LIFE SCIENCE

IXplore™ IX85 Spin/SpinSR

Spinning Disk Confocal Super-Resolution Microscope

Powered by Yokogawa CSU-W1

Stunning Detail, Faster Discovery

EVIDENT

Gentle on Cells, Powerful on Detail

Super-resolution image

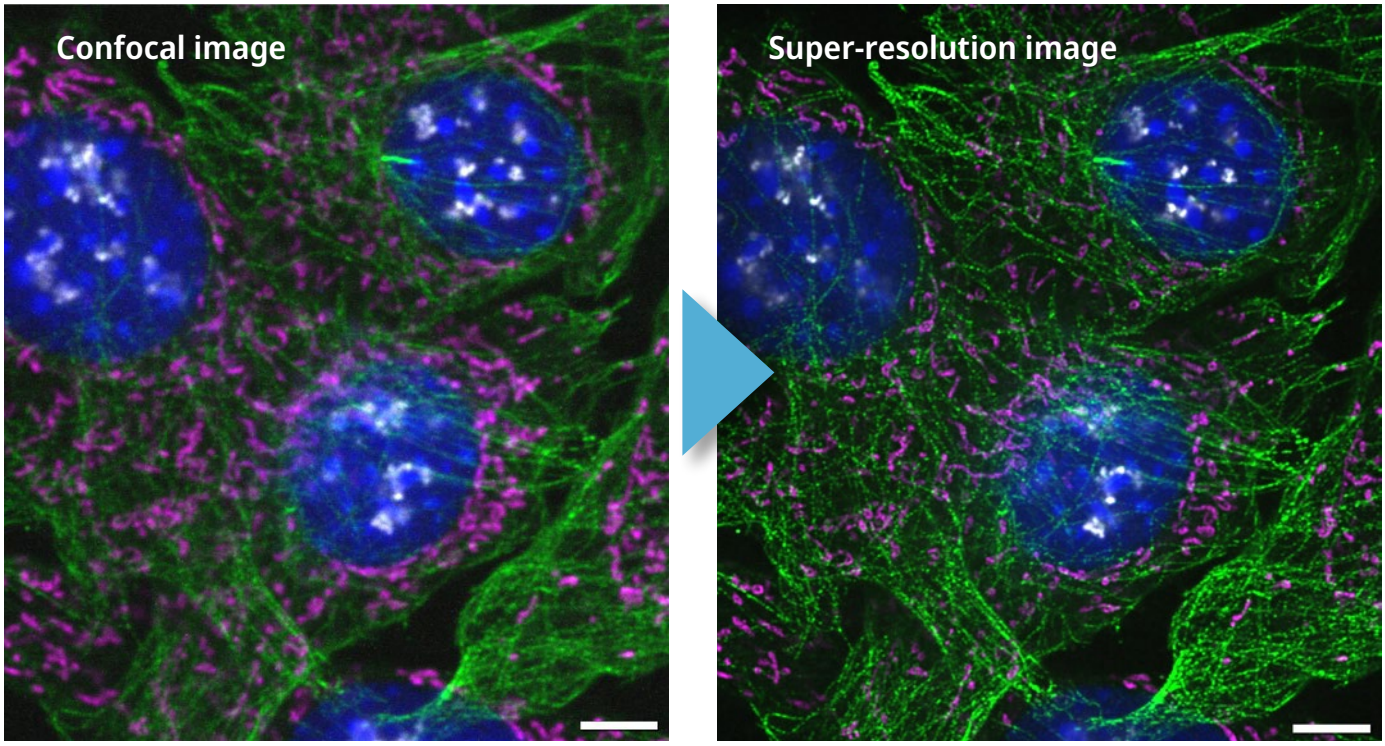
Confocal image

30 µm maximum intensity projection of a mouse brain section, GFP.
Scale bar 2 µm. Sample courtesy of SunJin Lab Co., Taiwan.

Capture ultra-small cellular dynamics in stunning detail with the IXplore™ IX85 SpinSR spinning disk confocal super-resolution microscope. Designed for prolonged cell viability in time-lapse experiments, the system combines fast image acquisition, advanced algorithms, and XY resolution down to 120 nm.

