

Materials List for:

Videomorphometric Analysis of Hypoxic Pulmonary Vasoconstriction of Intrapulmonary Arteries Using Murine Precision Cut Lung Slices

Renate Paddenber¹, Petra Mermer¹, Anna Goldenberg¹, Wolfgang Kummer¹

¹Institute of Anatomy and Cell Biology, Justus-Liebig-University

Correspondence to: Renate Paddenber at renate.paddenber@anatomie.med.uni-giessen.de

URL: <https://www.jove.com/video/50970>

DOI: [doi:10.3791/50970](https://doi.org/10.3791/50970)

Materials

Name	Company	Catalog Number	Comments
Vibratome "Microm HM 650 V"	Microm/Thermo Fisher Scientific, Schwerte, Germany		
Microwave oven	Bosch, Frankfurt, Germany	HMT 702C	
Heating cabinet	Heraeus/Thermo Fisher Scientific, Schwerte, Germany		
Flow-through superfusion chamber	Hugo Sachs Elektronik, March, Germany	PCLS-Bath Type: 847 SN:4017	
Upright inverted microscope equipped with 4X, 10X, 20X, and 40X objectives	Leica, Wetzlar, Germany		
CCD-camera	Stemmer Imaging, Puchheim, Germany		
Peristaltic pump Minipuls 3	Gilson, Limburg-Offheim, Germany		
Water bath "Universal Wasserbad Isotem 205"	Thermo Fisher Scientific, Schwerte, Germany	9452450	
Gas tight tubes Tygon R3603-13 Øi: 3/32 in, Øa: 5/32 in, wall: 1/32 in	VWR, Darmstadt, Germany		
Various scissors and forceps			
Sewing cotton			
2 ml Syringe	Braun-Melsungen AG, Melsungen, Germany		
50 ml Syringe	Braun-Melsungen AG, Melsungen, Germany		
Flexible plastic pipe of an IV indwelling cannula "Introcan ^R -W" (cannula 20 G x 1 ¼ in, 1.1 x 32 mm)	Braun-Melsungen AG, Melsungen, Germany	4254112B	For instillation of the agarose into the lung
Cannula 21 G x 4 ¾ in; 0.8 x 120 mm	Braun-Melsungen AG, Melsungen, Germany	4665643	For bubbling of the medium
Cannula Nr. 17, 24 G x 1, 0.55 x 25 mm	Terumo, Eschborn, Germany	NN 2425 88DSF18	For lung perfusion
Normoxic gas mixture (21% O ₂ , 5.3% CO ₂ , 73.7% N ₂)	Linde, Hildesheim, Germany		
Hypoxic gas mixture (1% O ₂ , 5.3% CO ₂ , 93.7% N ₂)	Linde, Hildesheim, Germany		
HEPES	Sigma, Deisenhofen, Germany	H 4034	
NaCl	Roth, Karlsruhe, Germany	3957.1	
KCl	Merck, Darmstadt, Germany	1.04936.0500	
MgCl ₂ •6H ₂ O	Merck, Darmstadt, Germany	1.05833.0250	

CaCl ₂ •2H ₂ O	Merck, Darmstadt, Germany	1.02382.0500	
Glucose D-(+)	Sigma, Deisenhofen, Germany	G 7021	
Low melting point agarose	Bio-Rad, Munich, Germany	161-3111	
Heparin-sodium	Ratiopharm, Ulm, Germany	5120046	
Phenolred-free minimal essential medium (MEM)	Invitrogen, Darmstadt, Germany	5120046	
70% EtOH for disinfection	Stockmeier Chemie, Dillenburg, Germany		
Superglue	UHU, Bühl/Baden, Germany or from a supermarket		
U46619 (a thromboxane analog)	Calbiochem/Merck, Darmstadt, Germany	538944	
Sodium nitroprusside (Nipruss)	Schwarz Pharma, Monheim, Germany	5332804	
Optimas 6.5 software	Stemmer, Puchheim, Germany		
SPSS 19	AskNet, Karlsruhe, Germany		