

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 2 Well Co-Culture is a chambered coverslip suitable for co-cultivation assays in combination with microscopy. It harbours two arrays of 3×3 minor wells where cells can be cultivated and investigated with microscopical methods. In the minor wells, cells can share soluble factors but grow separately.

Overview

This document is applicable to the following product numbers:

Cat. No.	Product Name
81806	μ-Slide 2 Well Co-Culture ibiTreat

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

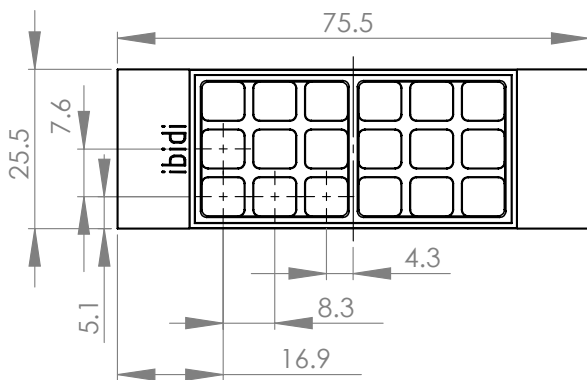
ibiTreat	36 months
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Geometry

The μ-Slide 2 Well Co-Culture provides a standard slide format according to ISO 8037/1.

Geometry of the μ-Slide 2 Well Co-Culture

Outer dimensions in mm (w × l)	25.5 × 75.5
Number of major wells	2
Dimensions of major wells in mm (w × l × h)	21.5 × 23.6 × 6.8
Volume per major well	600 μl
Number of minor wells	2 × 9
Dimensions of minor wells in mm (w × l × h)	6.1 × 6.8 × 1.3
Volume per minor well	70 μl
Growth area per minor well	0.4 cm ²
Coating area per minor well	0.55 cm ²
Total height with/without lid	8.2/7.0 mm
Bottom	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 70 μl per inner well 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 2 Well Co-Culture 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 $5-10 \times 10^4$ cells/ml suspension should result in a confluent layer within 2-3 days.

- Use the center minor well for recipient cells and the 8 outer wells for feeder cells.
- Apply 40-60 μl cell suspension into each minor well of the μ-Slide. Avoid shaking as this will result in inhomogeneous distribution of the cells.
- Cover reservoirs with the supplied lid. Incubate at 37 °C and 5 % CO₂ as usual.
- After cell attachment fill 400-600 μl into each large reservoir, allowing the cells to share factors.

Undemanding cells can be left in their seeding medium for up to three days and grow to confluency there. However, best results might be achieved when the medium is changed every 1-2 days. Carefully aspirate the old medium and replace by 1.2 ml fresh medium.

Please also see our [Application Note 10, "Co-Cultivation Using ibidi μ-Slides"](#).

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.

Chemical Compatibility

The following table provides some basic information on the chemical and solvent compatibility of the μ-Slide 2 Well Co-Culture. 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	Immersion Oil 518 F	444960	160706	01/2017
Zeiss	Immersion Oil W 2010	444969	101122	04/2012

Ordering Information



Cat. No.	Description
81806	μ-Slide 2 Well Co-Culture ibiTreat: #1.5 polymer coverslip, tissue culture treated, 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.

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