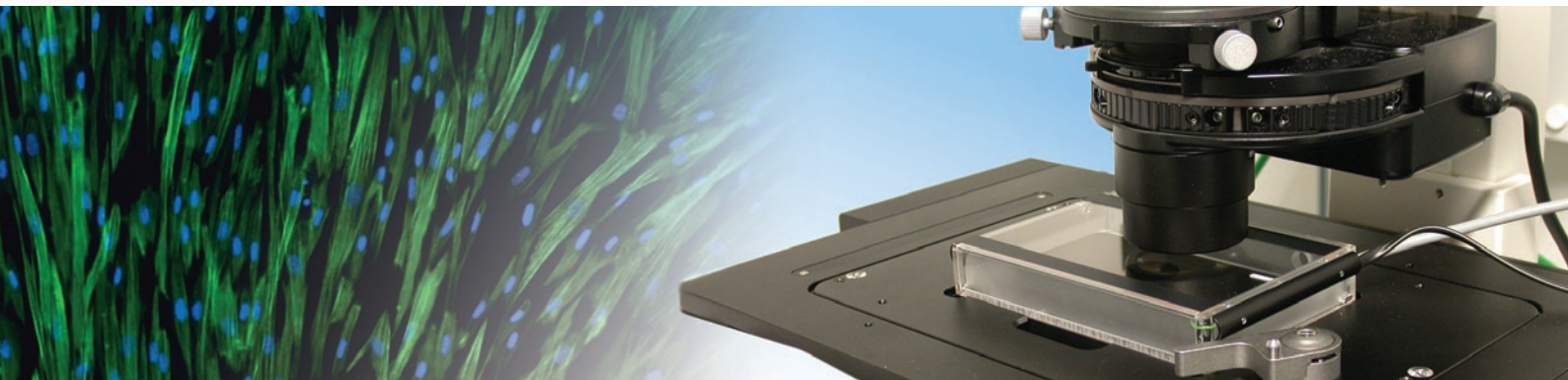


Heating & Incubation Systems for Live Cell Imaging

The Perfect Solution for All Microscopy Platforms

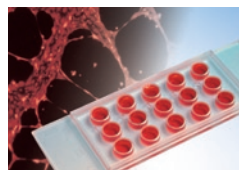


- ✓ **Low costs**
Attractive pricing for complete systems
- ✓ **Compatible with all microscopy platforms**
Fits every inverted microscope, that has a frame or holder for 96 well plates
- ✓ **Excellent illumination of the sample**
No condensation due to heated lid
Optimal magnetic sample stabilization
Suitable for DIC
- ✓ **Ideal for live cell imaging applications**
Full incubator conditions right on the microscope
- ✓ **Flexible**
Suitable for all ibidi μ -Slides, ibidi μ -Dishes and non ibidi formats

Use the ibidi heating & incubation system for various live cell imaging applications:



