

The micro-Insert 4 Well is a biocompatible, silicone insert ideal for long term microscopy and stem cell cultivation. The micro-Insert has a special sticky bottom that prevents leaking on smooth, dry surfaces, such as microscopy slides and dishes. 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. Tapered walls provide excellent optical access to cells located near the edges of the well. After cell attachment, the micro-Insert can be removed by using sterile tweezers without leaving a residue.

**Material**

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

**Please note! When using an ibidi  $\mu$ -Dish,  $\mu$ -Slide or  $\mu$ -Plate, make sure that the ibidi Polymer Coverslip is compatible with the immersion oil you intend to use. See page 2 for the list of compatible oils.**

**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>
Insert 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. They can also be used on sterile glass coverslips or glass slides.

**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-L-Lysine	18 months

**Surfaces and Coatings**

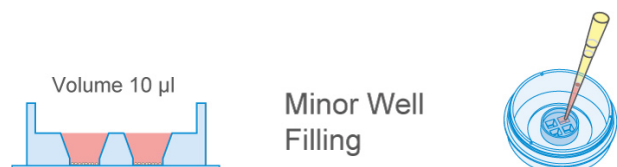
The micro-Inserts can be transferred to any flat, clean, and dry surface. Use sterile tweezers for transfer and gently push the Insert in place. Note that only the bottom side is sticky. The micro-Insert 4 Well does not work on wet or damp surfaces. Uneven or dusty surfaces might also be problematic.

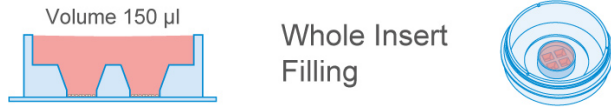
**Tip:**

Check whether the micro-Insert is completely attached to the surface. If not, gently push the Insert.

**Seeding Cells**

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

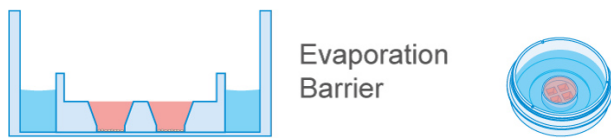




Whole Insert Filling



Whole µ-Dish Filling



Evaporation Barrier

**Tip:**

In case evaporation effects occur, a buffer can be pipetted around the Insert as evaporation barrier.

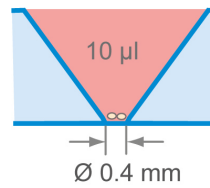
**micro-Insert Selection Guide**

micro-Insert 4 Well FulTrac

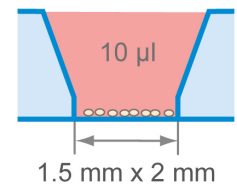
micro-Insert 4 Well



- Single cells
- 20x Objective lens for full-well coverage
- High-resolution fluorescence microscopy



- Few cells
- 4x Objective lens for full-well coverage
- High-resolution fluorescence microscopy



**Immersion Oil**

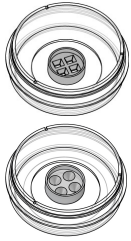
When using oil immersion objectives, use only the immersion oils specified in the table. The use of a non-recommended oil could damage the plastic material and the objective.

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

**Ordering Information**

The micro-Insert is available with different well geometries and in various product versions.

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



Cat. No.	Description
80406	<b>micro-Insert 4 Well in <math>\mu</math>-Dish<sup>35mm, high</sup> ibiTreat:</b> ready to use, tissue culture treated, sterilized
80486	<b>micro-Insert 4 Well FulTrac in <math>\mu</math>-Dish<sup>35mm, high</sup> ibiTreat:</b> ready to use, tissue culture treated, sterilized

**25 micro-Inserts for self insertion**



Cat. No.	Description
80409	<b>25 micro-Inserts 4 Well for self insertion:</b> in a 10 cm transport dish sterilized
80489	<b>25 micro-Inserts 4 Well FulTrac 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.

© ibidi GmbH, Am Klopferspitz 19, 82152 Martinsried, Germany.