

Materials List for

Cardiac Spheroids as in vitro Bioengineered Heart Tissues to Study Human Heart Pathophysiology

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jove.com/video/61962

Materials

Name	Company	Catalog Number	Comments
Bovine Serum Albumin (BSA)	Sigma-Aldrich	A1933	
Donkey anti-mouse Secondary Antibodies	Jackson Immunological Research Labs, Inc.	715-165-150	Cyanine Cy3-conjugated secondary antibody
Doxorubicin hydrochloride	Sigma-Aldrich	D1515	
Fibronectin	Sigma-Aldrich	F1141-1MG	From Bovine Plasma
Human cardiac fibroblasts (HCFs)	Cell Applications, Inc., San Diego, CA, USA	306AK-05a	5x10 ⁵ Cells (Adult), Medium & Subculture Reagents
Human coronary artery endothelial cells (HCAECs)	Cell Applications, Inc., San Diego, CA, USA	300K-05a	5x10 ⁵ Cells (Adult), Medium & Subculture Reagents
Human iPSC-derived cardiomyocytes (iCMs)	Fujifilm Cellular Dynamics, Inc.	R1057	iCell Cardiomyocytes Kit, 01434
HCF Growth medium	Cell Applications, Inc., San Diego, CA, USA	316-500	
Human MesoEndo Cell Growth Medium	Cell Applications, Inc., San Diego, CA, USA	212-500	
LIVE/DEAD Viability/Cytotoxicity Kit	Invitrogen, Carlsbad, CA, USA	L3224	
Maintenance Medium (iCells)	Fujifilm Cellular Dynamics, Inc.	R1057	iCell Cardiomyocytes Kit, 01434
Mouse Monoclonal anti-human CD31/PECAM	BD Pharmingen, San Diego, CA, USA	566177	
NucBlue Live ReadyProbe Reagent (Hoechst 33342)	Invitrogen, Carlsbad, CA, USA	R37605	
Paraformaldehyde	Sigma-Aldrich	P6148	
Phosphate-Buffered Saline	Sigma-Aldrich	D8537	
Plating Medium (iCells)	Fujifilm Cellular Dynamics, Inc.	R1057	iCell Cardiomyocytes Kit, 01434
Rat Tail Collagen	Sigma-Aldrich	C3867	
Sodium Azide	Sigma-Aldrich	S2002	
Trypsin–EDTA, 0.25%	Gibco, Thermofisher Scientific	25200072	
Trypan Blue Solution, 0.4%	Gibco, Thermofisher Scientific	15250061	
Triton-X 100	Sigma-Aldrich	X100	
Tissue culture flasks (T25)	Thermofisher Scientific	156367	

96-well Flat Clear Bottom Black Polystyrene TC-treated Microplates	Corning, New York, USA	3603	
384-Well Hanging Drop Plate	3D Biomatrix, Ann Arbor, MI, USA	HDP1385	