

Materials List for:

A Novel Three-dimensional Flow Chamber Device to Study Chemokine-directed Extravasation of Cells Circulating under Physiological Flow Conditions

Valentina Goncharova¹, Sophia K. Khaldoyanidi^{1,2}

¹Torrey Pines Institute for Molecular Studies

²Cascade LifeSciences Inc.

Correspondence to: Sophia K. Khaldoyanidi at skhaldoyanidi@tpims.org

URL: <https://www.jove.com/video/50959>

DOI: [doi:10.3791/50959](https://doi.org/10.3791/50959)

Materials

Name	Company	Catalog Number	Comments
Reagent/Material			
PVC tubing (bore 1.42, wall 0.8)	Watson-Marlow Limitid	981.0142.000	
3D Chamber	C.B.S.Scientific	FC-1000	
Gas exchange unit	C.B.S.Scientific	FCR-1000	
Inserts	C.B.S.Scientific	FCI-1005U	
Collagen Bovine, Type I	BD Biosciences	354231	
Hydrochloric Acid 0.1M	VWR	BDH3200-1	
PBS	Invitrogen	14190	
HUVEC	Lonza	CC- 2517	
EGM Bullet Kit (cc - 3121 & cc - 4133)	Lonza	CC - 3124	
Trypsin Neutralizing Solution	Lonza	CC-5002	
Trypsin	Lonza	CC-5012	
HEPES	Lonza	CC-5024	
SDF-1	R7D System	460-SD	
Extracel Trial 2.5 Kit	Glycosam Byosystems	GS211	
Fibronectin, human , nature	BD Biosciences	356008	
Poly-D-lysine	Millipore	A-003-E	
BD Matrigel	BD Biosciences	354277	
Human Brain Microvascular Endothelial Cells	ScienCell	1000	
Endotelial Cell Medium (ECM) for brain cells	ScienCell	1001	
Trypan Blue	StemCells Tecnologies	7050	
TNF-alfa, 10 µg	Invitrogen	PHC3015	
VCAM-1, mouse anti-human, CD106-FITC	Southern Bioteck	9519-02	
Propidium Iodide Staining Solutuion	BD Pharmingen	# 556463	
Frozen Human Cord Blood CD34 ⁺ cells	StemCell	CB007F	
Frozen Human Cord Blood CD34 ⁺ cells	Zenbio	SER - CD34-F	
MethoCult GF M3434	StemCells Tecnologies	GFM3434	

Mouse Methylcellulose complete media	R&D	HSC007	
Anti-Von Willibrand Factor antibody	abcam	C# ab11713	
Petry dish (35 x 10 mm)	VWR	CA25373-041	
15 ml tubes	VWR Fisher	21008 - 918	
Tissue culture flasks 75cm ²	VWR	BD353136	
Cristal violet	Sigma	C-3886-25G	
Dissecting forceps, curved	VWR	82027-384	
1,000 µl Pipette tips	VWR	83007-380	
1 - 200 µl Pipette tips	VWR	37001-530	
Equipment			
Peristaltic pump	Watson-Marlow Limitid	403U/VM3	