

Olympus innovation. A lineup of Olympus objectives for a range of research applications. What's your objective?

UPLSAPO Series

Like diamonds, objectives come in a range of qualities. The UPLSAPO class has some of the highest levels of compensation for both spherical and chromatic aberrations from UV to near-infrared region.

PLFLN Objective

High-quality flat-field objectives for routine use.

PLAPON Series

Provides flat images from high transmission factors up to the near-infrared region of the spectrum.

XLUMPLFLN-W Objective

Superior transmission and high NA for excellent clarity of images in live cell dipping applications. The new "Super 20x" has an improved NA from 0.95 to 1.0.

UAPON340 Series

Features highest transmission of 340nm wavelength light for applications using UV such as laser cutting and ablation.

TIRF Objectives

Olympus is a pioneer in the field of TIRF microscopy with the widest range of objectives for applications from membrane dynamics to super-resolution.

UPLFLN Series

Provides flat images with high transmission factors up to the near-infrared region of the spectrum through the employment of UW multi-coating.

LUMPLFLN-W Series

Dipping objectives designed with long working distances and special angles. Developed for experiments in electrophysiology.

MicroProbe Objectives



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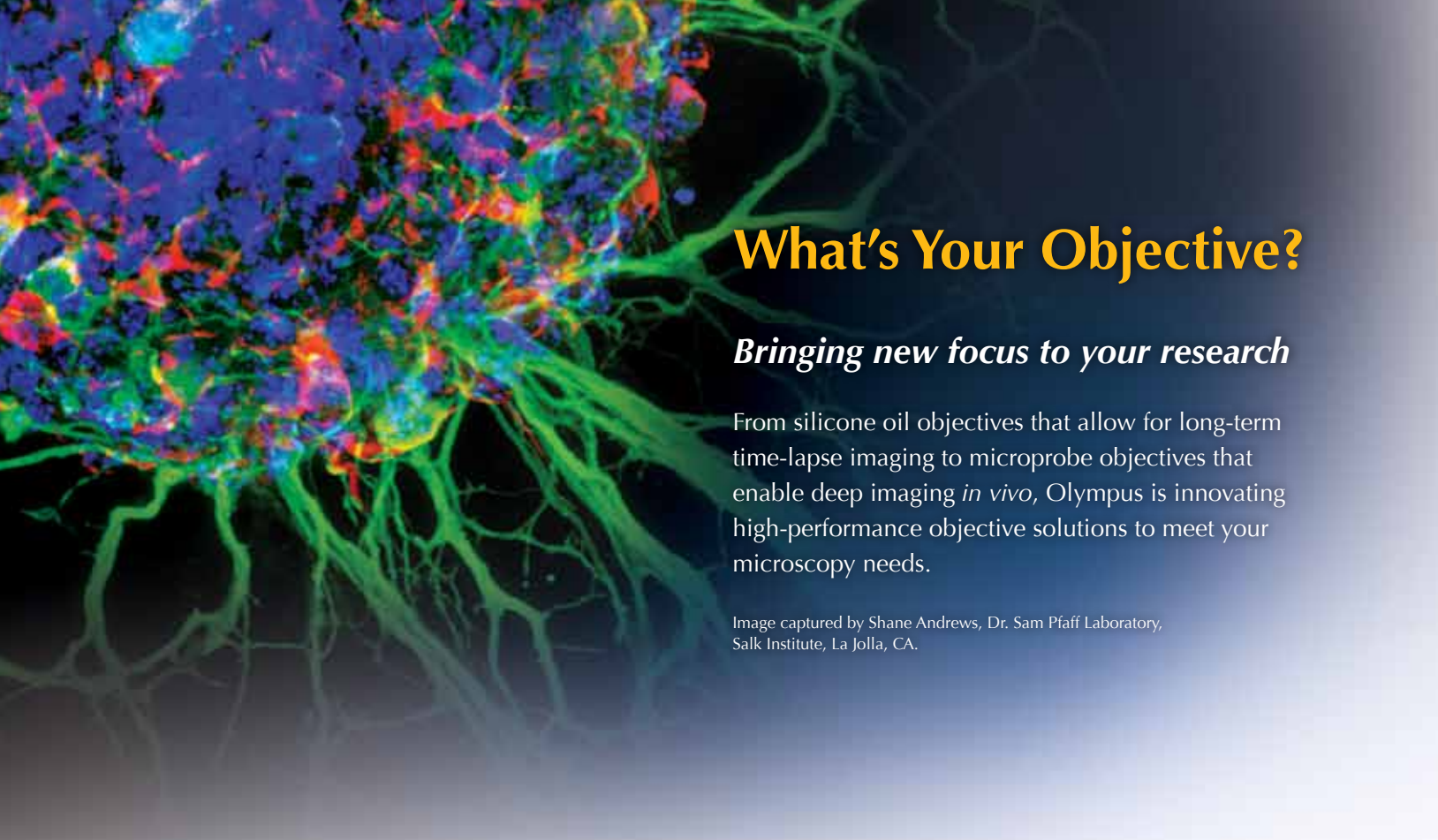