Rapid Super Resolution for Live Cells

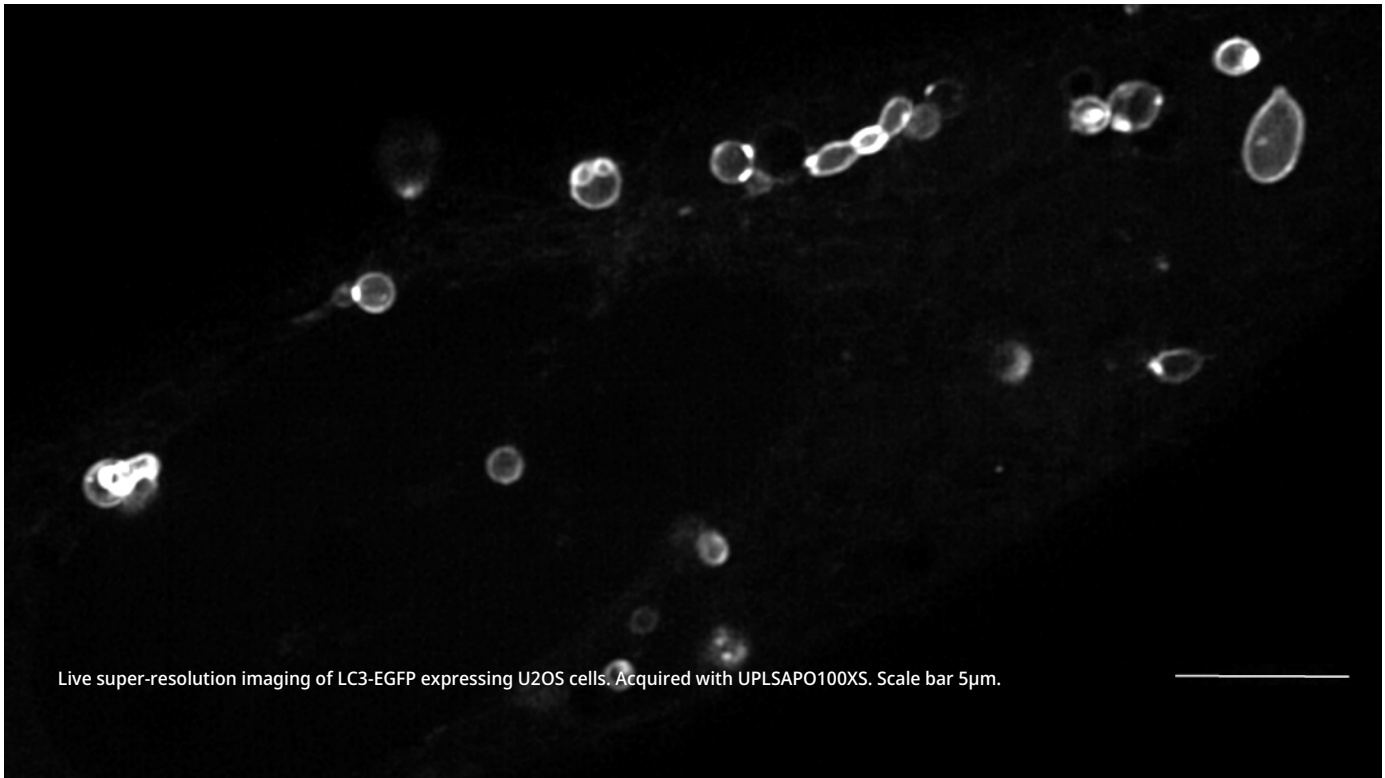
The IXplore™ IX85 SpinSR lets you visualize ultra-small cellular events in stunning detail. With fast image acquisition and advanced algorithms, this system makes capturing super-resolution details even easier so you can discover new insights faster. Observe dynamic subcellular processes with fast, gentle live-cell imaging.



NIH3T3 cells labeled with Hoechst (blue), β-tubulin–AF555 (green), CPCA–HSP60–AF647 (magenta), and fibrillarin–AF568 (gray). Scale bar: 5 µm. Sample courtesy of EnCor Biotechnology Inc.

Super Resolution for Cellular Dynamics

Featuring a fast frame rate for super-resolution imaging, the IXplore IX85 SpinSR rapidly acquires dynamic cellular events at the nanoscale with XY resolution down to 120 nm. Capture ultra-small cellular dynamics by imaging at speeds up to 200 fps at full frame.



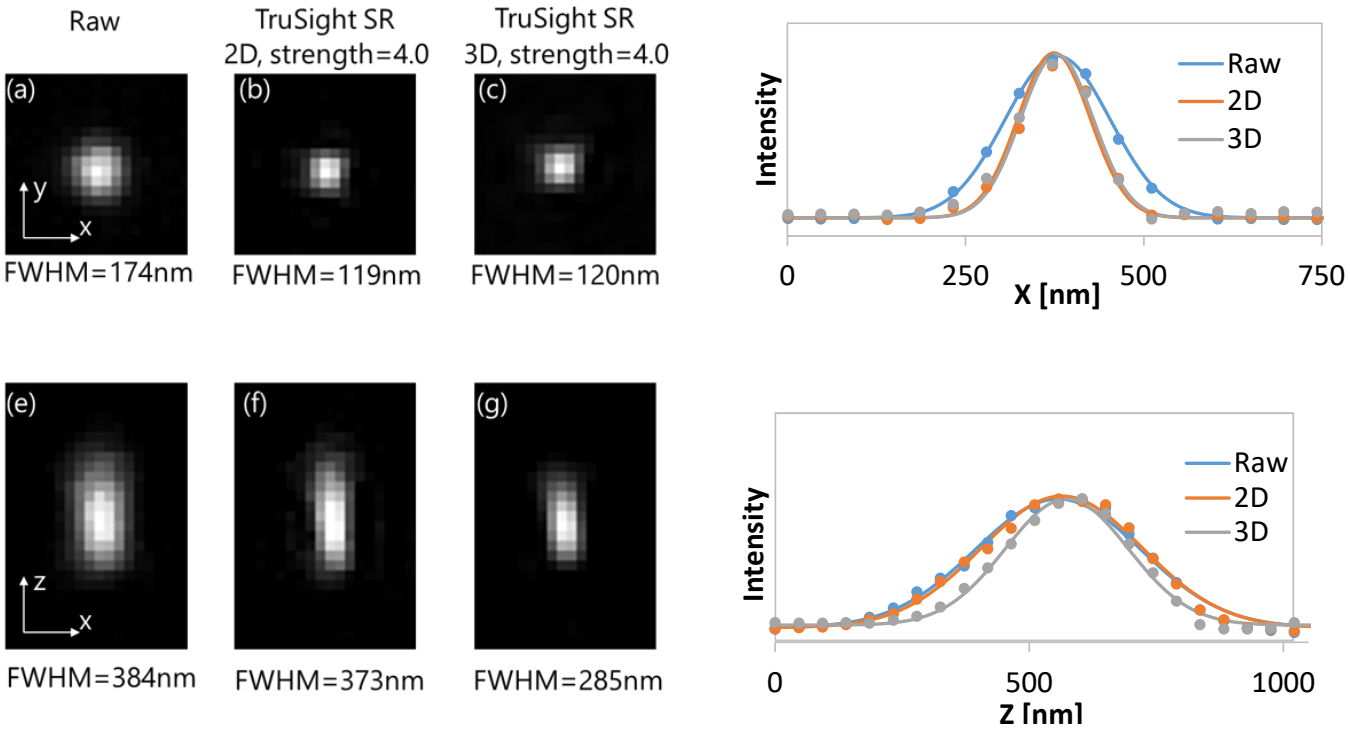
Live super-resolution imaging of LC3-EGFP expressing U2OS cells. Acquired with UPLSAPO100XS. Scale bar 5µm.

