

Materials List for:

Analysis of Brain Mitochondria Using Serial Block-Face Scanning Electron Microscopy

Konark Mukherjee¹, Helen R. Clark¹, Vrushali Chavan¹, Emily K. Benson², Grahame J. Kidd², Sarika Srivastava¹

¹Virginia Tech Carilion Research Institute

²Renovo Neural Incorporated

Correspondence to: Konark Mukherjee at konark@vtc.vt.edu, Sarika Srivastava at Sarika_Srivastava@vtc.vt.edu

URL: <https://www.jove.com/video/54214>

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Materials

Name	Company	Catalog Number	Comments
C57BL/6J mice	Jackson laboratory	664	
Isoflurane	VEtone, tradename Fluriso	501017	
Dissection tray	Fisher scientific	S65105	
Dissection scissors	Ted Pella Inc.	1316	
Butterfly canula	Exel International	26704	
Phosphate buffer saline	Sigma-Aldrich	P4417-100TAB	
Filter (0.45 micron)	EMD Millipore	NC0813356	
Dissection microscope	Olympus	SZ61	
Vibratome sectioning system	Ted Pella Inc.	Vibratome 3000	
Sodium Cacodylate	EMS	12300	
Tannic Acid	EMS	21700	
Potassium Ferrocyanide	J.T. Baker	14459-95-1	
Osmium Tetroxide 4% Solution	EMS	19150	
Thiocarbohydrazide	EMS	21900	
L-Aspartic Acid	Sigma-Aldrich	A93100	
Potassium Hydroxide	Acros Organics	43731000	
Lead Nitrate	EMS	17900	
EMbed-812 EMBEDDING KIT	EMS	14120	Contains Embed 812 resin, DDSA, NMA, and DMP-30.
Glutaraldehyde 25% EM Grade	Polysciences Inc.	1909	
Paraformaldehyde	EMS	19202	
Uranyl Acetate	EMS	22400	
Ethanol	EMS	15055	
Propylene Oxide	EMS	20400	
Embedding Mold	EMS	70907	
Aluminum specimen pin	EMS	70446	
Colloidal Silver Liquid	EMS	12630	
Razor	EMS	72000	
Super Glue (Loctite Gel Control)	Loctite	234790	Hardware/craft stores carry this item
Conductive epoxy	Ted Pella Inc.	16043	
Scanning electron microscope	Zeiss	Sigma VP	
In chamber ultramicrotome for SEM	Gatan Inc.	3View2	Can be designed for other SEMs

Trimming microscope for pin preparation	Gatan Inc.	supplied as part of 3View system	
Low kV backscattered electron detector	Gatan Inc.	3V-BSED	
ImageJ/ Fiji processing package	ImageJ ver 1.50b, FIJI download Oct 1, 2015	http://zoi.utia.cas.cz/files/imagej_api.pdf	
http://rsb.info.nih.gov/ij/			
http://www.icmr.ucsb.edu/programs/3DWorkshop/Uchic-2015_FIJI_Tutorial.pdf			
http://fiji.sc/TrakEM2			