

Materials List for:

A Microfluidic Flow Chamber Model for Platelet Transfusion and Hemostasis Measures Platelet Deposition and Fibrin Formation in Real-time

Katrijn R. Six^{1,2}, Rosalie Devloo¹, Britt Van Aelst¹, Philippe Vandekerckhove^{2,3,4}, Hendrik B. Feys¹, Veerle Compemolle^{1,2,3}

¹Transfusion Research Center, Belgian Red Cross-Flanders

²Faculty of Medicine and Health Sciences, Ghent University

³Blood Service, Belgian Red Cross-Flanders

⁴Department of Public Health and Primary Care, KULeuven - University of Leuven

Correspondence to: Hendrik B. Feys at hendrik.feys@rodekruis.be

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Materials

Name	Company	Catalog Number	Comments
1 mL Syringe	BD	A00434	
10 mL Syringe	BD	309604	
2 mL Syringe	BD	307727	
Alexa Fluor 405	Life Technologies	A30100	The manufacturer's manual was followed for labeling of fibrinogen
BD vacutainer Eclipse	Becton, Dickinson and Company	368650	Blood collection needle with preattached holder
BD vacutainer tube with EDTA	Becton, Dickinson and Company	368856	
BD vacutainer tube with Sodium Citrate	Becton, Dickinson and Company	366575	
Blocking buffer	in house preparation	in house preparation	1.0% (w/v) bovine serum albumin and 0.1% (w/v) glucose in HBS
Calcein AM	Molecular probes	C1430	
Coagulation buffer	in house preparation	in house preparation	10 mM CaCl ₂ and 3.75 mM MgCl ₂ in HBS
Conical tube 15 mL	Greiner bio-one	1888271	
Conical tube 50 mL	Greiner bio-one	227261	
Corn trypsin inhibitor (CTI)	Enzyme Research Laboratories	CTI	
Denaturated alcohol	Fiers	T0011.5	
DiOC6	Sigma-Aldrich	318426	3,3'-Dihexyloxycarbocyanine iodide - 1 mM solution in DMSO
Exigo microfluidic pump	Cellix	EXIGO-PC-FS7.0-MF	
Fibrinogen	Sigma-Aldrich	F3879	Labelled in house with AF 405 - stock concentration 10.7 mg/mL
Hematology analyzer	Sysmex	poch-100i	
HEPES buffered saline (HBS)	in house preparation	in house preparation	10 mM 4-(2-hydroxyethyl)-1-piperazineethanesulfonic acid (HEPES) buffered saline (0.9% (w/v) NaCl), pH 7.4
Horm Collagen	Takeda/Nycomed	1130630	Native equine tendon collagen (type I) Isotonic glucose solution to dilute collagen is supplemented
Humidified box	Cellix	HUMID-BOX	
Incubation water bath	GFL	1013	

Microscope	Zeiss	Axio Observer Z1	equipped with a colibri-LED and high resolution CCD camera
Mirus Evo Nanopump	Cellix	188-MIRUS-PUMP-EVO	with Multiflow8
Pipette	Brand	A03429	
Pipette tips 100-1000	Greiner bio-one	740290	
Pipette tips 1-10	Eppendorf	A08928	
Pipette tips 2-200	Greiner bio-one	739280	
Platelet concentrate orbital shaker	Helmer	PF-48i	
Precision wipes	Kimtech	5511	
Pepsin solution	Hanna instrument	HI7073L	2 g pepsin per 75 mL solution, Protein cleaning solution with pepsin
Recombinant Human Tissue Factor Innovin	Dade Berhing	B4212-40	rhTF with synthetic phospholipids
Software microscope	Zeiss	N/A	ZEN 2012
Sterile docking device	Terumo BCT	TSCD	
Table Top Centrifuge	Eppendorf	521-0095	
Tube Roller	Ratek	BTR5-12V	
Tubing Sealer	Terumo BCT	AC-155	
Vena8 syringe connector pin	Cellix	CONNECTORS-B1IC-PACK100	
Vena8 Fluoro+ Biochips	Cellix	188V8CF-400-100-02P10	Coated biochip
Vena8 Needles	Cellix	SS-P-B1IC-B1OC-PACK200	
Vena8 Tubing	Cellix	TUBING-TYGON-B1IC-B1OC-ROLL 100F	
VenaDelta Y1 Biochips	Cellix	VDY1-400-100-01-02	Mixing biochip
Vortex mixer	VWR	58816-121	
ZEN2012 software	Zeiss		