

Materials List for:

# High Resolution 3D Imaging of the Human Pancreas Neuro-insular Network

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## Materials

Name	Company	Catalog Number	Comments
10x phosphate buffered saline (PBS)	Fisher	BP399-1	Buffers
Sodium phosphate dibasic anhydrous	Fisher	S375-500	PB buffer (RIMS)
Sodium phosphate monobasic monohydrate	Sigma	71507-250	PB buffer (RIMS)
16% paraformaldehyde (PFA)	Electron Microscopy Sciences	15714-5	Immersion fixation, hydrogel, storage solution
40% acrylamide	Bio-Rad	161-0140	Hydrogel
2% bis-acrylamide	Bio-Rad	161-0142	Hydrogel
VA-044 initiator	Wako Pure Chemical Industries, Ltd.	VA044	Hydrogel
Sodium dodecyl sulfate (SDS)	Fisher	BP166-5	Clearing buffer
Sodium azide	Sigma	S8032	Sample storage buffer
18 gauge needles	Fisher	14-840-91	Degassing hydrogel solution
N2 tank	AirGas	various	Degassing hydrogel solution
Triton X-100	Sigma-Aldrich	100 ml	Buffers
Goat, normal serum	Vector	S-1000	Use as 2% in blocking buffer
Histodenz	Sigma	D2158-100G	RIMS
8-well chamber slides	Ibidi	80827	Imaging
Laser scanning confocal microscope	Zeiss	710	Imaging
LightSheet microscope	Zeiss	Z1	Imaging
Name	Company	Catalog Number	Comments
Primary Antibody			
CD45	Bioss	bs-4820R-A488	Host: Rabbit Dilution: 1:100 Comments: Did not work
CD45	DAKO	M0754	Host: Mouse Dilution: 1:200 Comments: Did not work
GFAP	DAKO	Z0334	Host: Rabbit Dilution: 1:50 Comments: Worked
Glucagon	BD Biosciences	565891	Host: Mouse Dilution: 1:50

			Comments: Worked
Glucagon	Cell Signaling	2760S	Host: Rabbit Dilution: 1:200 Comments: Did not work
Glucagon	Abcam	ab10988	Host: Mouse Dilution: 1:200 Comments: Worked
Insulin	DAKO	A0564	Host: Guinea Pig Dilution: 1:200 Comments: Worked
NCAM (CD56)	DAKO	M730429-2	Host: Mouse Dilution: 1:50 Comments: Did not work
NCAM (CD56)-FITC conjugate	DAKO	M730429-2	Host: Mouse Dilution: 1:50 Comments: Did not work
Peripherin	EnCor	RPCA-Peri	Host: Rabbit Dilution: 1:100 Comments: Worked
PGP9.5	DAKO	Z5116	Host: Rabbit Dilution: 1:50 Comments: Did not work
Secretogranin 3	Sigma	HPA006880	Host: Rabbit Dilution: 1:200 Comments: Worked
Smooth muscle actin	Sigma	A5228; C6198 (Cy5)	Host: Mouse Dilution: 1:200; 1:200 Comments: Worked; Conjugated worked better than unconjugated
Substance P	BioRad	8450-0505	Host: Rat Dilution: 1:200 Comments: Worked
Tyrosine Hydroxylase	Millipore	AB152	Host: Rabbit Dilution: 1:200 Comments: Worked
Tyrosine Hydroxylase	Abcam	Ab76442	Host: Chicken Dilution: 1:100 Comments: Worked, but weak staining
Vasoactive Intestinal Peptide (VIP)	Immunostar	20077	Host: Rabbit Dilution: 1:100 Comments: Worked
Vesicular Acetylcholine Transporter (VACHT)	Synaptic Systems	139103	Host: Rabbit Dilution: 1:50 Comments: Worked
<b>Secondary Antibody</b>			
Guinea pig IgG	ThermoFisher Scientific	Various	Host: Goat Dilution: 1:200 Comments: AlexaFluor conjugates
Mouse IgG	ThermoFisher Scientific	Various	Host: Goat Dilution: 1:200 Comments: AlexaFluor conjugates
Rabbit IgG	ThermoFisher Scientific	Various	Host: Goat Dilution: 1:200 Comments: AlexaFluor conjugates
Rat IgG	ThermoFisher Scientific	Various	Host: Goat, Donkey Dilution: 1:200 Comments: AlexaFluor conjugates
Chicken IgG	ThermoFisher Scientific	Various	Host: Goat

			Dilution: 1:200 Comments: AlexaFluor conjugates
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