MIMETAS

- **64 tissue culture chips**
- **Pump-free perfusion**
- **Membrane-free co-culture**
- **Automation compatible**
- **384 well format**
- **Easy handling**

OrganoPlate® 3-lane 64

Product code 6405-400-B

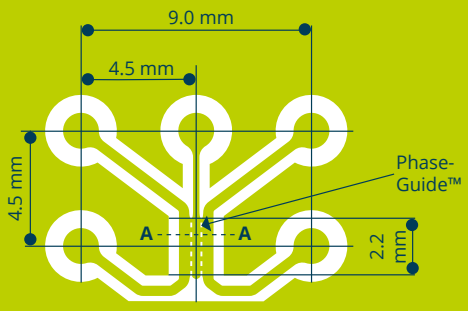
The OrganoPlate® 3-lane 64 is an advanced microfluidic tissue culture device that contains 64 independent tissue culture chips. Each chip features up to 2 extracellular matrix (ECM) channels and up to 2 perfused medium channels for tubular cultures. There is no membrane between the channels, as the channels are separated with PhaseGuide™ technology. A single chip is connected to 6 wells of the OrganoPlate® in a 2 x 3 well grid, with the central well providing viewing access. Any number of chips can be used in an experiment.

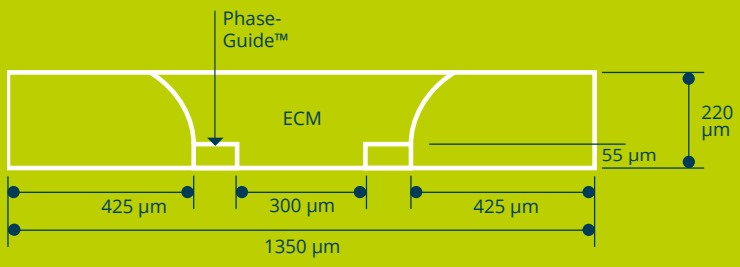
The OrganoPlate® 3-lane 64 is optimized for automated workflows. This enables researchers to improve the consistency of their workflow and the reproducibility of their data, as well as to save time. Better user ergonomics, easier pipetting, and increased ECM gel stability further improve the user experience.The OrganoPlate® 3-lane 64 supports apical and basal access to epithelial and endothelial tubules. This enables you to perform barrier integrity and transport assays for purposes such as toxicity screening or drug discovery.

Supported Tissue Models

The OrganoPlate® 3-lane 64 supports a range of cell types in different tissue configurations. The system allows for In-ECM cultures, against ECM cultures, tubular cultures, or a combination. You can use any ECM that remains solid at culture temperature, including chemically crosslinked ECMs and natural ECMs. Endothelial and epithelial tubules, for example, blood vessels and Caco-2 gut tubules can be combined with in-ECM cultures, such as neurons, hepatocytes, and organoids.

Detailed instructions: mimetas.com for manuals & protocols





Cross section A-A

Specifications

Applications	Perfused 3D culture, barrier integrity and transport, angiogenesis, gradient formation.
Product code	6405-400-B
Number of cultures per plate	64
Liquid handling system	Liquid handling systems able to work with industry standard (384 well plates)
Channels per tissue culture chip	3 channels, 2 perfusable, all barrier- and membrane-free
Compound access to tissue	Apical and basal
Microfluidic channel width	Side channels: 425 µm. Middle channel 300 µm.
Microfluidic channel height	220 µm
PhaseGuide™ dimensions	100 x 55 µm (w x h)
ECM-gel loading volume	2.0 µL recommended for all channels
Internal volumes	Side channels: 1.8 µL; middle channel: 0.6 µL
Medium volume	50 µL recommended in each well. 15 µL - 90 µL possible.
Gel-medium interface surface	0.57 mm^2
Plate format	SBS Standard 384 well plate
Materials	Top plate: virgin polystyrene. Bottom plate: optical quality 150 µm glass (1H coverslip thickness). Microfluidics: glass, proprietary polymers, biocompatible and low compound-absorbing.
Perfusion	Gravity driven and pump free using the OrganoFlow®. With the recommended 14° rocking angle, intermittent shear stress forces ranging between 0 - 1.4 dyne/cm^2
Readouts	Imaging (phase contrast, widefield fluorescence, confocal and more); plate reader (absorption, fluorescence, luminescence); off plate (ELISA, RNA/DNA analysis, MS, biochemistry)