sLB Agar

Cat. 1432

Medium designed to increase bacterial growth and leads to high yield 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 Agar has been formulated to significantly increase cellular density when compared to the traditional LB Agar.
In the standard LB Agar, 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 Agar 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 mediums 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 like sodium ions for transport and osmotic balance. Bacteriological agar is the solidifying agent.

Formula in g/L

Bacteriological agar	15	Yeast extract	15
Special Peptone Mixture	20	Salts	5

Preparation

Suspend 55 grams of medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil
for one minute until complete dissolution. Sterilize in autoclave at 121 ºC for 15 minutes. Cool to 45-50 ºC, mix well and dispense into plates.

Instructions for use

- Inoculate a 15 ml tube of sLB Broth (Cat. 1163) with E. coli sample.
- Incubate at 37 ºC for 24 hours in anaerobic conditions.
- Take 10 µl of an aliquot 10^4 cells/ml and inoculate plates of sLB Agar using a Digralsky spreader.
- Incubate at 37 ºC overnight.

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: (37 ºC / overnight).

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 in molecular biology, vol. 1. Greene Publishing Associates, Inc., Brooklyn, N.Y.