

Materials List for:

# Isolation and Characterization of Cardiac Mesenchymal Stromal Cells from Endomyocardial Bioptic Samples of Arrhythmogenic Cardiomyopathy Patients

Chiara Assunta Pilato<sup>\*1,2</sup>, Ilaria Stadiotti<sup>\*1</sup>, Angela Serena Maione<sup>1</sup>, Valentina Saverio<sup>1</sup>, Valentina Catto<sup>3</sup>, Fabrizio Tundo<sup>3</sup>, Antonio Dello Russo<sup>3</sup>, Claudio Tondo<sup>2,3</sup>, Giulio Pompilio<sup>1,2</sup>, Michela Casella<sup>\*3</sup>, Elena Sommariva<sup>\*1</sup>

<sup>1</sup>Vascular Biology and Regenerative Medicine Unit, Centro Cardiologico Monzino-IRCCS

<sup>2</sup>Department of Clinical Sciences and Community Health, Università degli Studi di Milano

<sup>3</sup>Heart Rhythm Center, Centro Cardiologico Monzino-IRCCS

\*These authors contributed equally

Correspondence to: Elena Sommariva at [esommariva@ccfm.it](mailto:esommariva@ccfm.it)

URL: <https://www.jove.com/video/57263>

DOI: [doi:10.3791/57263](https://doi.org/10.3791/57263)

## Materials

Name	Company	Catalog Number	Comments
IMDM	Gibco by Life Technologies	12440053	
Fetal Bovine Serum (FBS)	Sigma-Aldrich	F2442	
PENICILLIN STREPTOMYCIN	Life Technologies Italia	15140122	
Collagenase NB4	Serva	17454.02	
Basic fibroblast growth factor	Peptotech	100-18B	
L-glutamine	Sigma-Aldrich	G7513	
PBS	Lonza	17-516F	
Tryple select 1X (cell dissociation reagent)	Gibco	12563029	
EDTA	Sigma-Aldrich	EDS	
Trypsin-EDTA solution	Sigma-Aldrich	T6689	
Bovine Serum Albumin	Sigma-Aldrich	A2058	
3-Isobutyl-1-methylxanthine	Sigma-Aldrich	I5879	
Hydrocortisone	Sigma-Aldrich	H4001	
Indomethacin	Sigma-Aldrich	I7378	
Oil Red O	Sigma-Aldrich	O0625	
Isopropanol	Sigma-Aldrich	I9516	
Paraformaldehyde (PFA) Solution 4% in PBS	D.b.a. Italia S.r.l.	sc-281692	
Dimethyl Sulfoxide (DMSO)	Sigma-Aldrich	276855	
Antibody CD14-FITC (MφP9)	Becton Dickinson	345784	
Antibody Integrin β1 (CD29)-PE (clone MAR4)	Becton Dickinson	561795	
Antibody PECAM-1 (CD31)- APC (clone 9G11)	R&D Systems	FAB3567A	
Antibody Hematopoietic progenitor cell antigen (CD34)-APC (clone 581)	Thermo Fisher Scientific	CD34-581-05	
Antibody H-CAM (CD44)-PE (clone G44-26)	Becton Dickinson	561858	
Antibody L-CA (CD45)-APC (clone HI30)	Thermo Fisher Scientific	MHCD4505-4	

Antibody THY1 (CD90)-FITC (clone 5E10)	Becton Dickinson	561969	
Antibody Endoglin (CD105)-APC (clone 266)	Becton Dickinson	562408	
Antibody HLA-DR-FITC (clone L243)	Becton Dickinson	347400	
Gima Quick Plus sterilizer	Gima	35642	
Bench centrifuge Sigma 3-16K	Sigma Centrifuges	10330	
Mr. Frosty Freezing Container	Thermo Fisher Scientific	5100-0001	
AxioVert 200M microscope	Zeiss	B 40-080 e 03/01	
FACS Gallios	Beckman Coulter	773231AF	
ImageJ (image processing program)	NIH		
Stericup filter units	Merck S.P.A.	SCGPU05RE	
Conical Tubes, 50 mL	Eppendorf	30122178	
Conical Tubes, 15 mL	Eppendorf	30122151	
Safe-Lock Tubes, 2 mL	Eppendorf	30120094	
100 mm TC-Treated Cell Culture Dish	Corning	430167	
60 mm TC-Treated Cell Culture Dish	Corning	430166	
6 well TC-Treated Multiple Well Plates	Corning	3516	
Polystyrene Round-Bottom Tubes, 5 mL	BD Falcon	352058	
BRAND counting chamber BLAUBRAND Bürker-Türk	Sigma-Aldrich	BR719520	