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We use this protocol and it's working

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S. O. C. medium

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ABSTRACT

S.O.C. Medium is used in the final step of bacterial cell transformation to obtain maximal transformation efficiency of *E. coli*. S.O.C.

MATERIALS

LAF bench
Autoclave
Filter unit
Scale

500 mL 1 M Glucose solution

1 Fill the bottle with 400 mL distilled water

2 Measure 90.08 g Glucose

Materials:
Glucose **Sigma-aldrich Catalog #G7021**

3 Add distilled water to a total of 500 mL

4 Filter sterilize with a 0.2 µm filter

250 mL 250 mM Potassium chloride

5 Fill the bottle with 200 mL distilled water

6 Measure 4.66 g Potassium chloride

Materials:
Potassium chloride **Sigma-aldrich Catalog #P3911**

7 Add distilled water to a total of 250 mL

8 Autoclave solution at 121 °C for 00:15:00 15m

125 mL 2 M Magnesium chloride

9 Fill the bottle with 100 mL distilled water

10 Measure 50.825 g Potassium chloride

Materials:
Magnesium chloride **Sigma-aldrich Catalog #M0250**

11 Add distilled water to a total of 125 mL

12 Autoclave solution at 121 °C for 00:15:00 15m

1 000 mL S. O. B. medium

13 Fill the bottle with 950 mL distilled water

14 Measure 20 g Tryptone, 5 g Yeast extract and 0.5 g Sodium chloride. Add 15 g Agar to create agar plates

Materials:
Tryptone **Millipore Catalog #T9410**
Yeast Extract **Sigma-aldrich Catalog #Y0875**
Sodium chloride **Sigma-aldrich Catalog #S9625**
Agar **Sigma-aldrich Catalog #A1296**

15 Add 1 mL Potassium chloride solution ([M] 250 millimolar (mM)) and 0.5 mL Magnesium chloride solution ([M] 2 Molarity (M))

16 Adjust pH to pH 7.0 with concentrated sodium hydroxide

Materials:
Sodium hydroxide solution **Sigma-aldrich Catalog #S8263**

17 Add distilled water to a total of 1000 mL

18 Autoclave solution at 121 °C for 00:00:00

100 mL S. O. C. medium

19 Sterilely transfer 98 mL S. O. B. medium to a sterile 100 mL container

20 Sterilely add 2 mL [M] 1 Molarity (M) Glucose solution