Bright Super-Resolution Images of Live Cells

Each confocal pinhole on the disk has a microlens that enables you to image with lower laser power, reducing photobleaching and phototoxicity in your sample while enabling bright super-resolution images.

Enhance Image Resolution in One Click

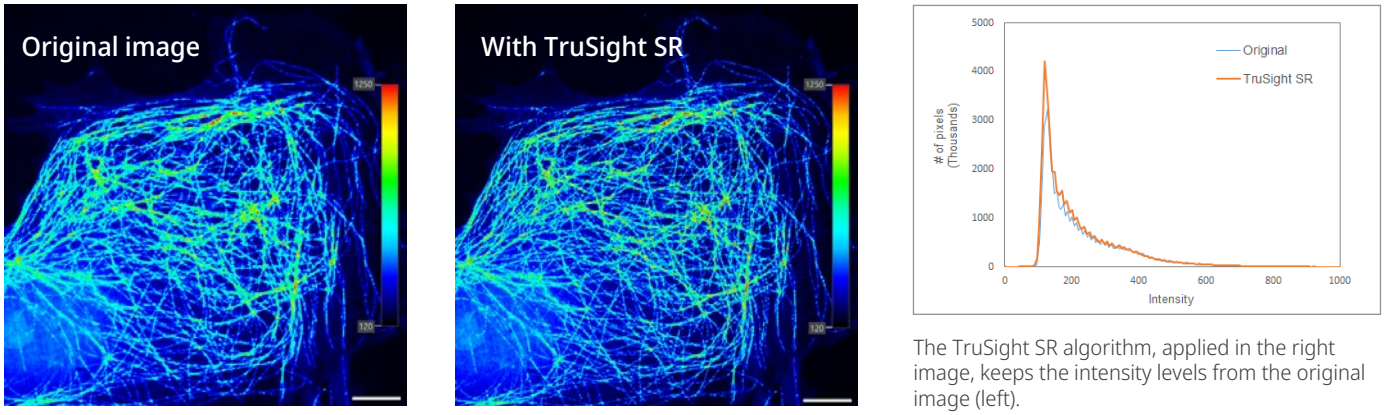
Evident's TruSight™ SR super-resolution algorithm enhances image resolution down to 120 nm with one click. It automatically optimizes the image processing filter based on the signal-to-noise ratio, enabling appropriate processing for live-cell imaging, even in dim fluorescence conditions. Its 3D algorithm delivers clear and precise super-resolution results, even deep inside your sample.



Point spread function (PSF) measured using 100 nm beads by UPLSAPO100XS (NA 1.35) with 488 nm laser excitation.

Quantitative Super-Resolution Data

The TruSight SR algorithm preserves the original image's intensity levels, enabling you to analyze and compare the brightness of samples in super-resolution images. These stable results support quantitative analysis.



The TruSight SR algorithm, applied in the right image, keeps the intensity levels from the original image (left).

