

The Product and Experiment Guide Solutions for Your Research



CELL CULTURE & MICROSCOPY



IMMUNOFLUORESCENCE



SPHEROIDS | ORGANOIDS 3D CELL CULTURE





LIVE CELL IMAGING





CHEMOTAXIS ASSAYS



ANGIOGENESIS ASSAYS





Find the Ideal Imaging Chamber for Your Application



μ-Slide 1 Well | 2 Well | 4 Well | 8 Well ^{high} | **18 Well** Chambered coverslips that combine optimal conditions for cell culture, immunofluorescence, live cell imaging, and high-resolution microscopy; available with an ibidi Polymer Coverslip or a glass bottom



μ-Dish Family

A variety of petri dishes for cell culture and high-end microscopy; available with an ibidi Polymer Coverslip or a glass bottom; gridded dishes for cell location and counting also available



µ-Plate 6 Well | 24 Well | 96 Well | 384 Well

Plates with a flat, clear ibidi Polymer Coverslip or a glass bottom for brilliant images in high-throughput cell microscopy; plate dimensions meet ANSI/SLAS (SBS) standards



Get inspired by successful ibidi customers: Explore **publications** on each product page on ibidi.com.





µ-Slide I Luer
Flow channel slides with an

ibidi Polymer Coverslip or a glass bottom, available with different heights and coatings



 $\begin{array}{l} \mu \text{-Slide y-shaped} \\ \text{A flow channel slide for bifurcation studies and simulation} \\ \text{of branching blood vessels} \end{array}$



μ-Slide VI^{0.5} | **μ-Slide VI**^{0.4} Slides with 6 channels for parallel flow assays and highend imaging, with ibidi Polymer Coverslip or glass bottom



µ-Slide ibiPore SiN A slide with a porous SiN membrane for transport and transmigration studies under static and flow conditions





Culture-Insert 2 Well | 3 Well | 4 Well

Silicone inserts with a defined cell-free gap for wound healing, migration, 2D invasion assays, and co-cultivation of cells; available as individual inserts in a μ -Dish or as 25 pieces in a transport dish for self-insertion



The complete solution for high-

throughput wound healing and migration experiments





3 Well | 8 Well | 12 Well Chamber, removable

Removable silicone chambers on a microscope glass slide, suitable for upright and inverted microscopy and long-term storage



sticky-Slide 8 Well ^{high} | 18 Well | I Luer | Chemotaxis | VI^{0.4} Bottomless slides with a self-adhesive underside that allow the

mounting of a variety of bottom materials

STICKY SLIDES

SCAFFOLD-BASED

SCAFFOLD-FREE

MULTIPLEXING

CHEMOTAXIS



Membrane-free solution for 3D cell culture and transmigration studies



μ-Slide 15 Well 3D Multiwell slides for hydrogelbased 3D cell culture



Slides with separate wells connected by channels for longterm 3D cell culture under flow



High-quality collagen, bovine or rat tail, for 3D gels and coatings



µ-Slide Spheroid Perfusion A perfusable channel slide with 3 x 7 wells for long-term spheroid cultivation



Bioinert ULA Labware Labware with a non-adherent surface for 3D cell culture, and suspension cells



 $\label{eq:model} \begin{array}{l} \mu \mbox{-Slides With Multi-Cell } \mu \mbox{-Pattern} \\ \mbox{Ready-to-use micropatterned slides} \\ \mbox{with ideal spacing for spheroids and} \\ \mbox{organoids} \end{array}$

SINGLE-CELL ASSAYS

SPHEROIDS | ORGANOIDS | 3D CELL CULTURE



sticky-Slide Tissue Automation-ready solution for multiplexing tissue-staining assays and

workflow standardization

p. 13

µ-Slide Chemotaxis

Solution for chemotaxis assays in 2D or 3D with stable gradients for more than 48 hours



Order your **free sample** and test the ibidi microscopy chambers with your experiments.





