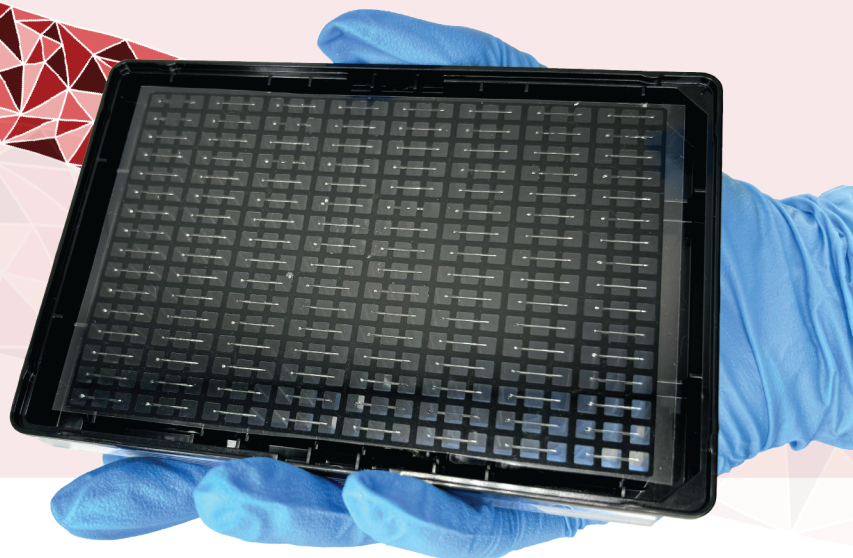




AngioPlate384™



AngioPlate is an organ-on-a-chip platform designed to replicate the complex structure and function of human tissues. Each AngioPlate contains 128 independent tissue culture units, making it the highest-throughput system available in the market, and is compatible with automation workflows. Each unit contains an inlet, middle, and outlet well connected together *via* two channels. The middle well contains a 3D-printed sacrificial template that can be encapsulated by a natural hydrogel. Upon dissolving the templates, the system produces a perfusable structure within the hydrogel matrix, which can then be populated with cells. The absence of membranes between the perfusable structure and surrounding matrix enables direct interactions between cells to mimic physiological tissue environments.

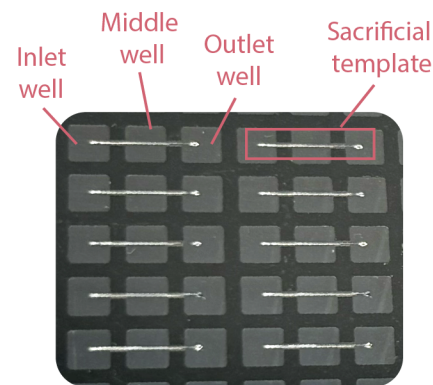
This versatile platform supports the creation of various tissue models, including tubular blood vessels, bifurcating vascular networks, renal epithelial tubules, colon tubes, and vascularized spheroids or organoids. These models can be used to study tissue barrier disruption, immune response, fibrosis and more in a highly controlled environment.

With customizable designs, including three standard templates and the option for tailored configurations, AngioPlate offers unparalleled flexibility for diverse research needs.

Bi-directional perfusion of tissues is achieved using the *IFlowRocker*, eliminating the need for pumps. For unidirectional perfusion, researchers can explore the *UniPlate384* system. AngioPlate is compatible with the *AngioTEER* sensor, enabling real-time, continuous monitoring of tissue barrier integrity across 128 tissue units in a plate. The open-well design ensures easy access for pipetting and tissue removal for downstream analysis, while the optically clear plate bottom supports high-content imaging using confocal microscopy and high-throughput analysis with plate readers. The 384-well design also minimizes the use of cells and reagents to significantly reduce experimental costs per data point. To learn more, please visit www.organo-biotech.com/posters.

KEY FEATURES

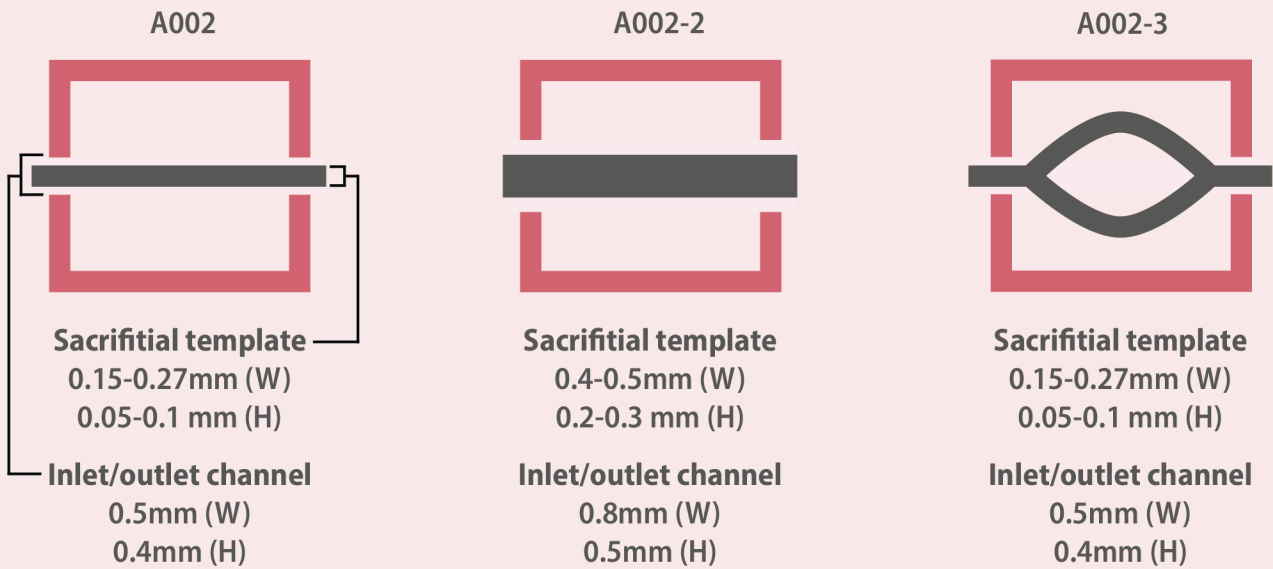
- 128 tissue culture units
- Pump-free bidirectional perfusion
- Membrane-free 3D tissue culture in hydrogel matrix
- Customizable tissue architecture
- Automation compatible
- Low cell and media consumption



Bottom view of the plate

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

Customizable tissue architecture



Specifications

Product code	A002; A002-2; A002-3
Number of culture per plate	128
Sterilization method	UV sterilized
Storage condition	Room temperature (15-25 °C)
Storage time	3 month
Plate format	SBS standard 384 well plate
Materials	Top plate: virgin polystyrene. Bottom plate: optical quality, low compound-absorbing plastic Internal sacrificial template: proprietary polymers
Perfusion	Gravity driven perfusion with IFlowRocker (B001)
Applications	Perfused 3D tissue and organoid culture
Readouts	Sensor (TEER with AngioTEER, B002); Imaging (phase contrast, widefield fluorescence, confocal) ; plate reader (absorption, fluorescence, luminescence) ; off plate (Histology, ELISA, RNA/DNA analysis, MS, biochemistry)