μ -Slides Chemotaxis
Chemotaxis



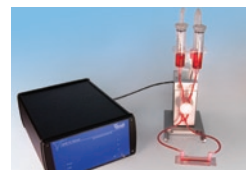
μ -Slide Angiogenesis
Angiogenesis



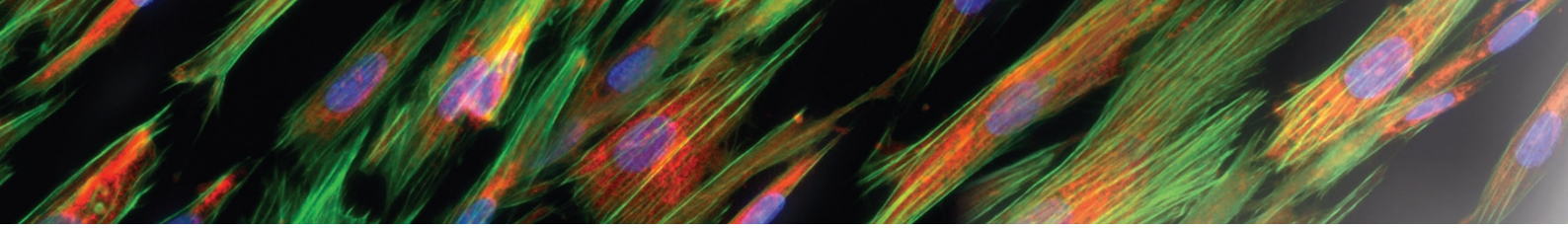
Culture-Insert Family
Cell migration



LifeAct
Actin visualization



ibidi Pump System
Perfusion

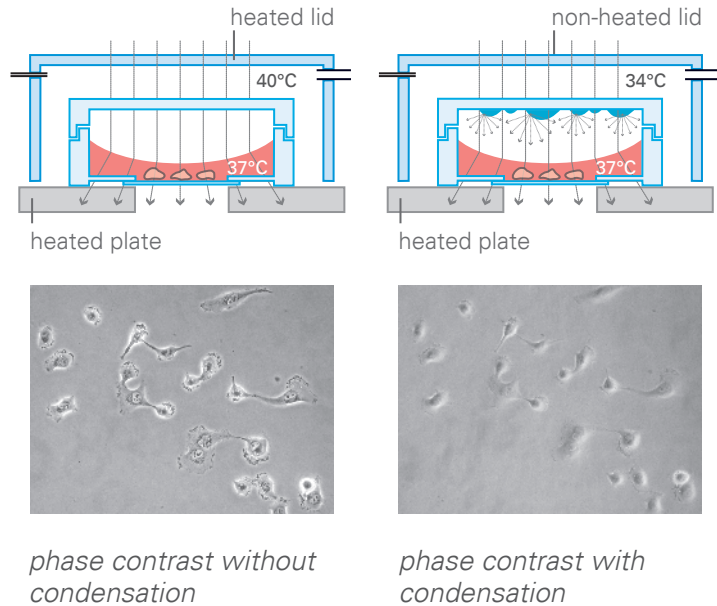


Heating stages for live cell imaging

Imaging cells *in vitro* is one of the challenges in today's microscopy. pH and temperature are the two critical parameters that need to be monitored closely. For monitoring and regulating changes in temperature, ibidi developed a heating system that allows for easy temperature control in a very cost efficient manner. The heating device can be used with any inverted microscopy system and is adaptable to any microscopy chamber or slide.

The ibidi heating stage is a two component system that consists of a heated plate and a heated transparent lid. The base for the heated plate has a multi-well format. Thus, the system can be placed into any regular multi-well frame, delivered with your microscope. It fits into both manual and automated stages. The heated plate holds all types of microscopy chambers such as μ -Slides and μ -Dishes as well as non ibidi formats.

The heating elements are arranged in a way that a defined temperature gradient in vertical direction arises. Warming the heated lid to around 40 °C and the heated base plate only to around 37 °C prevents the formation of condensed water on the lid of the microscopy chamber. This prevents scattering of light or shadow formation and provides a better illumination of the specimen.



Controller for the heating system

ibidi offers two different types of controllers to regulate the temperature. The HT series comes with a digital temperature control. This economic controller is optimized for reliability and therefore used in cell culture labs worldwide. It is perfect for delicate applications such as live cell imaging and *in vitro* fertilization. This controller covers 90% of all applications.



The ibidi TC series temperature controllers work with continuous current. This leads to perfect focus stability and serves extremely high resolution applications at numerical apertures of $NA > 1.2$. The optimization for exceptionally low focus drift makes the system especially suitable for techniques like TIRF and confocal microscopy. The continuous signal minimizes noise to an extremely low level therefore making these controllers suitable for electronic analysis of cells in patch clamp or impedance measurements.

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Gas mixers for the incubation unit

Additionally, the heated lid comes with a gas inlet. A variety of gas mixers upgrade the system to a complete stage top incubator.

Unit I: **Active gas mixing system for CO₂** – Mixes pressurized air and pure CO₂ to various mixtures (1 - 15 % CO₂)

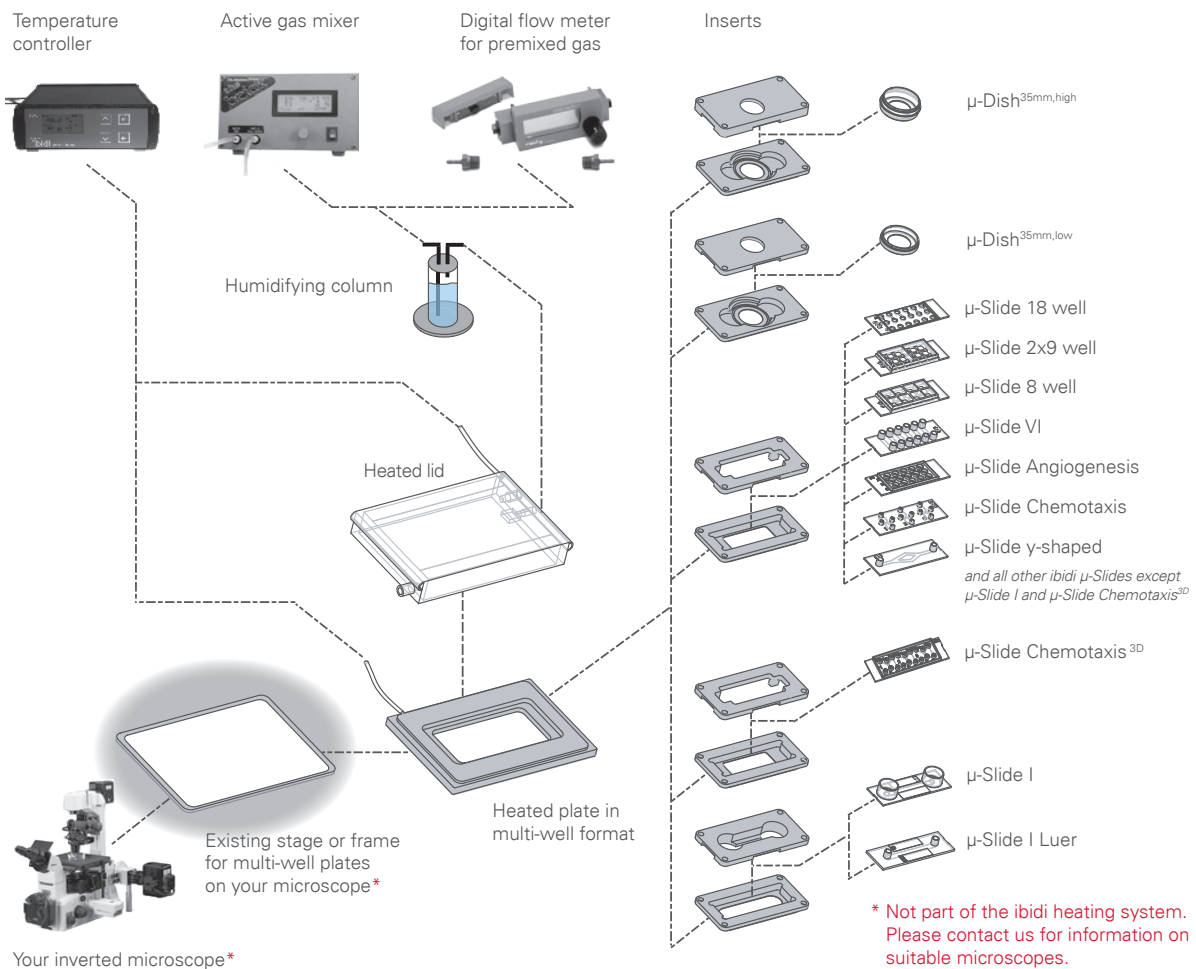
Unit III: **Active gas mixing system for CO₂ and O₂** – for various gas mixtures; creates regular CO₂ and hypoxia conditions (0.5 - 60 % O₂)

