

TruLive3D Imager

PURE LIVE IMAGING

TRULIVE3D Imager – THE INVERTED DUAL-SIDED ILLUMINATION LIGHT-SHEET MICROSCOPE

The Luxendo **TruLive3D** Imager is optimized for fast 3D multi-sample imaging of delicate live specimens in their native 3D environment. The optical concept, with dual-sided illumination and single-lens detection from below, enables fast acquisition speed, high-resolution imaging and minimal shadowing effects.

The extended sample holder (L=75 mm) is designed for multi-position imaging of small embryos (e.g. zebrafish, Drosophila or mouse), 3D spheroids, oocytes and more. The new **TruLive3D Dish** series of disposable sample holders seamlessly integrate into the system and allow testing different media conditions in one experiment.

The system ensures easy sample mounting and handling, robust data acquisition pipeline and scaling of experiments in a variety of applications including:

- › Time-lapse *in toto* imaging of small embryos
- › Imaging of 3D cell culture models (e.g. spheroids, organoids)
- › Tracking stem cell development and differentiation
- › In vitro fertilization research and monitoring

The optical concept and performance of the **TruLive3D** Imager enables

- › Minimized shadowing effects
- › 3D reconstruction
- › 5D/6D analysis
- › Tracking of cellular and subcellular events
- › Morphological analysis

Join us on our journey to a fascinating world of new applications – come and explore it with us!



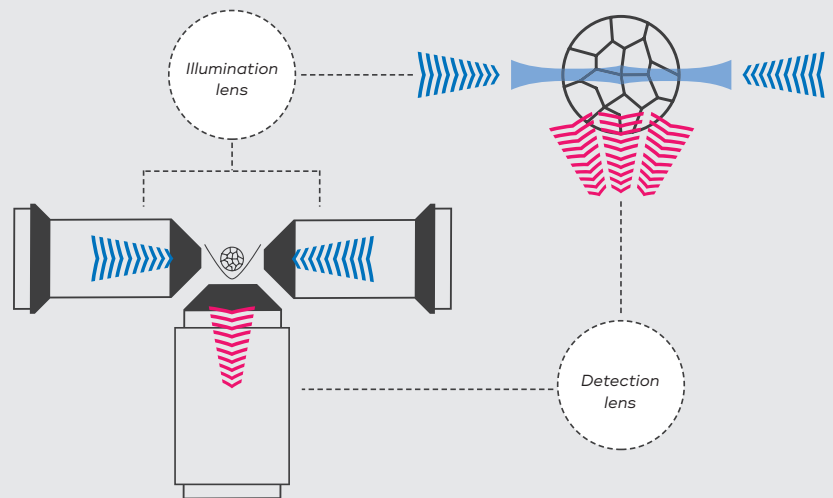
TruLive3D Imager

SPECIFICATIONS

Luxendo GmbH
 Fluorescence Microscopy Business Unit
 Bruker Nano Surfaces Division
 Kurfürsten-Anlage 58 · 69115 Heidelberg · Germany
 P +49 6221 187 31 50 · F +49 6221 187 31 99
 info.luxendo@bruker.com · luxendo.eu

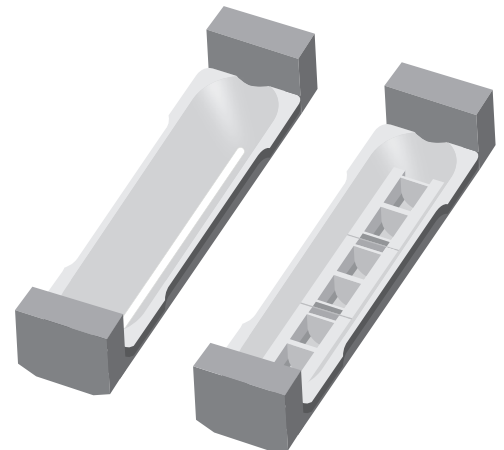
DUAL-SIDED ILLUMINATION

- › Inverted microscope configuration
- › Dual-sided illumination
 - › Fast imaging speed
 - › Large sample imaging
 - › De-shadowing
- › Wide-field imaging option for sample positioning
- › **Illumination objective:**
Nikon CFI Plan Fluor 10x W @ 0.3 NA,
 water immersion
- › **Detection objective:**
Nikon CFI Apo 25x W @ 1.1 NA,
 water immersion



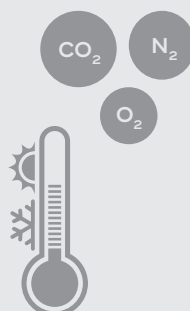
LARGE SAMPLE HOLDER

- › Length: 75 mm
- › For multiple-sample, high-throughput imaging
- › Accommodates up to three disposable **TruLive3D** Dishes
 - › Test several media conditions in one experiment



CONTROLLED

- › Small sample medium volume (separated from immersion medium)
- › Accurate temperature and atmosphere control
- › Easy sample accessibility



FLEXIBLE

- › Customizable laser combiner, up to 6 positions:
 405 / 445 / 488 / 515 / 561 / 594 / 642 /
 685 nm @ 50 mW
- › Flexible spectral configurations in two simultaneous channels
- › Fast filter wheels with 10 positions each
- › Easily exchangeable sample holder – customizable, disposable and biocompatible

