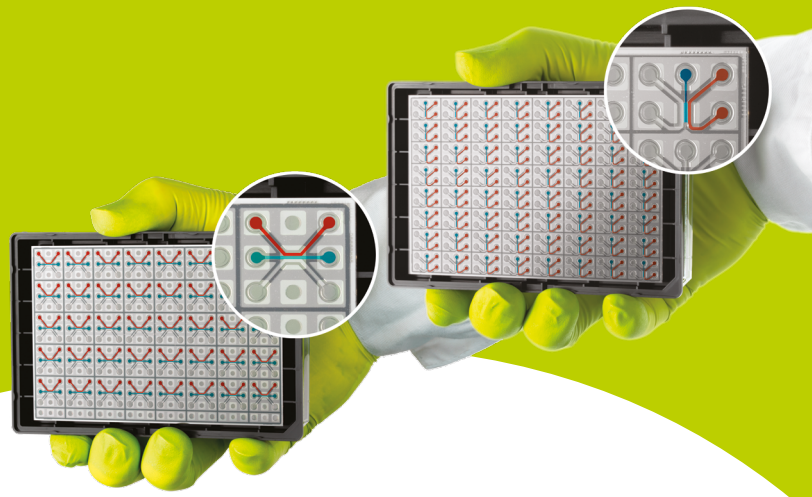


MIMETAS

OrganoReady[®] Colon Caco-2

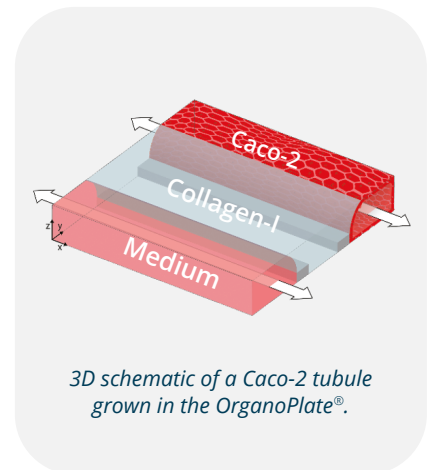


3D Human Gut Tissue Model

3D perfused, polarized, differentiated and leak tight tubules of Human Caucasian colon adenocarcinoma (Caco-2) prepared by MIMETAS experts in the OrganoPlate[®] 3-lane platform.

This model is the new intestinal in vitro gold standard, made to screen small and large biotherapeutic compounds, dietary, or environmental factors, to quantitatively and kinetically predict intestinal toxicities, absorption, and metabolism.

Built on a 384 well plate format, the platform is made for quantitative high-throughput and high-content microscopy, and is compatible with standard incubators, plate readers and liquid handlers. No need for specialized consumables, expertise with pumps or 3D biology. After as little as 1 day of recovery, the cell tubules are ready to use and will remain viable for an assay window of at least 7 days. Just add your compounds and start screening.



3D schematic of a Caco-2 tubule grown in the OrganoPlate[®].

Why OrganoReady[®]?

Live-cell culture

- 40 or 64 Caco-2 tubules ready to use after one day of recovery
- Includes culture medium
- Ready to screen with optimized protocols

Translatable

- Expressing all markers of mature small intestinal enterocytes
- Membrane-free tissue culture
- Gravity-driven perfusion without the need for pumps
- Polarized apical and basolateral access

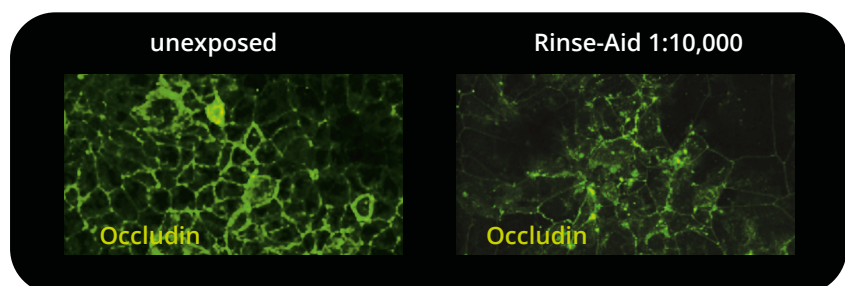
Robust

- Minimal variability with a consistent pre-validated batch of Collagen-I and cells
- TEER data without operator-induced variability
- Study up to 15 compounds and 1 control with 4 technical replicates each in a single plate

How the OrganoReady[®] model is used in routine screens

The OrganoReady Colon Caco-2, combined with the OrganoTEER, have become our gold standard in vitro model for the screening of intestinal barrier disruptors at SIAF

Cezmi Akdis
Director SIAF, Zürich



Adapted from Ogulur 2023 j allergy clin immunol 151, 2

From production to your lab

Collagen-I and Caco-2 seeding in OrganoPlate®



QC & Shipping on Monday*



Receive by Friday



Assay window of >7 days 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 integrity in 40 or 64 tissue culture chips in less than 1 minute
- The ideal assay to study intestinal toxicity and inflammation at scale in a perfused 3D human gut model



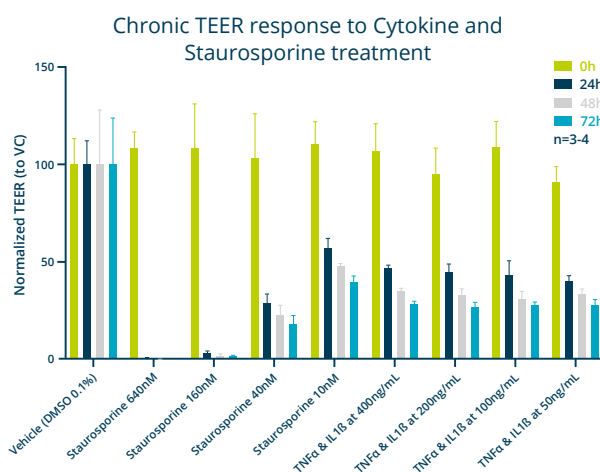
Measurement module

Electrode board

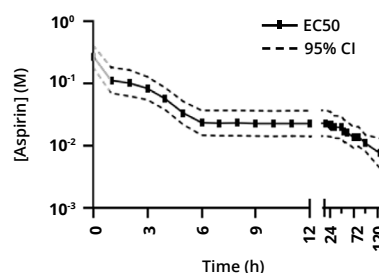
The OrganoPlate

Plate holder

Acute and chronic Toxicology screening



Dose-response toxicology FITC-Dextran leakage

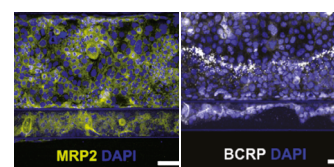
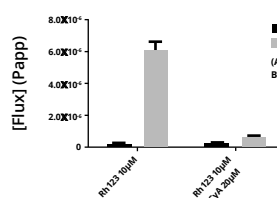


Adapted from Nat Commun 8, 262 (2017)

Small Molecule Metabolism & Transport

Assess the permeability, metabolism and transcytosis of your compounds with distinct access to both apical and basolateral compartments in a physiologically relevant model

Functional and polarized Pgp activity



Differentiated markers expressed include ZO-1, Occludin, Ezrin, Pgp, Aminopeptidase-N, BCRP, MRP2, Glut-2, ErbB1, ErbB2
Adapted from Front. Bioeng. Biotechnol., 2022, 10:965200

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



Want to know more?
support@mimetas.com