

Materials List for:

Fabrication of Gradient Nanopattern by Thermal Nanoimprinting Technique and Screening of the Response of Human Endothelial Colony-forming Cells

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Materials

Name	Company	Catalog Number	Comments
Perchloric acid 60%	Daejung Chemicals & Metals	6512-4100	
Ethyl alcohol, absolute 99.9%	Daejung Chemicals & Metals	4118-4100	
Phosphoric acid 85%	Daejung Chemicals & Metals	6532-4400	
Methyl alcohol 99.5%	Daejung Chemicals & Metals	5558-4400	
Chromium(VI) oxide	Daejung Chemicals & Metals	2558-4400	
Sulfuric acid 95%	Daejung Chemicals & Metals	7781-4100	
Hydrogen peroxide 30%	Daejung Chemicals & Metals	4104-4400	
n-hexane 95%	Daejung Chemicals & Metals	4081-4400	
Toluene 99.5%	Daejung Chemicals & Metals	8541-4400	
(heptadecafluoro-1,1,2,2,-tetrahydrodecyl)dimethylchlorosilane	Gelest	SIH5840.4	Moisture sensitive
Methoxynonafluorobutane 99%	Sigma aldrich	464309	
Collagen solution	Stemcell	#4902	
Gelatin	Sigma aldrich	G1890	Protein coating solution
Ficoll-Paque	GE Healthcare	17-1440-03	Hydrophilic polysaccharide solution
EGM-2MV	Lonza	CC-3202	Endothelial cell expansion medium
Penicillin-Streptomycin	Gibco	15140-122	
Phosphate buffered saline	Gibco	10010031	
Fetal bovine serum	Gibco	12483-020	
Paraformaldehyde	Sigma aldrich	P6148	
Glutaraldehyde	Sigma aldrich	G5882-100ML	
Osmium tetroxide	Sigma aldrich	201030-1G	
Hexamethyldisilazane	Sigma aldrich	440191	
Triton X-100	Sigma aldrich	X100-100ML	Octylphenol ethoxylate
Goat serum	Gibco	26050-088	
anti-human vinculin primary antibody	Sigma aldrich	V9131	
F-actin probe	Molecular Probes	A12379	Fluorescence-conjugated phalloidin
Alexa Fluor 488-conjugated anti-mouse IgG antibody	Molecular Probes	A11001	Fluorescence-conjugated secondary antibody
4',6-diamidino-2-phenylindole	Sigma aldrich	D9542	
Mounting medium	DAKO	S3023	

Anti-human vWF primary antibody	DAKO	A0082	
Anti-human CD144 primary antibody	BD Biosciences	#555661	
Eponate 12™ Embedding Kit, with BDMA	Ted Pella	18012	Epoxy resin
Uranyl Acetate, 25g	Ted Pella	19481	
Lead Citrate, Trihydrate, 10g	Ted Pella	19312	
Ultra pure aluminum plate	Goodfellow	26050-088	
Polystyrene sheet	Goodfellow	ST313120	
8.0" silicon wafer	Siltron	29-01024-03	Single side polished, 725 µm thick
Vacuum desiccator, 4.4 L	Kartell	KA.230	
Vacuum pump	Vacuumer	V3.VOP100	
Power supply	Unicorntech	UDP-3003	
Magnetic stirrer	Daihan scientific	SL.SMS03022	
Overhead stirrer	Daihan scientific	HT120DX	
Circulator	Daihan scientific	WCR-P12	
Linear moving stage	Zaber	A-LSQ300A-E01-KT07	
Angle bracket, 90 degrees	Zaber	AB90M	Accessory of the linear moving stage
PMP forcep, 145 mm	Vitlab	67995	Nonmetallic tweezer
PTFE beaker, 250 mL	Cowie	CW007.25	
Ultrasonic cleaner	Branson	B2510MTH	
PCB cutter	Hozan Tool Industrial	K-110	
Nanoimprint device	Nanonex	NX-2000	
Oxygen plasma generator	Femto Science	CUTE	
Low temperature sterilizer	Lowtem	Crystal 50	
CO ₂ Incubator	Panasonic	MCO-18AC	
Confoal laser scanning microscope	Carl Zeiss	LSM700	
Scanning electron microscope	JEOL	JSM6701	
Transmission electron microscope	Hitachi	H-7500	