常用细菌培养基配方*

MINIMAL MEDIA

Ingredients for these media should be added to water in a 2-liter flask and heated with stirring until dissolved. The medium should then be poured into separate bottles with loosened caps and autoclaved at 15 lb/in^2 for 15 min. Do not add nutritional supplements or antibiotics to any medium until it has cooled to <50°C. After the bottles cool to below 40°C, the caps can be tightened and the concentrated medium stored indefinitely at room temperature. All recipes are on a per liter basis.

M9 medium, 5×

30 g Na_2HPO_4
15 g KH_2PO_4
5 g NH_4Cl
2.5 g NaCl
15 mg $CaCl_2$ (optional)

M63 medium, 5×

10 g $(NH_4)_2SO_4$
68 g KH_2PO_4
2.5 mg $FeSO_4 \cdot 7H_2O$
Adjust to pH 7 with KOH

A medium, 5·

5 g $(NH_4)_2SO_4$
22.5 g KH_2PO_4
52.5 g K_2HPO_4
2.5 g sodium citrate·$2H_2O$

Before they are used, concentrated media should be diluted to 1× with sterile water and the following sterile solutions, per liter:

1 ml 1 M $MgSO_4 \cdot 7H_2O$
10 ml 20% carbon source (sugar or glycerol)
and, if required:
0.1 ml 0.5% vitamin B1 (thiamine)
5 ml 20% Casamino Acids *or*
L amino acids to 40 µg/ml *or*
DL amino acids to 80 µg/ml

RICH MEDIA

Unless otherwise specified, rich media should be autoclaved for 25 min. Antibiotics and nutritional supplements should be added only after the solution has cooled to 50°C or below. A flask containing liquid at 50°C feels hot but can be held continuously in one's bare hands. All recipes are on a per liter basis.

H medium

10 g tryptone

8 g NaCl

Lambda broth
10 g tryptone
2.5 g NaCl

LB medium
10 g tryptone
5 g yeast extract
5 g NaCl
1 ml 1 N NaOH
The original recipe for LB medium (sometimes referred to as Luria or Lenox broth), does not contain NaOH. There are many different recipes for LB that differ only in the amount of NaOH added. We use this formula in our own work. Even though the pH is adjusted to near 7 with NaOH, the medium is not very highly buffered, and the pH of a culture growing in it drops as it nears saturation.

NZC broth
10 g NZ Amine A
5 g NaCl
2 g $MgCl_2 \cdot 6H_2O$
Autoclave 30 min
5 ml 20% Casamino Acids

Superbroth
32 g tryptone
20 g yeast extract
5 g NaCl
5 ml 1 N NaOH

TB (terrific broth)
12 g Bacto tryptone
24 g Bacto yeast extract
4 ml glycerol
Add H_2O to 900 ml and autoclave, then add to above sterile solution 100 ml of a sterile solution of 0.17 M KH_2PO_4 and 0.72 M K_2HPO_4.

Tryptone broth
10 g tryptone
5 g NaCl

2× TY medium
16 g tryptone
10 g yeast extract

5 g NaCl

TYGPN medium
20 g tryptone
10 g yeast extract
10 ml 80% glycerol
5 g Na_2HPO_4
10 g KNO_3

*:出自 Current Protocols in Molecular Biology [B], *Wiley Online Library,*2007