

The ibidi product family is comprised of a variety of μ-Slides, μ-Dishes, and μ-Plates 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 1 Well is an open well chambered coverslip in which cells can be cultivated and, subsequently, investigated with microscopical methods. This open μ-Slide is intended for cell culture, immunofluorescence, live cell imaging, and high-end microscopy.

**Overview**

This document is applicable to the following product numbers:

Cat. No.	Product Name
82106	μ-Slide 1 Well ibiTreat: #1.5 polymer coverslip, tissue culture treated, sterilized, individually packed
82101	μ-Slide 1 Well Uncoated: #1.5 polymer coverslip, hydrophobic, sterilized, individually packed

**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, Uncoated	36 months

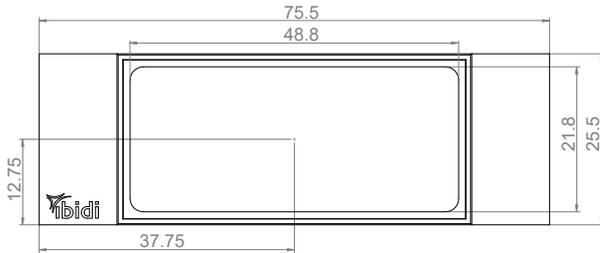
**Surface**

The tissue culture-treated ibiTreat surface is a physical surface modification and optimized for adhesion of most cell types. The uncoated surface is a very hydrophobic surface and allows no direct cell growth. It is suitable for specific coatings or suspension cells.

If you like to establish a particular coating for your demands we recommend testing your coating procedure on uncoated and ibiTreat surfaces, since some proteins and biomolecules adhere differently to hydrophobic or hydrophilic polymer surfaces.

## Geometry of the μ-Slide 1 Well

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



Geometry	
Outer dimensions in mm (w × l)	25.5 × 75.5
Number of wells	1
Dimensions of wells in mm (w × l × h)	21.8 × 48.8 × 9.3
Volume per well	3 ml
Height with/without lid	10.8/9.5 mm
Growth area per well	10.6 cm <sup>2</sup>
Coating area per well	14.6 cm <sup>2</sup>
Bottom	ibidi Polymer Coverslip

## 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 3 ml 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 1 Well is ready to be used. Optionally let dry at room temperature. Attention, some coating proteins might degenerate when drying!

## Seeding Cells

- Trypsinize and count cells as usual. Dilute the cell suspension to the desired concentration. Depending on your cell type, application of a  $5\text{--}11 \times 10^4$  cells/ml suspension should result in a confluent layer within 2–3 days.
- Apply 3 ml cell suspension into each well. Avoid shaking as this will result in inhomogeneous distribution of the cells.
- Cover the slide with the supplied lid. Incubate at 37°C and 5% CO<sub>2</sub> as usual.

Undemanding cells can be left in their seeding medium for up to three days and grow to confluence there. However, best results might be achieved when the medium is changed every 1–2 days. Carefully aspirate the old medium and replace it by 3 ml fresh medium per well.

## Chemical Compatibility

The following table provides some basic information on the chemical and solvent compatibility of the μ-Slide 1 Well. For a full list of compatible solvents and more information on chemical compatibility, please visit the FAQ section on [ibidi.com](http://ibidi.com).

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

## 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 mounting media (50001 and 50011) optimized for μ-Dishes, μ-Slides, and μ-Plates.

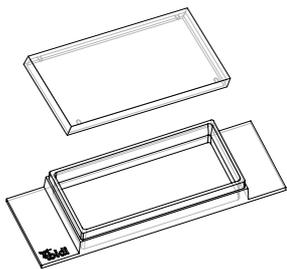
**Immersion Oil**

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.	03/2023
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	444960-0000	220211	03/2023
Zeiss	Immersol 518 F (30°C)	444970-9010	220816	03/2023
Zeiss	Immersol 518 F (37°C)	444970-9000	220302	03/2023
Zeiss	Immersol W 2010	444969-0000	101122	04/2012
Zeiss	Immersol Sil 406	444971-9000	80730	03/2023
Zeiss	Immersol G	462959-9901	211117	03/2023

**Ordering Information**

**μ-Slide 1 Well**



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82101	<b>μ-Slide 1 Well Uncoated:</b> #1.5 polymer coverslip, hydrophobic, sterilized, individually packed
82107	<b>μ-Slide 1 Well Glass Bottom:</b> #1.5H (170 μm ±5 μm) D 263 M Schott glass, sterilized, individually packed

**For research use only!**

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

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