



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



OrganoPlate® 2-lane 96

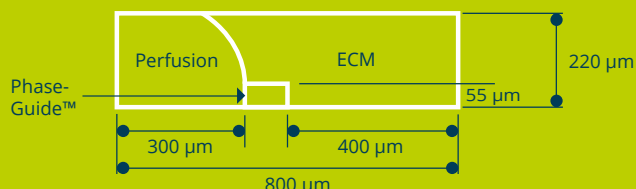
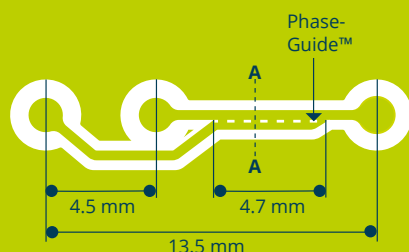
Product code 9605-400-B

The OrganoPlate® 2-lane 96 is an advanced microfluidic tissue culture device that contains 96 independent tissue culture chips. Each chip supports an extracellular matrix (ECM) channel and a perfused medium channel. There is no membrane between the channels, as the channels are separated by PhaseGuide™ technology. 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.

The OrganoPlate® 2-lane 96 supports apical access to epithelial and endothelial tubules.

Supported Tissue Models

The OrganoPlate® 2-lane 96 supports a range of cell types in different tissue configurations. The system enables the culture of perfused tubules adjacent to an ECM of choice without artificial membranes. With direct access to the apical lumen of tubules, the platform enables perfusion and addition of cells, compounds, and stimuli. 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.



Cross section A-A

Specifications

Applications	Perfused 3D culture, up to 2-layer co-culture (tubule and cells in ECM)
Product code	9605-400-B
Number of cultures per plate	96
Liquid handling system	Liquid handling systems able to work with industry standard (384 well plates)
Channels per tissue culture chip	2 channels, 1 perfusable, all barrier- and membrane-free
Compound access to tissue	Apical
Microfluidic channel width	Top channel: 300 μ L, Bottom channel: 400 μ L
Microfluidic channel height	220 μ m
PhaseGuide™ dimensions	100 x 55 μ m (w x h)
ECM-gel loading volume	2.0 μ L recommended for both channels
Internal volumes	Top channel: 1.4 μ L ; Bottom channel: 1.4 μ L
Medium volume	50 μ L recommended in each well. 15 μ L - 90 μ L possible
Gel-medium interface surface	1.00 mm ²
Plate format	SBS Standard 384 well plate
Materials	Top plate: virgin polystyrene. Bottom plate: optical quality 150 μ m 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 7° rocking angle, intermittent shear stress forces ranging between 0 - 2.2 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)
Recommended best by	The OrganoPlate® 2-lane 96 offers optimal seeding performance when used within 12 months from purchase