



The ibidi labware 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 ibidi Polymer Coverslip is similar to that of glass, enabling a variety of microscopy techniques with uncompromised resolution and choice of wavelength.

The μ-Plate 24 Well for Membrane Inserts enables high-resolution microscopy of cell culture inserts, also known as permeable supports. It is made from a black polymer material, which minimizes well-to-well crosstalk during fluorescence microscopy.

This document applies to the following products:

82436	μ-Plate 24 Well for Membrane Inserts Greiner/SARSTEDT
82446	μ-Plate 24 Well for Membrane Inserts SABEU
82456	μ-Plate 24 Well for Membrane Inserts Millipore

Material

The μ-Plate 24 Well for Membrane Inserts is made of a polymer that has the highest optical quality. The ibidi Polymer Coverslip bottom exhibits extremely low birefringence and autofluorescence, similar to that of glass. It is not possible to detach the bottom from the upper part. The plate is intended for one-time use and is not autoclavable, since it is 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 of Polymer Coverslip

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



WARNING – The ibidi Polymer Coverslip is compatible with certain types of immersion oil only. A list of suitable oils can be found in the Section “Immersion Oil”.

Shipping and Storage

This product is sterilized and sealed in a gas-permeable packaging. The shelf life under proper storage conditions (in a dry place, no direct sunlight) is outlined in the following table.

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

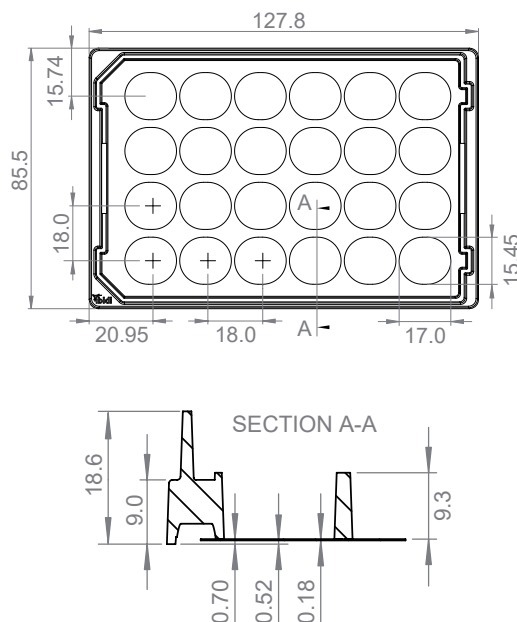
Shelf Life	
ibiTreat	36 months

μ-Plate 24 Well for Membrane Inserts

Instruction Manual

Geometry

The μ-Plate 24 Well for Membrane Inserts provides standard geometry and numbering (A–D, 1–6).

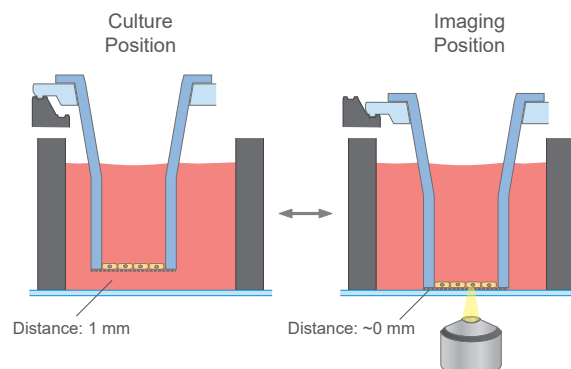


The μ-Plate 24 Well for Membrane Inserts meets all important values of the ANSI/SLAS (SBS) Standards (1-2004, 2-2004, 3-2004 and 4-2004).

Specifications	
Length	127.8 ± 0.2 mm
Width	85.5 ± 0.2 mm
Height with lid	20.7 ± 0.4 mm
Height without lid	18.6 ± 0.4 mm
Well-to-well distance	18.0 ± 0.1 mm
Focal offset	0.70 ± 0.1 mm
Well clearance	0.52 ± 0.1 mm
Imaging distance:	
- Culture position	1 ± 0.1 mm
- Imaging position	0 + 0.1 mm
Single well depth	9.3 ± 0.2 mm
Volume per well	1 ml
Growth area per well**	2.11 cm ²
Coating area per well**	4.7 cm ²
Compatible inserts*	See "Compatible Inserts"

* Membrane inserts are not included with this product.

** Without consideration of a membrane insert.

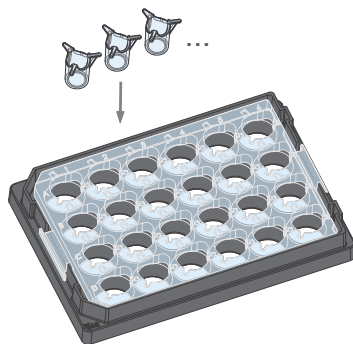


Compatible Inserts

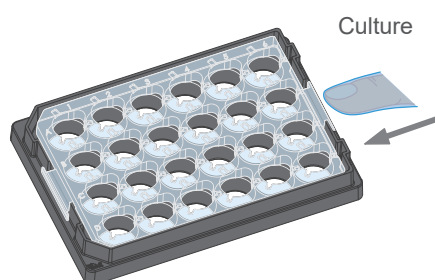
ibidi Cat. No.	Company / Product line	Product Numbers
82436	Greiner Bio-One ThinCert® Cell Culture Inserts	662640
		662641
		662610
		662630
		662631
		662638
	SARSTEDT TC-Inserts	83.3932.040
		83.3932.041
		83.3932.101
		83.3932.300
82446	SABEU cellQUART® Cell Culture Inserts	83.3932.500
		83.3932.800
		932 04 02
		932 10 02
		932 30 02
		932 50 02
		932 80 02
		932 04 12
		932 10 12
		932 30 12
82456	Millipore Millicell® Hanging Cell Culture Inserts	932 50 12
		932 80 12
		932 04 22
		PTHT24H48
		PCHT24H48
		PLRP24H48
		PTRP24H48
		PTSP24H48
		PCSP24H48
		PTMP24H48
		PTEP24H48
		PCEP24H48

Operation

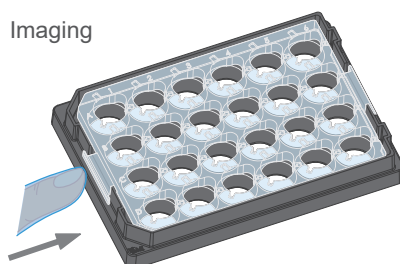
1. Place the membrane inserts into the plate, ensuring correct positioning. For Cat. No. 82636, pay special attention to the correct rotation. Make sure all inserts are properly seated in the frame.



2. Switch to the culture position where the inserts are lifted 1 mm above the coverslip by carefully pushing the frame to the left.



3. Fill the wells according to your experimental requirements, and follow your standard protocol for coating, cell seeding, cultivation, and related procedures.
4. For imaging, switch to the imaging position where the inserts sit on the coverslip surface by carefully pushing the frame to the right.



5. After imaging, switch back to the culture position.



TIP – The imaging position is recommended only for the duration of the imaging.



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

Chemical Compatibility

The following table provides some basic information on the chemical and solvent compatibility of the μ-Plate 24 Well for Membrane Inserts. 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 Section “Immersion Oil”

Immersion Oil



WARNING – 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 2	50102	24-07-04	07/2024
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
Leica	Immersion Liquid Type G	11513910	n.a.	04/2024
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

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 at info@ibidi.com or by telephone at +49 (0)89/520 4617 0.

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