

# Streptavidin-Affinity Grid Fabrication for Cryo-Electron Microscopy Sample Preparation

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## Materials

Name	Company	Catalog Number	Comments
1,2-dipalmitoyl-sn-glycero-3-phosphoethanolamine-N-(biotinyl) sodium salt	Avanti Polar Lipids	870285P	Comes as a powder. Dissolve at concentration of 1–10 mg/mL in chloroform/methanol/water solvent, 65:35:8 v/v and store in single use aliquots at -80 °C
200 proof pure ethanol	Fisher Scientific	07-678-005	
5 µL Hamilton Syringe	Hamilton	87930	5 µL Microliter Syringe Model 75 RN, Small Removable Needle, 26 G, 2 in, point style 2
Castor Oil	Sigma Aldrich	259853	
Cell culture dishes untreated (35 mm)	Bio Basic	SP22146	
Chloroform	Sigma Aldrich	650471	
D-(+)-Trehalose dihydrate, from starch, ≥99%	Sigma Aldrich	T9449	
DUMONT Anti-Capillary Reverse (self-closing) Tweezers Biology Grade	Ted Pella	510-5NM	
HPLC Grade Methanol	Fisher Scientific	A452-4	
Leica EM ACE600 High Vacuum Sputter Coater	Leica		
Leica EM GP2 Automatic Plunge Freezer	Leica		
Quantifoil R 2/1 Au300	Quantifoil	Q84994	
Streptavidin	New England Bioscience	N7021S	Comes as 1 mg/mL solution. Dilute to final concentration of 0.5 mg/mL in crystallization buffer with a final trehalose concentration of 10%. Can be flash frozen in 25–50 µL aliquots
Talcum powder	Carolina	896060	

Whatman Grade 1 filter paper	Cytiva	1001-085	
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