

RECIPES

RECIPES FOR SOLUTIONS			
Adjust all pH's before arriving at final volume			
Agarose Gel Electrophoresis Reagents			
<u>TAE (50X)</u>	<u>TBE (10X)</u>	<u>6X Loading Dye for DNA</u>	
242g Tris Base	121.1g Tris Base	0.0625g Bromphenol Blue	
57.1ml Glacial Acetic Acid	61.8g Boric Acid	7.5 ml glycerol	
37.2g EDTA	7.4g EDTA	3 ml 0.5 M EDTA	
ddH2O to 1 L	ddH2O to 1 L	14.5 ml dd H2O	
Use as 1X	Use as 0.5 X		
0.6% Agarose Stock in 1X TAE			
490ml ddH2O			
10ml 50X TAE			
3.0g Agarose			
50ul Ethidium Bromide (1ug/ml EtBr final [])			
Bacterial Cultures			
<u>Luria Broth (LB)</u>		<u>SOB Broth</u>	
10g Bactotryptone		20g Bactotryptone	
5g Yeast Extract		5g Yeast Extract	
5g NaCl		0.5g NaCl	
ddH2O to 1 L		0.186g KCl	
optional: Adjust pH to 7.5 with NaOH		5g MgSO4	
		ddH2O to 1 L	
<u>Luria Broth Agar</u>			
10g Bactotryptone		<u>SOC Broth</u>	
5g Yeast Extract		20g Bactotryptone	
5g NaCl		5g Yeast Extract	
15g Agar		0.5g NaCl	
ddH2O to 1 L		0.186g KCl	
optional: Adjust pH to 7.5 with NaOH		5g MgSO4	
		10ml 2M Glucose	
<u>Terrific Broth (TB)</u>		ddH2O to 1 L	
12g Bactotryptone			
12g Yeast Extract			
6g NaCl			
4ml Glycerol			
ddH2O to 1 L			
Autoclave 30 min.			
*Add 20ml/L 50X PO4 prior to use (PO4 buffer can be replaced by adding 2.3g KH2PO4 and 12.5g K2HPO4 per liter and then autoclaving)			

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CaCl₂ pH 7.0 for Competent Cells						
8.8g CaCl ₂ ·2H ₂ O						
3.46g PIPES						
150ml Glycerol						
ddH ₂ O to 1L						
Adjust pH to 7.0						
β-Galactosidase Assay Solutions						
Z-Buffer		Z-Buffer/X-GAL		X-GAL Stock		
8.05g Na ₂ HPO ₄ ·7H ₂ O		50ml Z Buffer		[20mg/ml]		
2.75g NaH ₂ PO ₄ ·H ₂ O		135ul β-		e.g.		
0.375g KCl		835ul X-GAL Stock		5ml Dimethylformamide		
0.123g MgSO ₄				100mg X-GAL		
ddH ₂ O to 500 ml						
Adjust pH to 7.0						
Autoclave to sterilize						
Mini/Maxi Prep Solutions						
Solution I		Solution II		Solution III		
9g Glucose (Dextrose)		40ml 5N NaOH		294g K acetate		
25ml 1M Tris, pH 8.0		50ml 20% SDS		115ml Glacial acetic acid		
20ml 0.5M EDTA, pH 8.0		ddH ₂ O to 1 L		ddH ₂ O to 1 L		
ddH ₂ O to 1 L				(Dissolve K Acetate before adding GAA)		
Misc. Bench Stock Solutions						
1M Tris		1.5M Tris		30% Glycerol Solution		
121.14g Tris Base		181.71g Tris Base		300ml Glycerol		
ddH ₂ O to 1 L		ddH ₂ O to 1 L		700ml ddH ₂ O		
Adjust to desired pH		Adjust to desired pH				
(9.0, 8.0, 7.5, 6.8)		(8.8)				
3M Na Acetate		5M NaCl		10X TE, pH 7.5		
136.24g Na Acetate		292.2g NaCl		12.1g Tris Base		
ddH ₂ O to 1 L		ddH ₂ O to 1 L		3.7g EDTA		
				ddH ₂ O to 1 L		
50X Phosphate Buffer				Adjust pH to 7.5		
115.5g KH ₂ PO ₄ (Monobasic)						
512.5g K ₂ HPO ₄ (Dibasic)						
ddH ₂ O to 1 L (Autoclave for 30 minutes)						

