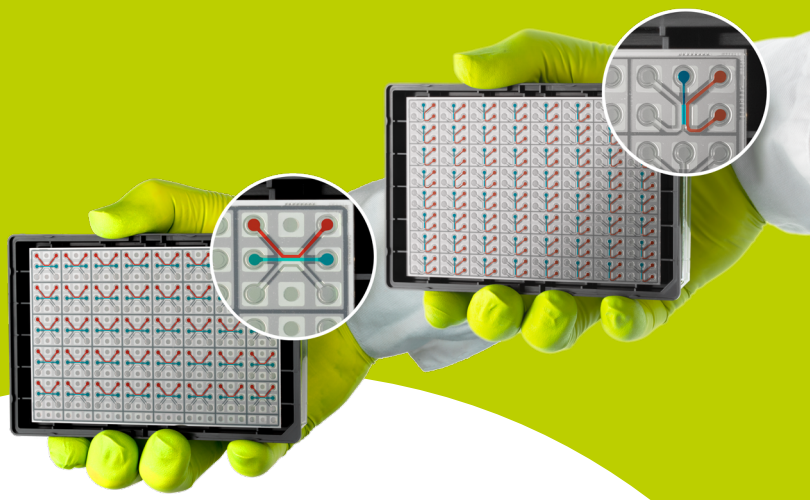
MIMETAS

OrganoReady® BBB HBMEC

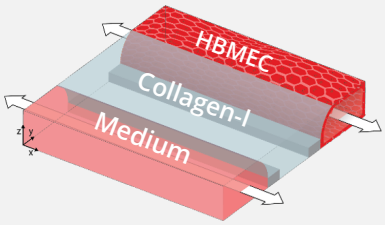


3D Human Blood-Brain Barrier Tissue Model

3D-lumenized, perfused, polarized and leak tight tubules of primary human brain microvasculature endothelial cells (HBMEC) prepared by MIMETAS experts in the OrganoPlate® 3–lane platform.

Built on a 384 well plate format, this model is compatible with high-throughput screening of therapeutics targeting the blood-brain barrier (BBB), or the central nervous system.

Made for high-content microscopy, compatible with standard incubators, plate readers and liquid handlers. No need for specialized consumables, equipment or expertise with pumps. After 1 day of recovery, the cell tubules are ready-to-use for an experimental window of at least 7 days. Just add your compounds and start screening.



3D schematic of a HBMEC tubule grown in the OrganoPlate.

Why OrganoReady®?

Live-cell culture

- 40 or 64 primary HBMEC tubules ready-to-use one day after recovery
- Includes OrganoMedium HBMEC-BM
- Pump-free perfusion, without specialized equipment needed

Translatable

- Primary human cells expressing relevant proteome and phenotype
- Membrane-free tissue culture
- Made for high-throughput screening
- Polarized apical and basolateral access

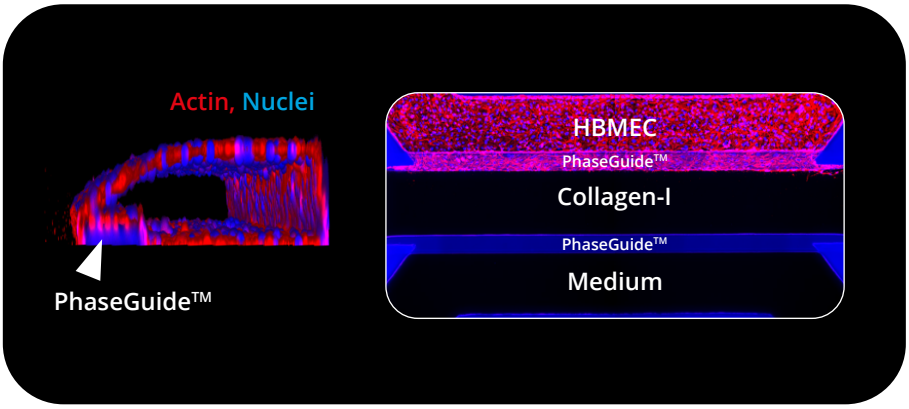
Robust

- Minimize variability with consistent batches of cells and Collagen-I
- Use low culture volumes, for minimal analyte dilution

How the OrganoReady model is used in routine screens

The OrganoReady model has been very useful for fast screening of novel gene therapy related technologies in our company.
The membrane-free fluidics is a high throughput screening tool to monitor a transfer of antibodies through the blood brain barrier.