ANGIOGENESIS



Well-in-well labware for flat gel surfaces in tube formation assays

ibidi Pump System

CELL CULTURE UNDER FLOW

Perfusion system, compatible with ibidi channel slides for wall shear stress and long-term 2D and 3D perfusion



ibidi Stage Top Incubators

Compact and portable incubation system with feedback-controlled, active humidity regulation for live cell imaging on every inverted microscope using ibidi labware



ERN POLYMER COVERSLIP

The ibidi Imaging Chambers A Bottom and Surface Guide

The Coverslip Bottom of the ibidi µ-Labware

The outstanding feature of the ibidi μ -Labware is its thin polymer or glass coverslip bottom, which is optimized for microscopy. Unlike standard cell culture plastics, the ibidi μ -Labware delivers exceptional optical quality combined with optimal conditions for cell culture.



	#1.5 ibidi Polymer Coverslip	#1.5H ibidi Glass Coverslip
Bottom thickness	180 μm (+10/–5 μm)	170 μm (+/–5 μm)
Bottom material	Polymer coverslip	D 263 M Schott high precision glass
Refractive index	1.52	1.52
Transmission	Very high (even ultraviolet)	High (ultraviolet restrictions)
Gas permeability	Yes	No
Surface treatments	ibiTreat, hydrophobic (uncoated), bioinert (ULA), patterned, coating possible	No treatment, coating possible

Surface: Optimized for Your Experiment



ibiTreat (Tissue Culture-Treated)

Excellent adhesion of adherent cells



Hydrophobic, Uncoated Surface

Weak adhesion of adherent cells, application of specific coatings



Bioinert Surface No adhesion of adherent cells



μ-Patterned Surface Spatially defined adhesion of adherent cells on spots, different spot geometries available



Coated Surface

Culture of adherent cells on a Collagen I, IV or Poly-L-Lysine surface



Glass Surface

Adhesion of adherent cells (coating might be required), special microscopy applications Download a detailed Application Guide at: ibidi.com/MicroscopyGuide



Immunofluorescence Assays Tailored for Your Assay: Choose From 3 Unique Solutions

- Simplify your protocol with the ibidi all-inone chambers
- Perform high-resolution imaging (e.g., • widefield fluorescence, confocal, or undisturbed phase contrast microscopy)

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

Staining



Chambered Coverslips

- 1 to 18 non-removable wells on a coverslip bottom
- Separated wells to minimize cross-contamination

Cultivation

Different coatings available



Fixation

Channel Slides

Cell seeding

- Six parallel channels on a coverslip bottom
- Homogeneous cell and antibody distribution and low medium volume •
- Different channel heights and coatings available



Imaging



Removable Chamber Slides

- Removable silicone chambers on a standard glass slide
- Ideal for long-term storage and upright microscopy
- Suitable for high-throughput screening



3D Cell Culture

Solutions for Spheroids and Organoids

The ibidi Surfaces for 3D Cell Culture



µ-Pattern ibiTreat: Defined Cell Adhesion

Defined adhesive patterns (e.g., squares, or dots) are integrated in the non-adhesive Bioinert surface of the ibidi Polymer Coverslip, allowing for confined cell adhesion for 2D/3D applications.





Bioinert (ULA) Surface: No Cell Adhesion

Bioinert is a completely non-adherent surface covalently bound to the ibidi Polymer Coverslip providing a stable passivation for several days or even weeks.



The Optimal Slide for Your 3D Experiments



STATIC CULTURE

μ-Slide 15 Well 3D and μ-Plate 96 Well 3D

3D cell culture with brilliant high-throughput visualization



Micro-Insert 3D Membrane-free solution for 3D gel experiments



 $\mu\text{-Slide 8}$ Well $^{\text{high}}$ $\mu\text{-Pattern}$ ibiTreat

Defined spatial cell adhesion on a micropatterned surface



μ-Slide VI^{0.4} **μ-Pattern ibiTreat** Defined spatial cell adhesion on a perfusable micropatterned surface



µ-Slide Spheroid Perfusion Long-term spheroid and organoid cultivation with optimal nutrition



µ-Slide I Luer 3D3D cell culture on a gel under flow,

co-culture, and transmigration

ibidi Solutions for Your 3D Cell Culture Assay

Sample Preparation

Choose from a broad portfolio of 3D culture slides for optimal spheroid or organoid growth.