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Phenol:Chloroform Extraction Reagents						
Tris-Saturated Phenol pH 7.5		Phenol: Chloroform				
Phenol (liquid)		1 part Phenol				
Equilibrate with: 0.1M Tris pH 7.5		1 part Chloroform				
Chloroform:Iso Amyl Alcohol						
24 parts Chloroform						
1 part Iso Amyl Alcohol						
Polyacrylamide Gel Electrophoresis (SDS-PAGE)						
30% Acrylamide Stock	5X Stacking Gel Buffer pH 6.8	5 X Resolving Gel Buffer pH 8.8				
150g Acrylamide	47.75g Tris	63.58g Tris				
4g Bis-Acrylamide	6.25g SDS	2.5g SDS				
ddH2O to 500ml	4.65g EDTA	5 ml 0.5M EDTA pH 8.0				
Filter sterilize and de-gas	ddH2O to 250 ml	ddH2O to 250ml				
	Adjust pH to 6.8	Adjust pH to 8.8				
10% SDS						
100g SDS	Electrophoresis Buffer #1	10% Ammonium Persulfate				
ddH2O to 1 L	12g Tris	1g Ammonium Persulfate				
	57.6 Glycine	ddH2O to 10 ml				
SDS-Loading Buffer	4g SDS or 20ml 20% SDS					
1.25ml 1M Tris, pH 6.8	4L ddH2O					
2.0ml 20% SDS						
3.75ml ddH2O	Electrophoresis Buffer #2					
2.0ml Glycerol	12g Tris					
1.0ml 2-Me	57.6g Glycine					
1.0ml 0.5% BPB	6g SDS					
	ddH2O to 4L					
Western Blot						
Western Transfer Buffer	5% Milk Solution (Blocking Soln.)					
12g Tris	1X PBS:	0.1g KCl				
57.6g Glycine		4.0g NaCl				
1ml 20% SDS		0.1g KH ₂ PO ₄				
800ml Methanol		0.58g Na ₂ HPO ₄				
ddH2O to 4L	0.1g NaN ₃					
	25g Dry Milk					
TBST	ddH2O to 500 ml					
4.8g Tris	Dissolve chemicals completely, then add dry milk					
34.8g NaCl						
2ml Tween 20 (polyoxyethylene-sorbitan Monolaurate) ddH2O to 4L						

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ECL Reagent #1		ECL Reagent #2		Stripping Buffer			
17.7 ml ddH2O		18ml dd H2O		0.7ml β-ME			
200 ul 250mM Luminol		12ul 30% H2O2		20ml 10% SDS			
88 ul 90mM p-Coumaric Acid		2ml 1M Tris pH 8.5		3.125ml 2M Tris, pH 6.7			
2 ml 1M tris pH 8.5				76ml ddH2O			
Yeast Cells							
YEPD Media		YEPD Agar					
50g Media Mix		50g Media Mix					
ddH2O to 1L		15g Agar					
		ddH2O to 1L					
DOB Media		DOB Agar					
27g Media Mix		43.7g Media Mix					
1L ddH2O		ddH2O to 1L					
DOB/DOBA Supplements							
-Leu	0.69g/L						
-Trp	0.74g/L						
-His	0.77g/L						
-Leu-Trp	0.64g/L						
-Leu-Trp-His	0.62g/L						
CSM	0.79g/L						
Lithium Acetate/TE		Lithium Sorbitol					
10.2g Lithium Acetate		10.2g Lithium Acetate					
10ml 1M Tris, pH 8.0		10ml 1M Tris, pH 8.0					
2ml 0.5M EDTA		2ml 0.5M EDTA					
ddH2O to 1L		182.17g Sorbitol					
		ddH2O to 1L					