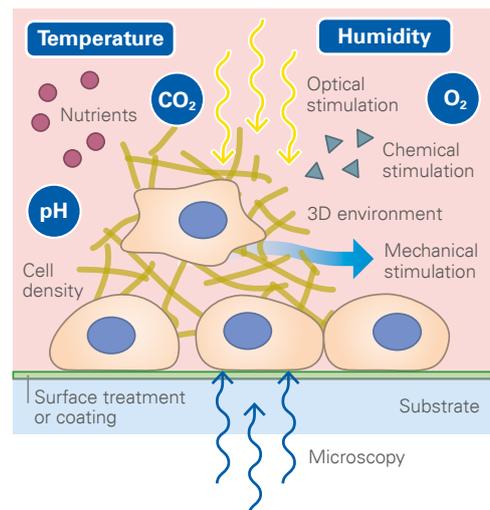


Live Cell Imaging

Control Temperature, Humidity, and CO₂/O₂ With ibidi Stage Top Incubators

- ✓ **Universal fit:** easy installation on inverted microscopes
- ✓ **Brilliant images:** high-end microscopy with maximal xyz-stability
- ✓ **Precision control:** no evaporation or condensation due to feedback-controlled humidity regulation
- ✓ **Flexible formats:** available for slides, dishes, and multiwell plates
- ✓ **Designed and manufactured in Germany**



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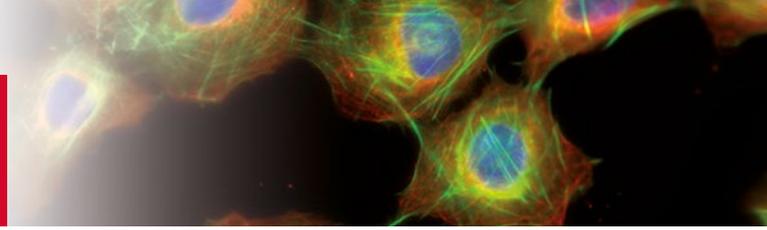
The Stage Top Incubator from ibidi delivers **superior thermal stability** and enables you to work with **high humidity**. This is **indispensable** for long-term studies and not possible with other systems.

Prof. Stefan Zahler, PhD
University of Munich, Germany

Download a detailed Application Guide at:
ibidi.com/LiveImagingGuide



Live Cell Imaging Under Physiologic Conditions



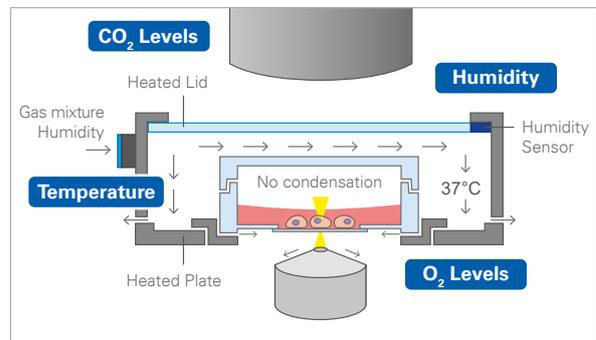
Establish *in Vivo*-Like Conditions on Every Inverted Microscope

Cells react sensitively to changes in their environment. For reproducible, biologically relevant results, it is crucial to maintain stable conditions on the microscope during live cell imaging. The ibidi Stage Top Incubators precisely control essential parameters such as temperature, humidity, and CO₂/O₂ levels.



Benefits

- **Easy installation and use**
Quick mounting on inverted microscopes; to be used with slides, dishes, and multiwell plates
- **No evaporation during long-term assays**
Very high humidity levels inside the incubation chamber due to active, feedback-controlled humidity regulation, preventing evaporation and condensation
- **Optimal for high-resolution microscopy**
Maximal xyz-stability on the microscope stage; system can be extended with the ibidi Objective Heater Universal for oil and water immersion

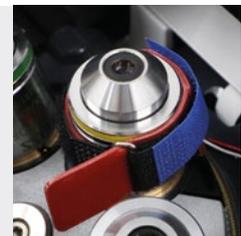


Applications

- Tube formation/angiogenesis assays
- 2D and 3D chemotaxis assays
- Wound healing and migration assays
- Hypoxia/physioxia assays
- Cell culture under flow assays

Optional: Objective Heater

Perform long-term oil immersion or water immersion imaging without cooling of the sample.



Contact ibidi for a **free demo** of the ibidi Stage Top Incubator.

