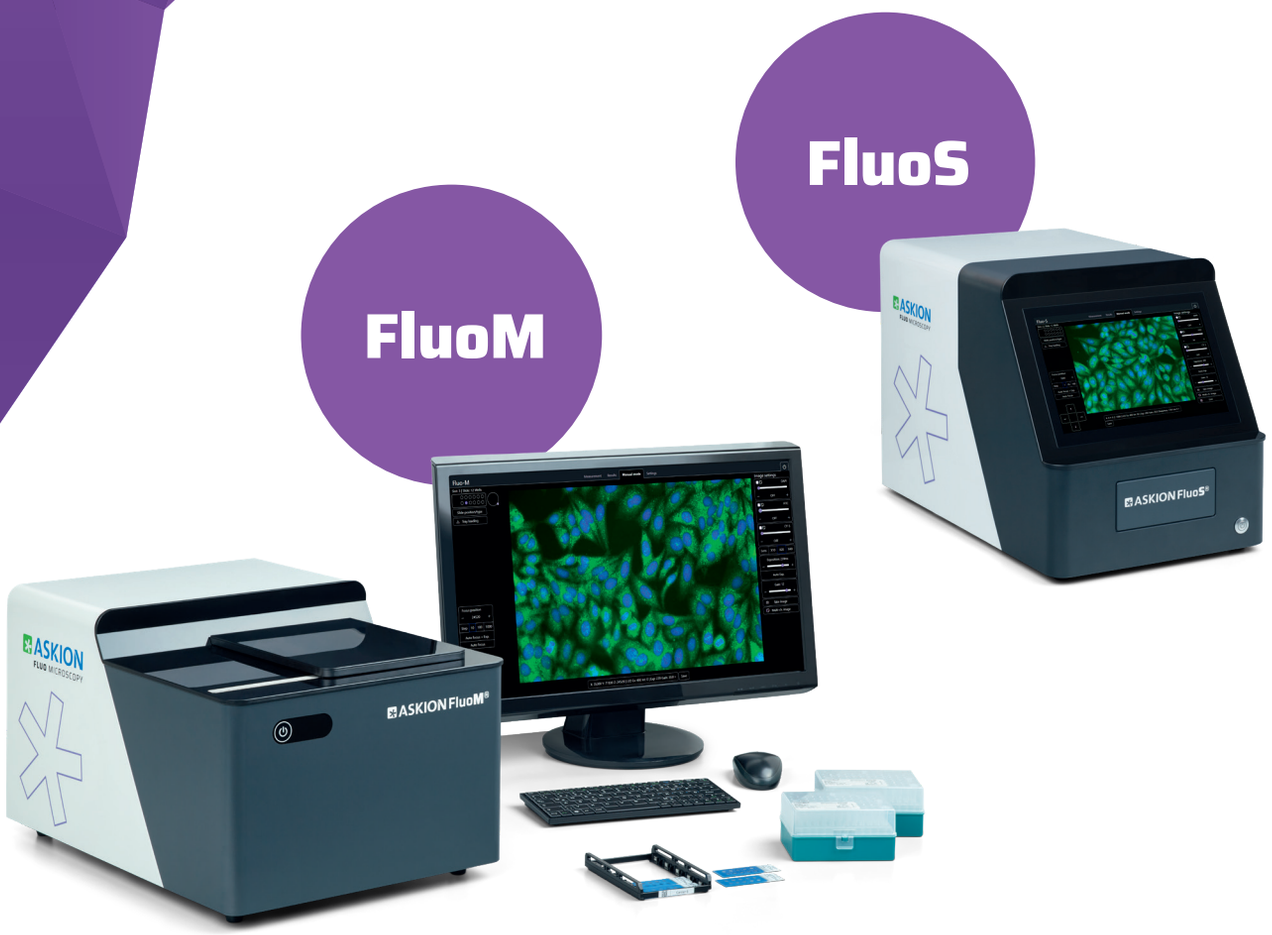
ASKION
FLUO MICROSCOPY



THE MOST CUSTOMIZABLE PLATFORM FOR AUTOMATED FLUORESCENCE MICROSCOPY.

Modular. Intuitive. Affordable.

askion-fluomicroscopy.com

YOUR BRAND!
YOUR FLUORESCENCE MICROSCOPE!

