

Materials List for:

Three-dimensional Imaging and Analysis of Mitochondria within Human Intraepidermal Nerve Fibers

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Materials

Name	Company	Catalog Number	Comments
2% Zamboni's Fixative	Newcomer Supply, Middleton, WI	1459A	2% paraformaldehyde, 0.2% saturated picric acid in phosphate buffered saline (PBS), pH 7.4
10x Phosphate Buffered Saline (PBS)	Fisher Scientific, Pittsburgh, PA	BP399-4	To make up 1x PBS
Image-iT FX Signal Enhancer	ThermoFisher Scientific, Waltham, Massachusetts	I36933	enhances Alexa Fluor dye signals by reducing nonspecific binding
Anti-Protein Gene Product 9.5 Antibody (Rabbit Polyclonal)	Proteintech Group Inc. Rosemont, IL	14730-1-AP	abbreviated as PGP9.5, replaces discontinued AbD Serotec (Cat. No. 7863-0504) antibody
Anti-Pyruvate Dehydrogenase E2/E3bp Antibody (Mouse Monoclonal)	abcam, Cambridge, MA	ab110333	abbreviated as PDH
Goat anti-mouse Secondary antibody Alexa Fluor 594 conjugate	ThermoFisher Scientific, Waltham, Massachusetts	A-11034	red-fluorescent conjugated secondaryantibody
Goat anti-rabbit Secondary antibody Alexa Fluor 488 conjugate	ThermoFisher Scientific, Waltham, Massachusetts	A-11032	green-fluorescent conjugated secondaryantibody
Albumin, from Bovine Serum	Sigma-Aldrich, St. Louis, MO	A7906-100	abbreviated as BSA
Triton X- 100	Sigma-Aldrich, St. Louis, MO	T9284	abbreviated as TX-100
0.22 µm Filter	EMD Millipore, Billerica MA	MILLEX GP SLGP 033NS	0.22 µm Millipore filter
Parafilm M	Fisher Scientific, Pittsburgh, PA	13-374-10	Curwood Wisconsin LLC Parafilm M (PM-996)
Non-calibrated Loop	Fisher Scientific, Pittsburgh, PA	22-032092	inoculating Loop by Decon LeLoop (MP 199-25)
96-well Assay Plate	Corning Incorporated, Corning, NY	3603	96-well flat bottom plate
Prolong Gold antifade reagent with DAPI	ThermoFisher Scientific, Waltham, Massachusetts	P-36931	DAPI staining of nuclei
Microscope Cover Glass 50 x 24 mm	Fisher Scientific, Pittsburgh, PA	12-544E	Coverslips
Superfrost Plus Microscope Slides	Fisher Scientific, Pittsburgh, PA	12-550-15	Microscope Slides
Leica SP5 Laser Scanning Confocal Microscope	Leica Microsystems, Buffalo Grove, IL	SP5	Confocal Microscope
Volocity x64 Software	Perkin Elmer, Waltham , MA	version 4.4.0	Volocity software is used for Steps 3.1 and 3.2 in the protocol for image processing
Imaris x64 3 Dimensional Analysis Software	Bitplane, Concord, MA	version 7.7.1	Imaris software is used for Steps 3.3 through 3.5 in the protocol for image analysis

Excel	Microsoft, Redmond, WA	version Office 2013	Excel spreadsheet software is used for Step 3.6 in the protocol to summarize morphometric features
Optimum Cutting Temperature Compound	Sakura Finetek USA, Inc., Torrance, CA	4583	abbreviated as OCT
Leica Cryostat	Leica Biosystems, Buffalo Grove, IL	CM1850	Cryostat for cutting 50 μ m sections
CellLight Mitochondria-GFP, BacMam 2.0	ThermoFisher Scientific, Waltham, Massachusetts	C10600	Used as a positive control to label mitochondria with a green fluorescent signal