

Materials List for

# Longitudinal In Vivo Imaging and Quantification of Human Pancreatic Islet Grafting and Contributing Host Cells in the Anterior Eye Chamber

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## Citation

Nilsson, J., Holmberg, D., Schmidt-Christensen, A. Longitudinal In Vivo Imaging and Quantification of Human Pancreatic Islet Grafting and Contributing Host Cells in the Anterior Eye Chamber. *J. Vis. Exp.* (), e61234, doi:10.3791/61234 (2020).

## Date Published

June 11, 2020

## DOI

10.3791/61234

## URL

jove.com/video/61234

## Materials

Name	Company	Catalog Number	Comments
Anesthesia machine, e.g. Anaesthesia Unit U-400	Agnthos	8323001	used for isofluran anesthesia during surgery and imaging
-induction chamber 1.4 L	Agnthos	8329002	connect via tubing to U-400
-gas routing switch	Agnthos	8433005	connect via tubing to U-400
AngioSense 680 EX	Percin Elmer	NEV10054EX	imaging agent for injection, used to image blood vessels in human islet grafts
Aspirator tubes assemblies	Sigma	A5177-5EA	connect with pulled capillary pipettes for manual islet picking
Buprenorphine (Temgesic) 0.3mg/ml	Schering-Plough Europé	64022	fluid, for pain relief
Capillary pipettes	VWR	321242C	used together with Aspirator tubes assemblies
Dextran-Texas Red (TR), 70kDa	Invitrogen	D1830	imaging agent for injection
Eye cannula, blunt end , 25 G	BVI Visitec/BD	BD585107	custom made from Tapered Hydrode lineator [Blumenthal], dimensions: 0.5 x 22mm (25G x 7/8in) (45?), tip tapered to 30 G (0.3mm)
Eye gel	Novartis		Viscotears, contains Carbomer 2 mg/g
Hamilton syringe 0.5 ml, Model 1750 TPLT	Hamilton	81242	Plunger type gas-tight syringe for islet injection
<b>Head holder</b>			
-Head holding adapter	Narishige	SG-4N-S	assembled onto metal plate
-gas mask	Narishige	GM-4-S	
-UST-2 Solid Universal Joint	Narishige	UST-2	assembled onto metal plate
-custom made metal plate for head-holder assembly			
-Dumont #5, straight	Agnthos	0207-5TI-PS or 0208-5-PS	attached to UST-2 (custom made)
Heating pad, custom made			taped to the stereotaxic platform

<b>Human islet culture media</b>			
-CMRL 1066	ICN Biomedicals		cell culture media for human islets
-HEPES	GIBCO BRL		
-L-glutamin	GIBCO BRL		
-Gentamycin	GIBCO BRL		
-Fungizone	GIBCO BRL		
-Ciprofloxacin	Bayer healthcare AG		
-Nicotinamide	Sigma		
Image analysis software	Bitplane		Imaris 9
Image Aquisition software	Zeiss		ZEN 2010
Infrared lamp	VWR	1010364937	used to keep animals warm in the wake-up cage
Isoflurane Isoflo	Abott Scandinavia/Apotek		fluid, for anesthesia
Needle 25 G (0.5 x 16mm), orange	BD	10442204	used as scalpel
Petri dishes, 90mm	VWR	391-0440	
<b>2-Photon/confocal microscope</b>			
-LSM7 MP upright microscope	Zeiss		
-Ti:Sapphire laser Tsunami	Spectra-Physics, Mai Tai		
-long distance water-dipping lens 20x/NA1.0	Zeiss		
-ET710/40m (Angiosense 680)	Chroma	288003	
-ET645/65m-2p (TR)	Chroma	NC528423	
-ET525/50 (GFP)	Chroma		
-ET610/75 (tomato)	Chroma		
-main beam splitter T680lpxxr	Chroma	T680lpxxr	Dichroic mirror to transmit 690 nm and above and reflect 440 to 650 nm size 25.5 x 36 x 1 mm
Polythene tubing (0.38mm ID, 1.09 mm OD)	Smiths Medical Danmark	800/100/120	to connect with Hamilton syringe and eye canula
Stereomicroscope	Nikon		Model SMZ645, for islet picking
<b>Stereomicroscope (Flourescence)</b>			for islet graft imaging
-AZ100 Multizoom	Nikon		wide field and long distance
-AZ Plan Apo 1x	Nikon		
-AZ Plan Apo 4x	Nikon		
-AZ-FL Epiflourescence with C-LHGFI HG lamp	Nikon		
-HG Manual New Intensilight	Nikon		
-Epi-FL Filter Block TEXAS RED	Nikon		contains EX540-580, DM595 and BA600-660
-Epi-FL Filter Block G-2A	Nikon		(EX510-560, DM575 and BA590)
-Epi-FL Filter Block B-2A	Nikon		(EX450-490, DM505 and BA520)
-DS-Fi1 Colour Digital Camera (5MP)	Nikon		
Syringe 1-ml, Omnitix	Braun	9161406V	for Buprenorphine injection, used with 27 G needle
Surgical tape	3M		