

Materials List for:

Preparation and Delivery of Protein Microcrystals in Lipidic Cubic Phase for Serial Femtosecond Crystallography

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Materials

Name	Company	Catalog Number	Comments
LCP host lipid monoolein (9.9 MAG)	Nu Chek Prep	M239	Hosting lipid for the protein to be crystallized
LCP host lipid monoolein (9.9 MAG)	Sigma	M7765	Hosting lipid for the protein to be crystallized
LCP host lipid monopalmitolein (9.7 MAG)	Nu Chek Prep	M219	Hosting lipid for the protein to be crystallized
LCP host lipid 7.9 MAG	Avanti Polar Lipids	850534	Hosting lipid for titration to avoid lamellar crystal phase (Lc) formation during sample injection
Purified protein solution concentrated to 20-50 mg/ml			Target protein
Chloroform	Fisher Scientific	C606-1	Used to dissolve lipids
Methanol	Sigma-Aldrich	179337-500ML	Used to wash syringes
Eleven 100 µl Hamilton gas-tight syringes without needles	Hamilton	7656-01	For LCP preparation
Eight syringe couplers	Formulatrix	SKU 209526	For LCP preparation
LCP-injector loading needle	Hamilton	7804-01 point style 3, length 1 inch	For LCP dispensing and injector loading
Removable needle	Hamilton	7768-01	For removing precipitant solution
Parafilm M	Parafilm	PM992	Used for syringe sealing
Lint free lens cleaning tissues	Fisher	NC9592151	
Centrifugal filter tubes, Ultrafree-MC, 0.5 ml, Durapore 5 µm	Millipore	UFC3 0SV 00	Used for filtering of precipitant solutions and lipids
Microscope slides, 1 inch x 3 inch	GoldSeal	3010	
Two wash bottles with fine tips. One filled with milli-Q or distilled water, the other with methanol	VWR	89094-640	These are used to clean the syringes, needles and coupler. Methanol is used first, then water.
Gloves	Microflex	XC-310-L	For blow drying syringes, needles, ferrules, and couplers
Safety glasses			
Pressurized air cans	Office Depot (Dust-Off)	527494	For syringe cleaning
Dry block heater with a digital temperature controller	Fisher	11-720-10BQ	Used for thawing lipids
Benchtop Centrifuge	Fisher	05-413-340	Spinning down solutions
Clean Room Mini - 12 inch Portable Positive Pressure Hood with HEPA filter	Sentry Air Systems, Inc.	SS-112-PCR	Cleaning sample preparation

Stereo zoom microscope equipped with a linear polarizer and rotating analyzer	Nikon	SMZ1500	Crystal density check
UV microscope	JAN Scientific	UVEX-P	Optional, for crystal imaging purposes
SHG imager	Formulatrix	SONICC	Optional, for crystal imaging purposes