BioSpectrum
the business of Bio & Health Sciences
ASIA EDITION

CytoSMART introduces high image quality, label-free live-cell microscopy solutions

August 12, 2021 | News

CytoSMART Lux3 BR ensures high-quality images and time-lapse movies for investigating the cellular development processes



CytoSMART Technologies has launched the new brightfield live-cell imaging system – the CytoSMART Lux3 BR. It is a small brightfield microscope, equipped with a high-quality 6.4 MP CMOS camera.

The new live-cell imager is designed to work inside a standard cell culture incubator as all other CytoSMART microscopes, without disturbing temperature, airflow, and optimum culture conditions for the cells. This allows researchers to perform long-term live-cell imaging experiments, ensuring optimal cell growth and health.

Very detailed brightfield images can be captured using the new device. In both x- and y-direction, 2072 pixels combined with 1.45 mm field of view provide a resolution of 0.7 µm/pixel. Even at the commonly required image resolution of 300 dpi for printed (scientific) publications, these images can fill the entire page width if desired, without compromising the image quality.

Cell biology studies involving live-cell imaging will have resolution issues during cell tracking or differentiation processes. Unlike the high-end microscopes with incubation boxes, the Lux3 BR ensures that cultures are not exposed to temperature, humidity, or COÃ¢â??â?? fluctuations that can stress the cells, as the device easily fits in every COÃ¢â??â??-incubator.

A setup with the CytoSMART Lux3 BR can be easily expanded to two or even four devices that can be operated and controlled individually via a single laptop. Since both Lux3 BR Duo Kit and Multi Lux3 BR devices can be placed directly next to each other in the same incubator, it allows for systematic comparison of control and treated samples, as all monitored cell cultures are maintained in an identical culture environment.

The main features and benefits of the CytoSMART Lux3 BR include:

- High-quality images and time-lapse movies to investigate the development of cellular processes
- Incubator- and laboratory-friendly device due to its compact size and open design
- Remote data access via the CytoSMART Cloud with a smartphone, tablet, or laptop outside the lab
- Flexibility to expand a single live-cell imaging system to Duo and Multi Kits