Welcome to ASKION, where precision meets innovation in microscopy. Since 2004, we've been a trusted partner for companies developing and manufacturing advanced medical and bioanalytical devices.

At ASKION, we specialize in creating **customized fluorescence microscopes** that bring out the full potential of your technology. Whether you're developing diagnostic assays, studying disease mechanisms, or building image analysis software, our microscopes are designed to elevate your work.

We proudly offer **a white-label platform,** fully tailored to meet your unique needs. Our solutions seamlessly integrate with your assays, kits, or ancillary products, allowing you to focus on what you do best.

Choose from two exceptional models:

- **FluoS** – a compact, bench-top analyser
- **FluoM** – an advanced model for high-throughput analysis

Both models are **easily adaptable** with minimal modifications to fit your exact requirements. Whether you require different illumination modules, additional fluorescence channels, high resolution objectives, custom sample holders, or advanced automation features, the platform's modularity ensures seamless integration without major redesigns.

Our platform also offers exceptional **software flexibility.** Use ASKION's automated image acquisition software, or seamlessly integrate your existing software for enhanced capabilities.

Elevate Your Brand

with Askion‘s White Label Fluorescence Microscopes!

Automate your experiments and diagnostic routine with your own image analysis modules based on your criteria.
Take full ownership of your customized microscope by incorporating your own housing, logo, colors, and branding elements—perfect for **enhancing your brand’s reputation.**

Beyond manufacturing, we support you through the regulatory process for in vitro diagnostic registration, ensuring compliance with your assays. Our devices are Made in Germany, manufactured in an ISO-certified facility according to ISO 9001 and ISO 13485.

CORE BENEFITS

1

CUSTOMIZABLE

Our modular design and flexible technical configuration can be precisely tailored to meet the unique requirements of your applications. With high-quality components chosen specifically for your assay needs, we optimize efficiency by eliminating unnecessary features. Whether you're working with diverse sample formats, unconventional fluorophores, or require specialized optical configurations, our expert engineering team will customize the system to fit your exact specifications.

2

AUTOMATED

Eliminate subjective data interpretation by standardizing the analysis process, ensuring more reliable and objective results for routine applications. Set up your preferred automated image acquisition routine for seamless scanning, or enhance the evaluation of your assay with additional AI-based image analysis modules to ensure consistent and accurate outcomes.

3

INTUITIVE

With user-friendly operation, our system allows for faster, more accurate analyses without the complexity of high-end systems. The software is simple and intuitive, offering one-click analysis that streamlines workflows and boosts productivity, even for users with little experience.

4

COMPACT

The stand-alone design occupies significantly less space than traditional microscopes, making it perfect for small labs or workstations. No more darkroom work — just enjoy a simple setup that saves valuable lab space.

5

EXCEPTIONAL PRICE / PERFORMANCE RATIO

Highly affordable while still delivering excellent performance, with features and capabilities that are comparable to more expensive models, making it a great investment with a good return.

PRECISION IN A COMPACT DESIGN

FluoS is an intuitive platform for entry-level fluorescence microscopy. Designed as a stand-alone system, it features an intuitive touchscreen interface that simplifies navigation and operation—even for inexperienced users.

The **FluoS** platform offers automated sample processing to reduce manual and time-consuming microscopy workflows. The **front-loaded sample holder** accommodates two standard glass slides and can be easily adapted to fit various sample or assay formats.

The platform supports **three fluorescence channels** and one upright objective of your choice, allowing configuration to your specific application needs – whether for screening, quality control, or point-of-care diagnostics.

FluoS is remarkably compact, and designed for deployment wherever space, speed, and simplicity matter. It's an ideal solution for biotech teams looking to automate their fluorescence-based assays across clinical, R&D, or manufacturing environments without over-investing in infrastructure.

FluoS brings advanced fluorescence imaging within reach – **compact, capable, and cost-effective.**

FluoM

FLEXIBILITY TO STREAMLINE YOUR WORK-FLOW

FluoM is our advanced platform for more flexibility, throughput and automation. This inverse microscopic system features three automatic changeable objectives from Olympus series, **four LEDs** and a dual-position filter changer, offering two customizable filter slots within a single motorized unit, providing high level of control over imaging even for the demanding research applications.

A **top loaded insert** offers space for five standard size glass slides or single microwell plate. A custom-made holder for specific sample formats (not bigger than SBS format) can be also constructed upon request. The system supports **multiple slide and plate formats** for maximum workflow flexibility. For high-resolution imaging at 20× or above, the objective is precisely calibrated to the required cover-glass thickness during production.

