2xYT Medium

Cat. 1507

For the cultivation of recombinant strains of E.coli and for growth of filamentous bacteriophages.

Practical information

Aplications	Categories
Selective enrichment	Escherichia coli
Preparation and recovery of competent cells	Escherichia coli

Industry: Culture media for Molecular biology

Principles and uses

2xYT Medium is a nutritive medium optimized for the growth and maintenance of M13 phages and other filamentous bacteriophages. It is also suitable for growth of recombinant strain of E.coli.

Tryptone provide nitrogen, vitamins, minerals and amino acids essential for growth. Yeast extract is source of vitamins, particularly the B-group. Sodium chloride supplies essential electrolytes for transport and osmotic balance. The components of the 2xYT Medium include nitrogen and other growth factors that allow bacteriophages to reproduce in large quantities without weakening the host. E. coli grows faster in this enriched medium, as it contains amino acids, precursors of nucleotides, vitamins and other metabolisms which otherwise the cell itself would have to synthesize.

Formula in g/L

Sodium chloride	5	Tryptone	16
Yeast extract	10		

Preparation

Suspend 31 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

- Carry out the experimental procedure according to appropriate use or purpose.
- Inoculate and incubate at a temperature of 35±2 ºC 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

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