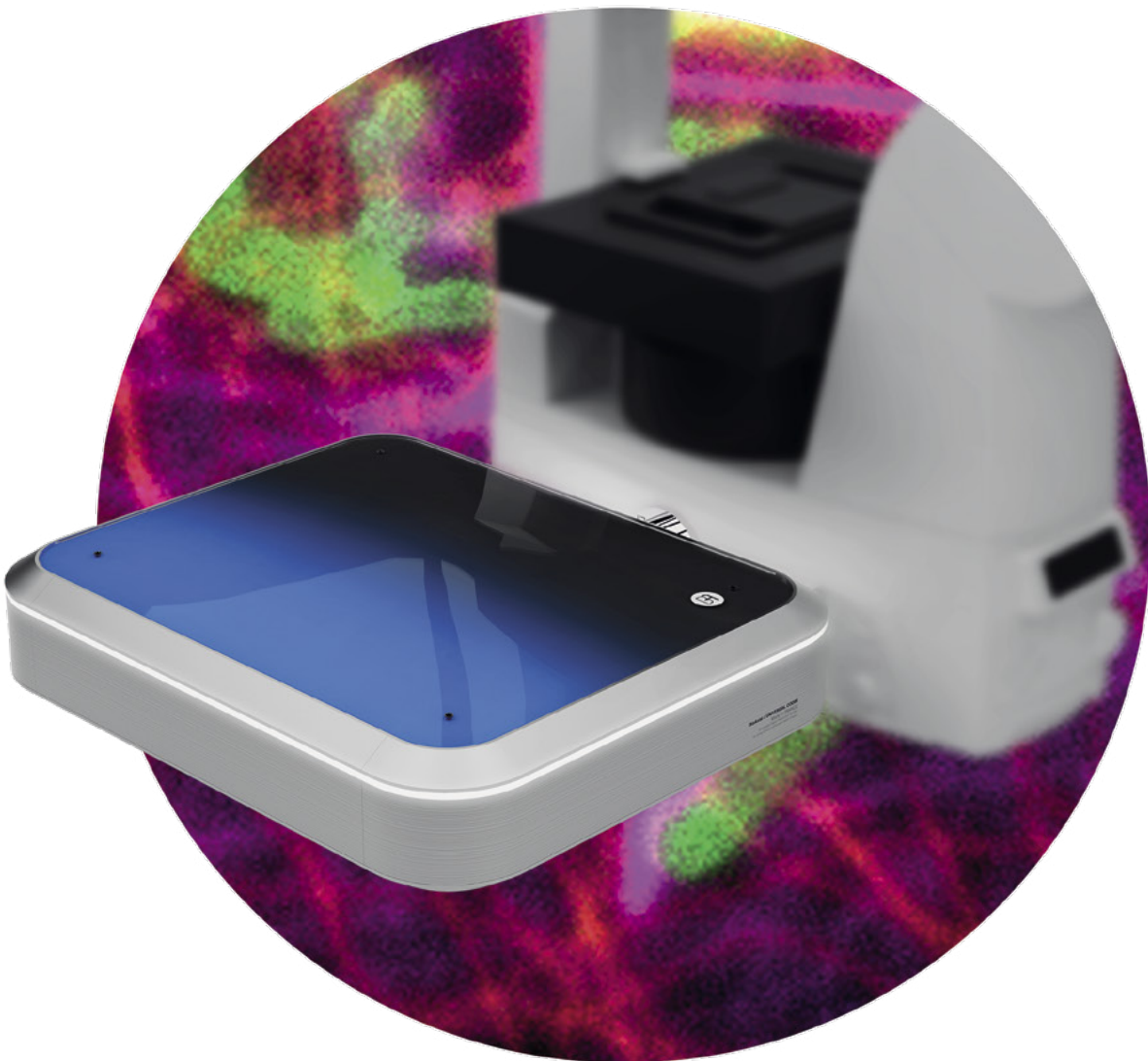


LiveCodim

Super-resolution for every researcher's desk



From conventional to super-resolution microscopy

LiveCodim is a universal, super-resolution imaging platform, designed to interface with any standard fluorescence microscope.

telight.eu | sales@telight.eu

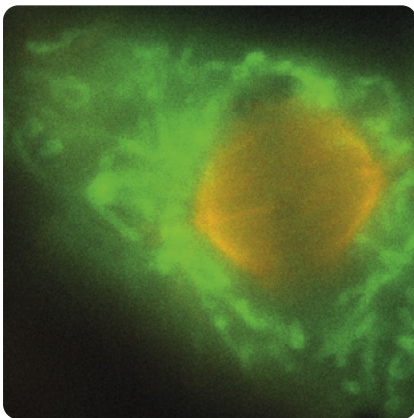
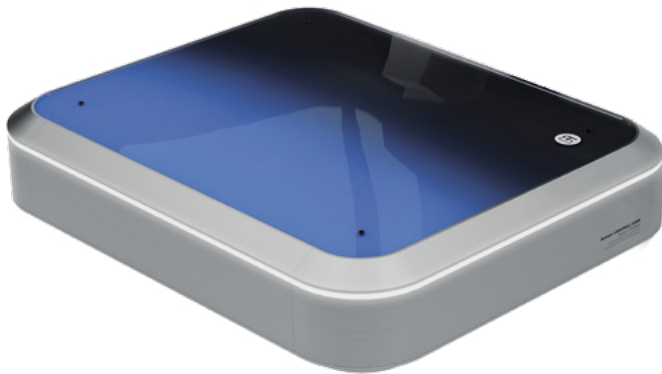


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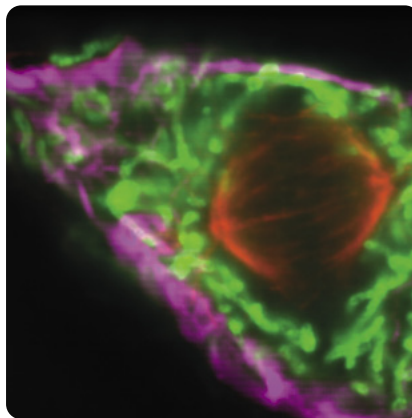
LiveCodim is the solution for live imaging with high resolution and low phototoxicity.