Similar to the FluoS, this system includes an integrated PC with at least 2 TB of storage; however, it is operated using an external monitor, keyboard, and mouse.

An **integrated bar code reader** is designed for the identification of your sample, and in case of existing LIM System even for the correct documentation. Our experienced team of software engineers ensure for seamless connection with any type of external or custom-made LIMS software.

FluoM with robotics

FULLY AUTOMATED MICROSCOPY

FOR HIGH-THROUGHPUT, RELIABLE RESULTS

ASKION continues to redefine automation and simplicity in fluorescence microscopy. Our fully automated imaging setup expands the capabilities for researchers and assay developers who rely on reproducible, high-quality imaging and seamless workflow integration.

The **Fully Automated Imaging System** combines the FluoM inverse microscope with robotic plate handling and plate-hotel storage to deliver true high-throughput imaging—from automatic loading and scanning to analysis, all within one integrated solution.

To ensure maximum sample security and traceability, the system incorporates two barcode readers—one on the robot and one within the device—enabling dual verification of sample identity and correct order within the plate hotel.

The platform also supports **complete LIMS integration** upon request. ASKION has extensive experience connecting diverse LIMS systems, enabling fast and secure handling of high sample volumes and reliable data transfer. Hardware interfaces are already available; software integration can be implemented as needed.

The configuration shown represents our standard setup, but the system is **fully customizable**. We can integrate alternative robotic solutions, adapt the number of microscopes, and scale plate-hotel capacity to meet individual customer requirements.

Specifications

	FluoS	FluoM
Working principle	upright epifluorescence microscope	inverse fluorescence microscope
Camera	high-resolution 2.3 MP CMOS sensor (1920 x 1200 px)	
Objective	single fixed objective (2x-60x)	three motorized, automatically changeable objectives (2x – 60x)
Image resolution	10x objective: field of view 1.75mm x 1.1mm (0.9 µm/pixel) 20x objective: field of view 0.88mm x 0.55mm (0.45 µm/pixel) 40x objective: field of view 0.44mm x 0.28mm (0.23 µm/pixel)	
Sample formats*	2 slides (26 mm x 76 mm)	5 slides or 1 microwell plate
Positioning	automatic or manual	
Autofocus	automatic contrast-based autofocus routine	
Fluorescence channels*	3 channels with LED excitation, e.g.: DAPI (Ex. 385 nm) FITC (Ex. 470 nm) Cy5 (Ex. 633 nm)	4 channels with LED excitation, e.g.: DAPI (Ex. 385 nm) FITC (Ex. 470 nm) Cy3 (Ex. 550 nm) Cy5 (Ex. 633 nm)
User interface	integrated 10“ touch display	external monitor, keyboard, mouse
Software*	manual or automated device operation manual or automated image acquisition customer-specific imaging routine application-specific image analysis modules protocol generation and LIMS connectivity open API (in 2026)	
Power supply	24 V / 160 W	
Connectivity	4x USB 3.1; 1x HDMI; 1x LAN	4x USB 3.1; 1x HDMI; 2x LAN
Dimensions	28 cm x 46 cm x 32 cm (w/d/h)	37 cm x 50 cm x 31 cm (w/d/h)
Total weight	15 kg	18 kg

*Customising available

CUSTOMIZE YOUR FLUOS FLUOM MICROSCOPE TO SUIT YOUR SPECIFIC REQUIREMENTS

Both FluoS or FluoM microscopes are designed with a highly modular architecture, allowing it to be easily adapted to your specific application needs. Each system can be configured or upgraded through simple mechanical, optical, or software modifications.

Modular architecture

1 SAMPLE FORMAT

Whether your assay is designed for standard glass slides or for a wide range of multiwell plate formats (FluoM only), our platform can accommodate both. We can also evaluate the feasibility of integrating special sample formats into the system. For fully automated workflows and the highest imaging quality, it is important to define a consistent sample format early in the process.

2 FLUORESCENCE CHANNELS WITH LED EXCITATION

Our systems support three to four fluorescence channels, depending on the installed LED modules. Using high-quality multibandpass filters, several fluorophores can be excited and detected using only one or two filter cubes. This reduces mechanical complexity while still providing access to a broad range of dyes.

