

Materials List for:

# Impact of Intracardiac Neurons on Cardiac Electrophysiology and Arrhythmogenesis in an *Ex Vivo* Langendorff System

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URL: <https://www.jove.com/video/57617>

DOI: [doi:10.3791/57617](https://doi.org/10.3791/57617)

## Materials

Name	Company	Catalog Number	Comments
Sodium chloride	Sigma-Aldrich	S3014	Modified Krebs-Henleit solution
Sodium hydrogencarbonate	Sigma-Aldrich	401676	Modified Krebs-Henleit solution
Potassium chloride	Sigma-Aldrich	P5405	Modified Krebs-Henleit solution
Potassium phosphate monobasic	Sigma-Aldrich	P5655	Modified Krebs-Henleit solution
Magnesium sulfate heptahydrate	Sigma-Aldrich	M1880	Modified Krebs-Henleit solution
Calcium chloride dihydrate	Sigma-Aldrich	C7902	Modified Krebs-Henleit solution
Glucose	Sigma-Aldrich	G5767	Modified Krebs-Henleit solution
Sodium pyruvate bioXtra	Sigma-Aldrich	P8574	Modified Krebs-Henleit solution
Carbogen (95% O <sub>2</sub> / 5% CO <sub>2</sub> )	SOL-Group, TMG Technische und Medizinische Gas GmbH, Krefeld, Gersthofen, Germany	Modified Krebs-Henleit solution	
Sterile filter steritop-GP 0.22	EMD Millipore	SCGPT05RE	Modified Krebs-Henleit solution
Atropine sulfate	Sigma-Aldrich	A0257	Neuromodulation
Hexamethonium chloride	Sigma-Aldrich	H2138	Neuromodulation
Nicotine free base 98-100%	Sigma-Aldrich	N3876	Neuromodulation
Formalin solution neutral buffered 10%	Sigma-Aldrich	HT501128	Whole mount staining
Tris(hydroxymethyl)aminomethane	Sigma-Aldrich	252859	Whole mount staining
Methanol	Sigma-Aldrich	34860	Whole mount staining
Hydrogen peroxide solution 30% (w/w) in H <sub>2</sub> O	Merck, KGA, Darmstadt, Germany	H1009	Whole mount staining
Dimethyl sulfoxide	Merck, KGA, Darmstadt, Germany	D8418	Whole mount staining
Phosphate-buffered saline tablets	Gibco / Invitrogen	18912-014	Whole mount staining
Triton-x-100	Sigma-Aldrich	T8787	Whole mount staining
Albumin bovine fraction V	Biomol, Hamburg, Germany	11924.03	Whole mount staining
Chicken anti neurofilament	EMD Millipore	AB5539	Whole mount staining
Rabbit anti tyrosine hydroxylase	EMD Millipore	AB152	Whole mount staining
Goat anti choline acetyltransferase	EMD Millipore	AP144P	Whole mount staining
Donkey α rabbit IgG Alexa 488	Thermo Fisher Scientific	A21206	Whole mount staining
Donkey α goat IgG Alexa 568	Thermo Fisher Scientific	A11057	Whole mount staining
Donkey α chicken IgY Alexa 647	Merck, KGA, Darmstadt, Germany	AP194SA6	Whole mount staining

Biotin-conjugated donkey $\alpha$ rabbit igG	R&D Systems	AP182B	Whole mount staining
Biotin-conjugated donkey $\alpha$ goat igG	R&D Systems	AP192P	Whole mount staining
Biotin-conjugated goat $\alpha$ chicken igY	R&D Systems	BAD010	Whole mount staining
Vectashield mounting medium	Vector laboratories, Burlingame, CA, USA	H-1000	Immunohistochemistry
Vectastain ABC kit	Vector laboratories, Burlingame, CA, USA	PK-4000	Immunohistochemistry
Steady DAB/Plus	Abcam plc, Cambridge, UK	ab103723	Whole mount staining
HistoClear	DiaTec, Bamberg, Germany	HS2002	Immunohistochemistry
BisBenzimide H33342 trihydrochloride (Hoechst)	Sigma-Aldrich, St. Louis, MO, USA	B2261	Immunohistochemistry
Vectashield HardSet mounting medium	Vector laboratories, Burlingame, CA, USA	VEC-H-1400	Immunohistochemistry
Perfusion system	HUGO SACHS ELEKTRONIK - HARVARD APPARATUS GmbH, March-Hugstetten, Germany	73-4343	Langendorff apparatus
Data acquisition system and corresponding software for catheter and physiological parameter	Powerlab 8/30 & Labchart, ADInstruments, Dunedin, New Zealand	PL3508 PowerLab 8/35	Langendorff setup
Octapolar catheter	CIB'ER Mouse, NuMed Inc., Hopkinton, NY, USA	custom	Langendorff setup
Stimulus generator	STG4002, Multi Channel Systems, Reutlingen, Germany	STG4002-160 $\mu$ A	Stimulation setup
Stimulation software	Multi Channel Systems, Reutlingen, Germany	MC_Stimulus II	Stimulation setup
Data acquisition system and corresponding software for epicardial electrograms	ME128-FAI-MPA-System, Multi Channel Systems, Reutlingen, Germany	USB-ME128-System	MEA setup
Multi-electrode array	MEA, EcoFlexMEA36, Multi Channel Systems, Reutlingen, Germany	EcoFlexMEA36	MEA setup
Multi-electrode array recording software	Multi Channel Systems, Reutlingen, Germany	MC_Rack	MEA setup
Spring scissors	Fine Science Tools GmbH, Heidelberg, Germany	15003-08	Heart Preparation
Strabismus Scissors	Fine Science Tools GmbH, Heidelberg, Germany	14575-09	Heart Preparation
Mayo Scissors	Fine Science Tools GmbH, Heidelberg, Germany	14110-15	Heart Preparation
Dumont SS Forceps	Fine Science Tools GmbH, Heidelberg, Germany	11203-25	Heart Preparation
London Forceps	Fine Science Tools GmbH, Heidelberg, Germany	11080-02	Heart Preparation
Narrow Pattern Forceps	Fine Science Tools GmbH, Heidelberg, Germany	11003-13	Heart Preparation
Plastic Wrap	Parafilm M, Bemis NA, based in Neenah, WI, United States		Consumable Materials
Stereomicroscope	Leica M165FC; Leica Microsystems GmbH, Wetzlar, Germany		FRET
LED	CoolLED, Andover, UK	pE-100	FRET

DualView	Photometrics, Tucson, AZ, USA	DV2-SYS	FRET
DualView filter set	Photometrics, Tucson, AZ, USA	05-EM	FRET
optiMOS scientific CMOS camera	Qimaging, Surrey, BC, Canada	01-OPTIMOS-R-M-16-C	FRET
Imaging software	Micro-Manager; Vale Lab, University of California San Francisco, CA, USA		FRET
Analysis Software	Image J software; Public Domain, NIH, USA		FRET