

The micro-Insert 4 Well is a product for long term microscopy studies especially stem cell cultivation. A special sticky and biocompatible surface at the bottom side works like a glue and avoids leaking. Adherent or non-adherent cells placed into the small wells sink to the bottom and can be analyzed microscopically. The wells provide rectangular digital format (4:3) for covering the entire area by CCD cameras on microscopes. Inclined walls provide excellent optical access to all cells located near the edges of the well. Optionally, after cell attachment the insert can be removed by using sterile tweezers. There are no remains on the surface.

## Material

The micro-Insert 4 Well is manufactured from biocompatible silicone material. Although, the material is autoclavable and compatible to alcohols we do not recommend reusing it.

**Please note! When using an ibidi  $\mu$ -Dish,  $\mu$ -Slide or  $\mu$ -Plate take care that the ibidi standard bottom is compatible with certain types of immersion oil only. A list of suitable oils can be found on page 2.**

## Geometry

### Geometry of the micro-Insert 4 Well

Number of wells	4
Well dimensions	2.0 mm $\times$ 1.5 mm
Growth area per well	0.03 cm <sup>2</sup>
Coating area per well	0.23 cm <sup>2</sup>
Diameter	12 mm
Height	4.2 mm
Volume small well	10 $\mu$ l
Volume complete insert	150 $\mu$ l

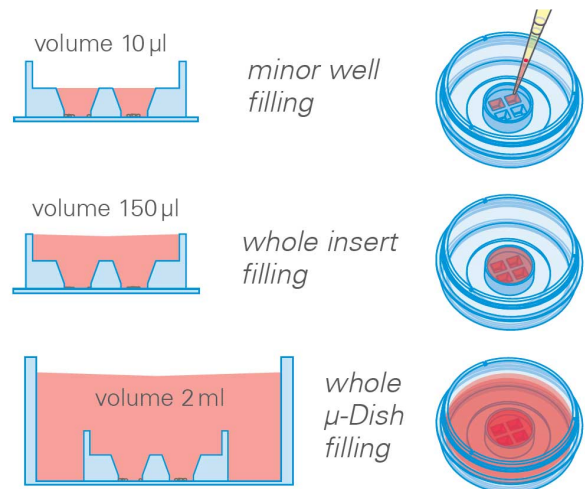
We recommend using the micro-Insert 4 Well in ibidi  $\mu$ -Dishes,  $\mu$ -Slide 2 Well, 6 well plates, 12 well plates or large Petri dishes. It is also possible to use them on sterile glass coverslips or glass slides.

## Surfaces and Coatings

The inserts can be transferred to any flat, clean, and dry surface. Use sterile tweezers for transfer and gently push. Keep in mind that only the bottom side is sticky. micro-Insert 4 Well is not working on wet or moist surfaces. It might also not work on uneven or dusty substrates.

## Seeding Cells

- Prepare cell suspension as usual. Depending on your cell type application of a  $1 - 7 \times 10^5$  cells/ml should result in a confluent layer within 24 hours.
- Apply 10  $\mu$ l into each well. Avoid shaking as this will result in inhomogeneous cell distribution.
- Incubate at 37°C and 5% CO<sub>2</sub> as usual.
- Optionally, it is possible to fill the outer area with cell suspension or cell medium.
- Conduct your experiment.



### Tip:

In case the cell lawn is (partially) removed together with the insert use a smaller seeding density to create a less confluent cell layer or decrease incubation time.

**Shipping and Storage**

The  $\mu$ -Slides,  $\mu$ -Dishes and  $\mu$ -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 of Different Surfaces	
ibiTreat, glass bottom, ESS	36 months
Collagen, Poly-Lysine	18 months
Fibronectin	4 months

**Immersion Oil**

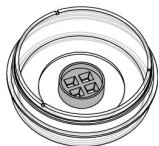
When using oil immersion objectives, use only the immersion oils specified in the table. The use of a non-recommended oil could lead to the damage of the plastic material and the objective.

Company	Product	Ordering Number
ibidi	Immersion Oil	(ibidi) 50101
Zeiss	Immersol 518 F	(Zeiss) 444960
Zeiss	Immersol W 2010	(Zeiss) 444969
Leica	Immersion liquid	(Leica) 11513859

**micro-Insert 4 Well Family**

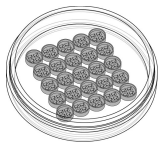
The micro-Insert 4 Well is available in different product versions.

micro-Insert 4 Well in  $\mu$ -Dish<sup>35mm, high</sup>



Cat. No.	Description	Characteristics
80406	<b>micro-Insert 4 Well in <math>\mu</math>-Dish<sup>35mm, high</sup> ibiTreat:</b> ready to use	sterilized, hydrophilic

25 micro-Inserts 4 Well for self insertion



Cat. No.	Description	Characteristics
80409	<b>25 micro-Inserts 4 Well for self insertion:</b> in a 10 cm transport dish	sterilized

**For research use only!**

Further technical specifications can be found at [www.ibidi.com](http://www.ibidi.com). For questions and suggestions please contact us by e-mail [info@ibidi.de](mailto:info@ibidi.de) or by telephone +49 (0)89/520 4617 0. All products are developed and produced in Germany.

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