3

OBJECTIVES

You can choose different objective from gold-standard Olympus series: Plan Achromats for FluoS and Plan Fluorites with long working distance and adjustable cover-glass correction for FluoM. Allowed magnification ranges from 2x to 60x, the use of immersion oil is due to the closed system not supported.

4

SOFTWARE

Our device comes equipped with ASKION's proprietary software for both manual and automated imaging.In manual mode, the device functions like a standard fluorescence microscope, while benefiting from auto-focus and auto-exposure routines for faster imaging, simple sample navigation via the motorized stage, and user-friendly Z-stack settings.

In automated mode, ASKION acts as a fully automated scanner, capable of executing custom-designed scanning routines for seamless imaging in a relatively short time. Additionally, ASKION supports customers with AI-based image analysis modules upon request. These can include training neural networks to recognize specific cell types, evaluate and cluster them to assist the diagnostic workflow, or generating custom-built measurement tools for counting, sizing, or analysing cells and other features.

Fully documented API that enables direct integration into external software environments. It allows remote control of all imaging functions, making it ideal for automated imaging workflows and customized applications.

5

HOUSING

Finally, our platform can be fully white-labelled for biotech companies developing diagnostic assays. It becomes a powerful value-adding component of your diagnostic solution—helping you strengthen your competitive advantage and unlock new revenue opportunities.

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OF OUR FLUORESC
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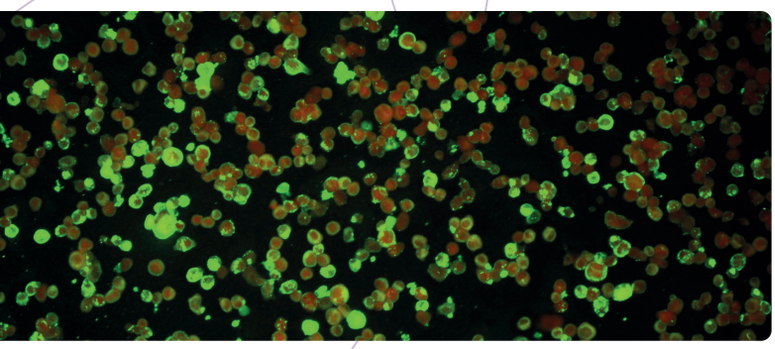


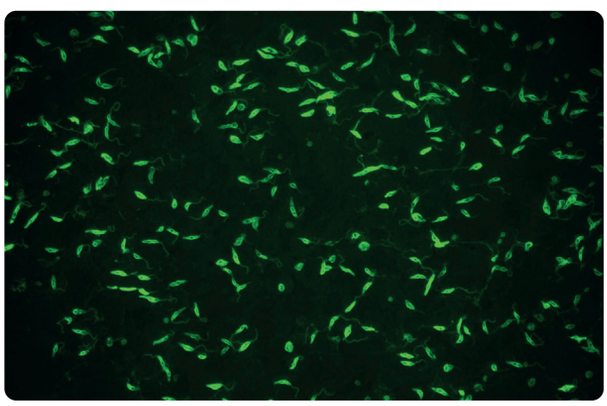
INFECTIOUS-DISEASE DIAGNOSTICS

Our platform enables the rapid detection of pathogens, antibodies, or other biomarkers using a wide range of immunofluorescence assays (IFA), making it suitable for both **human and veterinary diagnostics.**

ASKION microscopes can be either used as an **automated scanner** of any kind of IFA tests, or extended with customised, AI-based analysis modules. These intelligent tools enable automated cell counting, morphology recognition, and titer estimation, and can be adapted to support broad range of diagnostic assays. By reducing manual evaluation and enhancing consistency, **AI-assisted analysis** helps laboratories increase throughput and diagnostic reliability.

The system supports the **detection of a broad spectrum of pathogens.** Parasites such as Leishmania, Neospora or Toxoplasma, fungi like Encephalitozoon, bacteria like Borrelia, and even intracellular organisms including Ehrlichia or Coxiella can be reliably identified. Bacteria assessed via direct immunofluorescence or FISH—such as Mycobacterium—have also been successfully analysed using the system.

