

Materials List for:

# Assessing Cardiomyocyte Subtypes Following Transcription Factor-mediated Reprogramming of Mouse Embryonic Fibroblasts

Antonio Fernandez-Perez<sup>1</sup>, Nikhil V. Munshi<sup>1</sup>

<sup>1</sup>Department of Internal Medicine- Cardiology, UT Southwestern Medical Center

Correspondence to: Nikhil V. Munshi at [nikhil.munshi@utsouthwestern.edu](mailto:nikhil.munshi@utsouthwestern.edu)

URL: <https://www.jove.com/video/55456>

DOI: [doi:10.3791/55456](https://doi.org/10.3791/55456)

## Materials

Name	Company	Catalog Number	Comments
DMEM	Sigma	D5796	Component of iCLM media, Plat-E media, fibroblast, and Transfection media
Medium 199	Thermo Fisher Scientific	11150059	Component of iCLM media
Fetal bovine serum (FBS)	Sigma	F2442	Component of iCLM media, Plat-E media, fibroblast, and Transfection media
Insulin-Transferrin-Selenium G	Thermo Fisher Scientific	41400-045	Component of iCLM media
MEM vitamin solution	Thermo Fisher Scientific	11120-052	Component of iCLM media
MEM amino acids	Thermo Fisher Scientific	1601149	Component of iCLM media
Non-Essential amino acids	Thermo Fisher Scientific	11140-050	Component of iCLM media
Antibiotic-Antimycotics	Thermo Fisher Scientific	15240062	Component of iCLM media
B-27 supplement	Thermo Fisher Scientific	17504044	Component of iCLM media
Heat-Inactivated Horse Serum	Thermo Fisher Scientific	26050-088	Component of iCLM media
NaPyruvate	Thermo Fisher Scientific	11360-70	Component of iCLM media
Penicillin/Streptomycin	Thermo Fisher Scientific	1514022	Component of Plat-E media and fibroblast media
Puromycin	Thermo Fisher Scientific	A11139-03	Component of Plat-E media
Blasticidin	Gemini Bio-Products	400-128P	Component of Plat-E media
Glutamax	Thermo Fisher Scientific	35050-061	Component of Fibroblast media
Confocal laser scanning LSM700	Zeiss		For confocal analysis
FuGENE 6 transfection Reagent	Promega	E2692	Transfection reagent
Opti-MEM Reduced Serum Medium	Thermo Fisher Scientific	31985-070	Transfection reagent
Polybrene	Millipore	TR-1003-G	Induction reagent. Use at a final concentration of 8 μM/mL
Platinum-E (PE) Retroviral Packagin Cell Line, Ecotropic	CellBiolabs	RV-101	Retroviral pacaking cell line
Trypsin 0.25% EDTA	Thermo Fisher Scientific		For MEFs and Plat-E dissociation
Mouse anti α-Actinin (Clone EA-53)	Sigma	A7811	Antibody for confocal analysis. Use at 1:200
Chicken anti-GFP IgY	Thermo Fisher Scientific	A10262	Antibody for confocal analysis. Use at 1:200
Rabbit Pab anti-NPPA	Abgent	AP8534A	Antibody for confocal analysis. Use at 1:400
Rabbit Pab anti Myl2 IgG	ProteinTech	10906-1-AP	Antibody for confocal analysis. Use at 1:200

Vectashield solution with DAPI (4',6-Diamidino-2-Phenylindole, Dihydrochloride)	Vector Labs	H-1500	Dye for confocal analysis
Superfrost Plus Microscope slides	Thermo Fisher Scientific	12-550-15	25 x 75 x 1.0 mm
BioCoat Fibronectin 12 mm coverslips	NeuViro Corp	GG-12-1.5	Coverslips for confocal analysis
100 µm cell strainer	Thermo Fisher Scientific	08-771-19	
0.45 µm Syringes filters SFCA 25MM	Thermo Fisher Scientific	09-740-106	For virus filtration
6 mL Syringes	Covidien	8881516937	For virus filtration
Goat anti-Chicken IgY (H&L) A488	Abcam	AB150169	Secondary antibody for confocal analysis. Use at 1:400
Donkey anti-rabbit A647 IgG(H+L)	Thermo Fisher Scientific	A31573	Secondary antibody for confocal analysis. Use at 1:400
Goat anti-mouse IgG(H+L) A555	Thermo Fisher Scientific	A21422	Secondary antibody for confocal analysis. Use at 1:400
Triton X-100	Sigma	93443-100ml	For cell permeabilization
Dulbecco's PBS without CaCl <sub>2</sub> and MgCl <sub>2</sub> (D-PBS)	Sigma	D8537	
Power Block 10x Universal Blocking reagent	Thermo Fisher Scientific	NC9495720	Dilute to 1x in H <sub>2</sub> O
16% Paraformaldehyde aqueous solution (PFA)	Electro Microscopy Sciences	15710	Use at 4% diluted in dH <sub>2</sub> O
6 cm plates	Olympus	25-260	
6-well plates	Genesee Scientific	25-105	
24-well plates	Genesee Scientific	25-107	
10 cm Tissue culture dishes	Corning	4239	
15 cm Tissue culture dishes	Thermo Fisher Scientific	5442	
15 mL Conical tubes	Corning	4308	
50 mL Conical tubes	Corning	4249	
0.4% Trypan blue solution	Sigma	T8154	For viability
Ethyl Alcohol 200 proof	Thermo Fisher Scientific	7005	
Bleach	Thermo Fisher Scientific	6009	