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 glass bottom versions of the µ-Slides and µ-Dishes are especially designed for TIRF, super resolution and single molecule applications. The µ-Dish 35 mm, low Glass Bottom allows you to perform high resolution microscopy in a 35 mm Petri-dish with 12 mm walls. The standard height allows convenient liquid handling. The lid can be closed to hinder evaporation during long term experiments.

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

The µ-Dish 35 mm, low Glass Bottom is made with a glass coverslip bottom. It is not possible to detach the bottom. The µ-Dish 35 mm, low Glass Bottom is intended for one-time use and not autoclavable since it is temperature stable only up to 80°C/175°F.

Optical Properties of the Glass Coverslip Bottom	
Refractive index n_D	1.523
Abbe number	55
Thickness	No. 1.5H (selected quality 170 µm, ± 5 µm)
Material	Schott borosilicate glass, D 263M

Surface and Coating

The µ-Dish 35 mm, low Glass Bottom is manufactured with an uncoated glass coverslip. Washing steps (e.g. with PBS) before cell seeding can remove glass dust which is advantageous for direct cell growth on the surface.

Protein coatings increase direct cell growth of adherent cells. Specific coatings on glass are possible following this protocol:

- Prepare your coating solution according to the manufacturer's specifications or reference. Prepare your µ-Dish 35 mm, low Glass Bottom. Adjust the concentration to a coating area of 4.1 cm^2 and a coating volume of 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".

Geometry

Geometry of the µ-Dish 35 mm, low Glass Bottom	
Diameter dish	35 mm
Volume	0.8 ml
Growth area	3.5 cm^2
Coating area using 400 µl	4.1 cm^2
Diameter observation area	21 mm
Height with / without lid	9 mm / 7 mm
Bottom	Glass coverslip No. 1.5H

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	
Glass Bottom	36 months

Attention!

Be cautious when handling ibidi labware products with glass bottom! The glass coverslip or glass slide is very fragile and might break easily. Handle with care to avoid physical injury and damage to devices through leakage of the medium.

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 800 µl into the µ-Dish 35 mm, low Glass Bottom 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.

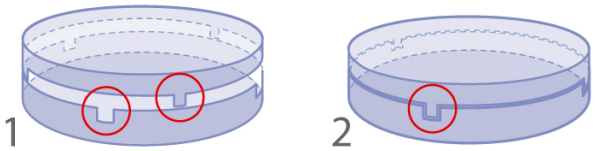
Optional Glass Coverslip Cleaning Protocol

The µ-Dish 35 mm, low Glass Bottom is made with an uncoated glass coverslip. For special applications, the coverslip of the µ-Dish 35 mm, low Glass Bottom can be cleaned by following the protocol below.

- Remove lids and immerse products in ddH_2O in an appropriately sized beaker.
- Sonicate for 10 minutes.
- Decant the ddH_2O completely.
- Add 1 M HCl.
- Sonicate for 10 minutes.
- Decant the HCl completely and wash twice with ddH_2O. Decant the ddH_2O completely.
- Add 2-propanol (absolute).
- Sonicate for 10 minutes.
- Aspirate the 2-propanol completely. Make sure that all products are completely dry. Wash twice with ddH_2O and aspirate the ddH_2O completely.
- Add ethanol (absolute).
- Sonicate for 10 minutes.
- Aspirate the ethanol completely. Make sure that all products are completely dry. Wash twice with ddH_2O.
- Sonicate in ddH_2O for 10 min.
- Decant ddH_2O and blow dry carefully with canned air or clean nitrogen gas.

Modifications of this protocol including acids, bases, alcohols and detergents are possible. Please check the chemical compatibility list on www.ibidi.com for compatibility. Make sure to handle the glass-bottomed products with care. The glass coverslips may break during mechanical handling. For best results, use a custom-made Teflon holder.

Using The Lid



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

Immersion Oil

When using ibidi Glass Bottom products with oil immersion objectives, there is no known incompatibility with any immersion oil on the market. All types of immersion oils can be used.

Chemical Compatibility

The following table provides some basic information on the chemical and solvent compatibility of the µ-Dish 35 mm, low Glass Bottom. 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	yes
Silicone oil	yes
Immersion oil	See **Immersion Oil** on page 2.

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.

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).

Tip:

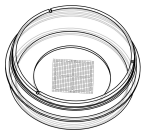
You can stack the µ-Dishes to save space in your incubator. This will not affect cell growth. We recommend making batches with up to 6 µ-Dishes, due to stability reasons. Placing the µ-Dishes into larger Petri dishes simplifies transport and prevents evaporation, heat loss, and contamination when the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

Ordering Information

µ-Dish 35 mm, high

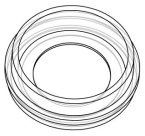
Cat. No.	Description
81156	**µ-Dish 35 mm, high ibiTreat**: ⌀ 35 mm, high wall (2 ml volume), #1.5 polymer coverslip, tissue culture treated, sterilized
81156-400	**µ-Dish 35 mm, high ibiTreat, Bulk Pack**: ⌀ 35 mm, high wall (2 ml volume), #1.5 polymer coverslip, tissue culture treated, sterilized
81151	**µ-Dish 35 mm, high Uncoated**: ⌀ 35 mm, high wall (2 ml volume), #1.5 polymer coverslip, hydrophobic, sterilized
81158	**µ-Dish 35 mm, high Glass Bottom**: ⌀ 35 mm, high wall (2 ml volume), #1.5H (170 ±5 µm) D 263 M Schott glass, sterilized
81158-400	**µ-Dish 35 mm, high Glass Bottom, Bulk Pack**: ⌀ 35 mm, high wall (2 ml volume), #1.5H (170 ±5 µm) D 263 M Schott glass, sterilized

µ-Dish 35 mm, high Grid-500



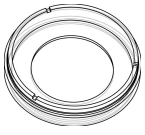
Cat. No.	Description
81166	**µ-Dish 35 mm, high Grid-500 ibiTreat** : ⌀ 35 mm, high wall (2 ml volume), grid repeat distance 500 µm, #1.5 polymer coverslip, tissue culture treated, sterilized
81161	**µ-Dish 35 mm, high Grid-500 Uncoated**: ⌀ 35 mm, high wall (2 ml volume), grid repeat distance 500 µm,#1.5 polymer coverslip, hydrophobic, sterilized

Glass Bottom Dish 35 mm



Cat. No.	Description
81218-200	**Glass Bottom Dish 35 mm**: ⌀ 35 mm, high wall (2 ml volume), #1.5 (170 µm (+20 µm/-10 µm)) D 263 M Schott glass, sterilized, 200 pieces
81218-800	**Glass Bottom Dish 35 mm**: ⌀ 35 mm, high wall (2 ml volume), #1.5 (170 µm (+20 µm/-10 µm)) D 263 M Schott glass, sterilized, 800 pieces

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
80137	**µ-Dish 35 mm, low Glass Bottom**: ⌀ 35 mm, low wall (800 µl volume), #1.5H (170 ±5 µm) D 263 M Schott glass, sterilized

For research use only!

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