

Three-dimensional Characterization of Interorganelle Contact Sites in Hepatocytes using Serial Section Electron Microscopy

 Gary Hong Chun Chung¹, Paul Gissen^{1,2}, Christopher J. Stefan¹, Jemima J. Burden¹
¹MRC Laboratory for Molecular Cell Biology, University College London ²NIHR Great Ormond Street Hospital Biomedical Research Centre, University College London

Corresponding Author

Jemima J. Burden

j.burden@ucl.ac.uk

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jove.com/video/63496

Materials

Name	Company	Catalog Number	Comments
0.22 µm syringe filter	Sarstedt	83.1826.001	
Aluminum trays	Agar Scientific	AGG3912	
Amira v6	ThermoFisher		https://www.thermofisher.com
Chloroform	Fisher	C/4960/PB08	
DDSA/Dodeceny Succinic Anhydride	TAAB	T027	Epon ingredient
Diamond knife	DiaTOME	ultra 45°	
DMP-30/2,4,6-tri (Dimethylaminomethyl) phenol	TAAB	D032	Epon ingredient
Dumont Tweezers N5	Agar Scientific	AGT5293	
Fiji			https://imagej.net/
Fiji TrakEM2 plugin			https://imagej.net/
Formaldehyde 36% solution	TAAB	F003	
Formvar coated slot grid	Homemade		Alternative: EMS diasum (FF2010-Cu)
Glass bottle with applicator rod	Medisca	6258	
Glass vials	Fisher Scientific	15364769	
Gluteraldehyde 25% solution	TAAB	G011	
MNA/Methyl Nadic Anhydride	TAAB	M011	Epon ingredient
Osmium Tetroxide 2% solution	TAAB	O005	
Potassium Ferricyanide	Sigma-Aldrich	P-8131	
Propylene oxide	Fisher Scientific	E/0050/PB08	
Reuseable adhesive	Blue Tack		
Reynolds Lead Citrate	TAAB	L037	Section stain
Sodium Cacodylate	Sigma-Aldrich	C-0250	to make 0.1 M Caco buffer
Super Glue	RS Components	918-6872	Cyanoacrylate glue, Step 1.3
TAAB 812 Resin	TAAB	T023	Epon ingredient

Tannic acid	TAAB	T046	
Triton X-100	Sigma-Aldrich	T9284	
Two part Epoxy Resin	RS Components	132-605	Alternative: Step 2.13
Ultramicrotome	Leica	UC7	
Vibrating microtome	Leica		100 μ m thick slices, 0.16 mm/s cutting at 1 mm amplitude .
Weldwood Original Contact cement	DAP	107	Contact adhesive: Step 3.1.4