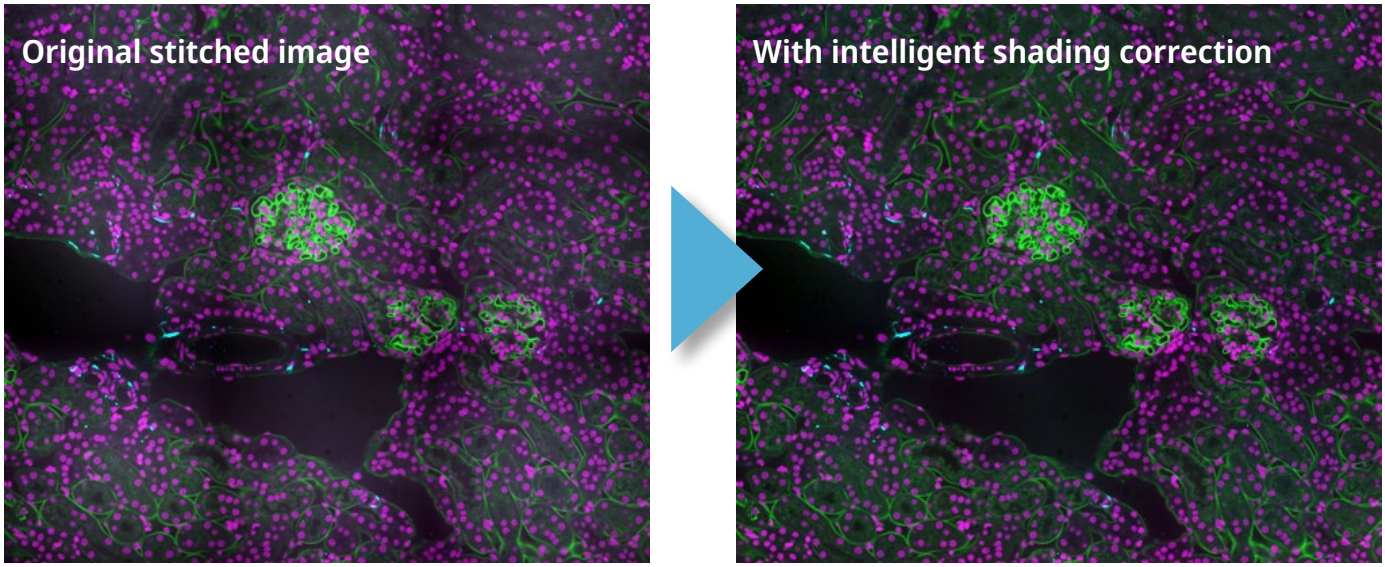
Seamless Workflows, Fast Results

The IXplore™ IX85 Spin/SpinSR system is designed to drive efficiency with easy workflows for busy labs. Our cellSens™ software streamlines experiment setup and operation, providing you with more time to review results and make discoveries.

The Power to Work Faster

Get the most from your biological samples with intuitive cellSens software. A suite of powerful tools streamlines acquisition, processing, and analysis, enabling seamless customization to suit your unique application needs.

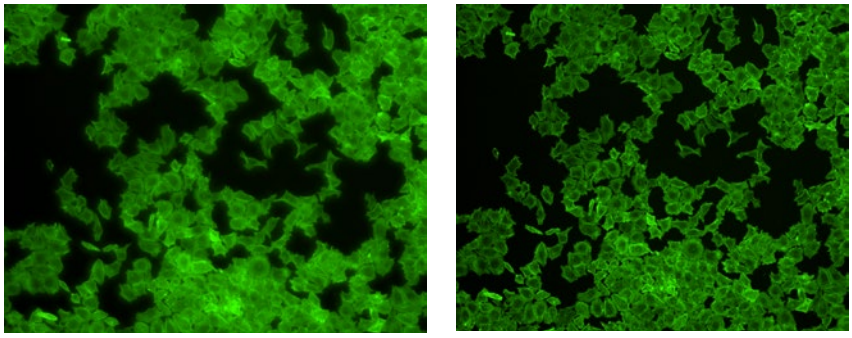
- **Easily define your acquisition and image processing steps**, including 5D experiment acquisition, in the Graphical Experimental Manager (GEM).
- **Intuitively set up complex multi-well experiments** using the well navigator.
- **Switch observation methods** in one click.
- **Automatically identify and analyze key biological features** in your images using our TruAI™ tools.
- **Automatically create seamless, high-quality stitched images** with intelligent shading correction.



Mouse kidney section. Green: blood vessel in AF 488. Magenta: nuclei in SYTOX Orange. Cyan: nervous system in AF 647.
Sample courtesy of: EnCor Biotechnology Inc.

Automatic Enhancement

Our motorized correction collar automatically fine-tunes your objective to reduce spherical aberrations caused by variations in cover glass thickness. The collar is seamlessly integrated with the system and compatible with a wide range of our standard objectives.



Left: without automatic correction collar adjustment. Right: with automatic correction collar adjustment.

