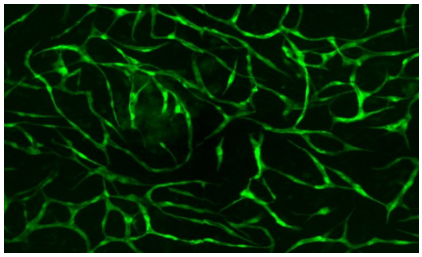
3D Glomerular Microvascular Angiogenesis

Product Name	3D glomerular microvascular Angiogenesis
Catalog Number	EP005
Product Format	6 ,12, and 24 well
Storage	37° C



GENERAL INFORMATION

Our 3D Human Glomerular Microvascular Angiogenesis proprietary system in which GFP-tagged human endothelial cells from variable vascular beds are co-cultured with RFP-tagged human cells in a specially designed medium. The endothelial cells initially form small islands within the culture matrix. They subsequently begin to proliferate and then enter a migratory phase during which they move through the matrix to form threadlike structures with lumens. These gradually join up by (1-2 weeks) to form a network of anastomosing tubules which closely resembles the capillary bed found in vivo.

The 3D Human Glomerular Microvascular Angiogenesis contains all of the materials necessary to perform multiple angiogenesis assays in 6, 12, or 24 well formats. The 3D model is designed that the testing materials, i.e. compounds, conditioned media, or tissue explants, can be added into the system at any time, ranging from the onset of vasculogenesis to advanced angiogenesis. The resulting effect on tubule formation (tubular length, number of branches et al) can be monitored throughout the whole process under inverted fluorescence microscope.

Reagents and Materials Provided:

1. 1 x vial of mixture of GFP-tagged Human Glomerular Microvascular ECs and RFP-tagged human supporting cells (-80°C/liquid N2)
2. 1 x 24-well plate coated with AlphaBiocoat solution (Room temperature, for 2 months)
3. 1 x 500ml of Endo-Growth Medium (4°C)

Day 1

1. Pre-warm Endo-Growth Medium to 37ºC in a water bath
2. Accurately pipette 24ml Endo-Growth Medium into a 50ml Falcon tube;
3. Rapidly thaw the vial of cryopreserved cells in a 37ºC water bath;
4. Transfer all cells gently into 24ml pre warmed Endo-growth medium;
5. Mix well the cells gently using a serological pipette;
6. Add 1.0ml of cell suspension to each well of the pre-coated 24-well plate.
7. Make sure the cells are evenly dispersed in the wells.
8. Place the plate in an incubator (37ºC, 5% CO2 and humidified).

Day 2

9. Take the plate from the incubator and examine cells under inverted fluorescence microscopy
10. (GFP positive Human Glomerular Microvascular ECs should sparsely and evenly distributed among RFP positive human supporting cells).
11. Wash the cells one with 2 ml of PBS
12. Add 2.0ml of fresh Endo-Growth medium (control) or Experimental media (Endo-Growth medium, plus pro- or anti-angiogenic regents according to customer's needs).
13. Place the plate back into the incubator. Day 4, 6, 8, 10, 12, and 14……
14. Replace the medium every 2 days until the end of the experiments.