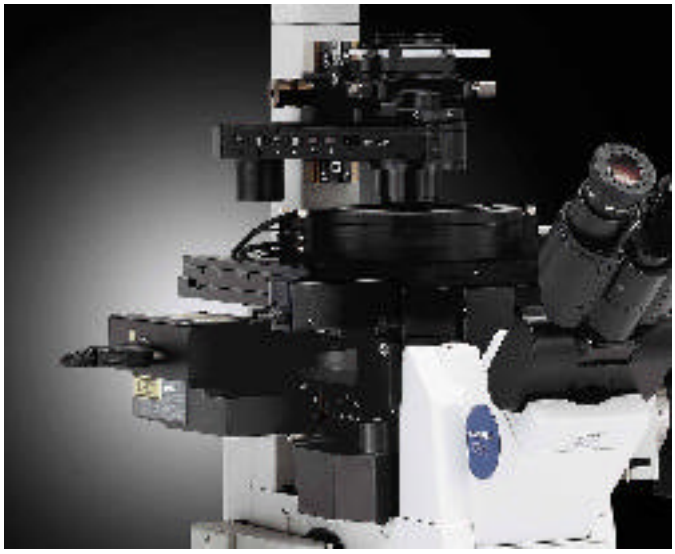
Zero Drift Inverted Microscope System Offers Continuous Autofocus



Olympus offers the IX81-ZDC2 Zero Drift microscope system, a motorized inverted microscope with a comprehensive, integrated autofocus solution for investigators doing time-lapse experiments. The IX81-ZDC2 Zero Drift system's next-generation autofocus system is designed to operate continuously so that it maintains focus even when the events being observed happen very quickly and experiments occur over a short timescale. In addition, the system easily can be set to operate in a discrete, one-shot mode designed to facilitate applications that require maintaining multiple focus positions, such as experiments involving multi-well imaging. The system is optimized for use with total internal reflectance fluorescence (TIRF) and other advanced applications.

The ZDC2 Zero Drift system uses a Class 1 785 nm laser diode to locate either the water/glass interface (for oil- or water-immersion objectives) or the air/glass interface (for non-immersion lenses). Samples can be mounted on coverslips, multi-well tissue culture plates, glass-bottom culture dishes, or other glass substrates. Working in tandem with MetaMorph for Olympus software, ZDC2 Zero Drift uses an intermediate lens to focus to the desired z-position (depth) in the sample, automatically maintaining focus for seconds, hours, days, or weeks. Using its automated continuous mode, users can easily retain precise focus even after reagents are added.

The IX81-ZDC2 Zero Drift provides the crispest, sharpest, brightest images possible under time-lapse conditions. It can be used with a broad range of objectives including two key high-transmission Olympus TIRF lenses: the APON 60x, 1.49 NA and the UAPON 100x 1.49 NA objectives. ZDC2 Zero Drift is also an excellent choice for keeping focus during multi-modal calcium experiments that employ both TIRF and Fura-2. In conjunction with the Olympus cell^TIRF illuminator, the system allows simultaneous, high-speed multi-angle TIRF imaging.

Source URL (retrieved on *12/20/2013 - 3:09am*):
http://www.mdtmag.com/product-releases/2010/06/zero-drift-inverted-microscope-system-offers-continuous-autofocus?qt-most_popular=0