

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 microscopy of fixed or living cells. The high optical quality of the ibidi Polymer Coverslip is similar to that of glass, so you can perform various microscopy techniques with uncompromised resolution and choice of wavelength.

The μ-Plate 96 Well Round allows you to perform high resolution microscopy in a standard multi-well format. This imaging plate is made of black polymer material, resulting in less well-to-well crosstalk in fluorescence microscopy.

Overview

This document is applicable to the following products:

Cat. No.	Product Name
89606	μ-Plate 96 Well Round ibiTreat: #1.5 polymer coverslip, tissue culture-treated, black plate, sterilized, individually packed
89601	μ-Plate 96 Well Round Uncoated: #1.5 polymer coverslip, hydrophobic, black plate, sterilized, individually packed

Material

ibidi μ-Slides, μ-Dishes, and μ-Plates are made of a polymer with the highest optical quality. The ibidi Polymer Coverslip bottom exhibits extremely low birefringence and autofluorescence, similar to those of glass. 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, as 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 ibidi Polymer Coverslip. Therefore, make sure that air can always reach the bottom.

Conditions

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

Shelf Life

ibiTreat, Uncoated	36 months
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Optical Properties of the ibidi Polymer Coverslip

Refractive index n_D (589 nm)	1.52
Abbe number	56
Thickness	No. 1.5 (180 μm)
Material	Polymer

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.

Surface

The hydrophilic ibiTreat surface provides excellent cell adhesion, even without a defined protein coating. However, ECM protein coatings can be done on ibiTreat without any restrictions. The tissue culture-treated (TC-treated) ibiTreat surface is ideal for culture of adherent cells that do not need any specific coating.

The hydrophobic Uncoated surface provides weak cell adhesion, if not previously coated with an ECM protein. ECM protein coatings can be done on the Uncoated surface without any restrictions. The Uncoated surface is ideal for the culture of adherent cells that require a specific coating.

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

Coating

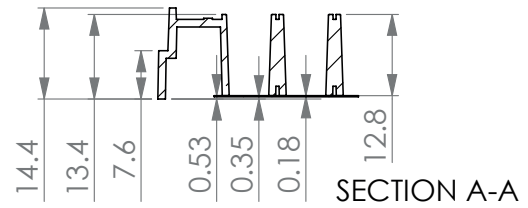
Detailed information about coatings is provided in [Application Note 08: Coating Protocols for ibidi Labware](#).

Instructions

μ-Plate 96 Well Round

In short, specific coatings are possible using this protocol:

1. Prepare your coating solution according to the manufacturer's specifications or reference. Adjust the concentration to a coating area of 1.61 cm² and a volume of 200 μl per well.
2. Apply 200 μl per well and leave it at room temperature for at least 30 minutes.
3. Aspirate the solution and wash with the recommended protein dilution buffer.
4. The coating is ready to be used. Optionally, let it dry at room temperature. Attention, some coating proteins might degenerate when drying!

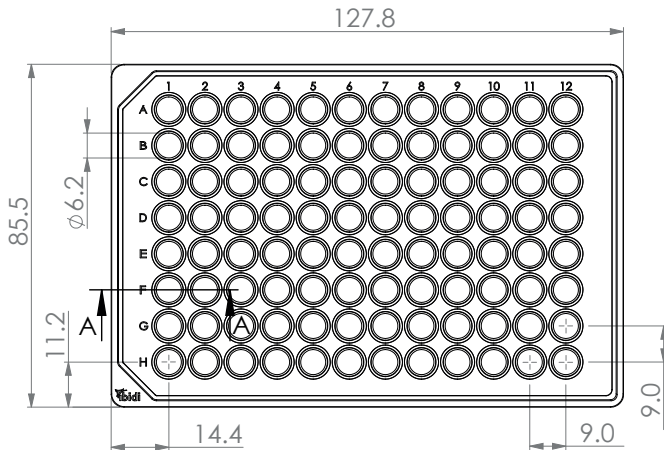


Single Well Dimensions

Diameter	6.2 mm ± 0.15 mm
Well depth	12.8 ± 0.2 mm
Volume	200 μl
Growth area	0.30 cm ²
Coating area using 200 μl	1.61 cm ²

Geometry

The μ-Plate 96 Well Round provides standard geometry and numbering (A–H, 1–12).



The μ-Plate 96 Well Round meets all important values of the ANSI/SLAS (SBS) Standards (1-2004, 2-2004, 3-2004 and 4-2004).

