

Materials List for:

Non-chromatographic Purification of Recombinant Elastin-like Polypeptides and their Fusions with Peptides and Proteins from *Escherichia coli*

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Materials

Name	Company	Catalog Number	Comments
pET-24a(+) pET-25b(+)	Novagen	69749-3 69753-3	T7- <i>lac</i> expression vectors with resistance to kanamycin (pET-24) or ampicillin (pET-25).
Ultra BL21 (DE3) competent cells	Edge BioSystems	45363	Competent <i>E. coli</i> for recombinant protein expression.
Terrific Broth (TB) Dry Powder Growth Media	MO BIO Laboratories	12105	Media is reconstituted in DI H ₂ O and autoclaved before use.
Isopropyl-beta-D-thiogalactoside (IPTG)	Gold Biotechnology	I2481C	IPTG is reconstituted in DI H ₂ O, sterile filtered, and added to cultures to induce enhanced expression.
Phosphate buffered saline (PBS) tablet	Calbiochem	524650	These PBS tablets, when dissolved in 1 L of DI H ₂ O, yield a 10 mM phosphate buffer with 140 mM NaCl, and 3 mM KCl with a pH of 7.4 at 25 °C.
Polyethyleneimine (PEI) Solution (~50% w/v)	MP Biomedicals	195444	PEI is prepared as a 10% (w/v) solution in deionized H ₂ O.
Nalgene Oak Ridge high-speed centrifuge tubes, 50 ml	Thermo Scientific	3138-0050	These round-bottom tubes withstand high-speed centrifugation of 30-50 ml.
Tris(2-carboxyethyl)phosphine hydrochloride (TCEP-HCl)	Thermo Scientific	20491	A stock solution of TCEP-HCl is prepared at 100 mM in DI H ₂ O and adjusted to pH 7.0. For ELPs with a high cysteine content the stock solution of this reducing agent is added to the ELP pellet to reach 10 mM in H ₂ O.
Ready Gel Tris-HCl gel, 4-20% linear gradient polyacrylamide gel, 10 well, 30 µl	Bio-Rad Laboratories	161-1105	These linear gradient gels offer good visualization of ELPs with a range of MWs.
Cupric chloride dihydrate (CuCl ₂ ·2H ₂ O)	Fisher Scientific	C454-500	A filtered 0.5 M solution is prepared for negative staining of Tris-HCl polyacrylamide gels.
Anotop 10 syringe filter: 0.02 µm 0.1 µm 0.2 µm	Whatman	6809-1002 6809-1012 6809-1022	These 10-mm diameter syringe filters allow preparation of small volumes for DLS measurements.
Milllex-HV filter: 0.45 µm	EMD Millipore	SLHVX13NK	These 13-mm diameter syringe filters allow preparation of small volumes of solutions with large

			nanoparticle assemblies for DLS measurements.
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