Beyond clinical diagnostics, the platform is highly effective for **contamination monitoring** in food, water, environmental, or pharmaceutical samples.
The ASKION Fluo Microscope is an ideal platform for biotech companies developing fluorescence-based diagnostic kits. **Manufacturers of IVD assays** can provide their customers with a perfectly matched, ready-to-use diagnostic solution, improving assay performance and generation new commercial opportunities such as offering the instrument as part of a complete assay package.



DIAGNOSTIK MEGACOR

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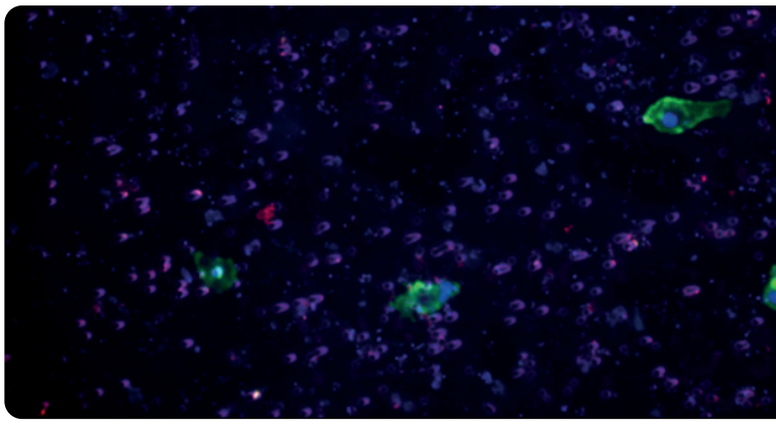
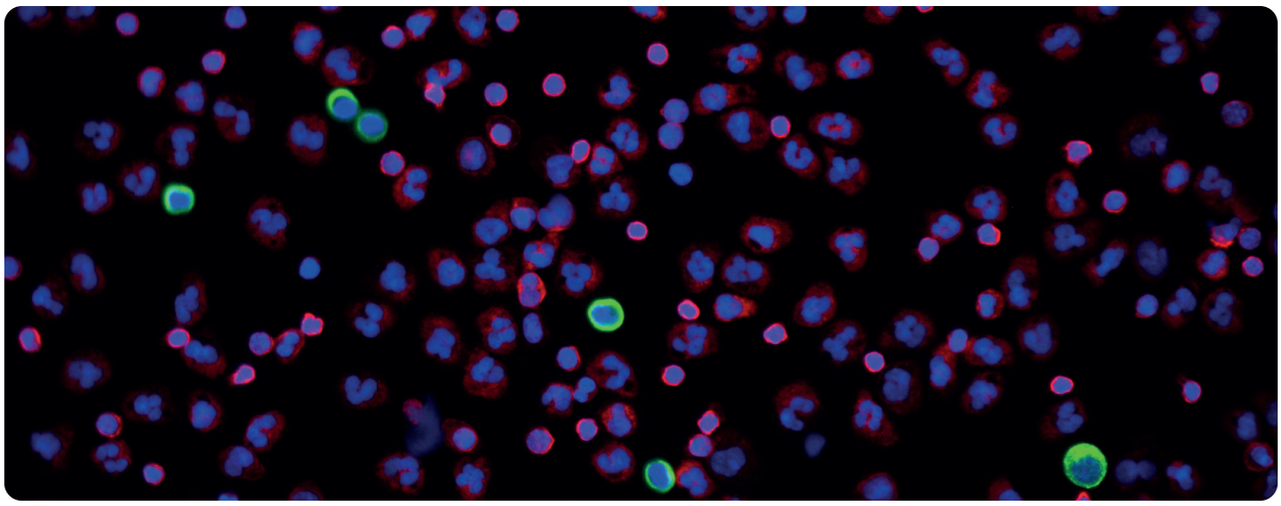
ATFORM





