

Materials List for:

# Methods for the Isolation, Culture, and Functional Characterization of Sinoatrial Node Myocytes from Adult Mice

Emily J. Sharpe\*<sup>1</sup>, Joshua R. St. Clair\*<sup>1,2</sup>, Catherine Proenza<sup>1,3</sup>

<sup>1</sup>Department of Physiology and Biophysics, University of Colorado Anschutz Medical Campus

<sup>2</sup>Department of Bioengineering, University of Colorado Anschutz Medical Campus

<sup>3</sup>Department of Medicine, Division of Cardiology, University of Colorado Anschutz Medical Campus

\*These authors contributed equally

Correspondence to: Catherine Proenza at [Catherine.Proenza@ucdenver.edu](mailto:Catherine.Proenza@ucdenver.edu)

URL: <https://www.jove.com/video/54555>

DOI: [doi:10.3791/54555](https://doi.org/10.3791/54555)

## Materials

Name	Company	Catalog Number	Comments
Sylguard/Elastomer Kit	Dow Corning	184 SIL ELAST KIT 0.5KG	
Borosilicate 9" pasteur pipettes	Fisher Scientific	13-678-20C	
Small, round bottomed culture tubes	Fisher Scientific	352059	
Large, round bottomed culture tubes	Corning	14-959-11B	
Elastase	Worthington Biochemical	LS002279	
Liberase TM	Roche	5401119001	Tissue dissociation solution
Heparin	SAGENT Pharmaceuticals	NDC 25021-400-10	
Mouse Laminin	Corning	CB-354232	
12 mm round glass coverslips	Fisher	12-545-80	
24-well culture plate	Fisher	08-772-1	
Ad-mCherry	Vector Biolabs	1767	
Ad-eGFP	Vector Biolabs	1060	
Plastic, disposable transfer pipette	Fisher Scientific		
Micro scissors	Fisher Scientific	17-467-496	
Dumont #4 Forceps	Roboz Instruments	RS-4904	
Tissue Forceps	Roboz Instruments	RS-8164	
Dissecting Iris Scissors	WPI, Inc.	501264	
Dissecting Pins	Fine Science Tools	26002-20	
NaCl	Sigma	71376	
KCl	Sigma	60128	
KH <sub>2</sub> PO <sub>4</sub>	Sigma	60353	
HEPES	Sigma	54457	
glucose	Sigma	G0350500	
MgCl <sub>2</sub>	Sigma	M8266	
CaCl <sub>2</sub>	Sigma	C1016	
taurine	Sigma	T0625	
BSA	Sigma	A2153	
K-glutamate	Sigma	G1501	
K-aspartate	Sigma	A6558	
MgSO <sub>4</sub>	Sigma	M7506	

creatine	Sigma	C0780	
EGTA	Sigma	E3889	
Mg-ATP	Sigma	A9187	
Amphotericin-B	Fisher Scientific	1397-89-3	
Isoproterenol	Calbiochem	420355	
Media199	Sigma	M4530	
2,3-butanedione monoxime (BDM)	Sigma	B0753	
Fetal Bovine Serum (FBS)	Sigma	SH30071	
Bovine Serum Albumin (BSA)	Sigma	A5611	
Insulin	Sigma	I3146	
Transferrin	Sigma	I3146	
Selenium	Sigma	I3146	
Penicillin	GE Healthcare	SV30010	
Streptomycin	Hyclone	SV30010	