

Materials List for

# Evaluation of Cardiac Contractility Modulation Therapy in 2D Human Stem Cell-Derived Cardiomyocytes

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## Citation

Feaster, T.K., Casciola, M., Narkar, A., Blinova, K. Evaluation of Cardiac Contractility Modulation Therapy in 2D Human Stem Cell-Derived Cardiomyocytes. *J. Vis. Exp.* (190), e64848, doi:10.3791/64848 (2022).

## Date Published

December 16, 2022

## DOI

10.3791/64848

## URL

jove.com/video/64848

## Materials

Name	Company	Catalog Number	Comments
0.1% Gelatin	STEMCELL Technologies	7903	Pre-plating Culture Substrate
48-well Plate	MatTek	P48G-1.5-6-F	Hydrogel Substrate hiPSC-CM Culture, Glass
6-well Plate	Thermofisher	140675	hiPSC-CM Culture, Plastic
B-27 Supplement, with insulin	Invitrogen	17504-044	Cardiomyocyte Media
Calcium Chloride dihydrate (CaCl <sub>2</sub> )	Fisher Scientific	c70-500	Tyrode's solution
CellOPTIQ Platform and Software	Clyde Biosciences		Contraction Recording and Analysis
Conical tube 15 mL	Corning	352099	hiPSC-CM Dissociation
Digital CMOS Camera	Hamamatsu	C11440-42U30	Contraction Video Recording
D-PBS	Life Technologies	14190-144	Cell Wash
Environmental Control Chamber	OKOLAB INC	H201-K-FRAME	Environmental Regulation
Glucose	Sigma-Aldrich	G8270-1kg	Tyrode's solution
Hemocytometer	Fisher Scientific	22-600-107	hiPSC-CM Counting
HEPES	Sigma-Aldrich	H3375	Tyrode's solution
iCell Cardiomyocytes Plating Medium	Fujifilm Cellular Dynamic, Inc.	M1001	hiPSC-CM Plating Media
iCell Cardiomyocytes <sup>2</sup> , 01434	Fujifilm Cellular Dynamic, Inc.	R1017	hiPSC-CMs
Incubator (37 °C, 5% CO <sub>2</sub> )	Thermofisher	50116047	Maintain hiPSC-CMs
Inverted Microscope	Olympus	IX73	Imaging hiPSC-CMs
Magnesium Chloride hexahydrate (MgCl <sub>2</sub> )	Fisher Scientific	m33-500	Tyrode's solution
Matrigel Growth Factor Reduced Basement Membrane Matrix	Corning	356230	Flexible Hydrogel Substrate
Microcentrifuge tubes 1.5 ml	Fisher Scientific	05-408-129	Hydrogel Substrate Aliquot
Model 4100 Isolated High Power Stimulator	AM-Systems	Model 4100	Pulse Generator
MyCell Cardiomyocytes DCM LMNA L35P, 01016	Fujifilm Cellular Dynamic, Inc.	R1153	DCM hiPSC-CMs
Pen-Strep	Invitrogen	15140-122	Cardiomyocyte Media
Pipette L-20	Rainin	17014392	Plating Hydrogel Substrate

Pipette P1000	Fisher Scientific	F123602G	
Pipette tips, 1000 ul	Fisher Scientific	02-707-509	
Pipette tips, 20 ul	Rainin	GPS-L10S	Making Hydrogel Substrate
Potassium Chloride (KCl)	Fisher Scientific	P330-500	Tyrode's solution
RPMI 1640, with glucose	Invitrogen	11875	Cardiomyocyte Media
Sodium Chloride (NaCl)	Fisher Scientific	s641-212	Tyrode's solution
Sodium Hydroxide (NaOH)	Sigma-Aldrich	221465	Tyrode's solution
Stimulation Electrodes			Pacing and CCM Stimulation
Stopwatch/Timer	Fisher Scientific	02-261-840	Plating Hydrogel Substrate
Trypan Blue Stain	Life Technologies	T10282	hiPSC-CM Counting
TrypLE Express	Life Technologies	12605-010	hiPSC-CM Dissociation