

The 12 Well Chamber, removable is a removable silicone chamber, mounted on a glass slide, for cell culture and immunofluorescence stainings. It allows the use of standard cultivation, staining and mounting techniques with coverslip sealing. After mounting the glass slide with a coverslip, it is ready for the use with upright and inverted microscopes, as well as for long term storage. Suitable 24 mm×60 mm coverslips are provided by ibidi (10811).

Material

The 12 Well Chamber, removable is comprised of a self-adhesive silicone gasket mounted on a standard microscopy glass slide. The gasket is manufactured from bio-compatible silicone material. Although both materials are autoclavable and compatible with alcohols, we do not recommend reusing them. The glass bottom exhibits ground edges and one frosted end.

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.

Geometry

12 Well Chamber, removable provides a standard slide format according to ISO 8037/1.

Dimensions of the 12 Well Chamber, removable

Number of wells	12
Dimension of wells (w × l × h)	7.5 × 7.5 × 8 mm
Volume per well	250 µl
Growth area per well	0.56 cm ²
Coating area per well	1.9 cm ²
Bottom size (w × l × h)	26 × 76 × 1 mm
Total height with lid	11 mm

Shipping and Storage

The ibidi removable Chambers 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 and Shelf Life	
Shipping conditions	Ambient
Storage conditions	RT (15–25°C)
Shelf life	36 months

Surface and Coating

The 12 Well Chamber, removable is mounted on an uncoated glass. 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 slide. Adjust the concentration to a coating area of 1.9 cm² and a coating volume of 250 µl per well.
- Apply 250 µl into each well. Make sure that the entire bottom is covered with liquid by slightly tilting or shaking the slide. Put on the lid and leave the slide at room temperature for at least 30 minutes.
- Aspirate the solution and wash with the recommended protein dilution buffer. Optionally, let dry at room temperature. Attention, some coating proteins might degenerate when drying!

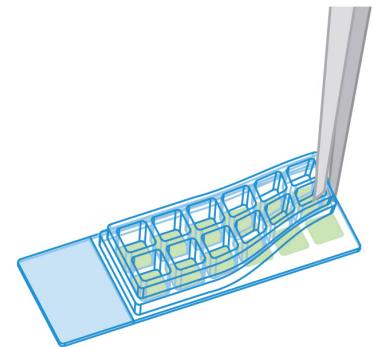
Seeding Cells

- Trypsinize and count cells as usual. Dilute the cell suspension to the desired concentration. Depending on your cell type, application of a $4-9 \times 10^4$ cells/ml suspension should result in a confluent layer within 2–3 days.
- Apply 250 µl cell suspension into each well of the slide. Avoid shaking as this will result in inhomogeneous distribution of the cells.
- Cover the slide with the supplied lid. Incubate at 37°C and 5% CO₂ as usual.

Undemanding cells can be left in their seeding medium for up to three days and grow to confluence there. However, best results might be achieved when the medium is changed every 1–2 days. Carefully aspirate the old medium and replace it by 250 µl fresh medium per well.

Note:

The 12 Well Chamber, removable is not recommended for high resolution live cell imaging on inverted microscopes since cells grow on a 1 mm microscopy glass slide.



(2)

Parallel technique:

All necessary steps (fixation, permeabilization, staining, washing) are carried out by dipping the whole slide into the solutions after removing the silicone gasket (4).

- Starting from one edge, remove the silicone gasket by hand or by using tweezers (2).
- Perform your standard staining protocol (fixation, permeabilization, staining, washing) by dipping the slide into the solutions (3).

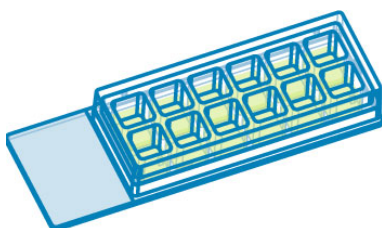
Immunofluorescence Microscopy

After cultivation, the cells can be fixed and stained in two different ways.

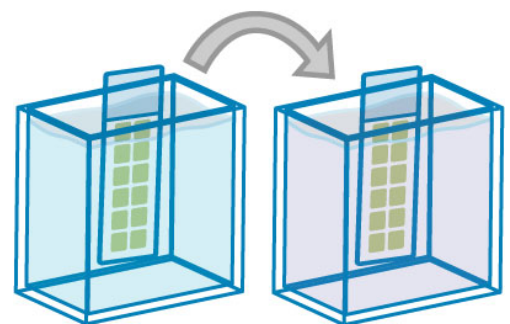
Single well technique:

All steps are carried out in the single wells before removing the silicone gasket.

- Perform your standard staining protocol (fixation, permeabilization, staining, washing) in the single wells (1).
- Starting from one edge, remove the silicone gasket by hand or by using tweezers (2).



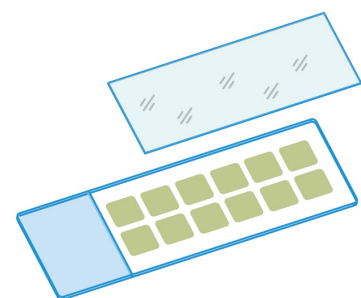
(1)



(3)

Mounting:

Mount the slide with a coverslip 24 mm × 60 mm (ibidi #10811) and a permanent mounting medium of your choice (4).



(4)

Tip:

For mounting of slide samples, a hardening permanent mounting medium such as Fluoroshield™ (Sigma-Aldrich), Vectashield® (Vector Laboratories Inc.) or ProLong® Antifade (ThermoFisher Scientific) is recommended.

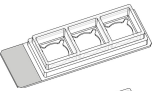
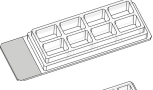
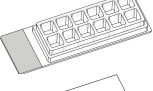

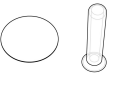
ibidi Mounting Medium is not recommended because it is non-hardening and stays a liquid (which is advantageous for μ -Slides and μ -Dishes).

Chemical Compatibility

The table below provides some basic information on the chemical and solvent compatibility of the 12 Well Chamber, removable. 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
Immersion oil	yes

Ordering Information

	Cat. No.	Description
	80381	3 Well Chamber, removable: microscopy glass slide, sterilized
	80841	8 Well Chamber, removable: microscopy glass slide, sterilized
	81201	12 Well Chamber, removable: microscopy glass slide, sterilized
	10811	Coverslips for Chambers, removable, # 1.5H ($170 \pm 5 \mu\text{m}$) D263 M Schott glass, 24 mm \times 60 mm, unsterile
	10815	Coverslips and Coverslip Pick-Up Tool for 3 Well Chamber, removable: # 1.5H ($170 \pm 5 \mu\text{m}$) D263 M Schott glass, \varnothing 15 mm, unsterile, including one silicone rubber tool for convenient glass coverslip handling

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.

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