

# CytoSMART Lux2

## keep track of cell cultures using live-cell imaging

Monitor cell proliferation, motility and culture quality for hours up to weeks at a time. The CytoSMART Lux2 is a low-cost, compact inverted microscope that works from inside any standard CO<sub>2</sub>-incubator and can be used in routine cell culture processes.



### Maintain insight in cell culture health

Growth rate and proliferative properties of cells in culture can be determined by regularly observing and quantifying confluency. The CytoSMART Lux2 has integrated image analysis functions (see figure 1) that help researchers to always passage cell cultures at the right moment in time. Detect any unexpected changes in growth rates and stay informed by setting confluency alerts, which can be sent to users via email and help to prevent over-growing cultures. Prevent cells going into quiescence and unwanted differentiation that is caused by cell-cell contacts in confluent cultures.

### Application example: Lab-on-a-chip

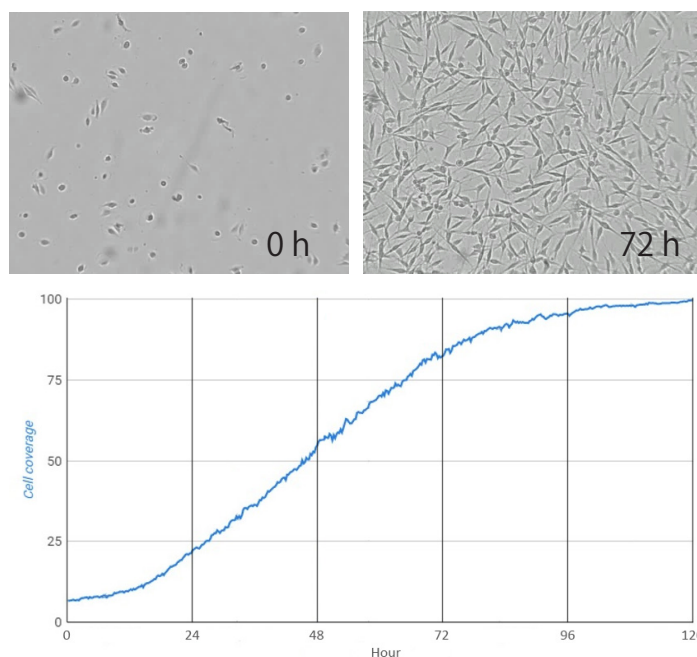
Automated imaging of the versatile CytoSMART Lux2 can assist to investigate a wide range of kinetic processes by creating time-lapse videos. In figure 2 a microfluidic maze has been used to investigate chemotaxis of human neutrophils towards a chemoattractant.

See more [examples](#) of live-cell imaging using the **CytoSMART Lux2**. Video generation can be performed in standard CO<sub>2</sub>-incubators and hypoxia chambers. Furthermore, cloud computing ensures optimal speed for the image analysis capabilities and enables separate user accounts for data storage.\*

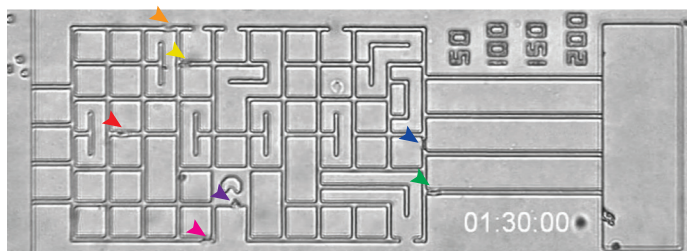


<https://www.cytosmart.com/products/lux2>

\*Research use only. Not intended for diagnostic purposes



**figure 1:** Images of the growth of C6 cells after 0 and 72h after seeding with the corresponding confluency analysis of the the cell growth over time.



**figure 2:** Human neutrophils navigate their way through a microscopic maze (total maze size is 0.8 mm) towards a reservoir with chemoattractant on the right. Colored arrowheads indicate the same neutrophils at different timepoints. The speed and directionality of neutrophil movement towards the chemoattractant is followed using the CytoSMART™ Lux2. Images courtesy of Dr. Daniel Irimia, Massachusetts General Hospital & Harvard Medical School, Boston, USA.