

Materials List for:

Cell Labeling and Injection in Developing Embryonic Mouse Hearts

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Materials

Name	Company	Catalog Number	Comments
Setups/Hardware			
40 MHz Transducer	VisualSonics	MS550S	
Microinjector	VisualSonics		
Microinjector	Eppendorf	5242	
Micromanipulator	Eppendorf	5171	
Nitrogen			required to pressurize the injector
Rail system	VisualSonics		
rotator			to rotate glass tube with embryos inside the incubator
Standard incubator			5% CO ₂ , 37 °C
stereomicroscope	Zeiss	Discovery. V8	
Vevo 2100	VisualSonics		
Microinjection			
Borosilicate capillary tubes	World Precision Instrument	KTW-120-6	1.2-µm external diameter
Pipette puller	Sutter	Model P87	
Microinjection needles	Origio-Humagen	C060609	OD/ID 1.14 mm/53 mm, with 50/35 µm OD/ID tip
Hamilton syringes			
Petri dishes			10-cm diameter
Mineral oil	Sigma	M8410	
Silicon membrane	Visualsonics		4.3 x 4.3 cm
Play-Doh			
Isoflurane	Vet One		
hair removal agent	Nair		
Eye lubricant	Optixcare	31779	
Electrode gel (Signa)	Parker		
Suture	Sof silk 5-0	S1173	
Ultrasound gel	Aquasonic		
Buprenex Buprenex (buprenorphine hydrochloride)	Reckitt Benckiser Pharmaceuticals Inc.	NDC 12496-0757-1	0.05-0.1 mg/kg in saline
Other			
Silicone Elastomer	Dow Corning	Sylgard 184	
Glass petridishes	Fine Science Tools		60-mm diameter
Insect pins	Fine Science Tools	26002-20	

Media and culture reagents			
Optimem medium	Life Technologies	51985026	
M2 medium	Sigma	M7167	
Dulbecco's Eagle Medium	Lonza	BE12-640F	high glucose and 50% rat serum
M16 medium	Sigma	M7292	
Rat serum	Janvier	ODI 7158	
Penicillin/streptomycin	Life Technologies	15140-12	
oxygen 40%	Air liquid		required to oxygenate the embryo culture medium
Fetal calf serum	Fisher	RVJ35882	
Matrigel	BD	356230	
Collagen type I	BD	354236	to coat culture dishes for explant culture
Culture dishes	Dutcher /Orange	131020	
Injectates			
CDCFDA-SE	Invitrogen/Molecular Probes	C1165	25 mg/ml DMSO. Store at -20 °C. Dilute 1:100-200 in saline before use.
PGK-GFP-expressing lentivirus			~8E9 transducing units/ml DMEM
Lipofectamine 2000	Life Technologies	11668019	