Olympus Specialty Objectives

Advance Your Research with the Right Objective

- SCALEVIEW Immersion 25X Objectives for Multiphoton: Revolutionary New Imaging Depths
- Ultra 25X MPE Water Immersion Objective: The Ultimate for Multiphoton Imaging
- MicroProbe Objectives: Intravital Imaging with Unparalleled Clarity in a Unique Size
- 30X and 60X Silicone Oil Objectives: Ideal for Live Cell Imaging
- Super-Corrected 60XO Objective Lens: A Must for Colocalization





What's Your Objective?

Bringing new focus to your research

From silicone oil objectives that allow for long-term time-lapse imaging to microprobe objectives that enable deep imaging *in vivo*, Olympus is innovating high-performance objective solutions to meet your microscopy needs.

Image captured by Shane Andrews, Dr. Sam Pfaff Laboratory, Salk Institute, La Jolla, CA.

Excellence in optical engineering. The core technology of Olympus.

Optics are the heart of any microscopy system, and Olympus is constantly designing unique and exciting new objectives optimized for a range of optical techniques and research needs. From pioneering microprobe, TIRF, and multiphoton objectives to super-corrected colocalization objectives and silicone objectives optimized for live cell imaging, Olympus innovation provides the solutions needed to achieve your goals.



Super-Corrected 60XO Objective Lens— THE lens for colocalization

Delivering optimal colocalization performance levels out to an unprecedented 405nm excitation wavelength

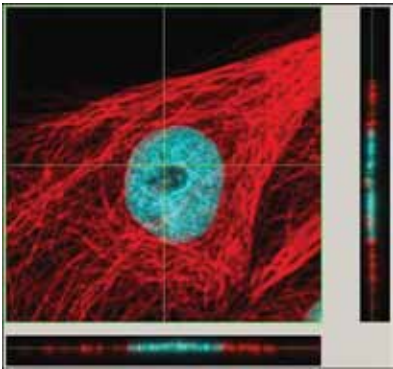
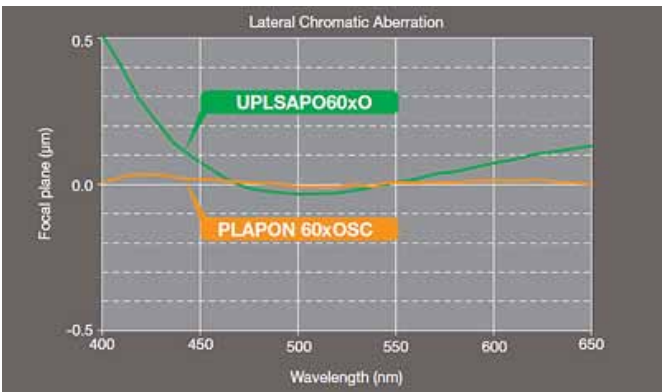
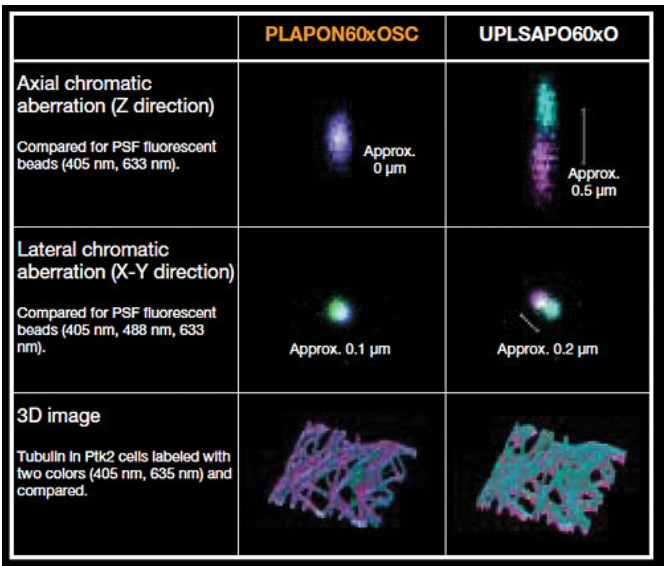
- Enhanced point spread function optimized with Olympus FV1000 for confocal imaging at ultraviolet wavelengths and improved brightness to field periphery
- Chromatic aberration compensated to less than 0.1-0.2µm within the range of 405-650nm
- Images down to 405nm greatly benefit from highly improved optical performance with better flatness and virtually no shadowed areas at periphery



