

Materials List for:

Electrophysiological Assessment of Murine Atria with High-Resolution Optical Mapping

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URL: <https://www.jove.com/video/56478>

DOI: [doi:10.3791/56478](https://doi.org/10.3791/56478)

Materials

Name	Company	Catalog Number	Comments
(-)-Blebbistatin	SIGMA	B0560-1MG	E-C decoupler to eliminate motion artifact during optical mapping
RH237	Biotium	61018	Voltage-sensitive dye
Rhod2AM	Biotium	50024	Ca indicator
Pluronic F-127 20% solution in DMSO	Biotium	#59000	To enhance the staining with Rhod2AM
Di-4-ANEPPS	Wako	041-29111	Voltage-sensitive dye
Dimethyl sulfoxide	Wako	046-21981	Solvent for reagents
Bottle top filter	Corning	430513	For filtering Tyrode's solution
Heparin Sodium	Mochida Pharmaceutical Co., Ltd	N/A	To avoid blood clots in the coronary artery
Air stone (φ8 mm x 10 mm)	Tokyo Koshin Rikagaku Seisakusho	N/A	for aeration
Pentobarbital	Kyoritsu Seiyaku Corporation	N/A	For an anesthesia
Programmable stimulator	Fukuda Denshi	BC-05	Fukuda Denshi kindly rented us.
Power Lab	AD Instruments	Powerlab 26/8SP	To record blood pressure and electrocardiogram
Bio Amp	AD Instruments	ML132	Amprifier for electrocardiogram
BP Amp	AD Instruments	FE117	Amprifier for blood pressure
LabChart	AD Instruments	Version 7	Software to record and analyze blood pressure and electrocardiogram
Disposable BP transducer	AD Instruments	MLT0670	pressure transducer
1-Fr custom made electrode catheter	Unique Medical	N/A	To pace right atrium
Polyethylene tube (OD: 0.8 mm, ID: 0.5 mm)	Natume Seisakujo	SP31	Put into superior vena cava to introduce electrode catheter
Milllex-SV 5.00 μm	Merk Millipore	SLSV025LS	To filter the circulating Tyrode
24-gauge indwelling needle	TERUMO	SR-FS2419	Introduced into left ventricle to reduce the pressure in chamber
21-gauge needle	TERUMO	SN-2170	We cut the tip of needle and blunted it by filing
25-guage needle	TERUMO	NN-2525R	
1-ml syringe	TERUMO	SS-01T	
PVC tube	TERUMO	SF-ET0525	for Langendorff's perfusion circuit
Three-way stopcock	TERUMO	TS-TL2K	for Langendorff's perfusion circuit

Petri dish	As one	3-1491-01	
Custum made heating glass coil	Motohashi Rika	N/A	to keep temperature of perfusion solution
Custum made warming glass chamber	Motohashi Rika	N/A	to keep temperature of perfusion solution
Constant temperature circulating device	Lauda	E100	connected to heating coil and warming chamber
Cover glass (25 mm × 60 mm)	Matsunami	C025601	Put on the atria to flatten the recording area
Perista pump	ATTO	SJ-1211	peristaltic pump
Stemi DV4	Carl Zeiss	N/A	Stereomicroscope
MiCAM ULTIMA-L2	Brainvision Inc.	UL-L2	Optical mapping System
BV_Ana Software	Brainvision Inc.	BV_Ana	Data Analysis Software
THT Macroscope	Brainvision Inc.	THT-ZS	Epi-Illumination Unit
LED Light Source	Brainvision Inc.	LEX2-G	
Dichroic Mirror 560nm	Brainvision Inc.	DM560	Epi-Illumination
Excitation Filter 520/35nm	Semrock, Inc.	FF01-520/35-25	
Projection lens Plan S 1.0X	Carl Zeiss	435200-0000-000	
Focus Drive	Carl Zeiss	435400-0000-000	
Objective lens Revolver	Carl Zeiss	435302-0000-000	
Manual Focus Column	Carl Zeiss	435400-0000-000	
Macroscope Base	Carl Zeiss	435430-9901-000	
Straight Light Guide	MORITEX Corporation	MSG10-2200S	Epi-Illumination
Condenser Lens	MORITEX Corporation	ML-50	
PLANAPO 5.0X	Leica Microsystems	10447243	Objective Lens
PLANAPO 1.0X	Leica Microsystems	10447157	Objective Lens
PLANAPO 1.6X	Leica Microsystems	10447050	Objective Lens
Beam-Splitter	Brainvision Inc.	FLSP-2	
Dichroic Mirror 665nm	Brainvision Inc.	DM665	Beam-Splitter
Emission Filter 572/28nm	Edmund Optics	#84-100	Rhod2-AM
Emission Filter 697/75nm	Semrock, Inc.	FF01-697/75-25	RH237 and Di-4-ANEPPS
0.2 mL PCR tube	Greiner Bio-One	671201	
aluminum foil	Toyo alumi	0020	