

Materials List for

Surgical Porcine Model of Chronic Myocardial Ischemia Treated by Exosome-laden Collagen Patch and Off-pump Coronary Artery Bypass Graft

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Materials

Name	Company	Catalog Number	Comments
5 Ethibond	Ethicon	MG46G	Suture
# 40 clipper blade	Oster	078919-016-701	Remove hair from surgery sites
0 Vicryl	Ethicon	J208H	Suture
1 mL Syringe	Medtronic/Covidien	1188100777	Administer injectable agents
1" medical tape	Medline	MMM15271Z	Secure wound dressing and IV catheters
1000mL 0.9% Sodium chloride	Baxter	2B1324X	IV replacement fluid
12 mL Syringe	Medtronic/Covidien	8881512878	Administer injectable agents
18 ga needles	BD	305185	Administration of injectable agents
20 ga needles	BD	305175	Administration of injectable agents
20 mL Syringe	Medtronic/Covidien	8881520657	Administer injectable agents
2-0 Vicryl	Ethicon	J317H	Suture
250 mL 0.9% saline	Baxter	UE1322D	Replacement IV Fluid
3 mL Syringe	Medtronic/Covidien	1180300555	Administer injectable agents
3-0 Vicryl	Ethicon	VCP824G	Suture
36" Pressure monitoring tubing	Smith's Medical	MX563	Connect art. Line to transducer
4.0 mm ID endotracheal tube	Medline	DYND43040	Establish airway for Hibernation
4-0 Tevdek II Strands	Deknatel	7-922	Suture to secure constrictor around LAD
48" Pressure monitoring tubing	Smith's Medical	MX564	Connect art. Line to transducer
500mL 0.9% Sodium chloride	Baxter	2B1323Q	Drug delivery, Provide mist for Blower Mister
6 mL Syringe	Medtronic/Covidien	1180600777	Administer injectable agents

6.0 mm ID endotracheal tube	Mallinckrodt	86049	Establish airway for Revasc,MRI and Termination
6.5 mm ID endotracheal tube	Medline	DYND43065	Establish airway for Revasc,MRI and Termination
6" pressure tubing line	Smith's Medical	MX560	Collect bone marrow
60 mL Syringe	Medtronic/Covidien	8881560125	Administer injectable agents
7.0 mm ID endotracheal tube	Medline	DYND43070	Establish airway for Revasc,MRI and Termination
7-0 Prolene	Ethicon	M8702	Suture
Advanced DMEM (1X)	ThermoFisher Scientific	12491023	
Alcohol Prep pads	MedSource	MS-17402	Skin disinfectant
Amicon Ultra-15 Centrifugal Filter Unit	Millipore Sigma	UFC910024	
Anesthesia Machine	Drager	Fabious Trio	maintains general anesthesia
Anesthesia Machine + ventilator	DRE Drager- Fabius Tiro	DRE0603FT	Deliver Oxygen and inhalant to patient
Anesthesia Monitor	Phillips Intellivue	MP70	Multiparameter for patient safety
Arterial Line Kit	Arrow	ASK-04510-HF	Femoral catheter for blood pressure monitoring
Artificial Tears	Rugby	0536-1086-91	Lubricate eyes to prevent corneal drying
Bair Hugger	3M	Model 505	Patient Warming system
Basic pack	Medline	DYNJP1000	Sterile drapes and table cover
Blood Collection Tubes- green top	Fisher Scientific	02-689-7	Collect microsphere blood samples
Blower Mister Kit	Medtronic/Covidien	22120	Clears surgical field for vessel anastomosis
BODIPY TR Ceramide	ThermoFisher Scientific	D7540	
Bone marrow needle- 25mm 15 ga IO needle	Vidacare	9001-VC-005	Collect bone marrow
Bone Wax	Medline	ETHW31G	Hemostasis of cut bone
Bovie Cautery hand piece	Covidien	E2516	Hemostasis
Bupivacaine	Pfizer	00409-1161-01	Local Anesthetic
Buprenorphine 0.3 mg/mL	Sigma Aldrich	B9275	Pre operative Analgesic for survival procedures
Cell Scrapers	Corning	353085	
Cephazolin 1 gr	Pfizer	00409-0805-01	Antibiotic
Chest Tube	Covidien	8888561043	Evacuates air from chest cavity
Cloroprep	Becton Dickenson	260815	Surgical skin prep
CPT tube	BD	362753	MSC isolation from bone marrow
Delrin Constrictor	U of MN	Custom made	Creates stenosis of LAD
Dermabond	Ethicon	DNX12	Skin adhesive
DMEM (1X) Dulbecco's Modified Eagle Medium, HEPES	ThermoFisher Scientific	12430062	
Dobutamine 12.5 mg/mL	Pfizer	00409-2344-01	Increases blood pressure and heart rate during the second microsphere blood collection
ECG Pads	DRE	1496	Monitor heart rhythm
Exosome-Depleted FBS	ThermoFisher Scientific	A2720801	
Falcon Disposable Polystyrene Serological Pipets, Sterile, 10mL	Fisher Scientific	13-675-20	
Femoral and carotid introducer	Cordis- J&J	504606P	femoral and carotis cannulas
Fetal Bovine Serum, Heat Inactivated, Gibco FBS	ThermoFisher Scientific	16140089	