Optimized Objectives for All Applications

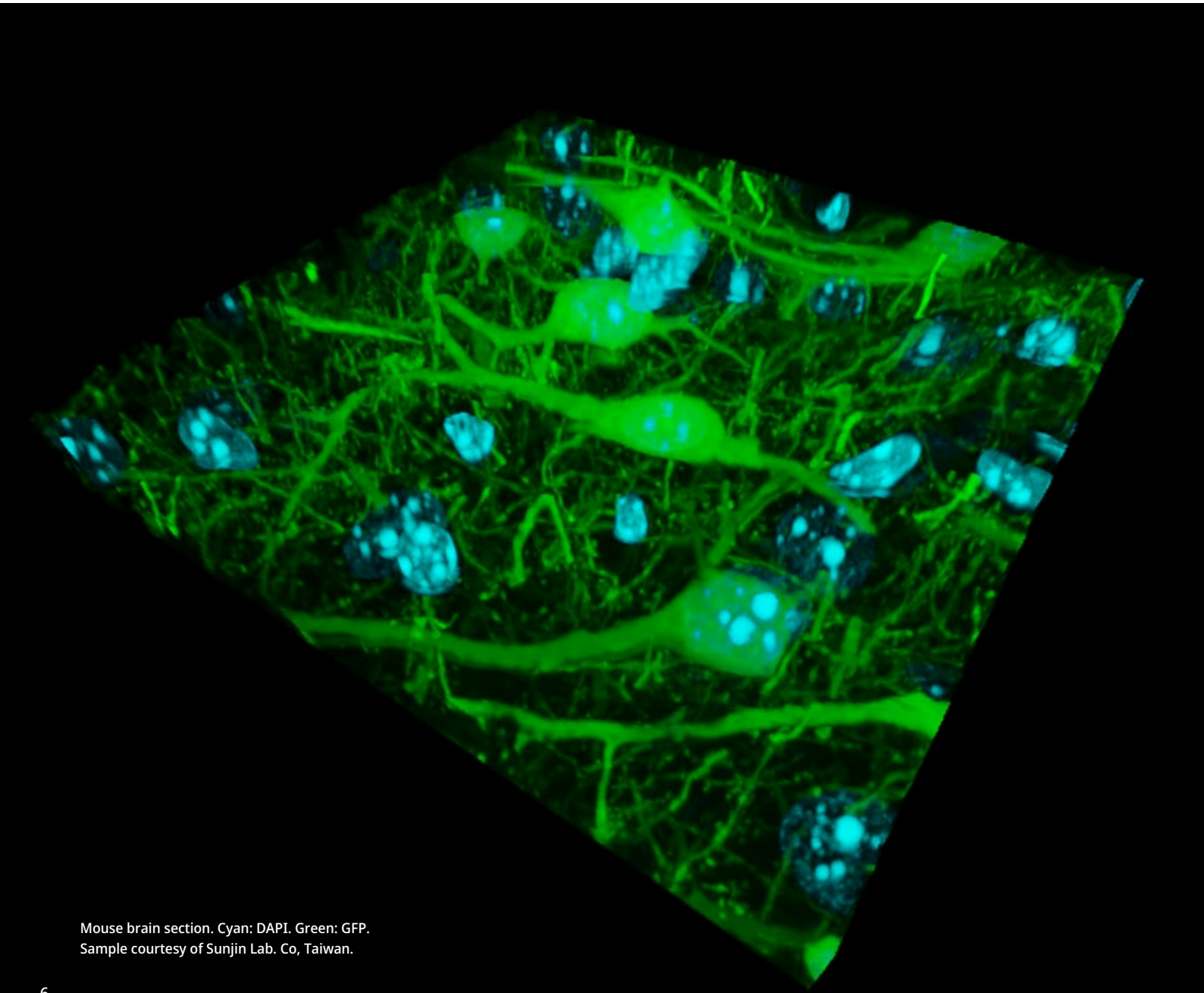
Evident's expansive range of objectives can meet any research need, pushing your super-resolution system even further.

Consistent Quality

X Line series objectives redefine optical performance across applications with our revolutionary lens technology. X Line objectives offer simultaneously improved numerical aperture, flatness, and chromatic correction for bright, high-quality images throughout the field of view.

Sharper Images

A Line™ series objectives deliver powerful imaging performance for specific applications. Combine our A Line HR objective featuring a high numerical aperture (NA) of 1.50 with our TruSight™ SR algorithm to obtain higher resolution images of ultra-small cellular dynamics. Other silicone immersion objectives are available for deep imaging.



Mouse brain section. Cyan: DAPI. Green: GFP.
Sample courtesy of Sunjin Lab. Co, Taiwan.

World’s First Silicone Gel Pad Objective

The world’s first silicone gel pad objective (LUPLAPO25XS) combines all the quality and advantages of our silicone immersion objectives with the convenience and useability of a dry objective.

More Stable Time-Lapse Imaging

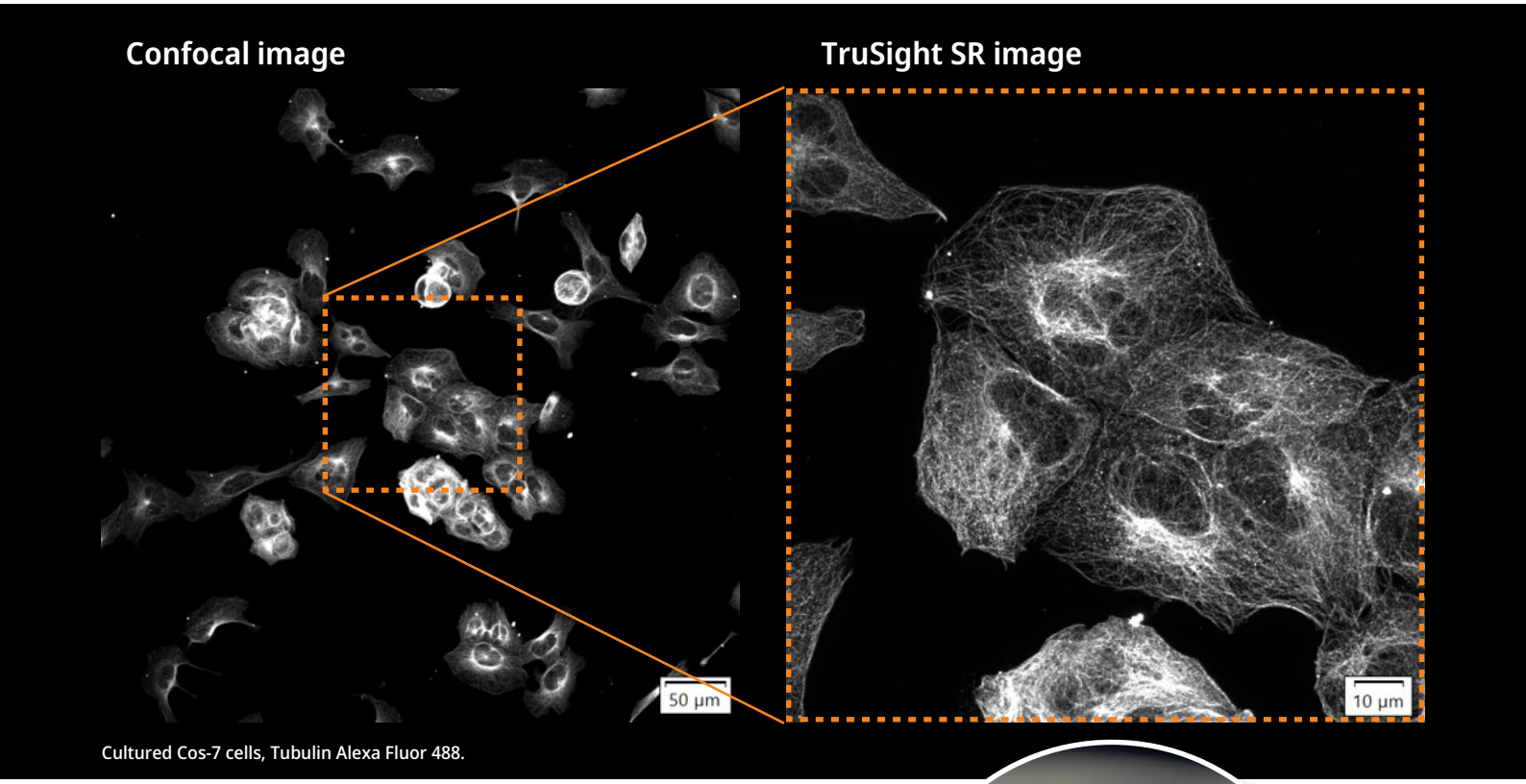
Our silicone gel pad maintains moisture for reliable and stable time-lapse imaging.

