Yeast Media

Sterilize according to Aris Lab guidelines.

For Plates: Add 16 g Bacto-agar per liter. For large volumes, add stir bar.

YPD: 1 L
10 g Bacto Yeast Extract
20 g Bacto Peptone
20 g Dextrose

YPD<sub>a</sub> Add 0.5X adenine to YPD medium cooled to <50°C

YP<sub>90</sub>: 900 ml
Use YPD recipe above, but omit dextrose
Dissolve in 900 ml ddH<sub>2</sub>O ("90% volume")
Dispense into 90 ml aliquots
Autoclave and cool to room temperature
Add 1/10 volume filter sterilized 20% sugar stock

SD (Synthetic Dextrose) “Drop In”: 1 L
20 g Dextrose
1.7 g Yeast Nitrogen Base (-amino acids, -ammonium sulfate)
5.0 g Ammonium Sulfate
Autoclave and cool to room temperature
Add supplements as needed

S<sub>90</sub>: 900 ml
Use SD recipe above, but omit dextrose
Dissolve in 900 ml ddH<sub>2</sub>O ("90% volume")
Dispense into 90 ml aliquots
Autoclave and cool to room temperature
Add 1/10 volume filter sterilized 20% sugar stock

SC (Synthetic Complete) “Drop Out” Medium
Use SD<sub>90</sub> recipe above
Add 1/20 volume filter sterilized 20% sugar stock
Add 1/20 volume of “10X” amino acid stock solution minus aHKLMWu
Add supplements as usual

Pre-Sporulation (PreSpo) Plates: 1 L
8.0 g YE
3.0 g Peptone
100 g Dextrose
16 g Agar
**Minimal Sporulation (MSpo) Plates: 1L**

10 g KOAc  
Dissolve in 200 mls. Filter sterilize.  
Add to 800 mls ddH₂O + 16 g agar. Autoclave.  
Add 0.25X nutrients after cool.

**Sporulation (Spo) Plates: 1L**

10 g KOAc (1%)  
1.0 g YE (0.1%)  
0.5 g Dextrose (0.05%)  
Dissolve in 200 mls. Filter sterilize.  
Add to 800 mls ddH₂O + 16 g agar. Autoclave.  
Add 0.25X nutrients after cool.

**Zinc Sporulation (ZSpo) Plates: 1L** (from C. Guthrie Lab)

10 g KOAc  
5 mls 5 mg/ml ZnOAc  
Dissolve in 200 mls. Filter sterilize.  
Add to 800 mls ddH₂O + 16 g washed agar (see below). Autoclave.  
Add 1X supplements after cool.

**Washing Agar**

Place 16 g agar in 1 L glass flask. Add 1 L ddH₂O. Stir for 5 minutes. Settle for 5 minutes. Pour off ddH₂O. Repeat 3 times (total of 4 washes). Transfer to rinsed 2 L plastic flask.

**NSM (No Sulfate Medium): 200 mls**

0.34 g YNB-AA-AS  
4.0 g Dextrose (or Galactose)  
1.0 g NH₄Cl  
Add ddH₂O to ~150 mls  
pH to 6.0 w/ NaOH  
Add ddH₂O to 200 mls  
Filter Sterilize. Store at 4°C.

**LSM (Low Sulfate Medium): 200 mls**

Add 200 µl (1/1000 volume) of 0.2 M (NH₄)₂SO₄ to NSM  
Store at 4°C

**200 mM Ammonium Sulfate: 10 mls**

0.26 g (NH₄)₂SO₄  
10 mls ddH₂O  
Syringe Filter Sterilize. Store at 4°C.
Bacteria Media

Sterilize according to Aris Lab guidelines.

For Plates: Add 16 g Bacto-agar per liter. For large volumes, add stir bar.

LB (Luria-Bertani): 1L
5 g Yeast Extract
10 g Tryptone
5 g NaCl
2.5 mls 1M KOH

LBPD:
Adjust volume to 950 ml. Autoclave and cool (to 50°C for plates). Add 10 ml 1M KH₂PO₄ + 40 ml 1 M K₂HPO₄ (pH ~7.5). Add 5 mls 20% dextrose.

YETM: 1L
5 g YE
20 g Tryptone
10 g MgSO₄•7H₂O
Adjust pH to 7.5 with KOH

2X YT Medium: 1 L
16 g Bacto-tryptone
10 g Bacto-yeast extract
5 g NaCl
900 ml ddH₂O
Stir until completely dissolved.
Adjust pH to 7.0 with 5N NaOH.
Adjust the volume to 1 L with ddH₂O.

NZYM: 1L
5 g NaCl
2 g MgSO₄•7H₂O
5 g YE
10 g NZ-Amine
5 ml 1M KOH

NZCYM: 1L
Add 1.0 g Case Amino Acids to 1L NZYM.

NZCYM Top Agarose: 100 ml
Add 0.7 g Agarose (0.7%, DNA grade) to 100 mls NZCYM.
Set up 5 - 10 bottles at a time.
**SOC: 1L**
5 g YE  
20 g Tryptone  
0.58 g NaCl  
0.19 g KCl  
Adjust pH to 7.2 with of 1M NaOH (3 - 4 ml).  
Autoclave as 100 ml aliquots.  
Cool to room temperature.  
Add to 100 mls:  
1 ml sterile 1 M MgCl$_2$ (10 mM MgCl$_2$)  
1 ml sterile 1 M MgSO$_4$ (10 mM MgSO$_4$)  
1 ml sterile 20% Glucose (0.2 % glucose)

**Superbroth: 1 L**
10 g YE  
20 g Tryptone  
5 g NaCl  
2 mls 1 N NaOH

**TYGP: 1L**
20 g Tryptone  
10 g YE  
10 g Glycerol  
10 g Na$_2$HPO$_4$•7H$_2$O (or 5 g Na$_2$HPO$_4$ anhydrous)

**TYGPN: 1L**
To TYGP add 10 g KNO$_3$