

OLYMPUS®

Your Vision, Our Future

CONFOCAL LASER SCANNING BIOLOGICAL MICROSCOPE
WITH ZERO DRIFT COMPENSATION

FV1000-ZDC

FLUOVIEW

T i m e - L a p s e I m a g i n g

Corrects for thermal drift during confocal time-lapse imaging

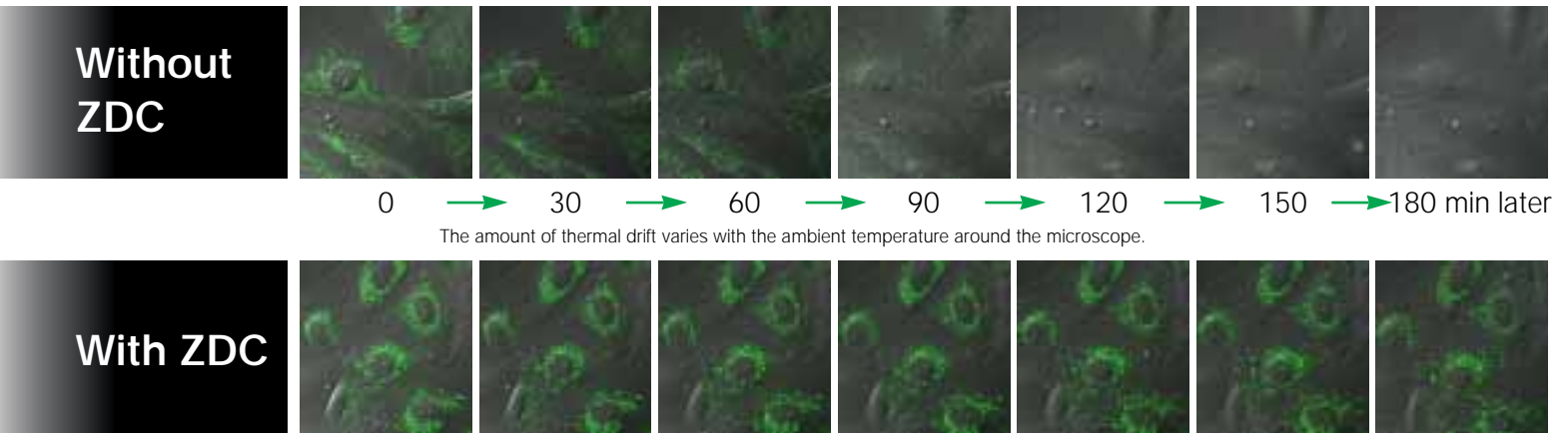


PIK2 cells cultured for two days in a glass-bottom dish.
Gene transfer of EYFP fused to a mitochondria targeting sequence.
Time-lapse imaging at room temperature.
Interval: 10 min
Laser: 515 nm
Objective: PlanApoN60x (Zoom 2)



***Zero drift even during
a long observation***

Time-Lapse Imaging

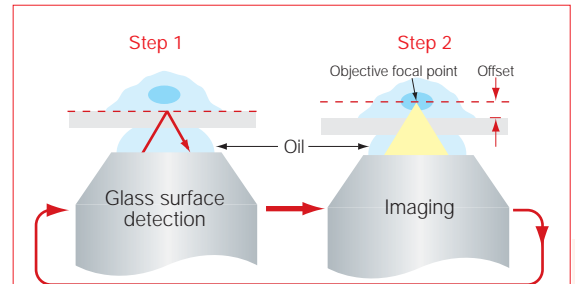


The amount of thermal drift varies with the ambient temperature around the microscope.

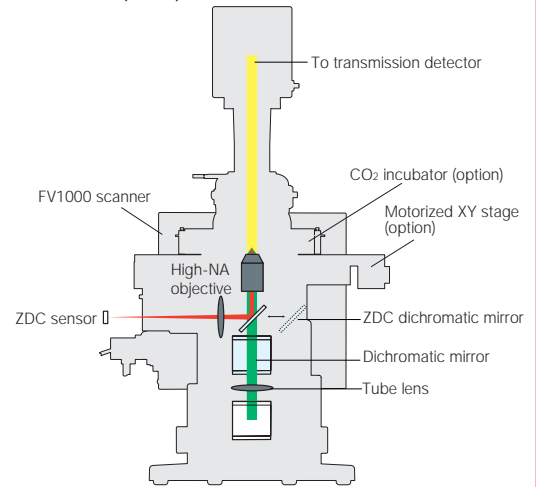
During long time-lapse observations, temperature changes around the microscope and drug administration during the observation cause focal drift, resulting in a loss of focus on the target. For confocal laser scanning biological microscopes with high resolution in the Z-direction, even slight focal drift can impair image acquisition to the point that images are no longer useful to researchers.

Olympus is the world leader in equipping a confocal laser scanning biological microscope with zero thermal drift compensation. Corrects automatically for thermal drift during confocal time-lapse imaging.

- In time-lapse imaging, focus is automatically corrected immediately prior to imaging.
- Compensation is performed in reference to the bottom surface of the dish, allowing target Z-slice images to be obtained regardless of sample conditions.
- Without thermal drift compensation, several Z-slice images must be taken to ensure acquisition of target image plane. Thermal drift compensation eliminates this need, minimizes sample exposure to irradiation.
- A 785 nm laser with minimal phototoxicity is used for thermal drift compensation, meaning fluorescence fading is not an issue.
- The ZDC dichromatic mirror can be placed in or out of the observation optical path.
- Using the standard software for the FV1000-ZDC, a range of imaging conditions can be set and controlled.
- Focusing accuracy: $\pm 0.1 \mu\text{m}$.



FV1000-ZDC optical path



* ZDC frame is available only for IX81



Specifications are subject to change without any obligation on the part of the manufacturer.

FLUOVIEW website

www.olympusfluoview.com

●OLYMPUS CORPORATION obtains ISO9001/ISO14001.

OLYMPUS

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