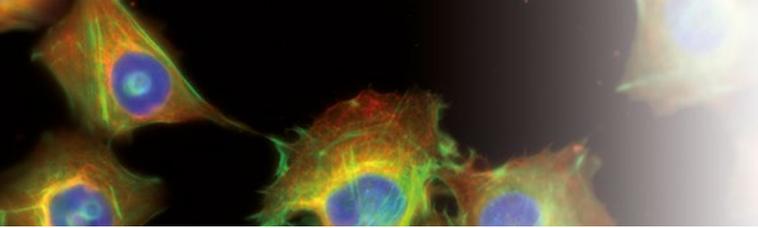


Selected Publications

M.S. Shim, et al. Primary cilia and the reciprocal activation of AKT and SMAD2/3 regulate stretch-induced autophagy in trabecular meshwork cells. *PNAS*, 2021, 10.1073/pnas.2021942118

R.G. Willaert, et al. Single yeast cell nanomotions correlate with cellular activity. *Science Advances*, 2020, 10.1126/sciadv.aba3139

C.A. Reissaus, et al. A Versatile, Portable Intravital Microscopy Platform for Studying Beta-cell Biology In Vivo. *Scientific Reports*, 2019, 10.1038/S41598-019-44777-0

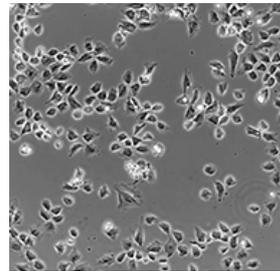


The ibidi Stage Top Incubators Technical Innovation

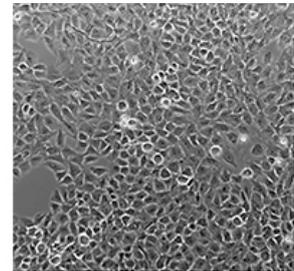
Precise, Feedback-Controlled Humidity

The ibidi Humidity Control ensures a constant and very high relative humidity (RH) level inside the ibidi Stage Top Incubator—identical to the conditions in standard cell culture incubators. This unique and patent-protected technology actively humidifies the gas mixture in a fast and reliable way before it enters the Stage Top Incubator.

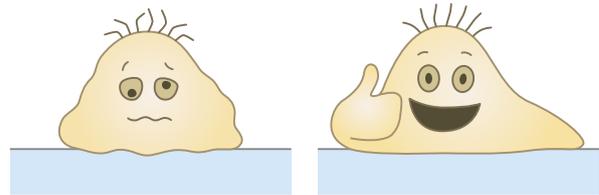
- Control range: 20–99% (lower limit is dependent on the environment and gas supply, minimum set humidity is 0%)
- Humidity sensor close to the sample
- Using absolute humidity for the feedback control enables an even more precise RH regulation inside the Incubation Chamber



Low humidity: 70% RH



High humidity: 90% RH



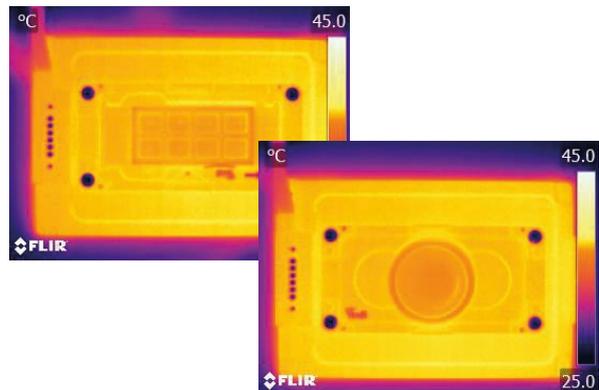
The ibidi Humidity Control ensures a constant and very high relative humidity (RH) inside the incubation chamber, thereby optimizing cell growth by preventing evaporation.

Accurate CO₂ and O₂ Control

- CO₂ control range: 0–15%
- O₂ control range from 1–21% (settings below 1% are less accurate, a typical minimum value in an ibidi Incubation Chamber is 0.5%)

Stable and Homogeneous Temperature

- Temperature control via continuous current, preventing position fluctuations during high-resolution live cell microscopy



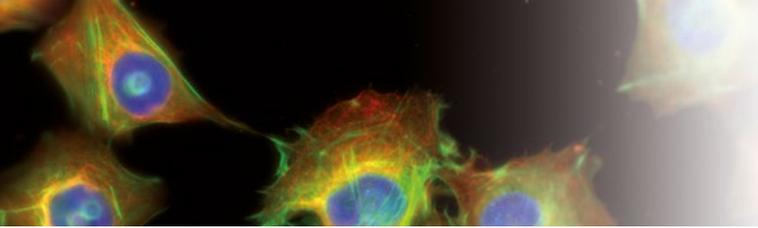
Stable and consistent temperature distribution in the μ -Slide 8 Well^{high} (left) and the ibidi μ -Dish^{35 mm, high} (right) during the incubation in the ibidi Heating System Slide/Dish – Silver Line. Images were acquired with a FLIR thermal camera.

