

Materials List for:

# Flash-and-Freeze: A Novel Technique to Capture Membrane Dynamics with Electron Microscopy

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## Materials

Name	Company	Catalog Number	Comments
Freeze-substitution and Low-temperature Embedding System for Light and Electron Microscopy - AFS II	Leica		
High Pressure Freezer - EM-ICE	Leica		EM ICE is a specialized high pressure freezer that allows precise control of light stimulation and freezing.
Osmometer	Gonotec		
Ultramicrotome UC7	Leica		
Oven	Blue M		
Razor blade	Personna		
Glutaraldehyde	EMS	16530	
Osmium tetroxide	EMS	RT19132	Toxic, open only under certified chemical hood
Acetone	EMS	RT10016	
HEPES	Emdmillipore	391340-250GM	
Glucose	Sigma	49159-1KG	
KCl	Sigma	746436-1KG	
NaCl	Sigma	S7653-1KG	
CaCl <sub>2</sub>	Sigma	21115-250ML	
MgCl <sub>2</sub>	J.T.Baker	2444-01	
Liquid epoxy resin Eponate 12	Ted Pella	18028	
Bisphenol A epoxy resin Araldite 502	Ted Pella	18028	
Dodeceny succinic anhydride (DDSA)	Ted Pella	18028	
Benzyl dimethyl amine (BDMA)	Ted Pella	18241	
Special embedding (BEEM) capsule	EMS	70021	
Copper Grid	Ted Pella	1GC12H	
Polyvinyl acetate (Pioloform F)	Ted Pella	19244	
Uranyl acetate	Polysciences	21447-25	
Ethyl cyanoacrylate (Super glue)	Scotch	170497	
Trypsin-EDTA	Thermo scientific	25300-120	

DMEM (Dulbecco's Modified Eagle's Medium)	Thermo scientific	10569-044	Should be warmed to 37 °C before use
FBS (Fetal Bovine Serum)	Thermo scientific	26140-079	
Pen-Strep	Thermo scientific	15140-122	
Fluoro-deoxyuridine (FUDR)	Sigma	F0503	
Glass cover slip	Fisher	S175223	Should be acid-washed
Sapphire disc	Technotrade	616-100	
Acetic acid	Emdmillipore	1000631011	
Poly-D-Lysine (PDL)	Sigma	P6407	
Rat tail collagen	Thermo scientific	A10483-01	
Neurobasal A	Fisher	10888022	Should be warmed to 37 °C before use
L-alanyl-L-glutamine (Glutamax)	Fisher	35050-079	
Seraum free supplement (B-27)	Fisher	17504044	
Hanks'-balanced Salt Solution (HBSS)	Thermo scientific	24020117	
Papain	Worthington	LS003126	Active Unit should be calculated for each batch
Thermomixer	Eppendorf	Thermomixer C	
Trypsin inhibitor	Sigma	T9253	
NBQX	Tocris	03-731-0	
Bicuculine	Tocris	01-091-0	
Whatman I filter paper	GE		
Transmission Electron Microscope	Philips CM20		