SOB Medium

Cat. 1541

For the cultivation of recombinant strains of E.coli

Practical information

Aplications	Categories
Preparation and recovery of competent cells	Escherichia coli

Industry: Culture media for Molecular biology

Principles and uses

SOB Medium is a nutrient rich medium for the preparation and transformation of competent cells. The transformation requires perforation of the bacteria to allow the introduction of alien DNA inside the cell. In order to survive this process the competent cells need an isotonic rich medium.

Peptone provides nitrogen, vitamins, minerals and amino acids essential for growth. Yeast extract is source of vitamins, particularly the B-group. Sodium chloride and Potassium chloride supplies essential electrolytes for transport and osmotic balance. Magnesium sulfate is a source of magnesium ions.

Formula in g/L

Magnesium chloride anhydrous	0,96	Potassium chloride	0,186
Sodium chloride	0,5	Tryptone	20
Yeast extract	5		

Preparation

Suspend 26,6 grams of the medium in one liter of distilled water .Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Dispense into appropriate containers and sterilize in autoclave at 121°C for 15 minutes.

Instructions for use

Inoculate with the transformed cells and incubate at 35 ± 2°C for 18 - 24 hours.

Quality control

Solubility	Appareance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25ºC)
w/o rests	Fine powder	Beige	Amber, slightly opalescent	7,0 ± 0,2

Microbiological test

Incubation conditions: (35±2 ºC / 18-24 h)

Microorganisms	Specification
Escherichia coli ATCC 23724	Good growth

Escherichia coli ATCC 33694	Good growth
Escherichia coli ATCC 33849	Good growth
Escherichia coli ATCC 39403	Good growth
Escherichia coli ATCC 47014	Good growth

Storage

Temp. Min.:2 ºC
Temp. Max.:25 ºC

Bibliography

Josep Sambrook, David W .Russell. The condese protocols from molecular cloning a laboratory manual.