

Materials List for:

In vivo Measurement of the Mouse Pulmonary Endothelial Surface Layer

Yimu Yang¹, Gaoqing Yang¹, Eric P. Schmidt¹

¹Division of Pulmonary Sciences and Critical Care Medicine, University of Colorado School of Medicine

Correspondence to: Eric P. Schmidt at eric.schmidt@ucdenver.edu

URL: <https://www.jove.com/video/50322>

DOI: [doi:10.3791/50322](https://doi.org/10.3791/50322)

Materials

Name	Company	Catalog Number	Comments
Name of Reagent			
FITC-dextran (150 kDa)	Sigma	FD150S	
TRITC-dextran (150 kDa)	Sigma	T1287	
Streptavidin-coated fluorescent microspheres	Bangs Laboratories	CP01F/10428	Dragon Green fluorescence (similar to FITC)
Ketamine	Moore Medical		
Xylazine	Moore Medical		
Anti-ICAM-1 biotinylated antibody	eBioscience	Clone YN1/1.7.4	1:50 dilution
Isotype biotinylated antibody	eBioscience	IgG2b eB149/10H5	1:50 dilution
EQUIPMENT			
Mechanical ventilator	Harvard Apparatus	Inspira	
Tracheostomy catheter	Harvard Apparatus	730028	
Electrocautery apparatus	DRE Medical	Valleylab SSE-2L	
Bipolar cautery forceps	Olsen Medical	10-1200I	9.9cm McPherson
Temperature control system	World Precision Instruments	ATC1000	
Syringe pump	Harvard Apparatus	Pump 11 Elite	
Microscope (widefield)	Nikon	LV-150	
Microscope (confocal)	Nikon	A1R	
Image splitter	Photometrics	DV2	
CCD camera	Photometrics	CoolSNAP HQ2	
Image processing software	Nikon	NIS Elements	
Polyvinylidene membrane	Kure Wrap		
Circular cover slip	Bellco	5CIR-1-BEL	5 mm, #1 thickness
Glue (cover slip to membrane)	Pattex	Flussig (liquid)	For affixing cover slip to membrane
Glue (cover slip to mouse)	Pattex	Gel	For attaching membrane to mouse
Surgical tubing	Intramedic	PE50, PE10	
Suture	Fisher		4:0 silk
Electric razor	Oster	78997	
Curved surgical forceps	Roboz		
Straight surgical forceps	Roboz		
Surgical scissors	Roboz		
Surgical microscissors	Roboz		
Surgical needle driver	Roboz		
Surgical tape	Fisher		
Kitchen sponges (cut into wedges)	various		