Dimensions in mm

Length	127.8	± 0.4
Width	85.5	± 0.4
Height with lid	16.6	± 0.2
Height without lid	14.4	± 0.2
Well-to-well distance	9.0	± 0.1
Well clearance	0.35	± 0.1
Focal offset	0.53	± 0.1

Seeding Cells

- Trypsinize and count the cells as usual and dilute the cell suspension to the desired concentration. Depending on your cell type, application of a 2–5 × 10⁴ cells/ml suspension should result in a confluent layer within 2–3 days.
- Apply 200 μl cell suspension per well. Avoid shaking, as this will result in inhomogeneous cell distribution.
- Cover the μ-Plate with the supplied lid. Incubate as usual (e.g., at 37 °C and 5% CO₂).

Insensitive cells can be left in their seeding medium for several days and grow to confluence there. However, optimal results might be achieved when the medium is changed every 2–3 days. For this, carefully aspirate the old medium and replace it by 200 μl fresh medium per well.

Tip:

You can stack the μ-Plates to save space in your incubator. This will not affect cell growth. We recommend making batches with not more than 6 plates, due to stability reasons.

Chemical Compatibility

The following table provides some basic information on the chemical and solvent compatibility of the μ-Plate 96 Well Round. For a full list of compatible solvents and more information on chemical compatibility, visit ibidi.com/chemicals.

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.

Microscopy

To image your cells, no special preparations are necessary. Living or fixed cells can be directly observed, preferably on an inverted microscope. The bottom cannot be removed. For optimal results in fluorescence microscopy and for storage of fixed and stained samples, ibidi provides mounting media that are optimized for μ-Dishes, μ-Slides, and μ-Plates:

Cat. No. 50001: [ibidi Mounting Medium](#)

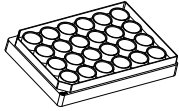
Cat. No. 50011: [ibidi Mounting Medium with DAPI](#)

Immersion Oil
Important

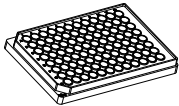
When using oil immersion objectives with the ibidi Polymer Coverslip, use only the immersion oils specified in the table below. The use of any non-recommended oil could damage the ibidi Polymer Coverslip. The resulting leakage may harm objectives and microscope components. All immersion oils that are 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	Immersionol 518 F	444960-0000	220211	03/2023
Zeiss	Immersionol 518 F (30 °C)	444970-9010	220816	03/2023
Zeiss	Immersionol 518 F (37 °C)	444970-9000	220302	03/2023
Zeiss	Immersionol W 2010	444969-0000	101122	04/2012
Zeiss	Immersionol Sil 406	444971-9000	80730	03/2023
Zeiss	Immersionol G	462959-9901	211117	03/2023

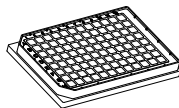
Ordering Information: μ -Plates

 μ -Plate 24 Well


Cat. No.	Description
82426	μ-Plate 24 Well ibiTreat: #1.5 polymer coverslip, tissue culture-treated, black plate, sterilized, individually packed
82426-90	μ-Plate 24 Well ibiTreat, Bulk Pack: #1.5 polymer coverslip, tissue culture-treated, black plate, sterilized, individually packed
82421	μ-Plate 24 Well Uncoated: #1.5 polymer coverslip, hydrophobic, black plate, sterilized, individually packed

 μ -Plate 96 Well Round


Cat. No.	Description
89606	μ-Plate 96 Well Round ibiTreat: #1.5 polymer coverslip, tissue culture-treated, black plate, sterilized, individually packed
89606-90	μ-Plate 96 Well Round ibiTreat, Bulk Pack: #1.5 polymer coverslip, tissue culture-treated, black plate, sterilized, individually packed
89601	μ-Plate 96 Well Round Uncoated: #1.5 polymer coverslip, hydrophobic, black plate, sterilized, individually packed

 μ -Plate 96 Well Square


Cat. No.	Description
89626	μ-Plate 96 Well Square ibiTreat: #1.5 polymer coverslip, tissue culture-treated, black plate, sterilized, individually packed
89626-90	μ-Plate 96 Well Square ibiTreat, Bulk Pack: #1.5 polymer coverslip, tissue culture-treated, black plate, sterilized, individually packed
89621	μ-Plate 96 Well Square Uncoated: #1.5 polymer coverslip, hydrophobic, black plate, sterilized, individually packed
89627	μ-Plate 96 Well Square Glass Bottom: #1.5H (170 μ m \pm 5 μ m) D 263 M Schott glass, black plate, sterilized, individually packed
89627-90	μ-Plate 96 Well Square Glass Bottom, Bulk Pack: #1.5H (170 μ m \pm 5 μ m) D 263 M Schott glass, black plate, sterilized, individually packed

 μ -Plate 384 Well


Cat. No.	Description
88407	μ-Plate 384 Well Glass Bottom: #1.5H (170 μ m \pm 5 μ m) D 263 M Schott glass, black plate, sterilized, individually packed

For research use only!

Further information can be found at [ibidi.com](https://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.

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