

Materials List for:

Large-Scale Production of Cardiomyocytes from Human Pluripotent Stem Cells Using a Highly Reproducible Small Molecule-Based Differentiation Protocol

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URL: <https://www.jove.com/video/54276>

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Materials

Name	Company	Catalog Number	Comments
Knockout DMEM	Life Technologies	10829018	
Knockout Serum Replacement (KO-SR)	Life Technologies	10828028	
Glutamax	Life Technologies	35050061	
MEM Non-essential Amino Acids	Life Technologies	11140-050	
β-Mercaptoethanol	Life Technologies	21985-023	
Basic Fibroblast Growth Factor (bFGF)	Miltenyi Biotec	130-093-843	
RPMI1640	Life Technologies	11875093	
DPBS, no calcium, no magnesium	Life Technologies	14190144	
DPBS	Life Technologies	14287072	
Attachment Factor (AF)	Life Technologies	S006100	
ECM Gel	Sigma-Aldrich	E1270	
Laminin	Invitrogen	23017-015	
DMEM	Life Technologies	11965-092	
Fatal Bovine Serum (FBS)	Life Technologies	16140-071	
B27 minus insulin	Gibco	A18956-01	
Penicillin/Streptomycin	Life Technologies	15070063	
0.05% Trypsin/EDTA	Life Technologies	25300-054	
Collagenase Type IV	Life Technologies	17140-019	
Calcium Chloride (CaCl ₂)	Sigma-Aldrich	C7902	
Mitomycin C	Bioaustralis	BIA-M1183	
CHIR99021	Miltenyi Biotec	130-104-172	
IWP2	Miltenyi Biotec	130-105-335	
SB431542	Miltenyi Biotec	130-095-561	
Purmorphamine	Miltenyi Biotec	130-104-465	

ROCK inhibitor Y-27632	Miltenyi Biotec	130-104-169	
Ethylenediaminetetraacetic acid (EDTA)	Sigma-Aldrich	E6758	
Poly Vinyl Alcohol (PVA)	Sigma-Aldrich	363073	
Gelatin	Sigma-Aldrich	G1890	
Trypan Blue	Bio-Rad	145-0013	
Accumax	Innovative Cell Technologies Inc.	AM105	
Sigmacote	Sigma-Aldrich	SL2	
CELLSPIN	Integra Biosciences	183 001	
Spinner flask with 1 pendulum, 100 ml	Integra Biosciences	182 023	
Mouse Embryonic Fibroblasts (MEF)	Prepared in-house (or commercially available)		
Human pluripotent stem cell (hPSC) lines	Prepared in-house (or commercially available)		