

Materials List for:

Genetic Engineering of an Unconventional Yeast for Renewable Biofuel and Biochemical Production

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Materials

Name	Company	Catalog Number	Comments
Reagent/Material			
Oligonucleotide primers	Integrated DNA Technologies		25 nmole DNA oligos
<i>Y. lipolytica</i> strain Po1g	Yeastern Biotech		leucine auxotrophic derivative of the wild-type strain W29 (ATCC 20460)
Vector pYLEX1	Yeastern Biotech	FYY203-5MG	<i>Y. lipolytica</i> expression vector
<i>E. coli</i> TOP10	Invitrogen		For cloning and propagation of plasmids
pGEM-T vector	Promega	A3600	TA cloning vector
QIAprep Spin Miniprep Kit	Qiagen	27106	For plasmid isolation
Wizard SV Gel and PCR Clean-Up System	Promega	A9282	Extract DNA fragments from agarose gels and purify PCR products from an amplification reaction
The iProof high-fidelity DNA polymerase	Bio-Rad	172-5302	High-fidelity DNA polymerase
BamHI	New England Biolabs	R0136S	Restriction enzyme
BglII	New England Biolabs	R0144L	Restriction enzyme
KpnI	New England Biolabs	R0142S	Restriction enzyme
NdeI	New England Biolabs	R0111S	Restriction enzyme
NotI	New England Biolabs	R0189L	Restriction enzyme
PmlI	New England Biolabs	R0532S	Restriction enzyme
PstI	New England Biolabs	R0140S	Restriction enzyme
SacII	New England Biolabs	R0157S	Restriction enzyme
Sall	New England Biolabs	R0138S	Restriction enzyme
XhoI	New England Biolabs	R0146L	Restriction enzyme
T4 DNA ligase	New England Biolabs	M0202L	
Taq DNA polymerase	Bio-Rad	M0267L	
Ampicillin	Gibco-Life Technologies	11593-027	Antibiotics
Hygromycin B	PAA	P21-014	Antibiotics
GeneRuler 1 kb DNA ladder	Thermo Scientific	SM0312	1 kb DNA ladder
PEG4000	Sigma	95904-F	
Tris	Promega	H5135	
EDTA	Bio-Rad	161-0729	
Salmon Sperm DNA	Invitrogen	15-632-011	

Lithium Acetate	Sigma		
Acetic acid	Sigma		
Glass beads (425-600 µm)	Sigma	G8772	
RNAse A	Thermo Scientific	EN0531	
DNA Loading Dye	Thermo Scientific	R0611	
Bacto Yeast Extract	BD	212750	
Bacto Peptone	BD	211677	
D-Glucose	1st Base	BIO-1101	
YNB without amino acids	Sigma	Y0626	
DO Supplement-Leu	Clontech	630414	
Glycerol	Sigma	G5516	
Difco LB Broth	BD	244620	
Difco LB Agar	BD	244520	
Bacto Agar	BD	214010	
Equipment			
PCR machine	Biorad	T100 Thermal Cycler	
Water bath	Memmert	WNB 14	
Stationary/Shaking Incubator	Yihder	LM-570RD	
Thermo-shaker	Allsheng	MS-100	
Micro centrifuge	Eppendorf	5424R	
Centrifuge	Eppendorf	5810R	
Spectrophotometer	Eppendorf	BioPhotometer plus	
Gel imager	GE	Amersham Imager 600	