Solutions:

1. SOB Media:

   2% Bactotryptone
   0.5% Yeast extract
   10 mM NaCl
   2.5 mM KCl
   10 mM MgCl2
   10 mM MgSO4
   1.5% Agar (for plates)

2. SOC Media:

   SOB + 20 mM Glucose

3. X-gal:

   Dissolve 100 mg of X-gal in 5 ml of dimethylformamide in a sterile polypropylene tube. Aliquot 1 ml into eppendorf tubes wrapped in foil (to prevent damage by light) and store at -20 degrees C. It is not necessary to filter sterilize X-gal solutions.

4. IPTG:

   Dissolve 2 g of IPTG in 8 ml of dH2O in a sterile polypropylene tube. Adjust the volume to 10 ml with dH2O and filter through a 0.22 micron syringe filter into 1 ml aliquots and store at -20 degrees C.

5. 10X PB S: for 1L

   80 g NaCl
   2 g Kcl
   14.4 g Na2HPO4
   2.4 g KH2PO4
   in 800 mL dH2O
   pH to 7.4 with HCl and autoclave

6. 50X TAE: for 1L

   242 g Tris Base
   57.1 mL glacial acetic acid
   100 mL of 0.5 M EDTA, pH 8.0

7. 20X SSC: For 1L
175.3 g NaCl
88.2 g Sodium Citrate.2H₂O
pH to 7

8. TE:

10 mM Tris, pH 8
1 mM EDTA