Enhanced Workflows

Compatible with water, silicone oil, or silicone gel, the LUPLAPO25XS is a time-saving game-changer for organoids, small organisms, 3D cell cultures, multi-well plates, and a range of other applications.

Exceptional Imaging Made Easy

Achieve the image quality of a 100X oil immersion objective by combining the LUPLAPO25XS with the super-resolution magnifier and TruSight™ SR algorithm. The gel pad keeps your objective oil-free for easy setup and maintenance.



Cultured Cos-7 cells, Tubulin Alexa Fluor 488.

Easily switch from a confocal image to a higher resolution image using the LUPLAPO25XS with the super-resolution magnifier and TruSight SR algorithm.

Discover More on One Platform

The IXplore™ IX85 Spin/SpinSR adapts to your research, offering super-resolution, widefield, and confocal imaging on one powerful platform. See more, discover more, and push the boundaries of your work with multiple imaging modalities.

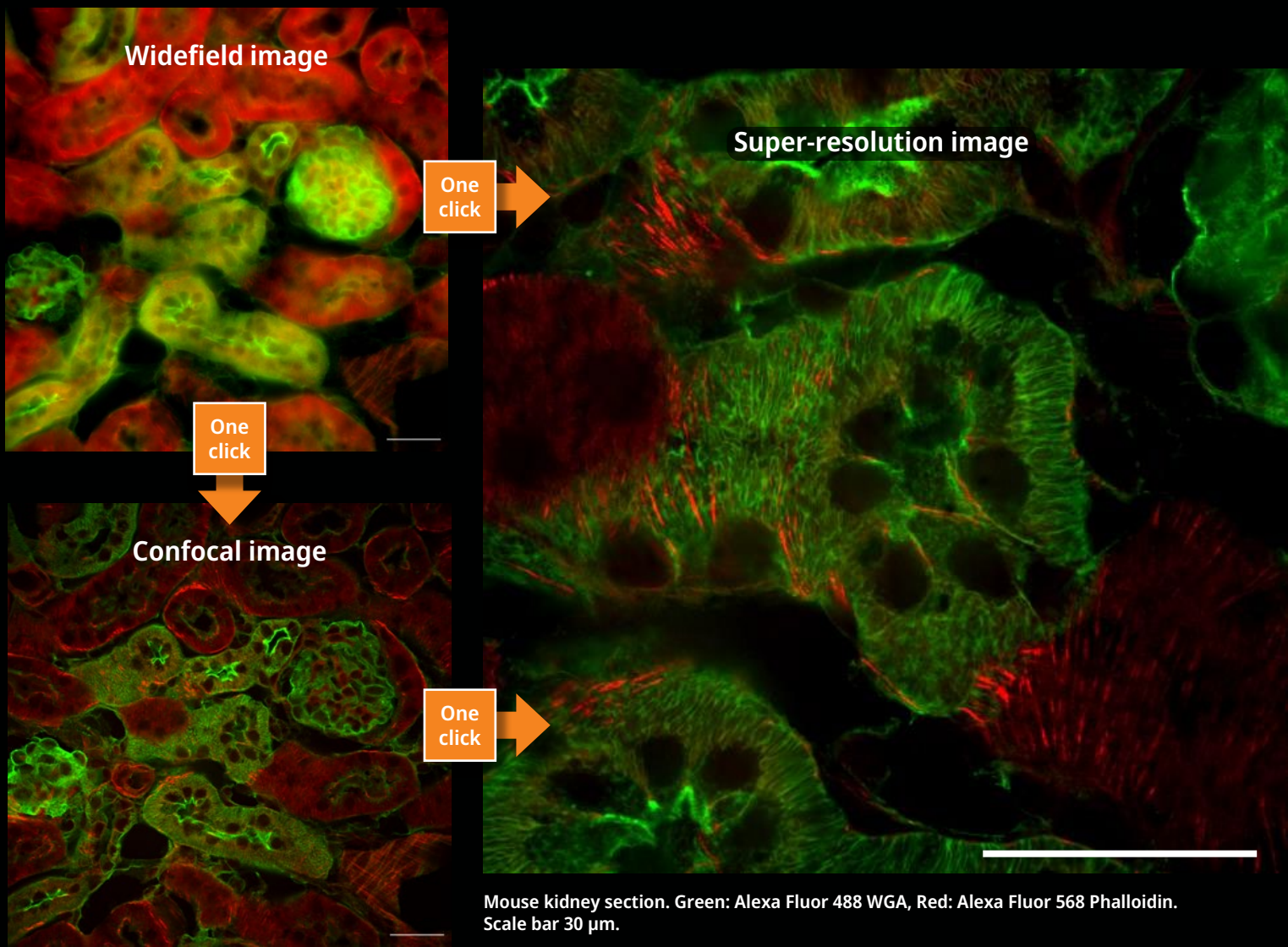
Flexible Imaging Across Applications

The modular system evolves with your lab, so you can upgrade and expand capabilities as your research needs grow.

- **Supports a wide wavelength range** from 405–785 nm, offering the flexibility to use the ideal wavelength for your fluorophores, including in the NIR region.*
- **Compatible with incubation systems and environmental controls** for stable long-term experiments.
