

Optimizing the Growth of Endothiapepsin Crystals for Serial Crystallography Experiments

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jove.com/video/61896

Materials

Name	Company	Catalog Number	Comments
Swissci 96-well 2-Drop plates	Molecular Dimensions	MD11-002	96-well 2-drop crystallisation plate
Swissci 96-well 3-Drop plates	Molecular Dimensions	MD11-003	96-well 3-drop crystallisation plate
mosquito LCP liquid handling robot	sptlabtech	mosquito LCP	Crystallisation robot
ClearVue Sheets	Molecular Dimensions	MD6-015	96-well crystallization plate seals
Safe-Tube 1.5 mL	Eppendorf	30120086	1.5 mL centrifuge tubes
Scaple	Swan and Morton	No. 3 scalple and No. 3 handle	Scaple for cutting open plate seals
MS 3 Vortex	IKA	3319000	Vortex for mixing solution and making seed stocks
24-well XRL Plate	Molecular Dimensions	MD3-11	24-well hanging-drop plates
Tube revolver/rotator	Thermo Fischer Scientific	88881001	Tube revolver for mixing solution during scaling
Eppendorf Research plus pipettes	Eppendorf		Range of manual pipettes, 0.5-10, 1-20, 10-100, 100-1000 µL
Eppendorf pipette tips	Eppendorf		Range of tip sizes for manual pipettes
Suparen 600	Prochem AG	Suparen 600	Endothiapepsin solution
Sodium Acetate	Sigma-Aldrich	241245-1KG	Sodium Acetate
Tris	Merck	8382T014	Tris
Magnesium Chloride	Sigma-Aldrich	M2670-1kg	Magnesium Chloride
PEG 6,000	Sigma-Aldrich	81255-1kg	PEG 6,000
Ethylene glycol	Sigma-Aldrich	324558-1L	Ethylene glycol for cyro-protecting the crystals
PACT Premier HT screen	Molecular Dimensions	MD1-36	PACT Premier 96-well crystal screen
DOW CORNING high vacuum grease	Molecular Dimensions	MD6-02	Grease for sealing 24-well plates
Hirschmann 22 x 22 mm glaser cover slides	Hirschmann	8000104	Cover slides for sealing 24-well sitting drop plates
Crystal pins	PSI	Manufactured inhouse	Thin-film supports for micro-crystals.
1-1.3 mm SiLibeads Type S	Faust	6239547	Glass beads for making mico-seed stocks

Macbook Pro	Apple	Macbook Pro	Computer for performing data analysis
CCP4 software suite	CCP4		Diffraction pattern data processing software
Excel	Microsoft	Microsoft Office	Plotting tool for phase diagram
Hausser Scientific Bright-Line counting chamber	Thermo Fischer Scientific	02-671-51B	Tool to calculate crystal concentration
PACT Premier	Molecular Dimensions	MD1-29-ECO	Sparse-matrix crystallization screen
Rock Imager	Formulatrix	Rock Imager	Temperature controlled crystal plate storage and imager
Rock MakerWeb	Formulatrix	Rock MakerWeb	Crystal plate creation and image storage software
Formulator	Formulatrix	Formulator	96-well crystal screen creation liquid handling robot
Leica MZ16 Microscope	Leica	Leica MZ16	Light microscope
LAS V4.6	Leica	LAS V4.6	Software for Leica microscopes
Spectra/Por 3.5 kDa dialysis tubing	Spectrumlabs	Spectra/Por 3 Dialysis Membrane	3.5 kDa dialysis membrane
Dialysis tubing closures	Spectrumlabs	Spectra/Por 3 Duniversal Closures	Clips to seal the dialysis tubing ends
Amicon 10 kDa centrifugal concentrator	Merck-Millipore	Amicon Ultra-15 10 kDa centrifugal concentrator	10 kDa centrifugal filter
5810 R swing bucket centrifuge	Eppendorf	5810 R Centrifuge	Swing bucket centrifuge