

Materials List for:

Protocol for MicroRNA Transfer into Adult Bone Marrow-derived Hematopoietic Stem Cells to Enable Cell Engineering Combined with Magnetic Targeting

Frauke Hausburg^{*1,2}, Paula Müller^{*1,2}, Natalia Voronina^{*1}, Gustav Steinhoff^{1,2}, Robert David^{1,2}

¹Reference and Translation Center for Cardiac Stem Cell Therapy (RTC), Department of Cardiac Surgery, Rostock University Medical Center

²Department Life, Light and Matter of the Interdisciplinary Faculty, Rostock University

*These authors contributed equally

Correspondence to: Robert David at robert.david@med.uni-rostock.de

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Materials

Name	Company	Catalog Number	Comments
7-AAD	BD Biosciences	559925	
Acetic Acid with Methylene Blue	Stemcell Technologies	7060	3%
anti-CD133/2-PE (clone: 293C3)	Miltenyi Biotec GmbH	130-090-853	
anti-CD34-FITC (clone: AC136)	Miltenyi Biotec GmbH	130-081-001	
anti-CD45-APC-H7 (clone: 2D1)	BD Biosciences	560178	
rhodamine dye; Atto 565 dye conjugated to biotin	ATTO-TEC GmbH	AD 565-71	
BD FACS LSRII flow cytometer	BD Biosciences		
BD FACSDiva Software 6.1.2	BD Biosciences		
BSA	Sigma-Aldrich GmbH	A7906	
CD133 antibody-linked superparamagnetic iron dextran particles; CD133 MicroBead Kit	Miltenyi Biotec GmbH	130-097-049	
collagenase B	Roche Diagnostics GmbH	11088831001	
counting chamber	Paul Marienfeld GmbH & Co. KG		
Cyanine 3 dye labelled precursor miR; Cy3 Dye-Labeled Pre-miR Negative Control #1	Ambion	AM17120	
Cyanine 5 dye miR labelling kit; Cy5 dye Label IT miRNA Labeling Kit	Mirus Bio	MIR 9650	
DNase I	Roche Diagnostics GmbH	10104159001	(100 U/mL)
ELYRA PS.1 LSM 780 confocal microscope	Carl Zeiss Jena GmbH		
FcR Blocking Reagent, human	Miltenyi Biotec GmbH	130-059-901	
bright green protein labeling kit; Oregon Green 488 Protein Labeling Kit	Thermo Fisher Scientific	O10241	
aqueous mounting medium; Fluoroshield	Sigma-Aldrich GmbH	F6182	
density gradient centrifugation tube; Leukosep Centrifuge Tube	Greiner Bio-One	89048-932	
MACS magnet holder; MACS MultiStand	Miltenyi Biotec GmbH	130-042-303	
MACS pre-separation filter	Miltenyi Biotec GmbH	130-041-407	30 µm

MACS separation column (MS / LS)	Miltenyi Biotec GmbH	130-042-201 / 130-042-401	
MACS permanent magnet; MACS Separator	Miltenyi Biotec GmbH	130-042-302	
Milllex-HV PVDF Filter	Merck	SLHV013SL	0.45 µm
mouse IgG 2b-PE	Miltenyi Biotec GmbH	130-092-215	
amine reactive dye; Near-IR LIVE/DEAD Fixable Dead Cell Stain Kit	Thermo Fisher Scientific	L10119	
human lymphocyte separating medium; Pancoll	Pan Biotech GmbH	P04-60500	density: 1.077 g/mL
PBS	Pan Biotech GmbH	P04-53500	without Ca and Mg
PEI	Sigma-Aldrich GmbH	408727	branched; 25 kDa
Penicillin/Streptomycin	Thermo Fisher Scientific	15140122	100 U/mL, 100 µg/mL
PFA	Merck Schuchardt OHG	1040051000	
unlabelled precursor miR; Pre-miR miRNA Precursor Negative Control #1	Ambion	AM17110	
RBC lysis buffer	eBioscience	00-4333-57	
RNase decontamination solution; RNaseZap	Thermo Fisher Scientific	AM9780	
human lymphocyte medium; Roswell Park Memorial Institute (RPMI) 1640 medium	Pan Biotech GmbH	P04-16500	
recombinant human cytokine supplement; StemSpan CC100	Stemcell Technologies	2690	
serum-free haematopoietic cell expansion medium; StemSpan H3000	Stemcell Technologies	9800	
Streptavidin MagneSphere Paramagnetic Particles	Promega Corporation	Z5481	
Trypan Blue solution	Sigma-Aldrich GmbH	T8154	0.4 %
UltraPure EDTA	Thermo Fisher Scientific	15575020	0.5 M; pH 8.0
ZEN2011 software	Carl Zeiss Jena GmbH		
NanoDrop 1000 Spectrophotometer	Thermo Fisher Scientific		
Sonorex RK 100 SH sonicating water bath	Bandelin electronic		Ultrasonic nominal output: 80 W; Ultrasonic frequency: 35 kHz