Formulation of FES Medium

David Dunigan and Irina Agarkova

Abstract

Citation: David Dunigan and Irina Agarkova Formulation of FES Medium. **protocols.io** https://www.protocols.io/view/Formulation-of-FES-Medium-eucbesw
Published: 13 Jun 2016

Guidelines

STOCK SOLUTIONS:

1) 10.0 gm $MgSO_4 \cdot 7H_2O$ per liter d-H_2O

2) 1.0 gm KNO_3 per liter d-H_2O

3) 1.0 gm K_2HPO_4 per liter d-H_2O

4) 50.0 gm disodium EDTA, 31.0 gm KOH per liter d-H_2O

5) 4.98 gm $FeSO_4 \cdot 7H_2O$ per liter acidified H_2O (Acidified H_2O is 999.0 mL d-H_2O + 1.0 mL concentrated H_2SO_4)

6) 11.42 gm H_3BO_3 per liter d-H_2O

7) 8.82 gm $ZnSO_4 \cdot 7H_2O$, 1.44 gm $MnCl_2 \cdot 4H_2O$, 0.71 gm MoO_3, 1.57 gm $CuSO_4 \cdot 5H_2O$, and 0.49 gm $CoNO_3 \cdot 6H_2O$ per liter d-H_2O

Protocol

Step 1.
See guidelines for stock solutions.

FES preparation

Step 2.
To 950 ml of d-H_2O add:

FES preparation

Step 3.
20.0 mL of stock solutions 1, 2 and 3

FES preparation

Step 4.

1.0 mL of stock solutions 4, 5 and 6

FES preparation

Step 5.

2.0 mL of stock solution 7

FES preparation

Step 6.

1.0 gm of bacto-peptone

FES preparation

Step 7.

2.0 gm of Oxoid Lab-Lemco Powder

FES preparation

Step 8.

5.0 gm of sucrose

Step 9.

Tetracycline (filter sterilized, 10 µg/mL final concentration) and ampicillin (filter sterilized, 100 µg/mL final concentration) are added after the medium is autoclaved and cool.

Step 10.

For FES plates, agar is added to 1.5% before autoclaving.

Step 11.

For FES soft agar (for titering), agar is added to 0.75% before autoclaving.