Svetlana Pasteuning,
VectorY B.V., The Netherlands



From production to your lab

Collagen-I and HBMEC seeding in OrganoPlate® ▶ QC & Shipping on Monday* ▶ Receive by Friday ▶ Assay window of >7 days, from day 1 after recovery

*Shipping to Europe, Japan, United States and Canada

One plate ready for a variety of applications

Compound-induced Barrier Disruption

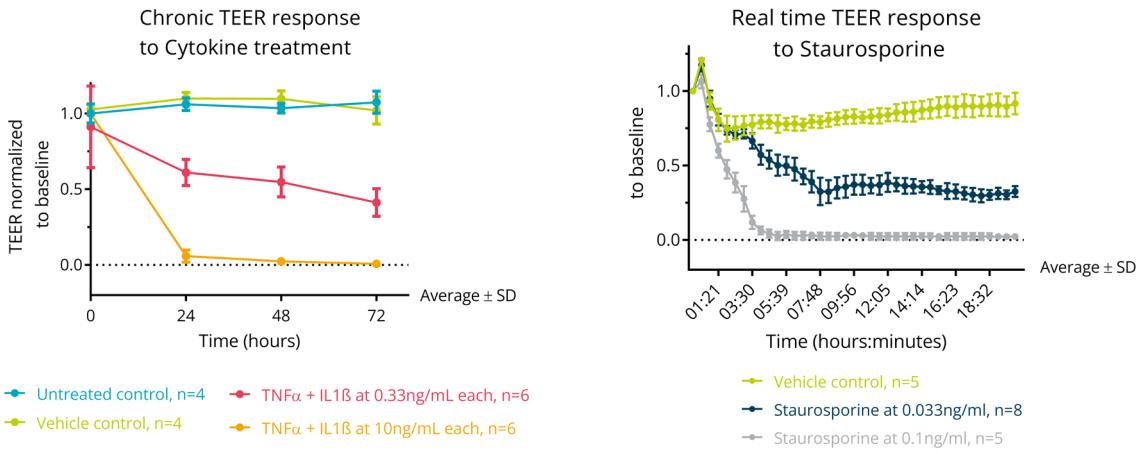
- Use the OrganoTEER® for sensitive and robust assessment of barrier function in 40 or 64 replicates in less than 2 minutes.
- The ideal assay to study BBB toxicity and inflammation in a physiologically relevant 3D human BBB model

Measurement module

Electrode board

The OrganoPlate

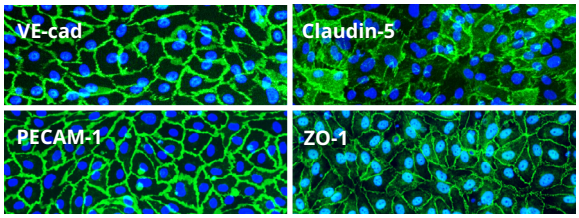
Plate holder



Acute and chronic barrier integrity assessment

Small Molecule Transport

- Assess the permeability, and transcytosis of your compounds with distinct access to both apical, and basolateral compartments in a physiologically relevant model
- Expose the polarized HBMEC cells to your analytes' gradients, enabling you to quantify active efflux, and validate your compound delivery to the brain



Endothelial and junctional markers expressed: VE-cad, PECAM-1, Claudin-5, ZO-1, ICAM-1
Influx and efflux transporters expressed: GLUT-1, P-gp, BCRP1, MRP-1, and TfRC

Are you ready to take your cell culture to the next level?

Want to know more?
support@mimetas.com