

Materials List for:

Neonatal Cardiac Scaffolds: Novel Matrices for Regenerative Studies

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Materials

Name	Company	Catalog Number	Comments
1. Materials for mouse heart isolation			
P1 mouse pups (as shown; B6;D2-Tg(Myh6 ⁺ -mCherry)2Mik/J)	Jackson Laboratories	21577	or equivalent
60 mm Culture dish	BD Falcon	353004	or equivalent
Phosphate buffered saline pH 7.4 (sterile)	Hyclone	SH30256.01	or equivalent
Single Use Blade	Stanley	28-510	or equivalent
Standard Scissors	Moria Bonn (Fine Science Tools)	14381-43	or equivalent
Spring Scissors 10 cm	Fine Science Tools	15024-10	or equivalent
Vannas Spring Scissors - 3 mm Cutting Edge	Fine Science Tools	15000-00	or equivalent
#5 Forceps	Dumnot (Fine Science Tools)	11295-00	or equivalent
2. Materials for decellularization			
Inlet adaptor	Chemglass	CG-1013	autoclavable
Septum	Chemglass	CG-3022-99	autoclavable
1/8 in. ID x 3/8 OD C-Flex tubing	Cole-Parmer	EW-06422-10	autoclavable
Male luer to 1/8" hose barb adaptor	McMaster-Carr	51525K33	autoclavable
Female luer to 1/8" hose barb adaptor	McMaster-Carr	51525K26	autoclavable
Prolene 7-0 surgical suture	Ethicon	8648G	or equivalent
Ring stand	Fisher Scientific	S47807	or equivalent
Clamp	Fisher Scientific	05-769-6Q	or equivalent
Clamp regular holder	Fisher Scientific	05-754Q	or equivalent
60 cc syringe barrel	Coviden	1186000777T	or equivalent
Beaker	Kimble	14000250	or equivalent
22 G x 1 Syringe Needle	BD	305155	or equivalent
12 cc syringe	Coviden	8881512878	or equivalent
3-way stop cock	Smith Medical	MX5311L	or equivalent
PE50 tubing	BD Clay Adams Intramedic	427411	Must be formable by heat. Polyethylene recommended.
1% SDS	Invitrogen	15525-017	Ultrapure grade recommended. Make up fresh solution and filter sterilize before use.
1% Triton X-100	Sigma-Aldrich	T8787	Make up fresh solution from a 10% stock and filter sterilize before use.
Sterile dH ₂ O	Hyclone	SH30538.02	Or MilliQ system purified water.
1x Pen/Strep	Corning CellGro	30-001-CI	or equivalent

3. Materials for DNA quantitation			
Proteinase K	Fisher	BP1700	>30 U/mg activity
KCl	Sigma-Aldrich	P9333	or equivalent
MgCl ₂ ·6H ₂ O	Mallinckrodt	5958-04	or equivalent
Tween 20	Sigma-Aldrich	P1379	or equivalent
Tris base/hydrochloride	Sigma-Aldrich	T1503/T5941	or equivalent
Pico-Green dsDNA assay kit	Life Technologies	P7589	requires fluorimeter to read
4. Method for fixation and sectioning of tissue			
Paraformaldehyde	Sigma-Aldrich	P6148	or equivalent
Gelatin Type A from porcine skin	Sigma-Aldrich	G2500	must be 300 bloom or greater
5. Method for tissue histology			
Cryomolds 10 x 10 x 5 mm	Tissue-Tek	4565	or equivalent
Cryostat	Hacker/Bright	Model OTF	or equivalent
Microscope Slides 25 x 75 x 1 mm	Fisher Scientific	12-550-19	or equivalent
Hematoxylin 560	Surgipath/Leica Selectech	3801570	or equivalent
Ethanol	Decon Laboratories	2701	or equivalent
Define	Surgipath/Leica Selectech	3803590	or equivalent
Blue buffer	Surgipath/Leica Selectech	3802915	or equivalent
Alcoholic Eosin Y 515	Surgipath/Leica Selectech	3801615	or equivalent
Formula 83 Xylene substitute	CBG Biotech	CH0104B	or equivalent
Permount Mounting Medium	Fisher Chemical	SP15-500	or equivalent
Collagen IV Antibody	Rockland	600-401-106.1	or equivalent
α-Actinin Antibody	Abcam	AB9465	or equivalent
mCherry Antibody	Abcam	AB205402	or equivalent
NKX2.5 Antibody	Santa Cruz Biotechnology	SC-8697	or equivalent
Donkey anti-mouse AF488 Antibody	Life Technology	A21202	or equivalent
Donkey anti-chicken AF594 Antibody	Jackson ImmunoResearch	703-585-155	or equivalent
Donkey anti-goat CY5 Antibody	Jackson ImmunoResearch	705-175-147	or equivalent
Fab Fragment Goat Anti-Rabbit IgG (H+L) AF594	Jackson ImmunoResearch	111-587-003	or equivalent
Prolong Gold Antifade Mountant with DAPI	ThermoFisher	P36930	or equivalent
6. Isolation of neonatal ventricular cardiomyocytes using pre-plating			
HBSS (Ca, Mg Free)	Hyclone	SH30031.02	or equivalent
HEPES (1 M)	Corning CellGro	25-060-CI	or equivalent
Cell Strainer	BD Falcon	352340	or equivalent
50 ml tube	BD Falcon	352070	or equivalent
Primeria 100 mm plates	Corning	353803	Primeria surface enhances fibroblast attachment promoting a higher myocyte purity
Trypsin	Difco	215240	or equivalent
DNase II	Sigma-Aldrich	D8764	or equivalent
DMEM (Delbecco's Minimal Essential Media)	Hyclone	SH30022.01	or equivalent
Vitamin B12	Sigma-Aldrich	V6629	or equivalent
Fibronectin coated plates	BD Bioscience	354501	or equivalent

Fetal bovine serum	Hyclone	SH30910.03	or equivalent
Heart bioreactor glassware	Radnoti Glass Technology	120101BEZ	Must be sterilizable by autoclaving or gas.