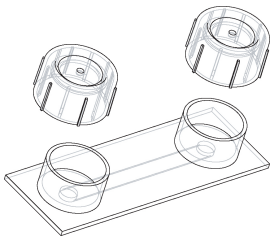


The ibidi product family is comprised of a variety of µ-Slides and µ-Dishes, which have all been designed for high-end microscopic analysis of fixed or living cells. The high optical quality of the material is similar to that of glass, so you can perform all kinds of fluorescence experiments with uncompromised resolution and choice of wavelength. The µ-Slide I combines the features of a cell culture chamber with a coverslip for imaging inside a channel. One flow through observation channel is integrated in the µ-Slide. Its large observation area and high-end optical quality permits convenient monitoring of a vast variety of cellular assays.

Material

ibidi µ-Slides, µ-Dishes, and µ-Plates are made of a polymer that has the highest optical quality. The polymer coverslip on the bottom exhibits extremely low birefringence and autofluorescence, similar to that of glass. Also, it is not possible to detach the bottom from the upper part. The µ-Slides, µ-Dishes, and µ-Plates are intended for one-time use and are not autoclavable, since they are only temperature-stable up to 80°C/175°F. Please note that gas exchange between the medium and the incubator's atmosphere occurs partially through the polymer coverslip, which should not be covered.

Optical Properties ibidi Polymer Coverslip	
Refractive index n_D (589 nm)	1.52
Abbe number	56
Thickness	No. 1.5 (180 µm)
Material	Polymer coverslip

Please note! The ibidi Polymer Coverslip is compatible with certain types of immersion oil only. A list of suitable oils can be found on page 3.

Shipping and Storage

The µ-Slides, µ-Dishes and µ-Plates are sterilized and welded in a gas-permeable packaging. The shelf life under proper storage conditions (in a dry place, no direct sunlight) is listed in the following table.

Conditions	
Shipping conditions	Ambient
Storage conditions	RT (15–25°C)

Shelf Life	
ibiTreat	36 months
Collagen IV	18 months

Geometry of the µ-Slide I

The µ-Slide I provides a standard slide format according to ISO 8037/1.

Geometry of the µ-Slide I	
Outer dimensions	25.5 mm x 75.5 mm
Channel volume	100 µl
Channel length	50 mm
Channel width	5.0 mm
Channel height	0.4 mm
Volume per reservoir	600 µl
Growth area	2.5 cm^2
Coating area using 100 µl	5.4 cm^2
Bottom	No. 1.5 ibidi Polymer Coverslip

Surface

The tissue culture-treated ibiTreat surface is a physical surface modification and optimized for adhesion of most cell types. ibiTreat is our most recommended surface modification, because most adherent cells grow well on this hydrophilic version of the ibidi Polymer Coverslip, without the need for any additional coating.

Coating

Detailed information about coatings is provided in Application Note 08: Coating protocols for ibidi labware products.

In short, specific coatings are possible following this protocol:

1. Prepare your coating solution according to the manufacturer's specifications or reference.
2. Apply 100 µl per channel and leave at room temperature for at least 30 minutes.

3. Aspirate the solution and wash with the recommended protein dilution buffer.

4. The µ-Slide I is ready to be used. Optionally let dry at room temperature. Attention, some coating proteins might degenerate when drying!

Tip:

For washing you can add the buffer into one channel end and simultaneously aspirate it on the other side.

Seeding Cells

- Trypsinize and count cells as usual. Dilute the cell suspension to the desired concentration. Depending on your cell type, application of a 3–7 × 10^5 cells/ml suspension should result in a confluent layer within 2–3 days.

- Apply 100 µl cell suspension into the channel of the µ-Slide. Quick dispensing helps to avoid trapped air bubbles.

- Cover reservoirs loosely with the supplied caps. Incubate at 37°C and 5 % CO_2 as usual.

- After cell attachment fill 600 µl cell-free medium into each reservoir.

Tip:

The day before seeding the cells we recommend placing the cell medium and the µ-Slide into the incubator for equilibration. This will prevent the liquid inside the channel from emerging air bubbles over the incubation time.
Trapped bubbles can be removed from the channel by inclining the µ-Slide and knocking at one edge.

Important!

After coating the µ-Slide with a coating that must not be dried, seed cells without emptying the channel:
First, aspirate all remaining liquid from both reservoirs. Do not empty the channel. Then, fill 400 µl of cell suspension into one of the reservoirs. After that, slowly remove 400 µl from the opposite reservoir. Make sure to avoid trapped air bubbles.

For flow applications we recommend using the µ-Slide I Luer or the µ-Slide VI $^{0.4}$.

Exchanging Medium

Aspirate both reservoirs and fill slowly 1.2 ml of fresh medium into one of the reservoirs, which will replace the channel volume by gravity flow.

Microscopy

To analyze your cells, no special preparations are necessary. Cells can be directly observed live or fixed, preferably on an inverted microscope. The bottom cannot be removed. For optimal results in fluorescence microscopy and storage of fixed and stained samples, ibidi provides a mounting medium (50001) optimized for µ-Dishes, µ-Slides, and µ-Plates.

Chemical Compatibility

The following table provides some basic information on the chemical and solvent compatibility of the µ-Slide I. For a full list of compatible solvents and more information on chemical compatibility, please visit the FAQ section on ibidi.com.

Chemical / Solvent	Compatibility
Methanol	yes
Ethanol	yes
Formaldehyde	yes
Acetone	yes, without lid
Mineral oil	no
Silicone oil	yes
Immersion oil	See **Immersion Oil** on page 3.

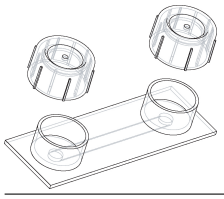
Immersion Oil

When using oil immersion objectives with the ibidi Polymer Coverslip, use only the immersion oils specified in the table below. The use of any non-recommended oil could damage the ibidi Polymer Coverslip. The resulting leakage may harm objectives and microscope components. All immersion oils that are not listed in the table below should be considered as non-compatible.

Company	Product	Ordering No.	Lot Number	Test Date
ibidi	ibidi Immersion Oil	50101	16-12-27	01/2017
Cargille	Type A	16482	100592	01/2017
Cargille	Type HF	16245	92192	01/2017
Carl Roth	Immersion oil	X899.1	414220338	01/2017
Leica	Immersion Liquid	11513859	n.a.	03/2011
Nikon	Immersion Oil F2 30cc	MXA22192	n.a.	01/2020
Nikon	Silicone Immersion Oil 30cc	MXA22179	20191101	01/2020
Olympus	Silicone Immersion Oil	SIL300CS-30CC	N4190800	01/2017
Zeiss	Immersol 518 F	444960	160706	01/2017
Zeiss	Immersol W 2010	444969	101122	04/2012

Ordering Information

The µ-Slide I is available with different surfaces. See table below for choosing your µ-Slide I.



Cat. No.	Description
80106	**µ-Slide I ibiTreat**: #1.5 polymer coverslip, tissue culture treated, sterilized
80101	**µ-Slide I Collagen IV**: #1.5 polymer coverslip, sterilized

For research use only!

Further information can be found at www.ibidi.com. For questions and suggestions please contact us by e-mail *info@ibidi.de* or by telephone +49 (0)89/520 4617 0.