



ATCC Medium 271 (Twin Pack) (Escherichia Medium)

M2146

Intended Use:

Recommended by ATCC for cultivation of *Escherichia coli*.

Composition**

Ingredients	g / L
Part A	-
Tryptone	10.000
Yeast Extract	1.000
Sodium Chloride	8.000
Part B	
Dextrose (Glucose)	1.000
Calcium chloride anhydrous	0.294
Thiamine	0.010

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 19.0 grams of Part A in 950ml purified/distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15lbs pressure (121°C) for 15 minutes. Suspend 1.304 grams of Part B in 50ml purified / distilled water. Filter sterilize. Aseptically add 50 ml of Part B to Part A. Mix well and dispense into sterile tubes or flasks as desired.

Principle And Interpretation

ATCC Medium 271 (Escherichia Medium) is recommended by ATCC for the cultivation of *Escherichia coli* K-12 (1). The medium has Tryptone and yeast extract which provide essential nutrients especially nitrogenous sources for the coliforms. Glucose is the fermentable sugar. Sodium chloride maintains the osmotic balance.

Type of specimen

Purified culture

Specimen Collection and Handling

After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. Further confirmation must be carried out by biochemical tests.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance

Part A : Cream to yellow homogeneous free flowing powder

Part B : White to cream powder

Colour and Clarity of prepared medium

Yellow coloured clear solution

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours

Organism	Growth
<i>Escherichia coli</i> K-12	Luxuriant

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and use freshly prepared medium. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques (2,3).

Reference

1. American Type Culture Collection, Catalogue of Bacteria & Bacteriophages, 18th Edition, 1992.
2. Isenberg (Ed.), 1992, Clinical Microbiology Procedures Handbook, American Society for Microbiology, Washington, D.C.
3. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

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