

Materials List for:

Analyzing Dynamic Protein Complexes Assembled On and Released From Biolayer Interferometry Biosensor Using Mass Spectrometry and Electron Microscopy

Alexandra J. Machen¹, Pierce T. O'Neil¹, Bradley L. Pentelute², Maria T. Villar¹, Antonio Artigues¹, Mark T. Fisher¹

¹Department of Biochemistry and Molecular Biology, University of Kansas Medical Center

²Department of Chemistry, Massachusetts Institute of Technology

Correspondence to: Mark T. Fisher at mfisher1@kumc.edu

URL: <https://www.jove.com/video/57902>

DOI: [doi:10.3791/57902](https://doi.org/10.3791/57902)

Materials

Name	Company	Catalog Number	Comments
(1-ethyl-3-(3-dimethylaminopropyl)carbodiimide) (EDC)	Thermo Scientific	22980	
(2-(2-pyridinyldithio)ethanamine) (PDEA)	GE Lifesciences	BR100058	
0.5 mL black microtubes	Sigma-Aldrich	Z688304-500EA	
1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine (POPC)	Avanti	850457C-25mg	
Acclaim PepMap 50 µm x 150mm, C18, 2 µm, 100 Å	ThermoFisher Scientific	164561	
Acetic acid glacial	Fisher	A38SL-212	
Acetonitrile	Fisher	A955-4	
Amine reactive 2nd generation (AR2G) tips	Forte Bio	18-5092	
Ammonium bicarbonate	Fisher	A643-500	
Anotop 10 syringe filter, 0.02µm	GE Lifesciences	6809-1002	
BLItz System	Pall Forte Bio	45-5000	
Boric acid	Fisher Scientific	10043-35-3	
Capillary Morphogenic Gene-2			Protein produced and purified in-house
Carbon coated Cu 300 grid	Electron Microscopy Sciences	CF300-CU-50	
Dithiothreitol (DTT)	GoldBio	DTT25	
Formic acids	JT Baker	0129-01	
Guanidine hydrochloride (GuHCl)	Sigma-Aldrich	G4505-100G	
Iodoacetamide	MP-BioMedicals, LLC	100-351	
JEM-1400 Transmission Electron Microscope	JEOL		
L-cystiene hydrochloride hydrate	Sigma-Aldrich	C121800-5G	
Lethal Factor N-terminal domain			Protein produced and purified in-house
MS software version 2.2	ThermoFisher Scientific		
N-hydroxysuccinimide (NHS)	Sigma-Aldrich	090M14531V	
Orbitrap Fusion Lumos	ThermoFisher		
PCR tubes	ThermoFisher Scientific	AB-0620	

Pelco easiGlow glow discharge cleaning system	Ted Pella, Inc	91000	
Protective Antigen prepore			Protein produced and purified in-house
Qualitative filter paper circles	Fisher Scientific	09-795C 5	
Sequencing grade modified trypsin	Promega	V5111	
Sequest HT search engine	ThermoFisher Scientific		
Sodium acetate trihydrate	Fisher Scientific	BP334-500	
Sodium chloride	Fisher Scientific	S271-10	
Sodium cholate	Sigma-Aldrich	C1254-100G	
Tris base	Fisher Scientific	BP152-10	
Uranyl formate (UF)	Electron Microscopy Sciences	22450	
Xcalibur	ThermoFisher Scientific	OPTON-30487	