

Materials List for:

Assaying for Inorganic Polyphosphate in Bacteria

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Materials

Name	Company	Catalog Number	Comments
<i>E. coli</i> BL21(DE3)	Millipore Sigma	69450	
plasmid pScPPX2	Addgene	112877	available to academic and other non-profit institutions
LB broth	Fisher Scientific	BP1427-2	<i>E. coli</i> growth medium
ampicillin	Fisher Scientific	BP176025	
isopropyl β-D-1-thiogalactopyranoside (IPTG)	Gold Biotechnology	I2481C	
HEPES buffer	Gold Biotechnology	H-400-1	
potassium hydroxide (KOH)	Fisher Scientific	P250500	for adjusting the pH of HEPES-buffered solutions
sodium chloride (NaCl)	Fisher Scientific	S27110	
imidazole	Fisher Scientific	O3196500	
lysozyme	Fisher Scientific	AAJ6070106	
magnesium chloride (MgCl ₂)	Fisher Scientific	BP214-500	
Pierce Universal Nuclease	Fisher Scientific	PI88700	Benzonase (Sigma-Aldrich cat. # E1014) is an acceptable substitute
Model 120 Sonic Dismembrator	Fisher Scientific	FB-120	other cell lysis methods (e.g. French Press) can also be effective
5 mL HiTrap chelating HP column	GE Life Sciences	17040901	any nickel-affinity chromatography column or resin could be substituted
nickel(II) sulfate hexahydrate	Fisher Scientific	AC415611000	for charging HiTrap column
0.8 μm pore size cellulose acetate syringe filters	Fisher Scientific	09-302-168	
Bradford reagent	Bio-Rad	5000205	
Tris buffer	Fisher Scientific	BP1525	
Spectrum Spectra/Por 4 RC Dialysis Membrane Tubing 12,000 to 14,000 Dalton MWCO	Fisher Scientific	08-667B	other dialysis membranes with MWCO < 30,000 Da should also work
hydrochloric acid (HCl)	Fisher Scientific	A144-212	for adjusting the pH of Tris-buffered solutions
potassium chloride (KCl)	Fisher Scientific	P217500	
glycerol	Fisher Scientific	BP2294	
10x MOPS medium mixture	Teknova	M2101	<i>E. coli</i> growth medium
glucose	Fisher Scientific	D161	
monobasic potassium phosphate (KH ₂ PO ₄)	Fisher Scientific	BP362-500	

dibasic potassium phosphate (K ₂ HPO ₄)	Fisher Scientific	BP363-500	
dehydrated yeast extract	Fisher Scientific	DF0886-17-0	
tryptone	Fisher Scientific	BP1421-500	
magnesium sulfate heptahydrate	Fisher Scientific	M63-50	
manganese sulfate monohydrate	Fisher Scientific	M113-500	
guanidine isothiocyanate	Fisher Scientific	BP221-250	
bovine serum albumin (protease-free)	Fisher Scientific	BP9703100	
clear flat bottom 96-well plates	Sigma-Aldrich	M0812-100EA	any clear 96-well plate will work
Tecan M1000 Infinite plate reader	Tecan, Inc.	not applicable	any plate reader capable of measuring absorbance at 595 and 882 nm will work
ethanol	Fisher Scientific	04-355-451	
silica membrane spin columns	Epoch Life Science	1910-050/250	
ethylenediaminetetraacetic acid (EDTA)	Fisher Scientific	BP120500	
1.5 mL microfuge tubes	Fisher Scientific	NC9580154	
ammonium acetate	Fisher Scientific	A637-500	
antimony potassium tartrate	Fisher Scientific	AAA1088922	
4 N sulfuric acid (H ₂ SO ₄)	Fisher Scientific	SA818-500	
ammonium heptamolybdate	Fisher Scientific	AAA1376630	
ascorbic acid	Fisher Scientific	AC401471000	