sLB Broth (Buffered)

Cat. 1199

Medium designed to increase bacterial growth and leads to high yields of low copy plasmids and extra high yields of high copy plasmids.

Practical information

Aplications	Categories
Preparation and recovery of competent cells	Escherichia coli

Industry: Molecular biology / Microbiological Culture Media

Principles and uses

sLB Broth (Buffered) has been formulated to significantly increase cellular density when compared to the traditional LB Broth. In the standard LB Broth, E. coli cells reach an abrupt stationary phase upon consumption of nutrients contained in the medium. Cell multiplication is stopped, some cell die and plasmid are lost.

Based on the findings of extensive research, our laboratories have developed a new formulation using a proprietary peptone mixture, yeast extract and salts which allow recombinant E. coli cells to have a higher growth. At the end of the log phase replication continues, thus obtaining higher DNA plasmid yields.

sLB Broth cultures have shown cell stability up to 3 days without cell death, being this one a more convenient medium that eliminates the need of constant attention. E.coli's growth is higher in sLB and buffered sLB Broths than in standard LB after 3 days at 37 ºC.

The special peptone mixture, yeast extract, agar and salts supply essential growth factors such as nitrogen, carbon, sulfurs, minerals and vitamins, particularly the B group. Sodium chloride supplies essential electrolytes: Sodium ions for transport and osmotic balance.

Formula in g/L

Yeast Extract, Special peptone Mixture, Salts	54,48

Preparation

Suspend 54,48 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 in tubes and sterilize in autoclave at 121 ºC for 15 minutes.

Instructions for use

- Carry out the experimental procedure according to appropriate use or purpose.
- Inoculate and incubate at a temperature of 35±2 ºC for 24, 48 and 72 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 / 24, 48, 72 h).

Microorganisms	Specification
Escherichia coli DH5 alpha + pUC19	Good growth

Storage

Temp. Min.:2 ºC
Temp. Max.:25 ºC

Bibliography

Ausubel, Brent, Kingston, Moore, Seidman, Smith and Struhl (ed.). 1994. Current protocols inmolecular biology, vol. 1. Greene Publishing Associates, Inc., Brooklyn, N.Y.