

Tube Formation Assays for Investigation of Angiogenesis

The μ -Slide Angiogenesis is a Perfect Tool



Applications:

- Tube formation assays
- Sprouting assays
- 3D cell culture
- Immunofluorescence staining

✓ Brilliant Visualization

No meniscus formation: All cells in one focal plane

✓ Flexible

Broad range of gel applications (e.g. Matrigel[™], collagen, and agarose)

✓ Cost-Effective

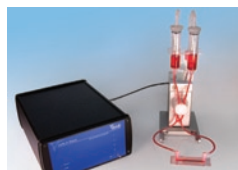
10 μ l gel per well = reduction of >90% compared to a 96-well or a 24-well plate

Additional equipment for researchers working with endothelial cells:



μ -Slide I Luer family

Perfusion



ibidi Pump System



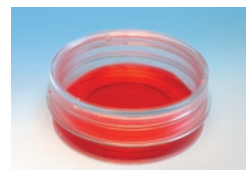
μ -Slides Chemotaxis

Chemotaxis



ibidi Heating stages

Video Microscopy



μ -Dish^{35mm, high}

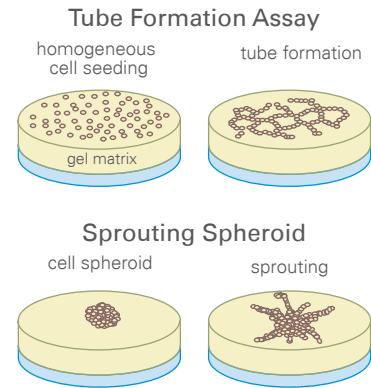
Microscopy

Tube Formation Assays for Investigation of Angiogenesis

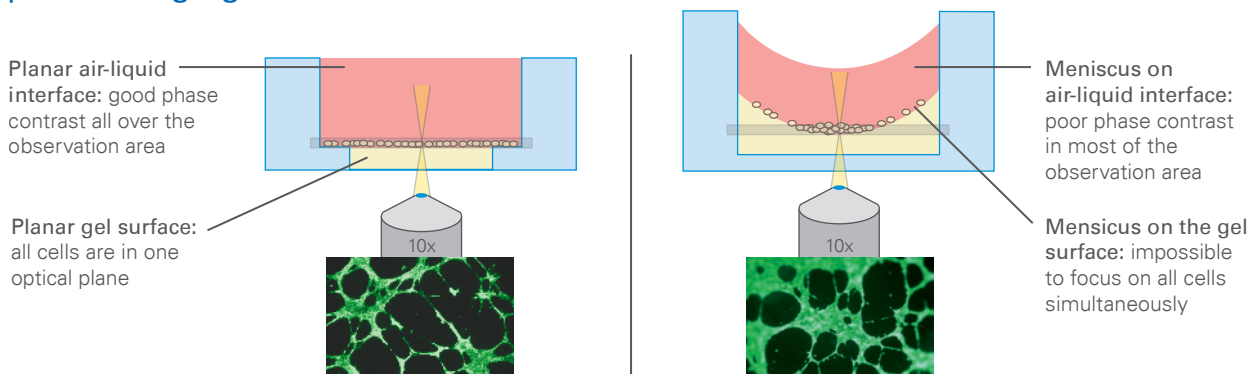
Angiogenesis assays *in vitro*

Cells on gel matrices can easily be monitored for their ability to form new vascular structures. A tube formation assay is implemented by seeding single cells, and then observing characteristic patterns. To conduct a sprouting assay, either spheroids or pieces of tissue, such as from the aorta, are placed on a gel matrix. These two assays both need a well-defined thickness of the underlying gel layer.

The μ -Slide Angiogenesis can be used with all common gel matrices, for example Matrigel™, collagen gels, and hyaluronic acid gels. Only 10 μ l of gel is needed. The assays performed in the μ -Slide Angiogenesis benefit from a well-defined thickness of the gel matrices. In addition to reproducible cell culture conditions, the cells are also placed in one optical plane.

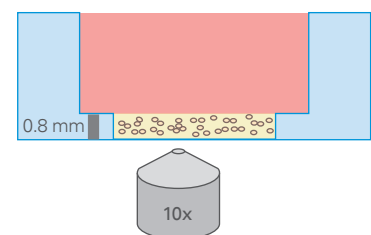


μ -Slide Angiogenesis vs. Standard Well



3D cell cultures

The "well in a well" feature of the μ -Slide Angiogenesis also supports microscopy of cells embedded in gel matrices. 3D cell cultures mimic *in vivo* conditions (e.g. cancer cells and hepatocytes).



Technical Details:

Number of wells	15
Volume inner well	10 μ l
\varnothing inner well	4 mm
Volume upper well	50 μ l
\varnothing upper well	5 mm
Growth area per inner well	0.125 cm ²
Bottom matches coverslip	No. 1.5

Catalog Numbers:

μ -Slide Angiogenesis, ibiTreat, tissue culture treated	15 pcs.	81506
μ -Slide Angiogenesis, hydrophobic, uncoated	15 pcs.	81501
For Microdissection only:	15 pcs.	81531
μ -Slide Angiogenesis, Microdissection, PEN-membrane, sterile		

FREE SAMPLES: www.ibidi.com/freesamples