

Materials List for:

# Online Size-exclusion and Ion-exchange Chromatography on a SAXS Beamline

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URL: <https://www.jove.com/video/54861>

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## Materials

Name	Company	Catalog Number	Comments
1,4-dithiothreitol [DTT]	Euromedex	EU0006-B	
10% Mini-PROTEAN TGX Precast Protein Gel	Biorad	4561033	
2x Phusion Flash PCR Master Mix	ThermoFisher scientific	F 548	
acetic acid glacial	VWR Chemicals (BDH Prolabo)	20104.298	
Agarose D-5	Euromedex	LF45130653	
Amicon Ultra -15 Centrifugal filters Ultracel -30K	Millipore Ltd	UFC903024	
Ampicillin sodium salt	Euromedex	EU0400-D	
Benzonase	Novagene	70750-3	
bromophenol blue	MERCK	8122	
Complete protease inhibitor cocktail	Roche	11231400	
Econo-Pac 10 DG Desalting column	Bio-rad	732-2010	
EDTA	Sigma	E-5134	
Glycerol	VWR Chemicals (BDH Prolabo)	24388.295	
Glycine	Euromedex	26-128-6405-C	
HindIII	Roche	656313	
HisSelect HF Nickel Affinity Gel	Sigma	H0537	
Hydrochloric acid (HCl)	VWR Chemicals (BDH Prolabo)	20252.295	
Imidazole	AppliChem Panreac	A1073,0500	
InstantBlue	Expedeon	ISB1L	
LB broth Miller	Fluka Analytical	L3152	
MgCl <sub>2</sub>	ICN Biomedicals Inc.	191421	
NaCl	VWR Chemicals (BDH Prolabo)	27808.297	
Ncol	Fermentas	ER0571	
One Shot BL21 Star (DE3)	ThermoFisher scientific	C6010-03	
pProEx HTb vector	Addgene	10711018	
Primer	Eurofins mwg operon		
QIAprep Spin Miniprep kit	QIAGEN	27106	
QIAquick Gel extraction kit	QIAGEN	28706	
QIAquick PCR purification kit	QIAGEN	28106	

SDS	Sigma	75746	
Superose 6 10/300 GL	GE Healthcare	17-5172-01	
SYBR Safe DNA gel stain	Invitrogen life technology	S33102	
T4 ligase	ThermoFisher scientific	EL0011	
TEV			home made
TOP 10	Invitrogen life technology	C404003	
Tris base	Euromedex	26-128-3094-B	
Uno Q 1R column	Bio-rad	720 0011	
$\beta$ -mercaptoethanol	MPBiomedicals, LLC	194834	
<b>Name</b>	<b>Company</b>	<b>Catalog Number</b>	<b>Comments</b>
<b>Softwares</b>			
Beamline control software BsXCuBE	ESRF	Pernot <i>et al.</i> (2013), J. Synchrotron Rad. 20, 660-664	local development
Camserver software	Dectris	n.a.	detector control software
DAMAVER	ATSAS 2.6.0	<a href="http://www.embl-hamburg.de/biosaxs/download.html">http://www.embl-hamburg.de/ biosaxs/download.html</a>	program to align ab initio models
DAMMIF	ATSAS 2.6.0	<a href="http://www.embl-hamburg.de/biosaxs/download.html">http://www.embl-hamburg.de/ biosaxs/download.html</a>	<i>ab initio</i> model reconstruction program
HPLC program Biologic Duo Flow	Bio-rad		
HPLC program LabSolutions	Shimadzu	n.a.	
ISPyB	ESRF	De Maria Antolinos <i>et al.</i> (2015). Acta Cryst. D71, 76-85.	local development
PRIMUS	ATSAS 2.6.0	<a href="http://www.embl-hamburg.de/biosaxs/download.html">http://www.embl-hamburg.de/ biosaxs/download.html</a>	program, which performs the manipulation with experimental SAXS
PyMOL	DeLano Scientific LLC	<a href="https://www.pymol.org/">https://www.pymol.org/</a>	software for visualization
SUPCOMB	ATSAS 2.6.0	<a href="http://www.embl-hamburg.de/biosaxs/download.html">http://www.embl-hamburg.de/ biosaxs/download.html</a>	program to superimpose 3D structures
<b>Name</b>	<b>Company</b>	<b>Catalog Number</b>	<b>Comments</b>
<b>Equipment</b>			
BioLogic Duo Flow	Biorad		
BioLogic Biofrac Fraction collector	Biorad		
HPLC system	Shimadzu		
Labsonic P	Sartorius Stedim biotech	BB18535108	