

Materials List for:

Synthesis of 1,2-Azaborines and the Preparation of Their Protein Complexes with T4 Lysozyme Mutants

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Materials

Name	Company	Catalog Number	Comments
Tetrahydrofuran (THF), inhibitor-free, for HPLC, ≥99.9%	Sigma Aldrich	34865	
Diethyl ether (Et ₂ O), for HPLC, ≥99.9%, inhibitor-free	Sigma Aldrich	309966	
Methylene chloride (CH ₂ Cl ₂), (Stabilized/Certified ACS)	Fisher	D37-20	
Toluene	Fisher	T290-4	
Pentane, HPLC	Fisher	P399-4	
Acetonitrile	Fisher	A21-4	
Calcium hydride (CaH ₂), reagent grade, 95%	Sigma Aldrich	208027	Pyrophoric
Palladium on activated carbon (Pd/C), 10 wt% Pd	Strem	46-1900	
1.0 M Boron trichloride solution in hexane	Sigma Aldrich	211249	Highly toxic/Pyrophoric
Triethylamine, ≥99.5%	Sigma Aldrich	471283	
Grubbs 1 st generation catalyst	materia	C823	
Acetamide	Sigma Aldrich	A0500	
n-Butanol, anhydrous, 99.8%	Sigma Aldrich	281549	
Ethyllithium solution, 0.5 M in benzene/cyclohexane	Sigma Aldrich	561452	Highly toxic/ Pyrophoric
HCl solution, 2.0 M in Et ₂ O	Sigma Aldrich	455180	
2-Methylbutane, anhydrous, ≥99%	Sigma Aldrich	277258	
<i>Escherichia coli</i> , (Migula) Castellani and Chalmers (ATCC® 31343™)	ATCC	31343	
T4 lysozyme WT* (L99A)	Addgene	18476	
T4 lysozyme mutant (S38D L99A M102Q N144D)	Addgene	18477	
Ampicillin sodium salt	Sigma Aldrich	A0166	
isopropyl-β-D-1-thiogalactopyranoside (IPTG)	Invitrogen	AM9464	
Sodium phosphate monobasic anhydrous	Fisher	BP329	
Sodium Phosphate dibasic anhydrous	Fisher	BP332	
Sodium chloride	Fisher	S642212	
Ethylenediaminetetraacetic acid	Fisher	BP118	

Magnesium chloride	Sigma Aldrich	M4880	Corrosive
Thermo scientific pierce DNaseI	Fisher	PI-90083	
GE Healthcare Sepharose Fast Flow Cation Exchange Media	Fisher	45-002-931	
Tris-base	Fisher	BP152-500	
Sodium azide	TCI	S0489	Highly toxic
2-Mercaptoethanol	Fisher	ICN806443	
Sartorius Vivaspin 20 Centrifugal Concentrators	Fisher	14-558-501	
Potassium phosphate monobasic	Sigma Aldrich	P5379	
2-Hydroxyethyl disulfide	Sigma Aldrich	380474	
N-paratone	Hampton Research	HR2-643	
4 RC Dialysis Membrane Tubing 12,000 to 14,000 Dalton MWCO	Fisher	08-667E	
CryoLoop	Hampton Research		cryogenic tubing shaped into a loop
CryoTong	Thermo Fisher		cryogenic tong
Coot			Electron density images are generated from the software