

Materials List for

Exploring Alternative Perfusion Solutions Using Next-Generation Polymerized Hemoglobin-Based Oxygen Carriers in a Model of Rat Ex Vivo Lung Perfusion

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Materials

Name	Company	Catalog Number	Comments
10 cc insulin syringe 29 G x 1/2" needle	B-D	309301	
30 L Glass Batch Bioreactor	Ace Glass		
30g Needle	Med Needles	BD-305106	
Baytril (enrofloxacin) Antibacterial Tablets	Elanco	NA	
Calcium Chloride dihydrate (CaCl ₂ ·2H ₂ O)	Sigma Aldrich	10035-04-8	For modified Ringer's lactate
CFBA carrier frequency bridge amplifier type 672	Harvard Apparatus	731747	
Connect kit D150	Cole-Parmer	VK 73-3763	
Dumont #5 Forceps	Fine Science tools	11252-50	
Dumont Medical #5/45 Forceps - Angled 45°	Fine Science tools	11253-25	
Ecoline Star Edition 003, E100 Water Heater	Lauda	LCK 1879	
Expired human leukoreduced, packed RBC units	Wexner Medical Center Canadian Blood Services Zen-Bio Inc		
Fiberoxygenator D150	Hugo Sachs Elektronik	PY2 73-3762	
Forceps	Fine Science tools	11027-12	
Glutaraldehyde (C ₅ H ₈ O ₂ 70 wt%)	Sigma Aldrich	111-30-8 (G7776)	
Halsted-Mosquito Hemostat	Roboz Surgical	RS-7112	
Heparin 30,000 units per 30 ml	APP Pharmaceuticals		

Human Serum Albumin (HSA)	OctaPharma Plasma		Perfusate additive
IL2 Tube set for perfusate	Harvard Apparatus	733842	
IPL-2 Basic Lung Perfusion System	Harvard Apparatus		
Ketamine 500 mg per 5 ml	JHP Pharmaceuticals		
Left Atrium cannula	Harvard Apparatus	730712	
Liqui-Cel EXF Series G420 Membrane Contactor	3M	G420	gas contactor
low potassium dextran glucose solution (perfadex)	XVIVO		solution flushing the lung
Masterflex Platinum Coated Tubing(Size: 73,17,16,24)	Cole-Palmer		
N-Acetyl-L-cysteine (NALC, C ₅ H ₉ NO ₃ S)	Sigma Aldrich	616-91-1 (A7250)	For modified Ringer's lactate
Nalgene Vessels (10L, 20L)	Nalgene		Filtration vessels
Peristaltic Pump	Ismatec	ISM 827B	
PES, 0.65 µm TFF module	Repligen	N02-E65U-07-N	
PhysioSuite	Kent Scientific Corporation	PS-MSTAT-RT	
polyethersulfone (PES), 0.2 µm TFF module	Repligen	N02-S20U-05-N	
Polysulfone (PS), 500 kDa TFF module	Repligen	N02-P500-05-N	
Potassium Chloride (KCl)	Fisher Scientific	7447-40-7	For PBS
PowerLab 8/35	ADInstruments	730045	
Pulmonary Artery cannula	Harvard Apparatus	730710	
Pump Head tubing (Size: 73,17,16,24)	PharMed BPT		
Puralube Ophthalmic Ointment	Dechra	NA	
Scissors	Fine Science tools	14090-11	
SCP Servo controller for perfusion type 704	Harvard Apparatus	732806	
Small Animal Ventilator model 683	Harvard Apparatus	55-000	
Sodium Chloride (NaCl)	Fisher Scientific	7647-14-5 (S271-10)	For PBS and saline
Sodium cyanoborohydride (NaCNBH ₃)	Sigma Aldrich	25895-60-7	
Sodium Dithionite (Na ₂ S ₂ O ₄)	Sigma Aldrich	7775-14-6	
Sodium Hydroxide (NaOH)	Fisher Scientific	1310-73-2	For modified Ringer's lactate
Sodium Lactate (NaC ₃ H ₅ O ₃)	Sigma Aldrich	867-56-1	For modified Ringer's lactate
Sodium phosphate dibasic (Na ₂ HPO ₄)	Fisher Scientific	7558-79-4	For PBS
Sodium phosphate monobasic (NaH ₂ PO ₄)	Fisher Scientific	7558-80-7	For PBS
SomnoSuite Small Animal Anesthesia System	Kent Scientific Corporation	SS-MVG-Module	
Sprague-Dawley rats	Envigo		
TAM-A transducer amplifier module type 705/1	Harvard Apparatus	73-0065	
TAM-D transducer amplifier type 705/2	Harvard Apparatus	73-1793	
TCM time control module type 686	Harvard Apparatus	731750	
Tracheal cannula	Harvard Apparatus	733557	
Tube set for moist chamber	Harvard Apparatus	73V83157	

Tubing Cassette	Cole-Parmer	IS 0649	
Tweezer #5 Dumostar	Kent Scientific Corporation	INS500085-A	
Tweezer #5 stainless steel, curved	Kent Scientific Corporation	IND500232	
Tweezer #7 Titanium	Kent Scientific Corporation	INS600187	
Tygon E-3603 Tubing 2.4 mm ID	Harvard Apparatus	721017	perfusate line entering lung
Tygon E-3603 Tubing 3.2 mm ID	Harvard Apparatus	721019	perfusate line leaving lung
Vannas-Tubingen Spring Scissors	Fine Science Tools	15008-08	
VCM ventilator control module type 681	Harvard Apparatus	731741	
William's E Media	Gibco, ThermoFisher Scientific	A12176-01	Perfusate additive
Xylazine 100 mg per 1 ml	Akorn		