

Materials List for:

Intravital Microscopy of Monocyte Homing and Tumor-Related Angiogenesis in a Murine Model of Peripheral Arterial Disease

Martin Wagner¹, Claudia Baer¹, Werner Zuschtratter², Monika Riek-Burchardt³, Christian Deffge¹, Soenke Weinert¹, Jerry C Lee⁴, Ruediger C Braun-Dullaeus¹, Joerg Herold¹

¹Department of Cardiology and Angiology, University of Magdeburg

²Leibniz Institute for Neurobiology

³Institute of Molecular and Clinical Immunology, University of Magdeburg

⁴Division of Hematology/Oncology, Boston Children's Hospital, Harvard Medical School

Correspondence to: Joerg Herold at joerg.herold@med.ovgu.de

URL: <https://www.jove.com/video/56290>

DOI: [doi:10.3791/56290](https://doi.org/10.3791/56290)

Materials

Name	Company	Catalog Number	Comments
10% fetal calf serum (FCS)	Sigma Aldrich, Hamburg, Germany		
1% penicillin/streptomycin	Sigma Aldrich, Hamburg, Germany		
1mL Omnifix -F insuline syringe	B. Braun, Melsungen AG, Melsungen, Germany		
50 ml syringe	Fresenius Kabi AG, Bad Homburg, Germany		Injectomat- syringe 50 ml with canule
6-well-ultra-low-attachement-plates	Corning Incorporated, NY, USA		
8- 12 week old, male, C57BL/6, BalbC mice	Charles River, Sulzfeld, Germany		
Adhesive tape	TESA SE, Hamburg, Germany		
Acquisition Software	Leica, Wetzlar, Deutschland		Leica Application Suite Advanced Fluorescence (LAS AF); Version: 2.7.3.9723
Canules	B. Braun, Melsungen AG, Melsungen, Germany		29G, 30G
Cell culture dish	Greiner Bio-One GmbH, Frickenhausen, Germany		
Cell culture medium	Manufactured by our group with single components		Medium199, 10% Fetal calf serum, 1% Antibiotic (penicillin/ streptomycin)
Centrifuge	Beckman Coulter GmbH, Krefeld, Germany		Allegra X-15R centrifuge
Depilatory cream	Veet, Mannheim, Germany		
DiO	Invitrogen Eugene, Oregon, USA		
Disinfection agent	Schülke&Mayr GmbH, Norderstedt, Germany		
Disposable scalpel No.10	Feather safety razor Co.Ltd, Osaka, Japan		
EDTA	Sigma Aldrich, Hamburg, Germany		
Erlenmeyer flask	GVB, Herzogenrath, Germany		
Ethanol 70%	Otto Fischer GmbH und Co KG, Saarbrücken, Germany		
Fetal Calf Serum	Sigma Aldrich, Hamburg, Germany		
Fine Forceps	Rubis, Stabio, Switzerland		

Fluorophor/Rhodamindextran	Thermo Fischer Scientific, Waltham, MA USA	Katalognummer: D-1819	
Gloves	Rösner-Matby Meditrade GmbH, Kiefersfelden, Germany		
Heating pad	Labotect GmbH, Göttingen, Germany		Hot Plate 062
Human macrophage-colony stimulating factor	Sigma Aldrich, Hamburg, Germany	SRP3110	
Humane leucocyte filters	Blood preservation		
Incubator	Ewald Innovationstechnik GmbH, Bad Nenndorf, Germany		
Isoflurane	Baxter Deutschland GmbH, Unterschleißheim, Germany		
Ketamine (10%)	Ketavet, Pfizer Deutschland GmbH, Berlin, Germany		
Leukocyte separation tubes (tubes with filter)	Bio one GmbH, Frickenhausen, Germany		
Light microscope	Carl Zeiss SMT GmbH, Oberkochen, Germany		Axiovert 40 C
Lymphocyte separation medium LSM1077	GE Healthcare, Pasching, Austria		
Matrigel	Becton, Dickinson and Company, Franklin Lakes, New Jersey, USA		
Medium M199	PAA Laboratories GmbH, Pasching, Austria		
Microbiological work bench	Thermo Electron, LED GmbH, Langenselbold, Germany		Hera safe
Microscope slide	Carl Roth GmbH + Co. KG, Karlsruhe	Art. Nr. 1879	
Microscope stand with incubator and heating unit	Leica DMI 6000, Pecon, Germany		
Monocyte wash buffer	Manufactured by our group with single components		PBS, 0,5% BSA, 2mM EDTA
Mouse restrainer	Various		
Multi-photon microscope	Leica, Wetzlar, Deutschland		Leica SP5 Confocal microscope, Cameleon, Coherent
NaCl (0,9%)	Berlin Chemie AG, Berlin, Germany		
Neubauer counting chamber	Paul Marienfeld GmbH und Co.KG, Lauda-Königshofen, Germany		
Objective	Leica, Wetzlar, Deutschland		Leica HC PL APO 10x/0.4 CS
PBS	Life technologies GmbH, Darmstadt, Germany		ph 7,4 sterile
Penicillin/Streptomycin	Sigma Aldrich, Hamburg, Germany		
Percoll	Manufactured by our group with single components		90 % Percoll, 10% 1,5M NaCl, $\rho = 1,064 \text{ g cm}^{-3}$
Percoll solution	GE Healthcare, Bio-Science AB, Uppsala, Sweden		
Pipettes	Eppendorf AG, Hamburg, Germany		10 μ L/100 μ L/200 μ L/1000 μ L
Pipettes serological	Greiner Bio-One GmbH, Frickenhausen, Germany		Cellstar2ml, 5ml, 10ml
Pipetting heads	Eppendorf AG, Hamburg, Germany		
Pipetus	Eppendorf AG, Hamburg, Germany		

Polystyrol tube	Cellstar, Greiner Bio-One GmbH, Frickenhausen, Germany		
Scissor	Word Precision Instruments, Inc., Sarasota, USA		
Scale	Mettler PM4800 Delta Range, Mettler-Toledo GmbH, Gießen, Germany		
Suction unit	Integra bioscience, Fernwald, Germany		Vacusaft comfort
Surgical scissors	Word Precision Instruments, Inc., Sarasota, USA		
Trypan blue solution 0,4 %	Sigma Aldrich, Hamburg, Germany		
Tubes with cap	Greiner Bio-One GmbH, Frickenhausen, Germany		15ml, 50ml Cellstar
Xylazine (2 %)	Ceva Tiergesundheit GmbH, Düsseldorf, Germany		