For standard live cell imaging applications, check out the ibidi Stage Top Incubator – Blue Line.



For live cell imaging with up to 4 μ -Slides, use the ibidi Heating System 4 Slides – Silver Line.



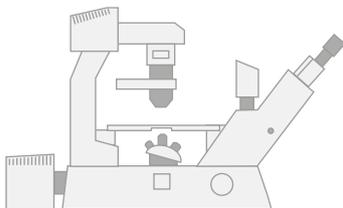
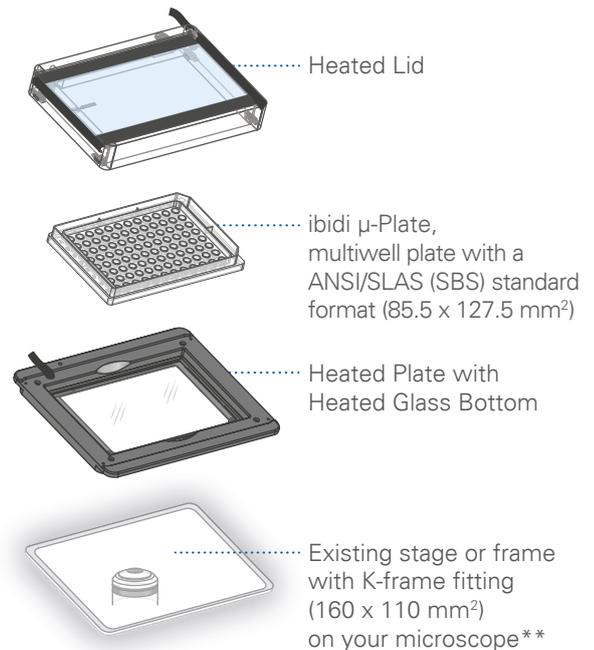
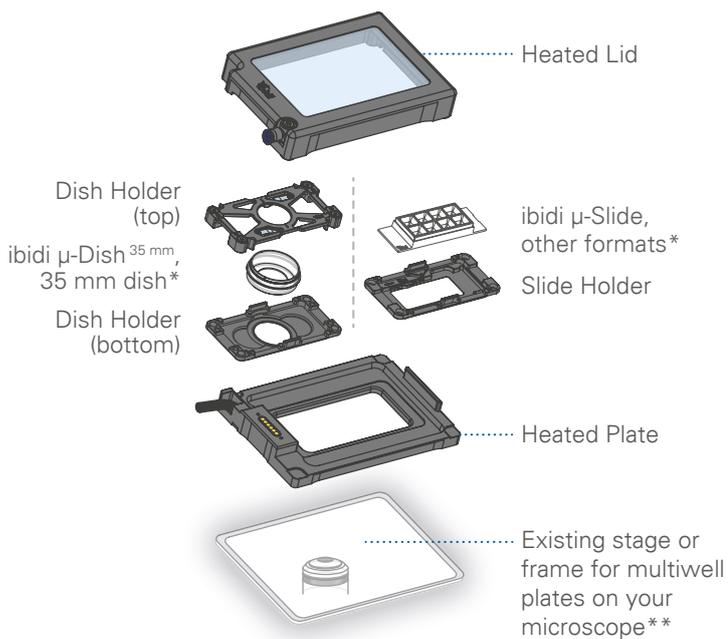


The ibidi Stage Top Incubators Product Variations

ibidi Stage Top Incubator Slide/Dish – Silver Line



ibidi Stage Top Incubator Multiwell Plate – Silver Line



Your inverted microscope**

* See compatibility list in the Instructions

** Your inverted microscope is not part of the ibidi Stage Top Incubator.
Please contact us for information on suitable microscopes.

ibidi Stage Top Incubator	Cat. No.
Slide/Dish CO ₂ – Silver Line	12720
Slide/Dish CO ₂ /O ₂ – Silver Line	12722
Multiwell Plate CO ₂ – Silver Line	12724
Multiwell Plate CO ₂ /O ₂ – Silver Line	12726