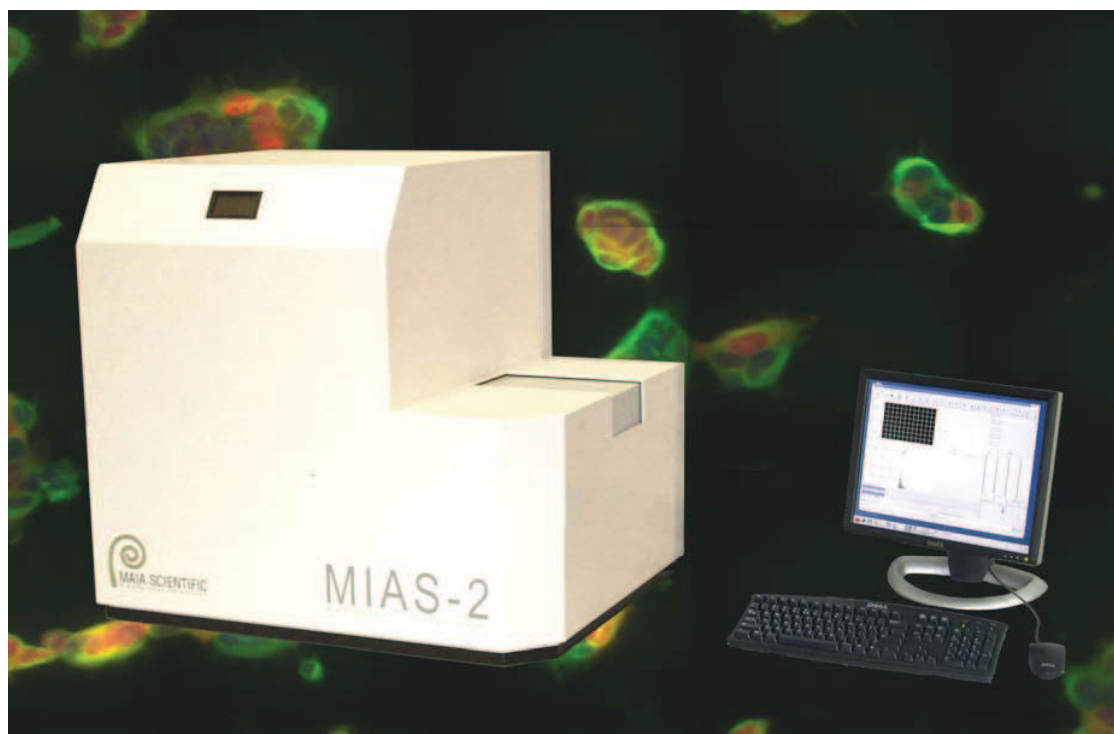


Vision to Discover



MIAS[®]-2
multimode microscopy reader

bridging vision and discovery

A more complete picture of complex cell systems

The MIAS-2™ is the first high-throughput, high-information microscopy reader with fully automated brightfield and fluorescence microscopic reading, making it the most versatile multimode reader available today for:

- Cell based assays
- Tissue and tissue sections
- Bead assays
- Target identification & validation
- Small animal model organisms
- ADMET
- Time lapse studies of living cells and model organisms

Besides a state-of-the-art CCD camera, the MIAS-2 also features an intensified camera and proprietary object-based auto-focusing for real-time low-light observation below the sensitivity of the human eye.

Together with our proprietary eaZYX™ imaging and automation software, utilizing the concept of “Scale Space”, the MIAS-2 provides the capacity to apply powerful Image analysis with custom built solutions or to build your own protocols. MIAS-2 provides automation with flexibility, sensitivity and speed to fit your current and future needs of assay development, assay optimization, high-throughput screening and hit-to-lead projects.

MIAS-2™ & eaZYX™ Features & Benefits

Features	Benefits	Examples/Description																
Multimode Brightfield (5 modes)	<ul style="list-style-type: none"> • Unlabeled live cell observations – cell counts, confluence, clonal size, clonality, cell growth, model organism assays, Neurite growth – Automation of cloning and cult processes • Identify suspension cells from adherent cells in mixed cultures • Analyze labeled tissue sections • Background independent object detection 	<table border="1"> <tr> <td>Confluence Cell count</td> <td>Neurite Shape</td> <td>Model Organism Behavior</td> <td>Tissue Sections</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Confluence Cell count	Neurite Shape	Model Organism Behavior	Tissue Sections												
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Multimode Fluorescence (4 - 8 modes)	<ul style="list-style-type: none"> • Xenon light source with excitation range from 200 - 800 nm excitation range • Excitation attenuation with 5 neutral density filters for living cell applications (reduced photo-bleaching and cell damage) Summary • Standard 4 fluorescent modes – DAPI – FITC/GFP – YFP – TRITC/RFP • Upgrade to 8 fluorescent modes 	<table border="1"> <tr> <td>Weak Signal Nuclear Translocation</td> <td>Expression Levels</td> <td>Cytoplasm Structure Based Detection</td> <td>Weak Gene Promoters</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>α NFkB-p65</td> <td>α MDM-2/p53</td> <td></td> <td>YFP::NFkB-p50</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Weak Signal Nuclear Translocation	Expression Levels	Cytoplasm Structure Based Detection	Weak Gene Promoters					α NFkB-p65	α MDM-2/p53		YFP::NFkB-p50				
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Optics	<ul style="list-style-type: none"> • 5 objectives standard from 2.5x – 40x (1.25x and 63x optional) 	Optics to optimize object size on CCD chip																
Cameras	<ul style="list-style-type: none"> • 2 cameras with automated switching – CCD cameras for brightfield and color – intensified camera for low light fluorescence 	Provides flexibility in normal and very low light level conditions without the loss of processing speed Reduces phototoxicity effects on living cells due to lower illumination levels of excitation source																
Sample Handling	<ul style="list-style-type: none"> • Integrated robotic plate station (optional) • Integrated barcode reader (option) 	Provides fully automated batch processing for up to 300 plates																
eaZYX Software	<ul style="list-style-type: none"> • Very user friendly interface (GUI) • Controls all instrument settings and application processing • Store and re-call user application settings • Can be used with the iBOX workstation as a stand-alone unit for analysis of images generated from other sources in your lab 	Powerful software based on “Scale Space” theory utilizes the spatial, spectral and temporal characteristics of objects to identify them and produces both Summary Data and Object Specific Data eaZYX software drives both the MIAS-2 microscopy reader and the robotic plate station																

The Optimum Blend of

- **Sensitivity**
 - Object-based auto-focusing in regular and low light conditions
 - Extreme sensitivity and reduced phototoxicity with intensified camera
- **Resolution**
 - 1.25x – 63x high numerical aperture objectives
 - ultra-precise object positioning below optical resolution (<0.35 micrometer)
- **Flexibility**
 - Multimode microscopy reading
 - 6-384 well plates, Petri dishes, tissue sections, arrays
 - Cell based, tissue based and small animal applications
 - VersaTILE technology providing seamless tiling of high resolution images for large area viewing
 - VersaTIME technology providing powerful time-lapse and video analysis
- **Speed**
 - Real time auto-focus and acquisition on weak signals without loss of speed
 - Image acquisition and analysis in parallel
 - “Plate stack to database-ready result” level of automation
 - From “hands-on operation” to a 300-plate screening

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