

Materials List for:

In Vitro Microfluidic Disease Model to Study Whole Blood-Endothelial Interactions and Blood Clot Dynamics in Real-Time

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Materials

Name	Company	Catalog Number	Comments
NaCl	Merck	106404	
20 mL syringe	BD	300613	
20X objective	Olympus	N1492900	LUCPLFLN20XPH/0.45
2-Propanol (IPA)	Boom	760514555000	
Aladdin Syringe Pump	Word Precision Instruments	AL-4000	
Alexa488-Fibrinogen	Invitrogen	F13191	15 ug/mL
Alexa647-Goat anti Rabbit	Invitrogen	A21245	1:100
Biopsy punch 1 mm diameter	Ted Pella	15110-10	
Bovine Serum Albumin (BSA)	Sigma-Aldrich	A9647	
CaCl ₂	Sigma-Aldrich	21115	
Calcein AM-Red	Invitrogen	C3099	1:1000
CD42b-APC	Miltenyi Biotec	130-100-208	1:100
Citric Acid	Merck	100244	
Collagen Type I, rat tail	Corning	354249	0.1 mg/mL
Corning CellBIND Surface 60 mm Culture Dish	Corning	3295	
Cross-flow hood	Basan		
Desiccator	Duran	2478269	
D-Glucose	Merck	14431-43-7	
EDTA	Invitrogen	15575020	
Endothelial Cell Medium (ECM)	ScienCell	1001	
Fibronectin Human Plasma	Sigma-Aldrich	F0895	
Flow tubing	ibidi	10831, 10841	
Gelatin	Merck	104070	0.1%
HEPES	Sigma-Aldrich	H4034	
Hoechst 33342	Invitrogen	H1399	1:1000
micron-Slide VI 0.4 flow chambers	ibidi	80606	
ImageJ	NIH	v1.49	
KCl	Merck	7447-40-7	
Lab oven	Quincy	10GC	

LS720 Fluorescent microscope	Etaluma	LS720	
Luer connector	ibidi	10802, 10825	Male elbow connectors, Female tube connectors
MACS magnetic beads (anti-CD144)	Miltenyi Biotec	130-097-857	1:5
MgCl ₂	Sigma-Aldrich	M1028	
Microscopy slides, 76 x 26 mm	Thermo Scientific	AAAA000001##12E	
Negative photoresist, SU-8	Microchem		
Non-Essential Amino Acids (NEAA)	Lonza	13-114E	
Paraformaldehyde (PFA)	Merck	818715	4% PFA in PBS
Penicillin/streptomycin (P/S)	Gibco	15140-122	1%
Phosphate Buffered Saline (PBS)	Gibco	14190-094	no calcium or magnesium
Plasma chamber, CUTE	Femto Science		
Polydimethylsiloxane (PDMS), Sylgard 184	Dow	101697	
sodium citrate blood collection tubes	BD	363048	
trisodium citrate	Merck	106448	
Trypsin-EDTA (0.05%), phenol red	Gibco	25300-045	
VE-Cadherin (D87F2)-XP	Cell Signaling	2500	1:300