LiveCodim is a universal add-on designed for any fluorescence standard microscope. It offers widefield, confocal, and super-resolution modalities to provide a complete solution, especially suitable for retrofitting.

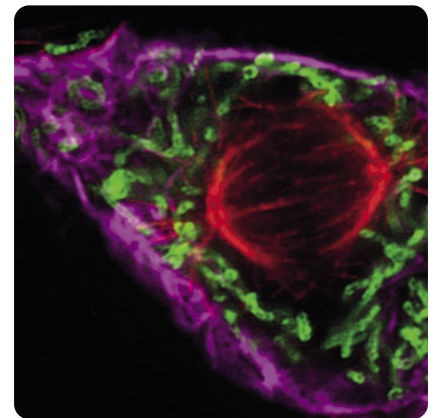
The technology is based on the patented Conical Diffraction Microscopy - a powerful beam shaper, generating controlled and localized light patterns used to scan biological samples with very low phototoxicity and negligible photobleaching.



Widefield



Confocal



Super-resolution

Cell division

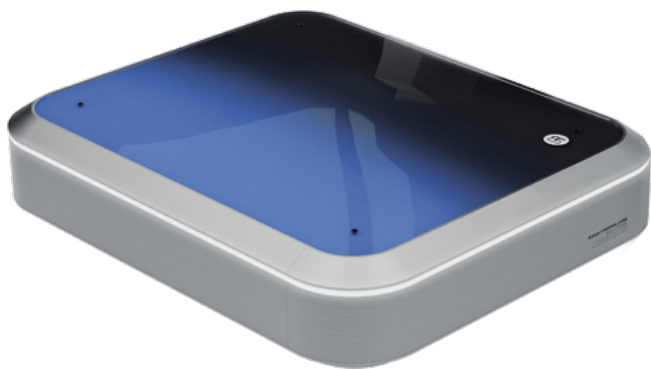
COS7 cell, labeled for actin (purple), mitochondria outer membrane (Green), and tubulin (red). Image shows metaphase using LiveCodim widefield, confocal, or super-resolution (CODIM) modalities.

Key advantages

- ✓ High-performance **SUPER-RESOLUTION MULTICOLOR IMAGING** | 4 fluorescence channels
- ✓ **RESOLUTION** better or equal **120 nm XY** | Increased resolution using high structuration and scanning point approach
- ✓ **STANDARD SAMPLE PREPARATION** | Standard fluorescence microscopy sample preparation workflow
- ✓ **PENETRATION DEPTH** | Z-stack ability and „suppression“ of signal from other planes
- ✓ **SEAMLESS INTEGRATION** with all fluorescence microscopes
- ✓ **LIVE-CELL IMAGING** | Low photo-toxicity and photobleaching enabling in vivo SR study
- ✓ Streamlined and **EASY-TO-USE** application | Autonomous processing algorithm with no need for user-adjustment of many parameters

Specifications

Telight LiveCodim



Imaging

✓ Modalities

Conical Diffraction SuperResolution microscopy
Widefield epifluorescence
Quantitative 5D Live-Imaging

✓ Software features

Automated adaptive SR image processing
Fast switching of acquisition mode
(Widefield – Confocal – SR CODIM)
Guided calibration wizard
Intuitive user-friendly interface

✓ Achievable resolution

2D 120nm (Rayleigh)
Confocal axial resolution

✓ Field of view

SR CODIM mode: 30 × 30 μm
Confocal mode: 30 × 30 μm without stitching,
60 × 60 μm with stitching

✓ Imaging Colors

4 laser line in standard (extra line up to request)

✓ Samples

Standard sample preparation workflow

Hardware

✓ Dimensions and compatibility

57mm × 47mm × 145mm
Inverted Stand from Zeiss, Leica,
Nikon and Olympus
Universal OME-TIFF File format

✓ Camera

Photometrics Kinetix
95% peak QE
1.2 electrons rms read noise at standard scan

✓ LED Illumination

CoolLED PE4000
(16 wavelengths from 365nm to 770 nm)

✓ Laser lines

Violet 405nm Diode Laser (100mW)
Blue 488nm Diode Laser (100mW)
Green 561 Laser (100mW)
Red 640nm Diode Laser (100mW)

Conditions

✓ Objective requirements (for maximum resolution)

60/63x 1.4 (or more) NA (oil immersion)
– provided upon request

✓ Microscope Stand requirement

Right or Left Port C-Mount Compatible Inverted
Stand From Zeiss, Leica, Nikon or Olympus
Back-Port for LED Illumination
Automated XYZ Stage
Recommended: Hardware autofocus system
(Zeiss DF, Nikon PF, Leica AFC, Olympus IMS)
Automated Filter cube Turret

✓ Optical Table