

Stepwise Cell Seeding on Tessellated Scaffolds to Study Sprouting Blood Vessels

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jove.com/video/61995

Materials

Name	Company	Catalog Number	Comments
Angiotool freeware	NIH-CCR		Free download at https://ccrod.cancer.gov/confluence/display/ROB2/Home
Bovine albumin serum Probumin	Millipore	82-045-1	
Dental pulp stem cells	Lonza	PT-5025	
ECM media + bullet kit	Sciencell	#1001	
Ethanol 96%	Gadot-Group	64-17-5	
Evicel fibrin sealant	Johnson&Johnson	EVB05IL	Provides both thrombin and fibrinogen (BAC2) solutions
GlutaMAX	Gibco	35050061	
Goat anti-mouse Cy3 antibody	Jackson	115-166-072	
Goat anti-rabbit Alexa-Fluor 488	Thermo- Fisher Scientific	A11034	
Human adipose microvascular cells	Sciencell	#7200	
Human fibronectin	Sigma	F0895-5MG	Stock concentration: 1 mg/mL
ImageJ	NIH		Free download at https://imagej.nih.gov/ij/download.html
Isopropyl alcohol	Gadot-Group	67-63-0	
Lift-off reagent	Kayaku Advanced Materials, Inc	G112850	Commercial name Omniccoat
Low-glucose DMEM	Biological Industries	01-050-1A	
Mouse anti-SMA antibody	Dako	M0851	
NEAA	Gibco	11140068	
Paraformaldehyde solution 4% in PBS	ChemCruz	SC-281692	
Penicillin-Streptomycin-Nystatin Solution	Biological Industries	03-032-1B	
Phosphate buffered saline (PBS)	Sigma	P5368-10PAK	
Rabbit anti-vWF antibody	Abcam	ab9378	
Silicon wafer	Silicon Valley Microelectronics (SVM)		Wafers 4", Type N-1-10, 500-550 microns thick
SU-8 2050 photoresist	Kayaku Advanced Materials, Inc	Y11058	

SU-8 developer	Kayaku Advanced Materials, Inc	Y020100	
Tryton-X 100	BioLab LTD	57836	