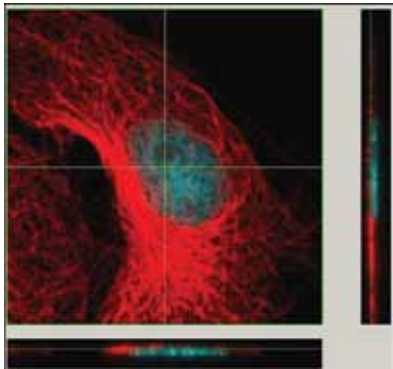
Specifications

Model	Magnification	N.A. (mm)	W.D. (mm)	Field Number Compensation	Chromatic Aberration Medium	Immersion	Operating Temperature
PLAPON60XOSC	60X	1.4	0.12	22	On-Axis ≤ 0.1µm Off-Axis ≤ 0.2µm & F.N.6	Oil IMMOIL-F30CC must be used	23°C±3°C

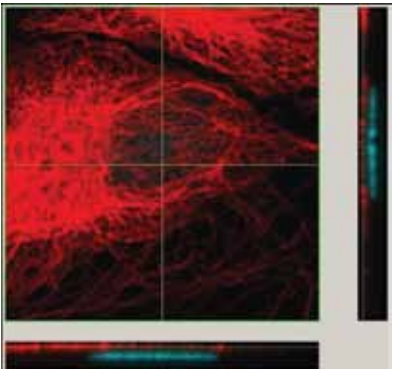
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PLAPON60XOSC



UPLSAPO60X



PLAPON60XO



Ultra 25X MPE Water Immersion Objective

*Engineered specifically for two-photon
excitation and deep imaging*

- Optimal performance in IR range
- New coating gives more than 82% transmittance from 400-1000nm
- Correction collar creates very small focal spot even in deep imaging, compensating for refractive index mismatch
- FV1000MPE light path engineered to completely fill back aperture and make full use of resolution available from 1.05 N.A.

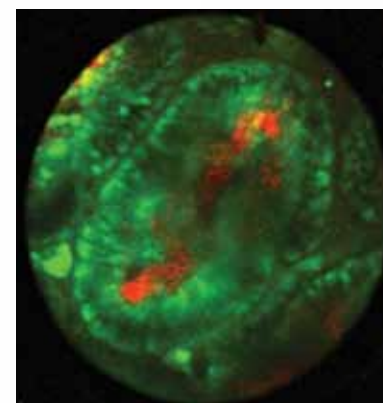


Transgenic zebrafish with cell membranes labeled with CFP. CFP is shown in green and YFP in magenta. Image data provided by Dr. Rachel O. Wong and Philip Williams, Department of Biological Structure, University of Washington.