3D Cell Cultivation

Perform your 3D assay of choice using tailored ibidi solutions.



Imaging and Analysis

Easily analyze your assays using live cell imaging, immunofluorescence stainings, and more methods.





ibidi Collagen Type I

Simulates the extracellular matrix (ECM); for gels, scaffolds, and coatings in 3D cell culture



ibidi Pump System

For defined flow and spheroid/organoid perfusion with optimal nutrition during longterm experiments (see p. 8)



ibidi Stage Top Incubators

The ibidi solution for creating and maintaining a physiological environment under the microscope (see p. 10)



Find online 3D courses on our website: ibidi.com/onlinecourses

Download a detailed Application Guide at: ibidi.com/3DGuide



Flow Assays

Simulate Physiologic Systems Under Various Dynamic Conditions

The ibidi Pump System

The ibidi Pump System facilitates precise flow rates and shear stresses while providing continuous nutrient and oxygen support for long-term cell viability and replicating *in vivo* conditions.

Versatile Applications

Tailored for shear stress applications and longterm perfusion

Different Flow Types

Laminar flow, from unidirectional to pulsatile and oscillating flow patterns

Easy Usage

Effortless control through intuitive, integrated software

Microscopy Compatibility

Ideal for live cell imaging on an inverted microscope



56

We've been working with the ibidi Pump System for over 5 years now and have recommended it to numerous colleagues.

> In fact, the ibidi Pump System makes the endothelial cell under flow **the default** of our lab!

> > Nynke van den Akker, PhD Maastricht University, The Netherlands





ibidi Solutions for Your Flow Assay

Sample Preparation

Setup your flow assay of choice and choose from our broad portfolio of channel slides.



Channel Slides

Available with a variety of heights and coatings for different shear stress ranges, for 2D and 3D conditions



Flow Conditioning

Apply unidirectional, oscillatory, or pulsatile flow using the ibidi Pump System.



Staining and Microscopy

Image and stain cells directly in the channel slide.



Contact ibidi for a **free demo** of the ibidi Pump System.





Downstream Analysis

Characterize your cells by gene/protein expression analysis (e.g., RNA-seq, Western Blot) and epigenetic/metabolic profiling (e.g., ChIP-seq).



Find online flow courses on our website: ibidi.com/onlinecourses

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



Live Cell Imaging Under Physiologic Conditions ibidi Stage Top Incubators

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 CO_2 / O_2 levels.

Benefits

- Easy installation and use: Quick mounting on inverted microscopes
- No evaporation during long-term assays: Very high and stable humidity inside the incubation chamber using active, feedbackcontrolled humidity regulation, preventing evaporation and condensation
- Optimal for high-resolution microscopy: Maximal xyz-stability on the microscope stage; can be extended with the ibidi Objective Heater during oil immersion, suitable for super-resolution and TIRF

Applications

- Migration, chemotaxis, and angiogenesis assays
- Hypoxia and physioxia assays
- Studying cell and membrane dynamics / TIRF
- Flow assays (combined with ibidi Pump System)

"

We are **very pleased** with the **performance** of the ibidi Stage Top Incubator – Silver Line in our long-term experiments.

Its handling is notably straightforward, and the XY-stability is impressive.

> Anna Pastucha, PhD & Marion Raich, Technical University of Munich, Germany







The patented ibidi Humidity Control ensures a constant and very high relative humidity inside the incubation chamber, thereby optimizing cell growth by preventing evaporation. Left: 70% RH, right: 90% RH.

Optional: Objective Heater

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



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







- * 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.



Migration and Wound Healing Assays Keep Your Experiments Easy and Reproducible

- Perform your assay of choice: Wound healing, migration, 2D invasion assays, or co-cultivation of cells
- Benefit from extremely high reproducibility due to the defined size of the Culture-Inserts' cell-free gap
- · Save time with a quick and easy experimental setup and automated image analysis

ibidi Solutions for Your Wound Healing or Migration Assay

Sample Preparation

Setup your assay of choice in an easy and highly reproducible manner.