Flo-thru 1.0	Baxter	FT-12100	used to anastomosis LIMA to L
Flo-thru 1.25	Baxter	FT-12125	FT-12125
Flo-thru 1.5	Baxter	FT-12150	FT-12150
Flo-thru 2.0	Baxter	FT-12200	FT-12200
GlutaMAX Supplement	ThermoFisher Scientific	35050061	
Hair Clipper	Oster	078566-011-002	Remove hair from surgery sites
Helistat collagen sponge	McKesson	570973 1690ZZ	Sponge for embedding exosomes
Heparin	Pfizer	0409-2720-03	anticoagulant
Histology Jars	Fisher Scientific	316-154	Formalin for tissue samples
HyClone Characterized Fetal Bovine Serum (FBS)	Cytiva	SH30071.03	
Hypafix	BSN Medical	4210	Secure wound dressing and IV catheters
Isoflurane	Sigma Aldrich	CDS019936	General Anesthetic- Inhalant
IV Tubing for Blower Mister	Carefusion	42493E	Adapts to IV Fluids for Blower/Mister
Jelco 18 ga IV catheter	Smiths medical	4054	IV access in Revasc, MRI and Term
Lidocaine 2%	Pfizer	00409-4277-01	Local Anesthetic/ antiarrhythmic
Ligaclips	Ethicon	MSC20	Surgical Staples for LIMA takedown
Long blade for laryngoscope	DRE	12521	Allows for visualization of trachea for intubation
Meloxicam 5 mg/mL	Boehringer Ingelheim	141-219	Post operative Analgesic
Microsphere pump			Collect blood samples from femoral introducer
Monopolar Cautery	Covidien	Valleylab™ FT10	Hemostasis
Nanosight NS 300	Malvern Panalytical	MAN0541-03-EN	
NTA 3.1.54 software	Malvern Panalytical	MAN0520-01-EN-00	
OPVAC Synergy II	Terumo Cardiovascular System	401-230	Heart positioner and Stabilizer
Oxygen Tank E cylinder	various	various	Used for Blower Mister if anesthesia machine doesn't have auxiliary flow meter
PBS, pH 7.2	ThermoFisher Scientific	20012050	
Penicillin-Streptomycin-Neomycin (PSN) Antibiotic Mixture	ThermoFisher Scientific	15640055	
Pigtail 145 catheter 6 French	Boston Scientific	08641-41	Measure LV pressures
Pressure Transducer	various	Must adapt to anesthesia monitor	Monitor direct arterial pressures
Propofol	Diprivan	269-29	Induction agent
Roncuronium	Mylan	67457-228-05	Neuromuscular blocking agent
SR Buprenorphine 10 mg/mL	Abbott Labs	NADA 141-434	Post operative Analgesic
Sterile Saline 20 mL	Fisher Scientific	20T700220	Flush for IV catheters
Sternal Saw/ Necropsy Saw	Thermo Fisher	812822	Used to open chest cavity
Stop Cocks	Smith Medical	MX5311L	2 to connect to pig tail
Succinylcholine 20 mg/mL	Pfizer	00409-6629-02	Neuromuscular blocking agent
Suction tubing	Medline	DYND50223	
Suction Container	Medline	DYNDCL03000	
Surgery pack with chest retractor	various	See pack list	Femoral cut down and median sternotomy
Surgical Instruments	various	See pack list	Femoral and carotid cutdowns and sternotomy
Surgical Spring Clip	Applied Medical	A1801	Clamp end of LIMA after takedown
Syringe pump	Harvard		Delivers IV Dobutamine infusion

SYTO RNASelect Green Fluorescent cell Stain - 5 mM Solution in DMSO	Millipore Sigma	S32703	
Telazol 100 mg/mL	Fort Dodge	01L60030	Pre operative Sedative
Telpha pad	Covidien	2132	Sterile wound dressing
Timer			Time collection of blood samples
Total Exosome Isolation Reagent (from cell culture media)	ThermoFisher Scientific	4478359	
TPP Tissue Culture Flask, T75, Filter Cap w/ 0.22uM PTFE	ThermoFisher Scientific	TP90076	
Triple Antibiotic Ointment	Johnson & Johnson	23734	Topical over wound
Vicryl mesh	Ethicon	VKML	Patch for epicardial cell application
Vortex			Mix microspheres
Xylazine 100 mg/mL	Vedco	468RX	Pre operative Sedative/ analgesic