Robinson Medium for Entamoeba (Twin pack)

M459

Intended Use:

Escherichia coli culture grown in this medium is used as a substrate for growth of amoeba.

Composition**

Ingredients	g / L
Part A	-
Citric acid	20.000
Ammonium sulphate	10.000
Magnesium sulphate	0.500
Potassium dihydrogen phosphate	5.000
Sodium chloride	50.000
Bromothymol blue	0.001
Part B	-
Lactic acid	40.000 ml
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 85.5 grams of Part A in 1000 ml distilled water containing 40 ml of Part B (Lactic Acid). This solution can be kept without sterilization for 4 weeks. For use, dilute the medium 10 times by adding 900 ml distilled water to 100 ml medium. Adjust pH to 7.0 ± 0.2 with 10N sodium hydroxide and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to room temperature and inoculate *Escherichia coli* Strain B.

Principle And Interpretation

Entamoeba histolytica causes amoebiasis and is the only amoeba pathogenic for humans (1). Amoebic dysentery is an acute diarrhea with ulcerations of the colonic mucosa. A chronic form, amoebic colitis, produces symptoms similar to those of ulcerative colitis (2).

Robinson Medium for *Entamoeba* is prepared as per the formulation of Robinson (3). Robinson has described a very sensitive method for culturing *E. histolytica* which includes growth of *Escherichia coli* on a defined medium and subsequent inoculation of these bacteria on saline agar slopes previously inoculated with faeces sample; various nutrients required for amoebic growth are also added (4).

Citric acid and lactic acid provide carbon source and ammonium sulphate provides nitrogen source necessary for the growth of bacteria. Sodium chloride maintains the osmotic balance. Phosphate buffers the medium well. Bromothymol blue acts as a pH indicator. Refer to appropriate references for standard procedures (4).

Type of specimen

Isolated Microorganism of *Escherichia coli* from clinical samples

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (4,5).
After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

In Vitro diagnostic Use only. For professional use only. 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 clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. Some organism may show poor growth due to nutritional variation.

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 : Off-white to yellow homogeneous free flowing powder, Part B : Colourless liquid

Colour and Clarity of prepared medium

Colourless clear solution without any precipitate

Reaction

Reaction of 0.85% w/v aqueous solution containing 0.4% v/v lactic acid at 25°C. pH : 7.0±0.2

pH

6.80-7.20

Cultural Response

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

Organism	Growth
Escherichia coli strain B ATCC 23226	Good

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 15-30°C. 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 clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (4,5).

Reference

1. Bruckner D. A., 1992, Clin. Microbiol. Rev. 5: 356-369.
2. Murray P. R., Baron J. H., Pfaller M. A., Jorgensen J. H. and YolkenR. H., (Eds.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.
3. Robinson G. L., 1968, Transactions of the Royal Society of Tropical Medicine and Hygiene 62:285-294.Collee J. G., Fraser A. G., Marmion B. P., Simmons A., (Eds.), 1996, Mackie and McCartney, Practical Medical Microbiology, 14th Edition, Churchill Livingstone
4. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
5. 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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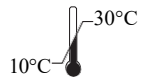
IVD *In vitro* diagnostic medical device



Storage temperature

EC REP CEpartner4U, Esdoornlaan 13,
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CE Marking

Do not use if package is damaged