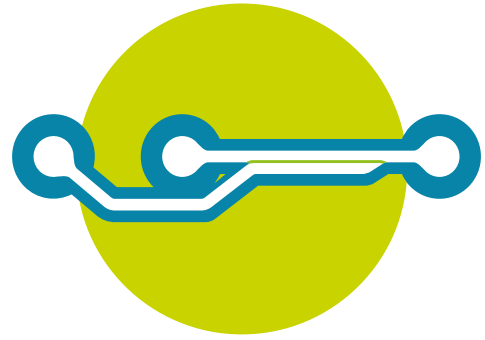


MIMETAS

the organ-on-a-chip company

OrganoPlate® 2-lane

Product no. 9605-400-B



The OrganoPlate® 2-lane is an advanced microfluidic tissue culture device that contains 96 independent microfluidic chips. Each chip supports an ExtraCellular Matrix (ECM) channel and a perfused medium channel, with no physical barrier in between. A single chip is connected to four wells of the OrganoPlate®: a gel inlet, two medium reservoirs and an observation window. Any number of chips can be used in an experiment.

Supported tissue models

The OrganoPlate® 2-lane supports a range of cell types in different tissue configurations. The system allows for culture in ECM, tubular culture against ECM and combinations of in-ECM and tubular culture in 2 channels, without separating membranes or barriers. You can use any ECM that remains solid at culture temperature, including chemically crosslinked ECMs and natural ECMs. Endothelial and epithelial tubules (e.g. blood vessels, Caco-2 gut tubules) can be combined with in-ECM culture, such as neurons, hepatocytes and organoids.

Materials and equipment

- Cells (cell lines, primary cells, iPSC-derived cells and others)
- ECM, for example Collagen I or Matrigel® (Corning®)
- For advanced perfusion control: Mimetas Perfusion Rocker™
- Pipettes 1 - 200 µL
- Optional: multichannel pipette 5 - 350 µL
- Research (confocal) microscope, high-content reader, plate reader

Detailed instructions for use and protocols are available on www.mimetas.com.

MIMETAS – the Organ-on-a-Chip Company

Enabling you to study complex 3D tissue biology in a simple device, that's our goal. With perfused vessels, co-culture and optimized micro-environments. So easy to use that you forget you're working with a highly advanced 3D culture platform. With the OrganoPlate®, we believe we've reached our goal. Say hello to the future of 3D tissue models.

Features

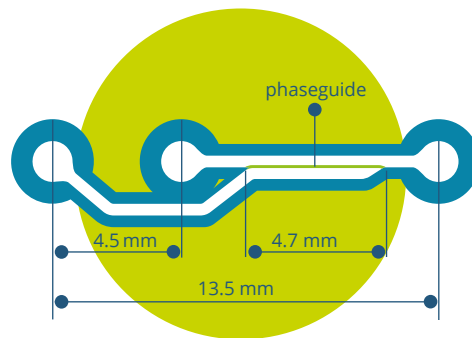
Tissue chips	96
Channels per chip	2
Pump-free perfusion	yes
Membrane-free co-culture	yes
Compatible 384-well format	yes

Applications

Perfused tubule (pump-free)	yes
In-gel tissue	yes
Tubule + in-gel tissue	yes
Mixed in-gel co-culture	yes
Access to tubule inside (apical)	yes

OrganoPlate[®] 2-lane

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OrganoPlate[®] 2-lane

Applications
Product code
Number of cultures per plate
Lanes per culture cell
Compound access to tissue tubules
Microfluidic lane widths
ECM-gel loading volume
Internal volumes
Gel-medium interface surface
Plate format
Materials
Microfluidic lane height
PhaseGuide™ dimensions
Medium volume
Perfusion
Readouts

Perfused 3D cell culture, up to 2-layer co-culture (tubule and cells in ECM)

9605-400-B

96 (partial use possible)

2 lanes, 1 perfusable, barrier- and membrane-free

Apical (inside)

Perfusion channel: 400 µm. ECM channel: 400 µm

1.3 - 2.5 µL

Perfusion channel: 1.25 µL. ECM channel: 1.6 µL

1 mm²

SBS-standard 384-well plate, 127.8 x 85.8 x 14.4 mm (l x w x h) (17.3 mm height with lid)

**Top plate: virgin polystyrene. Plate bottom: optical quality 150 µm glass (1H coverslip thickness)
Microfluidics: glass, proprietary polymers, biocompatible and low compound-absorbing**

220 µm

100 x 55 µm (w x h)

15-75 µL in each well

Gravity driven, pump free, 2° - 25° plate angle, typical shear forces in tubule 0 - 8 dyne/cm²

Imaging (phase contrast, widefield fluorescence, confocal), plate reader (absorption, fluorescence, luminescence), sampling (ELISA, PCR, MS, biochemistry)