

Materials List for:

Isolating Mesangiogenic Progenitor Cells (MPCs) from Human Bone Marrow

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Materials

Name	Company	Catalog Number	Comments
Matrigel Basement Membrane Matrix	BD Bioscience (San Jose, CA-USA)	354230	Murine ECM proteins Stock Concentration: 100% (9 - 12 mg/ml) Final Concentration: 100%
Dulbecco's Phosphate-Buffered Saline (D-PBS)	Sigma (St. Louis, MO, USA)	D8537	
70 µm Filters	Miltenyi Biotec (BergischGladbach, Germany)	130-095-823	
Ficoll-Paque PREMIUM	GE Healthcare (Uppsala, Sweden)	17-5442-03	medium for discontinuous density gradient centrifugation
Pooled human AB type serum (PhABS)	LONZA (Walkersville MD-USA)	14-490E	Final Concentration: 10%
Glutamax-I	ThermoFisher (Waltham, MA USA)	35050-038	Stabilized L-Glutamine Stock Concentration: 100x Final Concentration: 2 mM
Bovine Serum Albumin (BSA)	Sigma (St. Louis, MO, USA)	A8412	Stock Concentration: 7.5% Final Concentration: 0.5%
Sodium Azide	Sigma (St. Louis, MO, USA)	S8032	Final Concentration: 0.02%
Penicillin/Streptomycin (Pen Strep)	Gibco (Grand Island, NY, USA)	15070-063	Antibiotics Stock Concentration: 5,000 UI/ml penicillin, 5,000 µg/ml Streptomycin Final Concentration: 50 UI/ml penicillin, 50 µg/ml Streptomycin
T-75 culture flask for suspension cultures	Greiner Bio-one (Frickenhausen, Germany)	658 190	
T-75 culture flask TC treated	Greiner Bio-one (Frickenhausen, Germany)	658170	
TrypLE Select	ThermoFisher (Waltham, MA USA)	12563-011	Animal-free proteases detaching solution Stock Concentration: 1x Final Concentration: 1x
Trypsin/EDTA	ThermoFisher (Waltham, MA USA)	15400-054	Phenol red free Stock Concentration: 0.5% Final Concentration: 0.25%
anti-CD90 APC antibody (CD90)	MiltenyiBiotec (BergischGladbach, Germany)	130-095-402	Final Concentration: 1:40
anti-CD45 APC-Vio770 antibody (CD45)	MiltenyiBiotec (BergischGladbach, Germany)	130-096-609	Final Concentration: 1:40
anti-CD73 PE antibody (CD73)	MiltenyiBiotec (BergischGladbach, Germany)	130-095-182	Final Concentration: 1:40
anti-CD31 PE Vio-770 antibody (CD31)	MiltenyiBiotec (BergischGladbach, Germany)	130-105-260	Final Concentration: 1:40

Mouse IgG1 APC antibody	MiltenyiBiotec (BergischGladbach, Germany)	130-098-846	Final Concentration: 1:40
Mouse IgG2a APC Vio770 antibody	MiltenyiBiotec (BergischGladbach, Germany)	130-096-637	Final Concentration: 1:40
Mouse IgG1 PE antibody	MiltenyiBiotec (BergischGladbach, Germany)	130-098-845	Final Concentration: 1:40
Mouse IgG1 PE Vio-770 antibody	MiltenyiBiotec (BergischGladbach, Germany)	130-098-563	Final Concentration: 1:40
Low Glucose Dulbecco's Modified Eagle Medium (DMEM)	ThermoFisher (Waltham, MA USA)	13-1331-82	Phenol red-free minimal essential medium Stock Concentration: 1,000 mg/L glucose
Fetal Bovine Serum (FBS)	ThermoFisher (Waltham, MA USA)	10500	Stock Concentration: 0.2 mg/ml Final Concentration: 2 µg/ml
Prolong Gold antifade reagent with 4',6-diamidino-2-phenylindole	Invitrogen (Waltham, MA, USA)	P-36931	Aqueous mounting medium + DAPI Final Concentration: 1x
Paraformaldehyde	Sigma (St. Louis, MO, USA)	P6148	Fixative Final Concentration: 4%
LAB-TEK two-well chamber slides	Sigma (St. Louis, MO, USA)	C6682	
Anti-Nestin antibody [clone 10C2]	Abcam (Cambridge, UK)	ab2035	Stock Concentration: 1 mg/ml Final Concentration: 7 µg/ml
Alexa Fluor 555 Phalloidin	ThermoFisher (Waltham, MA USA)	A34055	Stock Concentration: 200 U/ml Final Concentration: 5 U/ml
Triton X-100	Euroclone (Milan, Italy)	EMR237500	Final Concentration: 0.05%
MesenPRO RS Medium (MSC-RS medium)	ThermoFisher (Waltham, MA USA)	12746-012	
Alexa Fluor 488 anti-mouse SFX kit	ThermoFisher (Waltham, MA USA)	A31619	Goat anti-mouse secondary antibody + Signal enhancer Stock Concentration: 2 mg/ml Final Concentration: 2 µg/ml
Pasteur Pipette	Kartell Labware (Noviglio (MI), ITALY)	329	
StemMACS AdipoDiff Media	MiltenyiBiotec (BergischGladbach, Germany)	130-091-679	
StemMACS OsteoDiff Media	MiltenyiBiotec (BergischGladbach, Germany)	130-091-678	
Osteoimage Bone mineralization Assay	LONZA (Walkersville MD-USA)	PA-1503	Hydroxyapatite specific fluorescent staining solution
50 ml Polystyrene conical tube	Greiner bio-one (Kremsmünster Austria)	227261	
Nile Red	ThermoFisher (Waltham, MA USA)	N1142	Fluorescent staining solution for lipids Stock Concentration: 100 mM Final Concentration: 200 Nm
Glycerin	Sigma (St. Louis, MO, USA)	G2289	Final Concentration: 50%
Polistirene Petri dishes	Sigma (St. Louis, MO, USA)	P5606	
24-well plates TC-treated	Greiner Bio-one GmbH (Frickenhausen, Germany)	662160	
Endothelial Growth Medium, EGM-2 BulletKit (EGM-2)	LONZA (Walkersville MD-USA)	CC-3162	VEGF-rich endothelial cell growth medium
Leica Qwin Image Analysis Software	Leica (Wetzlar, Germany)		Image analysis software