

Materials List for:

Analysis of Cardiomyocyte Development using Immunofluorescence in Embryonic Mouse Heart

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Materials

Name	Company	Catalog Number	Comments
Cryomold, Disposable Base Mold, 7x 7 mm	Richard-Allen Scientific	58949	This size not available from Fisher Scientific
Cryomold, Disposable Base Mold, 15 x 15 mm	Fisher Scientific	22-050-159	Also available from Richard-Allen Scientific, catalog number 58950
Tissue-Tek Optimal Cutting Temperature (OCT) medium 4583	VWR	25608-930	
2-methyl butane	Sigma	M32631	
Paraformaldehyde	Fisher Scientific	T353-500	Use fresh 4% solution in 1x PBS, pH 7.2-7.4.
Sucrose	Sigma	S0389	Use 15% and 30% solutions in 1X PBS.
Disposable transfer pipette	Fisher Scientific	S30467-1	
Superfrost Plus slides	Fisher Scientific	12-550-15	"Plus" indicates positively-charged coating and is critical for maintaining tissue adherence to the slide.
Acetone	Sigma	179124	
Triton X-100	Sigma	X100	
Western Blocking Agent	Roche	11921673001	Blocking buffer for immunofluorescence, when secondary antibodies are from different species. Dilute to 1x in PBS.
Tween 20	Sigma	P9416	
Donkey Anti-mouse IgG (H+L) monovalent Fab fragment	Jackson ImmunoResearch	715-007-003	Goat Anti-mouse IgG (H+L) also available. For blocking endogenous immunoglobulins.
Anti-s- α -actinin antibody	Sigma	A7811	Mouse monoclonal, clone EA53. Dilute 1:400 for snap-frozen/acetone-fixed sections, dilute 1:300 for PFA-fixed sections. Before incubation on mouse tissue, block endogenous mouse immunoglobulins with anti-mouse IgG (H+L) monovalent Fab fragment.
Anti- β -catenin antibody	Cell Signaling	9587s	Rabbit polyclonal. Requires snap-freezing/acetone fixation. Dilute 1:400.
Anti- β 1 integrin antibody	R&D	AF2405	Goat polyclonal. Dilute 1:200. Snap-frozen/acetone-fixed tissue

			staining is superior to PFA-fixed tissue.
Anti-tropomyosin antibody	Developmental Studies Hybridoma Bank, University of Iowa	CH1	Mouse monoclonal. Requires snap-freezing/acetone fixation. Dilute 1:200. Before incubation on mouse tissue, block endogenous mouse immunoglobulins with anti-mouse IgG (H+L) monovalent Fab fragment.
Anti-N-cadherin antibody	Santa Cruz	sc-7939	Rabbit polyclonal. Dilute 1:200. Snap-frozen/acetone-fixed tissue staining is superior to PFA-fixed tissue.
Anti-talin antibody	Sigma	T3287	Mouse monoclonal, clone 8d4. Requires snap-freezing/acetone fixation. Dilute 1:200. Before incubation on mouse tissue, block endogenous mouse immunoglobulins with anti-mouse IgG (H+L) monovalent Fab fragment.
Anti-phosphotyrosine 397 focal adhesion kinase antibody	Invitrogen	700255	Rabbit monoclonal antibody. Requires PFA fixation. Dilute 1:500.
Alexa Fluor 488 Donkey Anti-Mouse IgG (H+L) Antibody	Life Technologies	A-21202	
Alexa Fluor 568 Donkey Anti-Rabbit IgG Antibody	Life Technologies	A10042	
Alexa Fluor 488 Goat Anti-Mouse IgG (H+L) Antibody	Life Technologies	A-11001	
Alexa Fluor 568 Goat Anti-Rabbit IgG (H+L) Antibody	Life Technologies	A-11011	
Hoechst 33342 dye	Life Technologies	H3570	Nuclear stain
Vectashield	Vector labs	H-1000	
Coverslips	Fisher Scientific	12-548-5M	
MLC 400B Monolithic Laser Combiner Laser box	Keysight (formerly Agilent)		
Clara Interline CCD camera	Andor		
Eclipse Ti inverted microscope	Nikon		
CSU-X1 Spinning disk confocal scanner unit	Yokogawa		
CFI Plan Apochromat 4X air objective	Nikon	Numerical aperture (NA) 0.2, Working distance (WD) 15.7 mm	
CFI Plan Apochromat VC 60x oil immersion objective (MRD01602)	Nikon	NA 1.4, WD 0.13 mm	
NIS Elements Imaging Software	Nikon	http://nikon.com/products/instruments/lineup/bioscience/img_soft/index.htm	
Image analysis software	Fiji	http://fiji.sc/Fiji	