

Workflow-oriented incubation for live cell imaging



Extended live-cell imaging requires stringent control of temperature, humidity, CO₂ and O₂ levels for sample integrity and/or focus. cellVivo's innovative workflow-optimising design provides precise and user-friendly control for even the most sensitive samples. Unique one-handed accessibility allows simultaneous handling of the incubator and specimens, minimising sample exposure to the external environment.

Intelligent software enables easy set-up and ensures continuous monitoring of conditions, even remotely. cellVivo is a modular and flexible 'one size fits all' incubation system, which is fully adaptable for basic and high-end IX3 microscopes (IX73 and IX83). Further flexibility is provided by the various enclosure types, which can provide advanced darkroom capabilities or simpler systems.

FEATURES AT A GLANCE

Perfect control of all environmental conditions

cellVivo provides reliable control of temperature up to 0.05°C accuracy as well as gas (CO₂ and O₂) control from 0 to 20%. It exchanges the complete sample environment five times per minute for very tight condition control and 0.1% accuracy.



Olympus CB2G controller for CO₂ and O₂ control.

First complete thought-out workflow-oriented incubation solution

cellVivo has been specifically designed to optimise the workflow of advanced live cell imaging and this attention to detail covers all components from the innovative new designs of the door and handle to the one-finger sliding mechanism for the CO₂ cover. This uniquely enables the user to operate the incubator and sample with one hand, thus minimising the time samples are in the uncontrolled external environment.



Stage cover for gas and humidity control.

Open access

For ease of use and flexibility, cellVivo incubator systems can be rapidly and simply assembled, modified and detached without the use of tools. The detachable incubator front is easily accessible with one hand and if more space is required, the incubator can be completely detached and rebuilt on a microscope in ten seconds enabling the microscope to be easily modified for the particular experiment.

Intelligent light shielding

Various enclosure types are available, from high-end light-shielded enclosures with incorporated safety laser-lock to protect the user from laser and UV light, to more standard plain glass. Intelligent light-shielded enclosures provide darkroom conditions for the sample, making the use of the microscope in a dedicated darkroom obsolete. While cell-friendly adjustable LED interior lighting and a non-reflective glass viewing window enable perfect viewing of the interior in the incubator.

cellVivo software for ease of use

To further simplify the set-up of advanced live-cell experiments, cellVivo software enables easy programming of the specific conditions required. By choosing the user and sample type, the system can automatically apply predefined conditions for the respective sample.

cellVivo software with unique traffic light (colour code) function for experiments

cellVivo software offers a unique 'traffic light' function to easily keep track of conditions, with red indicating unstable, yellow indicating viable and green indicating stable microscopy conditions without a loss of focus.

Monitor conditions during experiment

During the experiment, environmental data are automatically recorded. The software also has a web interface enabling 'anytime, anywhere' monitoring, with the option of email alerts in the event of problematic conditions for the sample developing.

Dynamic experiments

The easy programming of cellVivo makes it ideal for dynamic experiments, enabling changes in temperature and gas concentration to be defined and controlled. Energy savings are also facilitated by automatic switch on and off functionality.

Modularity

cellVivo is a modular system, enabling users to purchase only what they need. The range of models and modules available makes it easy to build either a premium high-end product with advanced housings and environmental control options, to a very basic solution for just temperature control with a transparent housing.



Widget style cellVivo application, attached to your imaging software.