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In Vitro Angiogenesis Assay (ECM625)

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A rapid method to measure endothelial cell tube formation using researcher cell lines

Kit Components:

- ECMatrix™ Gel Solution
- ECMatrix™ Diluent Buffer

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In Vitro Angiogenesis Assay

Materials required but not provided:

- Endothelial cells HUVEC, etc (5×10^3)
- 96-well Tissue Culture Plate
- Multichannel pipette and tips
- Microcentrifuge tubes, sterile
- 37ºC CO_2 Incubator
- Inverted Light Microscope

Advantages:

FLEXIBLE - 96-well design

CONVENIENT – Ready to use ECMatrix™

VERSATILE – Useful for multiple studies

INEXPENSIVE – Cost Effective Method of Experimentation

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Preparation of ECMatrix™

Step 1: Thaw ECMatrix™ Solution and Diluent Buffer on ice or 0° water bath.

Step 2: Add 100 µL of 10X Diluent Buffer to 900 µL of ECMatrix™ Solution in a sterile microfuge tube. Mix well.

(Keep solution on ice to avoid ECMatrix™ solution polymerization.)

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Step 3. Transfer 50 µl of diluted ECMatrix™ into each well of a 96-well tissue culture plate.

Step 4. Incubate plate at 37°C for at least one hour to allow the matrix solution to solidify.

Step 5. Harvest experimental endothelial cells and resuspend in the appropriate culture media.

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Step 6. Seed 5 x 10^3 - 1 x 10^4 cells per well onto the surface of the polymerized ECMatrix™.

Step 7. Incubate at 37°C in a CO_2 incubator. Cells cultured longer than 16 hours will begin to undergo apoptosis

Step 8. Inspect tube formation under an inverted light microscope at 20X-100X magnification.

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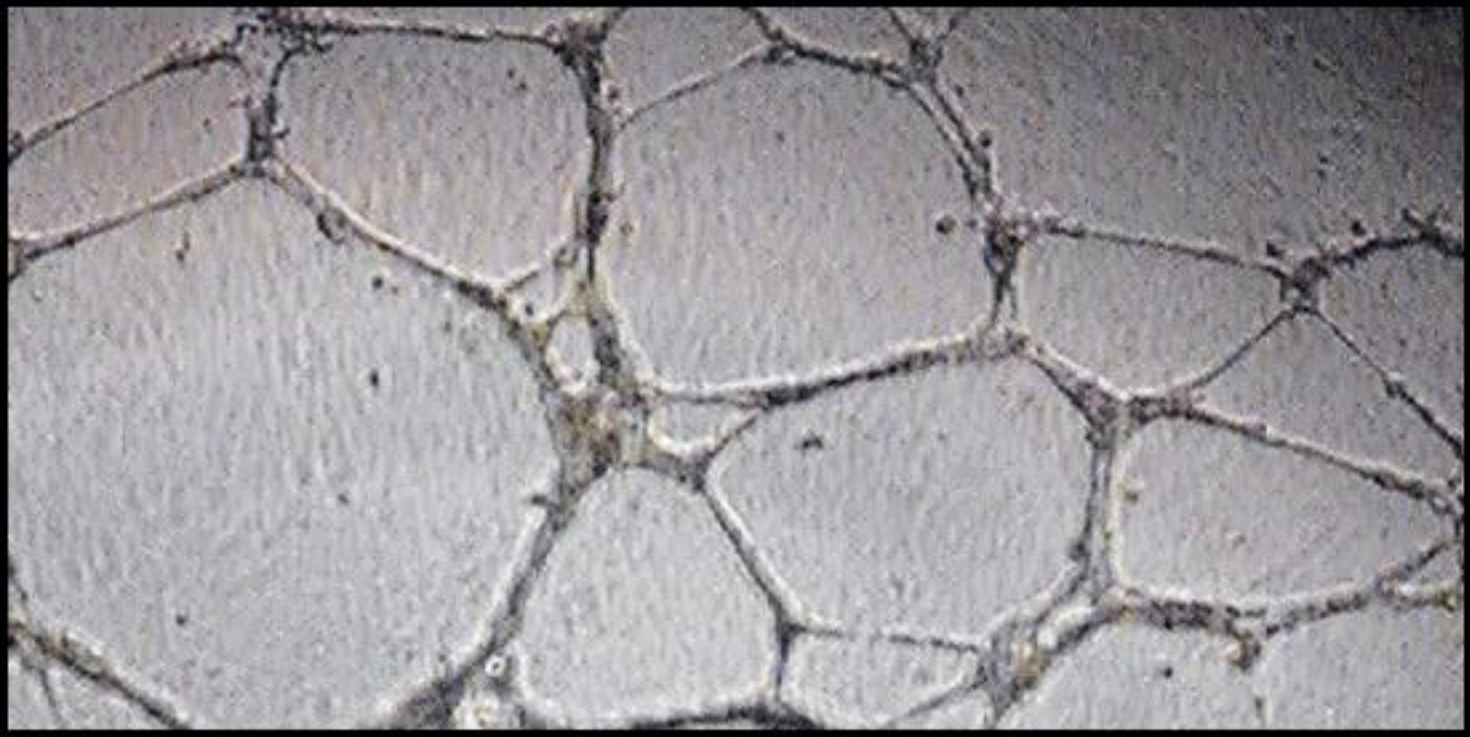
Endothelial cell tube formation will resemble figure below:



HUVEC cells incubated at 37°C on ECMatrix®