- **Versatile imaging modes:** Switch between widefield, confocal, and super-resolution imaging with one click.

Evident's microscopy professionals will make sure you build the right system for your lab. Customize every aspect of your IXplore IX85 Spin/SpinSR microscope, from the lasers to the eyepieces.

*NIR laser is available only on the IX85 Spin model in certain regions. Contact your local Evident representative for details.



Mouse kidney section. Green: Alexa Fluor 488 WGA, Red: Alexa Fluor 568 Phalloidin. Scale bar 30 µm.

Optimized Performance, Trusted Results

Built on the stable IXplore™ IX85 platform and powered by Yokogawa CSU-W1 spinning disk technology, the Spin/SpinSR is optimized for high-performance imaging. Our world-renowned optics add to this confidence, equipping your lab with a powerful set of tools to produce publication-ready images.

Experience Precision and Clarity

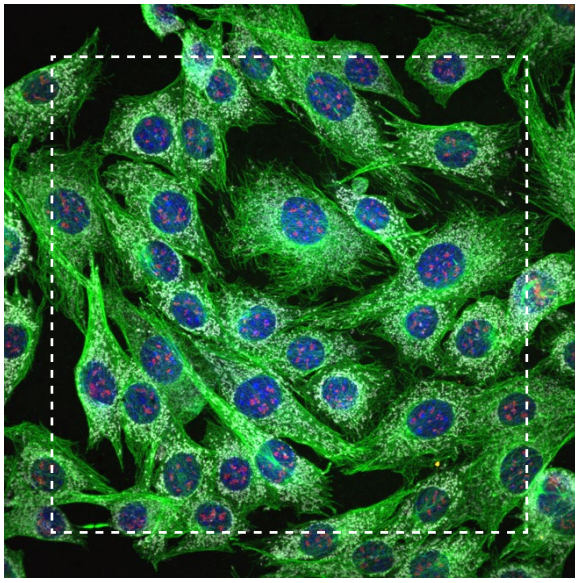
An innovative combination of optical advances enables you to see fine details with precision and clarity so you can quickly obtain impactful, publication-ready images.

Even Illumination

Collect uniform images with laser illumination and built-in optics that provide consistent lighting across the FOV.

Clear Details from Center to Edge

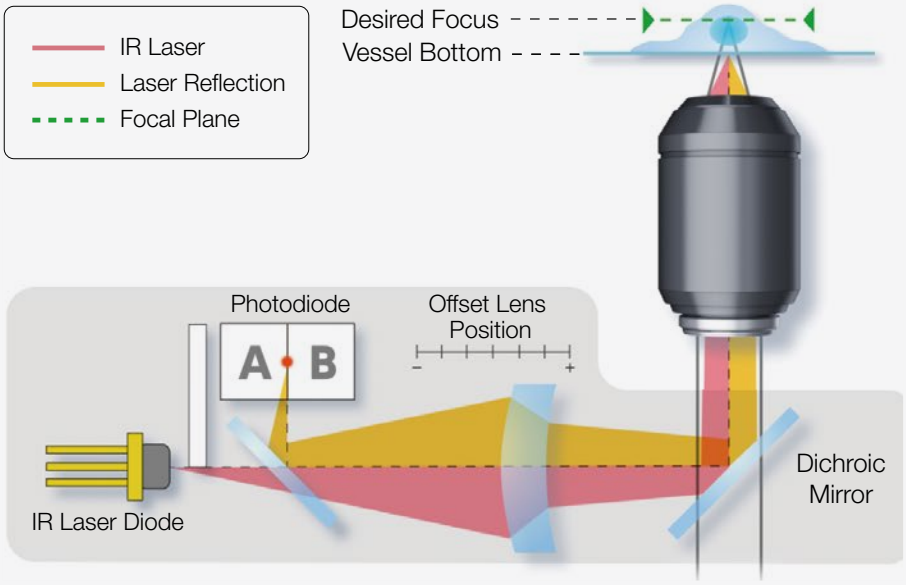
Count on edge-to-edge precision with proprietary distortion correction technology and expanded flatness.



