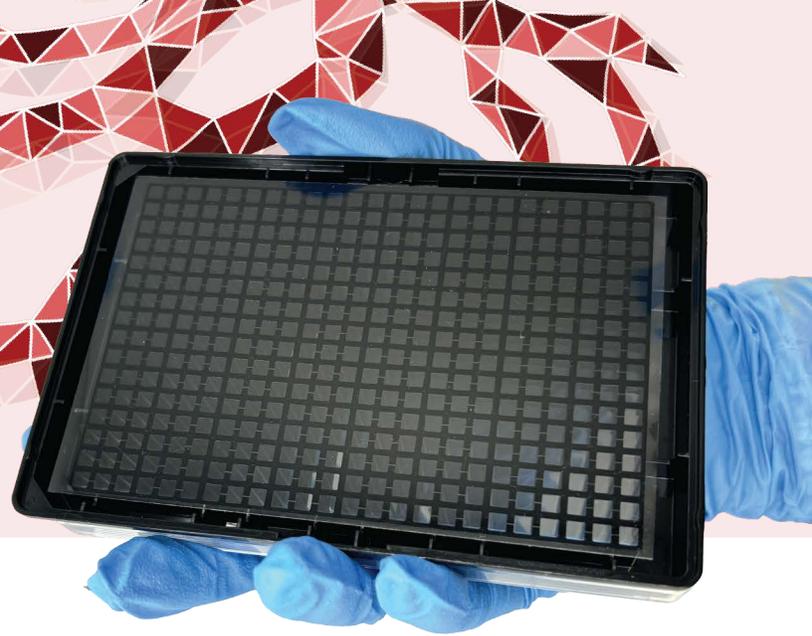




IFlowPlate384™



IFlowPlate is an organ-on-a-chip platform designed to replicate the complex microenvironment of human tissues with interstitial flow. Each IFlowPlate consists of 128 independent tissue culture units, offering the highest throughput available in the market and compatibility with automation workflows. Each unit includes an inlet, middle, and outlet well, interconnected by two channels. The simplistic design makes the platform highly versatile.

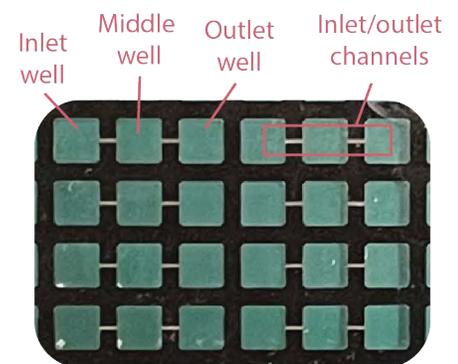
To create an epithelial tissue barrier model, a hydrogel can be cast in the middle well, with epithelial cells seeded on the gel surface and supporting cells embedded within. For controlling epithelial topography, *TopoStamp* (B003) introduces specific patterns on the gel surface. For vascularized organoids, endothelial cells and organoids can be embedded in the gel. For simple perfusion cultures of free-floating organoids or tissue spheroids, the organoids can be directly seeded into the middle wells without a gel.

The dimensions of the inlet and outlet channels are adjustable for specific applications. Narrower channels (A001) are ideal for physically connecting to self-assembled vasculature or trapping organoids and spheroids in the middle wells in the absence of a gel. Wider channels (A001-2) are recommended for *AngioTEER* measurements of tissue barriers. Bi-directional interstitial flow in the gel matrix is achieved with the IFlowRocker, removing the need for pumps.

The open-well design allows easy access for pipetting and tissue removal, facilitating downstream analysis. The optically clear plate bottom supports high-content imaging with confocal microscopy and high-throughput analysis with plate readers. The 384-well design minimizes the use of cells and reagents, significantly reducing experimental costs per data point. To learn more, visit www.organo-biotech.com/posters.

KEY FEATURES

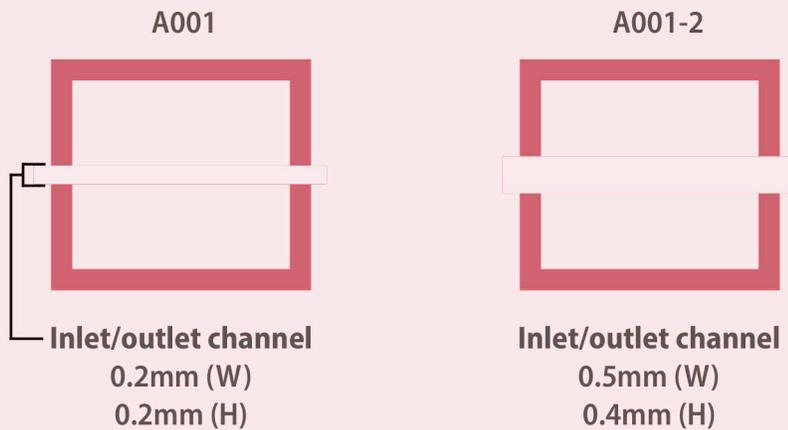
- 128 tissue culture units
- Pump-free bidirectional perfusion
- Membrane-free 3D tissue culture in hydrogel matrix
- Customizable inlet/outlet channel dimensions
- Automation compatible
- Low cell and media consumption



Bottom view of the plate

Detailed instructions for use are available on www.organo-biotech.com

Customizable inlet/outlet channel sizes



Specifications

Product code	A001; A001-2
Number of culture per plate	128
Sterilization method	UV sterilized
Storage condition	Room temperature (15-25 °C)
Storage time	6 month
Plate format	SBS standard 384 well plate
Materials	Top plate: virgin polystyrene. Bottom plate: optical quality, low compound-absorbing plastic
Perfusion	Gravity driven perfusion with IFlowRocker (B001)
Applications	Perfused 3D tissue culture
Readouts	Sensor (TEER with AngioTEER, B002, suitable only with A001-2); Imaging (phase contrast, widefield fluorescence, confocal) ; plate reader (absorption, fluorescence, luminescence) ; off plate (Histology, ELISA, RNA/DNA analysis, MS, biochemistry)