

Ex Vivo Placental Explant Flow Culture - Mimicking the Dynamic Conditions *In Utero*

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Materials

Name	Company	Catalog Number	Comments
6-well plates	NUNC, ThermoFisher Scientific, Waltham, MA, USA	140675	
Alexa Fluor 555 goat-anti-mouse	ThermoFisher Scientific, Waltham, MA, USA	A21422	Diluted in PBS, 1:200
antibody diluent	Dako, Santa Clara, CA, USA	S3022	
anti-β-actin (AC-15)	Abcam, Cambridge, UK	ab6276	Stock concentration: 2.1 mg/mL, diluted in antibody diluent, 1:10,000
Bioreactor TEB500	TEB500, EBERS Medical Technology SL, Zaragoza, Spain		Serial Number: TEB505 / 1000EW/ 117
CD34 Class II (QBEnd-10)	Dako, Santa Clara, CA, USA	M7165	Stock concentration: 12 mg/l, diluted in antibody diluent, 1:500
CPD 030 critically point dryer	Bal-Tec, Balzers, Liechtenstein)		Critically point dryer
DAPI	ThermoFisher Scientific, Waltham, MA, USA	D21490	Diluted in PBS, 1:1000
Ebers TEB505 Series Software	TEB500, EBERS Medical Technology SL, Zaragoza, Spain		Series Software 1.4
Endothelial Cell Growth Medium MV	PromoCell PC-C-22120, Heidelberg, Germany;	C-22120	Used without EGCS/h and FCS, any other medium suitable for the tissue can be used
Excelsior AS Tissue Processor	ThermoFisher Scientific, Waltham, MA, USA		
Exosome-depleted fetal bovine serum	Gibco by Life Technologies, ThermoFisher Scientific, Waltham, MA, USA	A2720803	
Histolab Clear	Histolab, Askim, Sweden	14250-TY	
Hydrogen Peroxide Block	ThermoFisher Scientific, Waltham, MA, USA	TA125H202Q	
Kaiser's Glycerin Gelatine	Merck, Darmstadt, Germany	1092420100	
Leica DM 6000 B microscope	Leica, Wetzlar, Germany		Equipped with an Olympus DP 72 Camera
Leica UC7 ultramicrotome	Leica Microsystems, Vienna, Austria)		
Metal plate with needles	In-house construction		

Microtome	Microtome Microm HM 355 S, ThermoFisher Scientific, Waltham, MA, USA		
Microwave oven	Miele, Guetersloh, Germany		
Olympus microscope (BX63)	Olympus, Hamburg, Germany		Serial Number: 1A52421
PBS	ThermoFisher Scientific, Waltham, MA, USA	10010015	
Penicillin/Streptomycin	Gibco by Life Technologies, ThermoFisher Scientific, Waltham, MA, USA	2585627	
Primary antibody enhancer	ThermoFisher Scientific, Waltham, MA, USA	TL-125-PB	
ProLong Gold Antifade Reagent	ThermoFisher Scientific, Waltham, MA, USA	P36934	
Pumping tube	Tygon, Bartelt, Graz, Austria	6.078 175	1.02 mm diameter
QV500 Flow chambers	Kirkstall Ltd., Quasi Vivo, North Yorkshire, UK	QV500	Other chambers would work as well
SCD 500, sputter coater	Bal-Tec, Balzers, Liechtenstein		Sputter coater
Substrate amino-ethyl carbazole, AEC substrate kit	Abcam, Cambridge, UK	ab64252	
Superfrost Plus slides	Menzel-Glaeser, Braunschweig, Germany	J1800AMNZ	
Syringe Filter	Corning Incorporated, NY, USA	431219	0.2 μ m Pore SFCA Membrane, air filter for the reservoir bottle
TAAB epoxy resin	Agar Scientific, Stansted, Essex, UK	T001	
UltraVision LP-Detection System HRP-Polymer	ThermoFisher Scientific, Waltham, MA, USA	TL-125-HL	
UltraVision Protein Block	ThermoFisher Scientific, Waltham, MA, USA	TA125BPQ	
Zeiss EM 900 transmission electron microscope	Zeiss, Oberkochen, Germany		
Zeiss Sigma 500 field emission scanning electron microscope	Zeiss, Cambridge, UK		Used with a back-scattered electron detector at 5 kV acceleration voltage