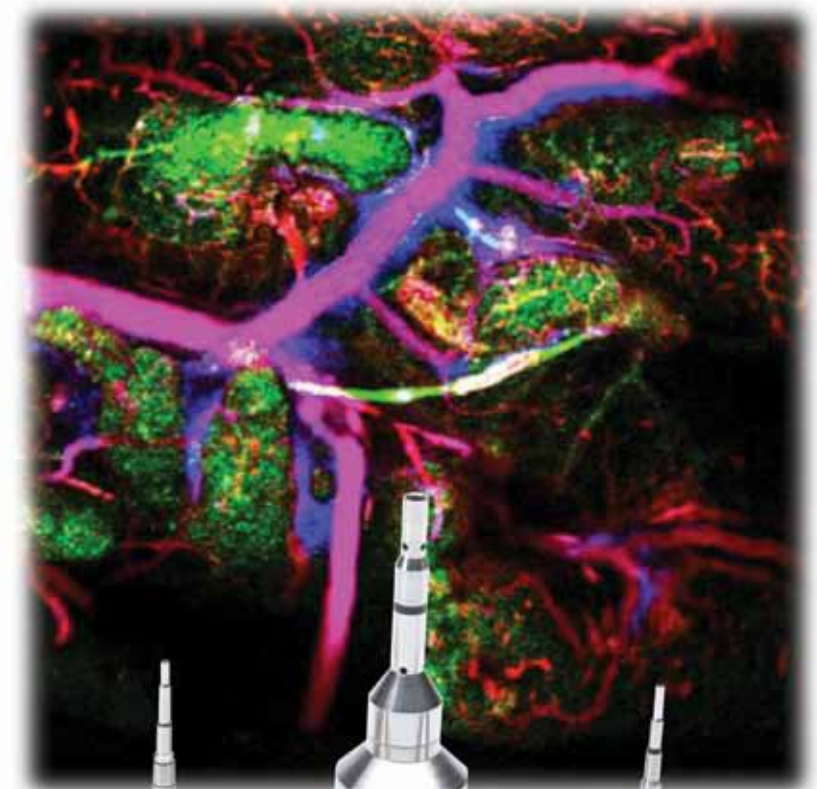
MicroProbe Objectives

*Minimally invasive, high-resolution
imaging deep within live animals*

- True lens technology, not GRIN lenses, these objectives have slim diameter tips of 1.3mm (6X and 20X) and 3.5mm (27X), all with working distance of 200 microns.
- Allows observation of various fluorescence signatures where standard objectives cannot reach.
- Transmission and chromatic correction throughout visible and near-infrared (NIR) spectra (450-1000nm) provide excellent image quality.



Blood vessels (red) and enterocytes (green) imaged using a 20X MicroProbe objective inserted within a small incision in the wall of the jejunum. Image captured by Dr. Herlen Alencar, Massachusetts General Hospital, Boston.



Tie2-GFP1-transgenic mouse prostate. Vessel AngioSense750 (red) and CLIO-VM680 (blue).



XLPL25XWMP Basic Specifications

Parfocal length	75mm
Magnification	25X
N.A.	1.05
WD	2.0mm
Correction collar	0-0.23mm
F.N.	18
Max. angle for patch-clamping	35°

Sales restrictions may apply.

Specifications

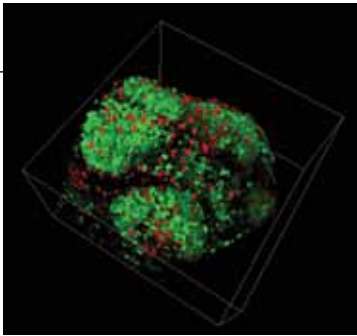
Model	Lens Diameter	N.A.	W.D. (mm)	Practical Field of View (mm)	Immersion Media	Magnification
IV10-MP27X35	3.5	0.70	0.2	0.22	Water	27X
IV10-MP20X13	1.3	0.50	0.2	0.20	Water	20X
IV10-MP6X13	1.3	0.13	0.2	0.67	Water	6X

Sales restrictions may apply.

30X and 60X Silicone Oil Objectives

Minimizing spherical aberration and delivering higher resolution at greater depths

- Improved optical performance for live cell confocal, widefield fluorescence, multiphoton, and differential interference contrast (DIC)
- Ideal for long-term time-lapse imaging
- Enhance image resolution and contrast by adjusting correction collar
- 30X silicone objective for macro observation at high resolution
- High numerical apertures and transmission for use in both multiphoton and single-photon microscopy



Fluorescence image of a transgenic zebrafish embryo at 26 hpf expressing zFucci. Courtesy of Dr. Mayu Sugiyama, Dr. Atsushi Miyawaki, Laboratory for Cell Function Dynamics, Advanced Technology Development Core, RIKEN Brain Science Institute

Specifications

Model	Magnification	N.A.	W.D. (mm)	Immersion Media	Field of View	Cover Glass Correction	Temperature	DIC Observation
UPLSAPO60X	60X	1.3	0.3	Silicone oil (ne=1.406)	22	0.15-0.19mm	23-37°C	Yes
UPLSAPO30X	30X	1.05	0.8	Silicone oil (ne=1.406)	22	0.13-0.19mm	23-37°C	Yes

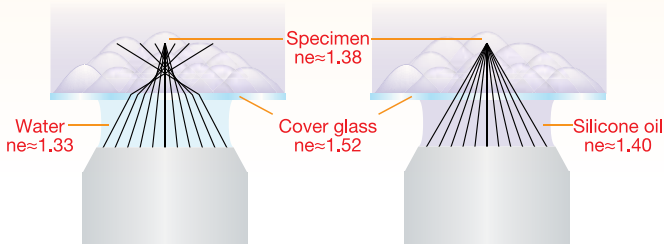
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UPLSAPO30XS and UPLSAPO60X, Silicone Immersion Objectives for Live Imaging

This immersion objective is designed exclusively for use with silicone oil, which has a refractive index even closer to live cells than that of water. Time-lapse observations become more reliable and less elaborate because silicone oil does not dry at 37°C and its refractive index remains constant. This objective also offers a long working distance to enable observation at deeper tissue levels and across broader fields. In a nutshell, this silicone objective offers a comprehensive solution for both macro and deep tissue observation in the fields of generative and regenerative science.