ONCOLOGY / LIQUID BIOPSY ANALYSIS

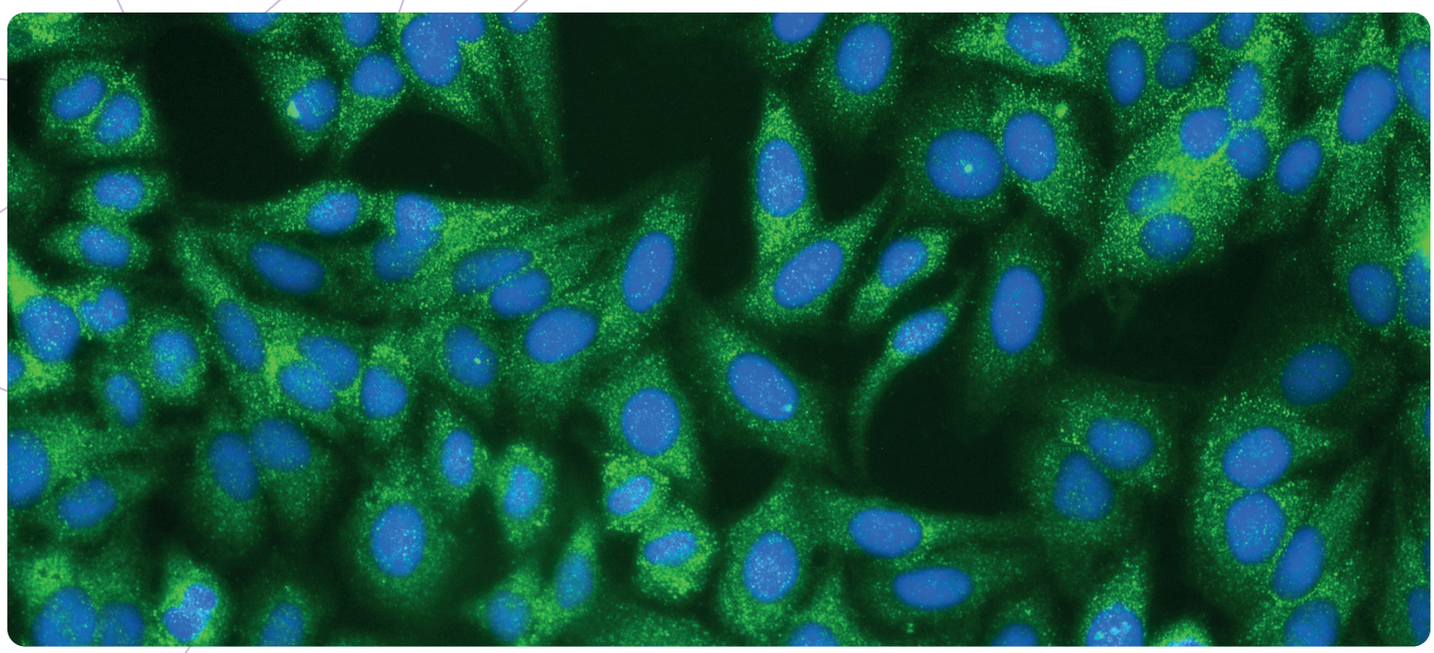
Designed for the **detection and analysis of circulating tumor cells (CTCs),** the ASKION microscope combines a **fast, easy-to-use scanning process** with a compact, space-saving design, perfectly suited for extensive slide scanning to identify even single tumor cells. Regardless of the isolation or enrichment strategy, integrating automated scanning delivers significant advancements toward clinical applicability and supports the identification of liquid biomarkers in prospective clinical studies.

The **fully automated slide scanning** significantly reduces processing time. With the current scanning speed less than 30 minutes for the slide in 3 fluorescence channel, large areas can be imaged efficiently, and performance can be further enhanced when all **customized options** are applied.

The system can **automatically tile and arrange images** based on their positions, enabling **comprehensive analysis** of entire slides, tissue sections, or other samples, ensuring that no detail is missed during the diagnostic workflow. The upcoming open API will additionally enable integration of user-defined image-analysis algorithms.

USC Michelson Center
Convergent Science Institute in Cancer

MetaCell



AUTOIMMUNE DIAGNOSTICS

Indirect immunofluorescence (IFA) remains one of the most sensitive and versatile methods for detecting autoimmune antibodies. The ASKION FluoS and FluoM microscope platforms elevate this gold-standard technique by combining high-quality fluorescence imaging with automation, standardization, and advanced analysis tools.

Designed specifically to support autoimmune laboratories, our systems deliver consistent, high-contrast imaging of HEp-2 cells, tissue sections, ANCA slides, and other commonly used substrates. Integrated autofocus routines, optimized LED excitation, and precision motorized stages ensure reproducible results across large sample batches—independent of operator experience.

Whether used as a digital scanner for expert review and documentation, or as a flexible development platform for new assays, the ASKION microscope delivers the performance and reliability required for modern human as well as veterinary immunology diagnostics.

