

Whole-Mount Immunofluorescence Staining, Confocal Imaging and 3D Reconstruction of the Sinoatrial and Atrioventricular Node in the Mouse

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Materials

Name	Company	Catalog Number	Comments
Anesthesia			
Isoflurane vaporizer system	Hugo Sachs Elektronik	34-0458, 34-1030, 73-4911, 34-0415, 73-4910	Includes an induction chamber, a gas evacuation unit and charcoal filters
Modified Bain circuit	Hugo Sachs Elektronik	73-4860	Includes an anesthesia mask for mice
Surgical Platform	Kent Scientific	SURGI-M	
In vivo instrumentation			
Fine forceps	Fine Science Tools	11295-51	
Iris scissors	Fine Science Tools	14084-08	
Spring scissors	Fine Science Tools	91500-09	
Tissue forceps	Fine Science Tools	11051-10	
Tissue pins	Fine Science Tools	26007-01	Could use 27G needles as a substitute
General lab instruments			
Orbital shaker	Sunlab	D-8040	
Magnetic stirrer	IKA	RH basic	
Pipette, volume 10 µL, 100 µL, 1000 µL	Eppendorf	Z683884-1EA	
Microscopes			
Dissection stereo- zoom microscope	VWR	10836-004	
Laser Scanning Confocal microscope	Zeiss	LSM 800	
Software			
Imaris 8.4.2	Oxford instruments		
ZEN 2.3 SP1 black	Zeiss		

General Lab Material			
0.2 µm syringe filter	Sartorius	17597	
100 mm petri dish	Falcon	351029	
27G needle	BD Microlance 3	300635	
50 ml Polypropylene conical Tube	Falcon	352070	
5ml Syringe	Braun	4606108V	
Cover slips	Thermo Scientific	7632160	
Eppendorf Tubes	Eppendorf	30121872	
Chemicals			
0.5 M EDTA	Sigma	20-158	Components of TEA
16% Formaldehyde Solution	Thermo Scientific	28908	use as a 4% solution
Acetic acid	Merck	100063	Components of TEA
Agarose	Biozym	850070	
Bovine Serum Albumin	Sigma	A2153-100G	
DPBS (1X) Dulbecco's Phosphate Buffered Saline	Gibco	14190-094	
Normal goat serum	Sigma	NS02L	
Sucrose	Sigma	S1888-1kg	
Tris-base	Roche	TRIS-RO	Components of TEA
Triton X-100	Sigma	T8787-250ml	Diluted to 1% in PBS
Tween 20	Sigma	P2287-500ml	
Drugs			
Fentanyl 0.5 mg/10 mL	Braun Melsungen		
Isoflurane 1 mL/mL	Cp-pharma	31303	
Oxygen 5 L	Linde	2020175	Includes a pressure regulator
Antibodies			
Goat anti-Rabbit IgG Alexa Fluor 488	Cell Signaling Technology	#4412	diluted to 1:200
Goat anti-Rat IgG Alexa Fluor 647	Invitrogen	#A-21247	diluted to 1:200
Hoechst 33342, Trihydrochloride, Trihydrate (DAPI)	Invitrogen	H3570	diluted to 1:1000
Rabbit Anti-Connexin-43	Sigma	C6219	diluted to 1:200
Rat anti-HCN4 (SHG 1E5)	Invitrogen	MA3-903	diluted to 1:200
Other			
Plexiglass ring			Self-designed and 3D printed
Plasticine	Cernit	49655005	
Silikonpasten, Baysilone	VWR	291-1220	
Animals			
Mouse, C57BL/6	The Jackson Laboratory		