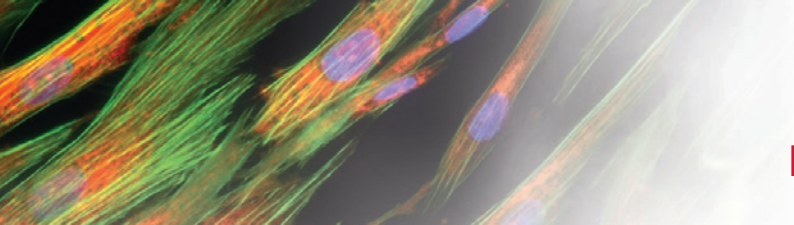
Unit II: **Passive gas mixing system for premixed gases** – offers digital flow control for premixed gases

All systems come with humidifying column and controller for humidity regulation



Overview of multi-well format heating and incubation system



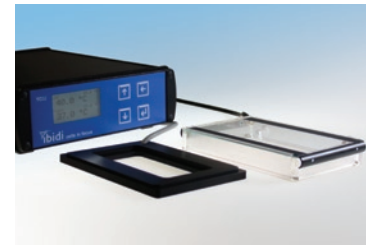


Heating & Incubation Systems for Live Cell Imaging

Ordering Information

Heating systems

	Standard live cell imaging	Extra requirement for focus stability (e.g. TIRF, confocal microscopy)
Heating only	System 1 10914 HT50 digital temperature controller + round heated plate Ø 110 mm for Olympus, without lid	
	System 2 10913 HT50 digital temperature controller + round heated plate Ø 108 mm for Nikon, without lid	System 7 10919 TC02 analog temperature controller + heated plate in multi-well format, without lid, incl. 1 insert
	System 3 10915 HT50 digital temperature controller + heated plate in multi-well format, without lid, incl. 1 insert	
For use with CO ₂ + humidity	System 4 10917 HT200 digital temperature controller + round heated plate Ø 110 mm for Olympus + heated lid, incl. 1 insert	
	System 5 10916 HT200 digital temperature controller + round heated plate Ø 108 mm for Nikon + heated lid, incl. 1 insert	System 8 10925 TC02 analog temperature controller + heated plate in multi-well format + heated lid, incl. 1 insert
	System 6 10918 HT200 digital temperature controller + heated plate in multi-well format + heated lid, incl. 1 insert	



Heating inserts for heating systems multi-well format

Insert for µ-Slide I, µ-Slide I Luer	10930
Insert for µ-Slide Chemotaxis ^{3D}	10935
Insert for all other ibidi µ-Slides	10933
Insert for µ-Dish ^{35 mm, low}	10932
Insert for µ-Dish ^{35 mm, high}	10934



Gas incubation systems

Unit I: Active system for CO ₂ Active CO ₂ mixer + humidifying column	10920
Unit II: Passive system for CO ₂ Digital flow meter for premixed gas + humidifying column	10921
Unit III: Active system for CO ₂ and O ₂ Active CO ₂ and O ₂ mixer + humidifying column	10922