MEDIPAN

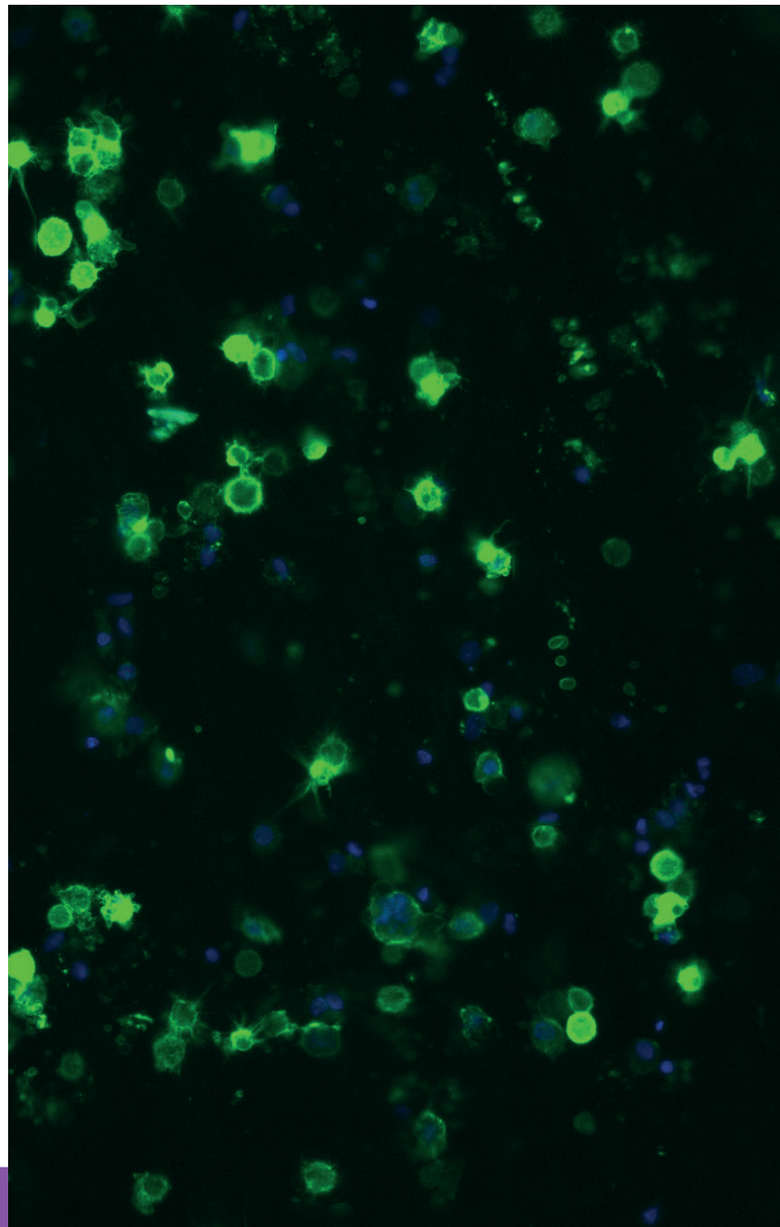
PATHOLOGY

The ASKION microscope platform offers fast, reproducible imaging for fluorescence in situ hybridization (FISH) and tissue diagnostics. With a smart use of high-quality multibandpass filters, ASKION captures even complex **multicolor FISH assays**, without requiring high-content imaging systems —ideal for detecting chromosomal aberrations, gene amplifications, translocations, or microbial targets. Optional AI-based analysis modules can be tailored to recognize specific FISH signals, count nuclei, classify signal patterns, and support diagnostic decision-making.

The FluoM platform can also be configured as a compact, affordable automated bright-field scanner for tissue sections, cytology slides, and other histopathology samples—offering a powerful alternative for laboratories seeking digital pathology capabilities without the cost of a high-end WSI scanner.

CELL THERAPY

Our microscopes also provide a fast, reliable, and affordable solution for cell therapy workflows. They enable rapid scanning for **cell viability assays, surface marker expression,** and overall cell development, while supporting automated **quality control** to ensure reproducible results. Designed **for highly standardized workflows,** these compact and easy-to-use systems offer a simpler and more cost-effective alternative to FACS or high-content imaging, helping researchers and clinicians efficiently monitor CAR-T cells, stem cells, and other therapeutic cell types.



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