Refractive Index is important with Deep Tissue Observation



Water Immersion Objective

When working with a water immersion objective, the difference between the refractive index of the sample and water results in spherical aberration in deep tissue, causing resolution to deteriorate and fluorescence to become dim.

Silicone Immersion Objective

When working with a silicone immersion objective, the difference between the refractive index of the sample and silicone oil is minimal so it achieves brighter fluorescence images with higher resolution for deep tissue.

Silicone Immersion Oil SIL300CS-30SC

- Refractive index: ne=1.406, 23°C
- Net: 30ml
- Low autofluorescence



SCALEVIEW Immersion 25X Objectives for Multiphoton

Reach revolutionary new imaging depths with remarkable clarity

2012 Gold Edison Award Winner

- Optimized for multiphoton imaging
- Correction collar creates very small focal spot even in deep imaging, compensating for refractive index mismatch
- Specially designed for SCALEVIEW-A2 super-deep morphologically intact tissue imaging
- Supports water immersion

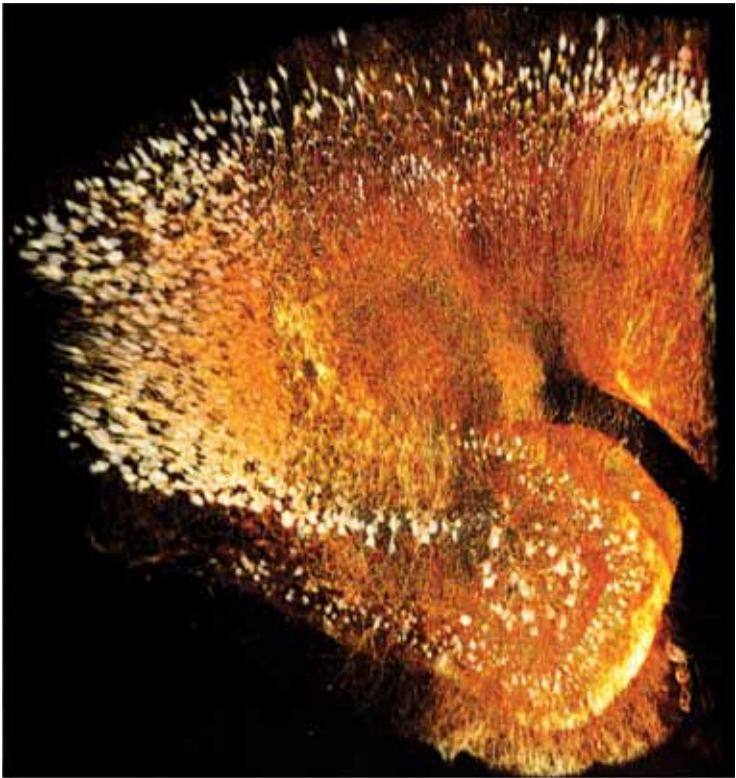


Image data courtesy of Hiroshi Hama, Hiroshi Kurokawa, Atsushi Miyawaki. 3D reconstructions of YFP-H line mouse brains cleared with SCALEVIEW-A2 reagent and acquired with 4mm and 8mm SCALEVIEW objectives on FV1000MPE system. Above: 24 tiled areas composed of nearly 9000 images stitched together using FluoView stage control and stitching software, 4mm SCALEVIEW objective. Right: Single Z-stack acquisition with 8mm SCALEVIEW objective.



XLPN25XSVMP

For more than a century, researchers have had to section tissue in order to visualize large tissue areas, disrupting tissue and data in the process. Tissue clearing with the SCALEVIEW-A2 solution has opened up new possibilities for deep imaging. When coupled with Olympus SCALEVIEW immersion objectives, researchers can now reconstruct vast tissue areas at high resolution with the FV1000 MPE system.

Specifications

Model	Numerical Aperture (SCALEVIEW immersion)	Working Distance (mm)	Cover Glass Thickness (mm)	Field of View (mm)
XLPN25XSVMP	1.0	4mm	0 - 0.23	18
XLPLN25XSVMP	0.9	8mm	0 - 0.23	18

Sales restrictions may apply.