Live Cell Imaging

Measure migration and wound closure under physiological conditions in real time.



Culture-Insert 2 Well | 3 Well | 4 Well Silicone insert with a

defined cell-free gap



ibidi Stage Top Incubator

The ibidi solution for creating and maintaining a physiological environment under the microscope (see p. 10)



Data Analysis

Analyze your experiment with freeware (e.g., ImageJ) or machine learning-based solutions.



Need help choosing the right data analysis tool? Contact us at: techsupport@ibidi.com

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



Chemotaxis Assays

Precisely Analyze Directed Cell Migration Behavior in 2D or 3D

- Investigate the behavior of slow migrating cells (e.g., cancer cells) and fast migrating cells (e.g., immune cells) in a 2D or 3D environment
- Keep a linear and stable chemotactic gradient for over 48 hours
- Reduce your costs by using minimal amounts of medium and supplements

ibidi Solutions for Your Chemotaxis Assay

Sample Preparation

Create a precisely defined, stable chemotactic gradient in a reproducible environment.



µ-Slide Chemotaxis

Specialized for 2D or 3D chemotaxis assays, with gradient-optimized geometry and brilliant optical features



Live Cell Imaging

Measure chemotaxis under physiological conditions in real time.



ibidi Stage Top Incubator

The ibidi solution for creating and maintaining a physiological environment under the microscope (see p. 10)



Data Analysis

Analyze your experiment with freeware (e.g., ImageJ) or machine learning-based solutions.



Find online chemotaxis courses on our website: ibidi.com/onlinecourses

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



Angiogenesis Assays

Perform Tube Formation, Sprouting Assays, and 3D Cell Culture

- Investigate the behavior of endothelial cells using tube formation assays, sprouting assays, 3D cell culture, and immunofluorescence analysis
- Benefit from brilliant microscopic visualization without gel meniscus formation—all cells in one optical plane
- Reduce your costs by minimizing the amounts of Matrigel, medium, and supplements needed

ibidi Solutions for Your Tube Formation Assay

Sample Preparation

Seed your cells on minimal amounts of gel and take advantage of the "well-in-a-well" feature.



µ-Slide 15 Well 3D

The "well-in-well" technology only needs 10 µl gel per well; no gel meniscus





Live Cell Imaging

Get brilliant microscopic images in real time under physiological conditions—without gel meniscus.



ibidi Stage Top Incubator

The ibidi solution for creating and maintaining a physiological environment under the microscope (see p. 10)



Data Analysis

Analyze your experiment with freeware (e.g., ImageJ) or machine learning-based solutions.



Need help choosing the right data analysis tool? Contact us at: techsupport@ibidi.com

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



ibidi Reagents Highest Quality for Live Cell Analysis

Collagen Type I for 3D Cell Culture

- Highest quality grade non-pepsinized, native collagen solution from bovine or rat tail origin, available in 5 or 10 mg/ml
- Provides biological extracellular matrix (ECM) structures
- For use in various cell culture applications (e.g., 3D gels, scaffolds, and coating)

ibidi Mounting Medium for Immunofluorescence

- Ready-to-use for immunofluorescence assays using widefield fluorescence and confocal microscopy
- DAPI counterstaining and mounting combined in one single step; also available without DAPI
- Compatible with all ibidi labware

ibidi Immersion Oil for Microscopy

- For high-resolution microscopy using oil immersion objective lenses
- Ultra-low autofluorescence for excellent imaging quality in fluorescence microscopy
- Compatible with all ibidi products and all microscope brands









The Collagen Type I, Rat Tail from ibidi is a very high-quality product. We have been using it for years, and it always provides **reliable and stable results**.

We have utilized the collagen for culturing many cell lines and primary cells including stem cells, tumor cells, and cartilage cells.

Prof. Liu Chun, Sun Yan-Sen University, Guangzhou, China



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I work with the **ibidi slides** because they are superior to any other product of this kind on the market.

They are easy to use, give consistent results, economical and are suitable for a wide range of applications.

Well done, ibidi!

Thomas A.J. McKinnon, PhD Imperial College London, UK



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