

# OrganoService

## Blood Vessel HUVEC Barrier Integrity

- **Kickstart compound screening in 3D tissue cultures**  
Focus directly on analyzing the data, while we perform the assay of your choosing
  - **Multiple time point measurements**  
High sensitivity of drug-induced optimized time point measurements
  - **Data reporting in one go**  
Receive a clear data report and raw data sheets
  - **Consistent data quality**  
Fully automated data acquisition and extraction ensures consistent data quality
  - **TEER evaluation under physiological conditions**  
Barrier integrity data are obtained by OrganoTEER®, the only instrument that can capture barrier function of 3D tissue models at high-throughput
- Grow. Learn. Discover.**

# About OrganoService

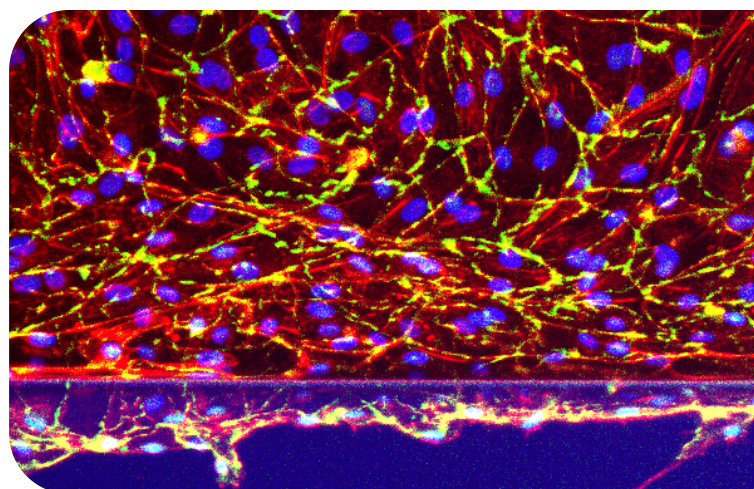
## Blood Vessel HUVEC Barrier Integrity

Profiling and screening of your compounds with a high throughput barrier integrity assay in our established Blood Vessel HUVEC model.

### The role of blood vessels in drug development

Permeability of blood vessels plays a pivotal role in drug research and development. It is one of the critical factors in the absorption, distribution, metabolism, and excretion (ADME) properties of drugs and their metabolites. To adequately predict ADME/PK and toxicity of new compounds, it is key to understand their effect on permeability in human blood vessels better.

An important prerequisite to study this is the endothelial barrier function, where HUVEC cells are widely used to model human blood vessels. Assessing the barrier function of endothelium *in vitro* is of utmost importance to understand permeability and transport functions better. To assess the barrier in a sensitive and reliable manner, TransEndothelial Electrical Resistance (TEER) measurements are nowadays the golden standard.



Robust blood vessel HUVEC model in the OrganoPlate®

### OrganoService Blood Vessel HUVEC Barrier Integrity

To study human blood vessels *in vitro* and to assess their barrier function in a high-throughput manner, we developed a robust blood vessel HUVEC model (OrganoReady® Blood Vessel HUVEC) combined with a validated barrier integrity assay and usage of the OrganoTEER®, which rapidly measures the TEER of 38 endothelial cultures at once. Offering it as an off-to-shelf service you will be able to focus on your compounds directly, while our scientist focuses on the biology and experiments.

## What will you get:

- Your compounds screened in validated OrganoReady Blood Vessel HUVEC plates
- Screening of up to 16 compounds in one concentration per OrganoPlate
- 2 Technical replicates and 2 control samples
- Raw and normalized TEER values in a clear data report
- Extend the compound screen with more plates, in case a larger screen is desired

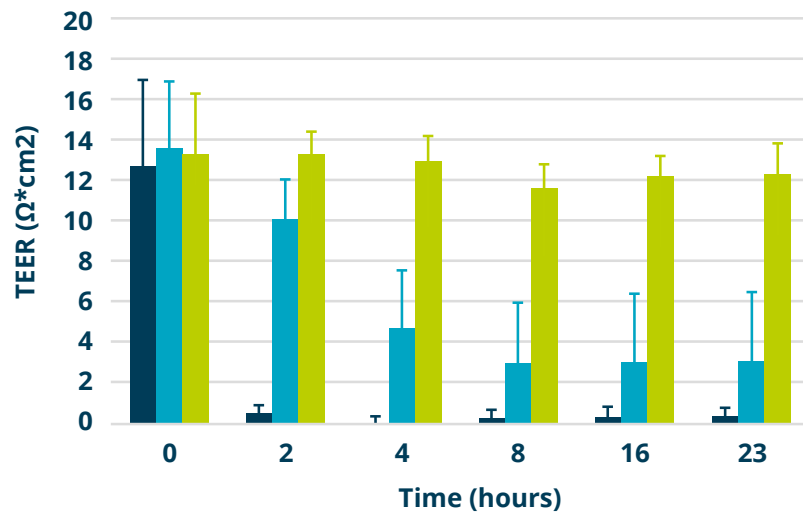
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## Blood Vessel HUVEC Barrier Integrity

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TEER after Staurosporine exposure

■ 300nM  
■ 33nM  
■ Vehicle



## Service details | Blood Vessel HUVEC BI

### Compound screening

Total compounds per plate

16

Number of concentrations/compound

1

Exposure

Apical + Basal

Number of technical replicates

2

Number of controls

2 (Staurosporine, DMSO)

Analysis method

TEER

Assay time

2 days

Time points

0h-24h-48h

Data delivery

Raw & normalized TEER values

Data points/compound

6

Test article volume requirement

50 µL of 1,000X stock solution

Test article solvent

DMSO, PBS, Water

Turn-around time

4-6 weeks