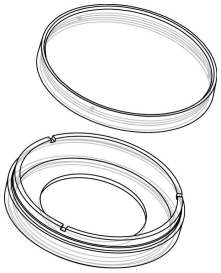


The ibidi product family is comprised of a variety of µ-Slides and µ-Dishes, which have all been designed for high-end microscopic analysis of fixed or living cells. The high optical quality of the material is similar to that of glass, so you can perform all kinds of fluorescence experiments with uncompromised resolution and choice of wavelength.

The µ-Dish 35 mm, low allows you to perform high resolution microscopy in a 35 mm Petri–dish with 7 mm walls. The low height makes high numerical apertures of Köhler illumination possible and provides large access for micromanipulation. The lid can be closed to hinder evaporation during long term experiments.

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

Geometry of the µ-Dish 35 mm, low

Geometry of the µ-Dish 35 mm, low	
Diameter dish	35 mm
Volume	800 µl
Growth area	3.5 cm^2
Diameter growth area	21 mm
Coating area using 400 µl	4.2 cm^2
Height with / without lid	9 mm / 7 mm
Bottom	ibidi Polymer Coverslip

Surface and Coating

The µ-Dish 35 mm, low is available with the ibiTreat and the Uncoated surface. The ibiTreat surface is a physical treatment and optimized for adhesion of most cell types. Many cell lines as well as primary cells were tested for good cell growth. The Uncoated surface is a very hydrophobic surface and allows no direct cell growth. It is suitable for specific coatings or suspension cells.

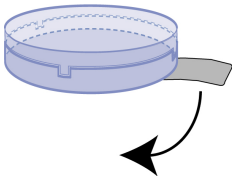
If you like to establish a particular coating for your demands we recommend to test your coating procedure on Uncoated and ibiTreat µ-Dishes, since some biomolecules adhere differently to hydrophobic or hydrophilic polymer surfaces.

- Prepare your coating solution according to the manufacturer's specifications or reference. Prepare your µ-Dish, ibiTreat or Uncoated. Adjust the concentration to a coating area of 4.2 cm^2 and 400 µl.
- Apply 400 µl into the growth area. Make sure that the entire bottom is covered with liquid easily tilting or shaking the µ-Dish. Put on the lid and leave at room temperature for at least 30 minutes.
- Aspirate the solution and wash. Optionally, let dry at room temperature.

Detailed information about coatings is provided in Application Note 08 "Cell culture coating".

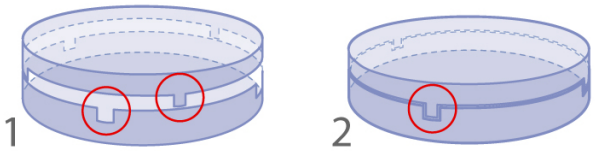
Protection Film

Remove the protection film before usage!



The bottom of the µ–Dish is covered with a film to protect the optical quality of the polymer surface. Please pull off the protection film before usage!

Using The Lid



1. Open position, easy opening
2. Close position, for long term studies, minimal evaporation

Seeding Cells

Depending on your cell type, application of a 4–9 × 10^4 cells/ml suspension should result in a confluent layer within 2–3 days.

- Trypsinize and count cells as usual. Dilute the cell suspension to the desired concentration.
- Apply 400 µl cell suspension into the inner well of the µ–Dish. Avoid shaking as this will result in inhomogeneous distribution of the cells.
- After cell attachment add additionally 400 µl of pure medium to ensure optimal grow conditions.
- Cover the µ–Dish with the supplied lid. Incubate at 37°C and 5 % CO_2 as usual.

We do not recommend filling more than the indicated total volume into the µ-Dish 35 mm, low in order to avoid the liquid contacting the lid.

Undemanding cells can be left in their seeding medium for several days and grow to confluence there. However, best results are achieved when the medium is changed every 2–3 days. Carefully aspirate the old medium and replace it by up to 800 µl fresh medium.

Tip:

You can stack the µ-Dishes to save space in your incubator. This will not affect cell growth. We recommend making batches with up to 6 µ-Dishes, due to stability reasons. Placing the µ-Dishes into larger Petri dishes simplifies transport and prevents evaporation, heat loss, and contamination when the incubator is opened.

Microscopy

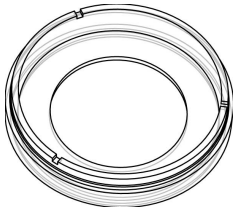
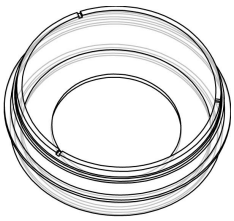
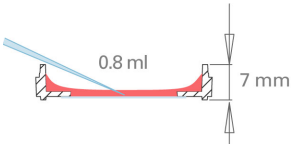
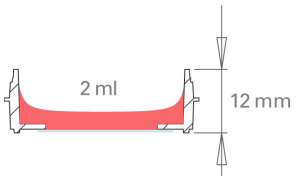
To analyze your cells, no special preparations are necessary. Cells can be directly observed live or fixed, preferably on an inverted microscope. The bottom cannot be removed. For optimal results in fluorescence microscopy and storage of fixed and stained samples, ibidi provides a mounting medium (50001) 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-Dish 35 mm, low. 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.

µ-Dish 35 mm Selection Guide

µ-Dish 35 mm, low	µ-Dish 35 mm, high
Low walls (7 mm) for large access to the cells. Designed for micromanipulation and microinjection.	High walls (12 mm) for all standard applications.
	
	

Minimizing Evaporation

Using the µ-Dish with a closed lid, the evaporation in an incubator system with 37°C and 95 % humidity is around 1 % per day. Using the µ-Dish with a closed lid in a 37°C heating system with low humidity (between 20 % and 40 %), the evaporation is around 10 % per day. For reducing the evaporation down to 1 % per day in all systems, we recommend sealing the lid with ibidi Anti-Evaporation Oil (50051).

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.

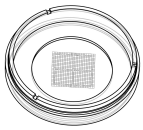
Company	Product	Ordering No.	Lot Number	Test Date
ibidi	ibidi Immersion Oil	50101	16-12-27	01/2017
Cargille	Type A	16482	100592	01/2017
Cargille	Type HF	16245	92192	01/2017
Carl Roth	Immersion oil	X899.1	414220338	01/2017
Leica	Immersion Liquid	11513859	n.a.	03/2011
Nikon	Immersion Oil F2 30cc	MXA22192	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

µ-Dish 35 mm, low

Cat. No.	Description
80136	**µ-Dish 35 mm, low ibiTreat**: ⌀ 35 mm, low wall (800 µl volume), #1.5 polymer coverslip, tissue culture treated, sterilized
80131	**µ-Dish 35 mm, low Uncoated**: ⌀ 35 mm, low wall (800 µl volume), #1.5 polymer coverslip, hydrophobic, sterilized

µ-Dish 35 mm, low Grid-500



Cat. No.	Description
80156	**µ-Dish 35 mm, low Grid-500 ibiTreat**: ⌀ 35 mm, low wall (800 µl volume), grid repeat distance 500 µm, #1.5 polymer coverslip, tissue culture treated, sterilized

Culture-Insert in µ-Dish 35 mm, low

Cat. No.	Description
80206	**Culture-Insert 2 Well in µ-Dish 35 mm, low, ibiTreat**: ready-to-use, tissue culture treated, 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.