

Segmenting Growth of Endothelial Cells in 6-Well Plates on an Orbital Shaker for Mechanobiological Studies

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Materials

Name	Company	Catalog Number	Comments
Cell and Media			
Endothelial Growth Medium (EGM-2)	Lonza	cc-3162	
Human Umbilical Vein Endothelial Cells	NA	NA	Isolated from cords obtained from donors with uncomplicated labour at the Hammersmith Hospital
Reagents and Materials			
Alexa Fluor 488-labelled goat anti-rabbit IgG	ThermoFisher Scientific	A11008	
Bovine Serum Albumin	Sigma-Aldrich	A9418-50G	
Falcon 6 Well Clear Flat Bottom Not Treated	Scientific Laboratory Supplies Ltd	351146	
Fibronectin from Bovine Plasma	Sigma-Aldrich	F1141-5MG	
Paraformaldehyde	Sigma-Aldrich	158127-500G	
Phosphate-Buffered Saline	Sigma-Aldrich	D8537-6X500ML	
Pluronic F-127	Sigma-Aldrich	P2443	
Recombinant Human TNF- α	Peptotech	300-01A	
RS PRO 2.85 mm Black PLA 3D Printer Filament, 1 kg	RS	832-0264	
Stainless Steel 316	Metal Supermarket	NA	
Sylgard184 Silicone Elastomer kit	Farnell	101697	
Triton X-100	Sigma-Aldrich	X100-100ML	
Trypsin-EDTA solution	Sigma-Aldrich	T4049-100ML	
Zonula Occludens-1 (ZO-1) antibody	Cell Signaling Technology	13663	
DRAQ5 (5mM)	Bio Status	DR50200	
Equipments			
Grant Orbital Shaker PSU-10i	Scientific Laboratory Supplies Ltd	SHA7930	
Leica TCS SP5 Confocal Microscope	Leica	NA	

Retaining Ring Pliers	Misumi	RTWP32-58	
Retaining Rings/Internal/C-Type	Misumi	RTWS35	
Ultimaker 2+3-D printer	Ultimaker	NA	
Softwares			
Cura 2.6.2	Ultimaker	NA	
MATLAB	The MathWorks	NA	
Solidworks 2016	Dassault Systemes	NA	