NIH3T3 cells labeled with Hoechst (blue), β-tubulin–AF555 (green), fibrillarin–AF568 (red), and CPCA–HSP60–AF647 (gray). Sample courtesy of EnCor Biotechnology Inc. Confocal image area: dotted line: FN18.8, solid line: FN22.

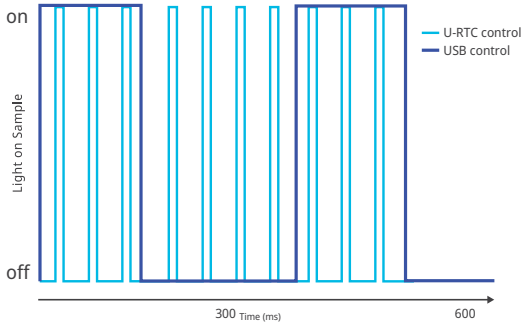
Your Sample in Focus

Capture high-precision, multipoint time-lapse images that are aligned and in focus with our TruFocus™ Z-drift compensator. With stable focus for long-term imaging and plate screening, you can be confident in the quality of your results.



Synchronized High-Speed Imaging

The real-time controller works as the system's conductor, ensuring that each component of the system is working together with microsecond accuracy. It delivers coordinated imaging even at the highest speeds, reducing the risk of sample damage with shorter exposures.



IXplore™ IX85 Spin and SpinSR Solutions

Select from a wide range of IXplore IX85 configurations to support your lab's research needs today and in the future. Start with an IXplore IX85 Spin system and easily upgrade to a SpinSR super-resolution microscope with up to two decks as your research evolves.

IXplore IX85 Spin

- High-quality confocal imaging system with a wider FOV
- Ready to upgrade to a super-resolution imaging system

IXplore IX85 SpinSR (1-Deck System)

- High-quality confocal imaging system with a wider FOV
- Super-resolution imaging down to 120 nm resolution

IXplore IX85 SpinSR (2-Deck System)

- High-quality confocal imaging system
- Super-resolution imaging down to 120 nm resolution
- 2-deck frame structure for expanding your experiments

Service and Support That Empowers

All IXplore IX85 microscopes are backed by the same exceptional service and support that you've come to know and expect for the last 100 years.

Evident offers various support plans to keep your microscope operating at peak performance with predictable costs, as well as remote support options for timely assistance without waiting for a visit from a specialist. Maximize uptime and experience peace of mind with our proven service quality.

IXplore™ IX85 Spin and SpinSR Specifications

		IX85 Spin	IX85 SpinSR	
Laser	Laser lines	405 nm: 50 mW, 445 nm: 75 mW, 488 nm: 100 mW, 514 nm: 40 mW, 561 nm: 100 mW, 640 nm: 100 mW		
	Combiner	Main combiner: 405 nm, 488 nm, 561 nm, 640 nm + 1 line (445 nm or 514 nm) Sub combiner: 445 nm, 514 nm		
	Light control	Direct modulation, on/off control and intensity modulation with individual laser lines		
Motorized inverted microscope		**IX85P1ZF**	**IX85P1ZF**	**IX85P2ZF**
Scanner	Disk unit	Single 50 µm pinhole disk	Single SoRa disk or SoRa disk and 50 µm pinhole disk	SoRa disk or 50 µm pinhole disk Maximum of 2 selectable disks
	Camera port	1 or 2 camera models	1 or 2 camera models*	
	Dichroic mirror	3-position (motorized slider)		
	Filter wheel	10-position (motorized wheel)		
	Adapter magnification	1X	1X / 2.8X / 4X	1X / 3.2X
Confocal imaging	Acquisition speed (max)	5 ms/f		
	Field number	22	22	18.8
Super-resolution imaging	Acquisition speed (max)		5 ms/f	
	Field number		7.9 / 5.5	5.9
	Optical resolution**		XY resolution: SoRa disk: 110 nm / 50 µm pinhole disk: 120 nm Z-resolution: SoRa disk / 50 µm pinhole disk: 285 nm	
	Available objectives		LUPLAPO25XS (NA 0.85), UPLSAPO30XS (NA 1.05), UPLSAPO30XSIR (NA 1.05), UPLXAPO40X (NA 0.95), UAPON40XW340 (NA 1.15), UPLSAPO40XS (NA 1.25), UAPON40XO340-2 (NA 1.35), UPLXAPO40XO (NA 1.40), UPLXAPO60XW (NA 1.2), UPLSAPO60XS2 (NA 1.35), PLAPON60XOSC2 (NA 1.40), UPLXAPO60XO (NA 1.42), UPLAPO60XOHR (NA 1.50), UPLSAPO100XS (NA 1.35), UPLXAPO100XO (NA 1.45), UPLAPO100XOHR (NA 1.50)	
Imaging sensor		Third-party sCMOS camera		
Imaging software	cellSens Dimension	Multi-dimensional acquisition and analysis		
			Super-resolution imaging module (CS-S-OSR-VF)	

*Restrictions depend on the disk unit combinations.
**Typical experimental FWHM values with UPLSAPO100XS at 488 nm excitation. SoRa disk with 40 nm diameter beads and 50 µm pinhole disk with 100 nm diameter beads.

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- **EVIDENT CORPORATION is ISO9001 certified.**

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