

Materials List for:

Enhancing the Engraftment of Human Induced Pluripotent Stem Cell-derived Cardiomyocytes via a Transient Inhibition of Rho Kinase Activity

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Materials

Name	Company	Catalog Number	Comments
Reagent			
Accutase (stem cell detachment solution)	STEMCELL Technologies	#07920	
B27 minus insulin	Fisher Scientific	A1895601	
B27 Supplement	Fisher Scientific	17-504-044	
CHIR99021	Stem Cell Technologies	72054	
DMEM (1x), high glucose, HEPES, no phenol red	Thermofisher	20163029	
Fetal bovine serum	Atlanta Biologicals	S11150	
Fluo-4 AM (calcium indicator)	Invitrogen/Thermofisher	F14201	
Glucose-free RPMI 1640	Fisher Scientific	11879020	
IWR1	Stem Cell Technologies	72562	
Matrigel (extracellular matrix)	Fisher Scientific	CB-40230C	
mTeSR (human pluripotent stem cells medium)	STEMCELL Technologies	85850	
Pen-strep antibiotic	Fisher Scientific	15-140-122	
Pluronic F-127 (surfactant polyol)	Sigma-Aldrich	P2443	
Rho activator II	Cytoskeleton	CN03	
RPMI1640	Fisher Scientific	11875119	
Sodium DL-lactate	Sigma-Aldrich	L4263	
TrypLE (cell-dissociation enzymes)	Fisher Scientific	12-605-010	
Verapamil	Sigma-Aldrich	V4629	
Y-27632	STEMCELL Technologies	72304	
Name	Company	Catalog Number	Comments
Equipment and Supplies			
IVIS Lumina III Bioluminescence Instruments	PerkinElmer	CLS136334	
15 mm Coverslips	Warner	CS-15R15	
Centrifuge	Eppendorf	5415R	
Confocal Microscope	Olympus	IX81	
Cryostat	Thermo Scientific	NX50	
Dual Automatic Temperature Controller	Warner Instruments	TC-344B	

Electrophoresis Power Supply	BIO-RAD	1645050	
Fluorescence Microscope	Olympus	IX83	
High Speed Camera	pco	1200 s	
Laser Scan Head	Olympus	FV-1000	
Low Profile Open Bath Chamber (mounts into above microincubation system)	Warner Instruments	RC-42LP	
Microincubation System	Warner Instruments	DH-40iL	
Minivent Mouse Ventilator	Harvard Apparatus	845	
NOD/SCID mice	Jackson Laboratory	001303	
Precast Protein Gels	BIO-RAD	4561033	
PVDF Transfer Packs	BIO-RAD	1704156	
Trans-Blot System	BIO-RAD	Trans-Blot Turbo	
Hot bead sterilizer	Fine Science Tools	18000-45	
Name	Company	Catalog Number	Comments
Antibody			
Anti-human Nucleolin (Alexa Fluor 647)	Abcam	ab198580	
Cardiac Troponin T	R&D Systems	MAB1874	
Cardiac Troponin C	Abcam	ab137130	
Cardiac Troponin I	Abcam	ab47003	
Cy5-donkey anti-mouse	Jackson ImmunoResearch Laboratory	715-175-150	
Cy3-donkey anti-rabbit	Jackson ImmunoResearch Laboratory	711-165-152	
Fitc-donkey anti-mouse	Jackson ImmunoResearch Laboratory	715-095-150	
GAPDH	Abcam	ab22555	
Human Cardiac Troponin T	Abcam	ab91605	
Integrin β 1	Abcam	ab24693	
Ki67	EMD Millipore	ab9260	
N-cadherin	Abcam	ab18203	
Phospho-Myosin Light Chain 2	Cell Signaling Technology	3671s	
Name	Company	Catalog Number	Comments
Software			
Matlab	MathWorks	R2016A	
ImageJ	NIH	1.52g	