Proskauer Beck medium

M1697

Intended Use:

Recommended for the cultivation and maintenance of *M.tuberculosis* from clinical specimens.

Composition**

Ingredients	g / L
Asparagine	5.000
Potassium dihydrogen phosphate	5.000
Magnesium citrate	2.500
Magnesium sulphate heptahydrate	0.600
Final pH (at 25°C)	7.4±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 12.79 grams (the equivalent weight of dehydrated medium per litre) in 1000 ml purified/distilled water containing 20 ml glycerol. Distribute in tubes or flasks as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle And Interpretation

Proskauer and Beck medium is an inorganic chemically defined medium containing asparagine as nitrogen source and glycerol as energy source (1). This medium supports growth of *M. tuberculosis*. It was reported that chemically modified defined growth medium like Proskauer and Beck medium provides more consistent cellular fatty acid profiles than lipid rich L. J. medium (2). With added ferrous chloride (0.0046 g /ltr) and ZnSO4.7H2O (0.001 g/ltr) (referred as Modified Proskauer and Beck medium) this medium is recommended by AOAC for testing Tuberculocidal activity of disinfectants (3).

Type of specimen

Clinical samples - Sputum sample

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. Further biochemical and serological tests must be carried out for further identification.

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

White to cream homogeneous free flowing powder

Colour and Clarity of Prepared medium

Colourless to pale yellow coloured, clear solution, without any precipitate in tubes

Reaction

Reaction of 1.28% w/v aqueous solution containing 2% glycerol at 25 ºC pH : 7.4±0.2

pH

7.20-7.60

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 2-4weeks with 5-10% CO_2.

Organism	Inoculum (CFU)	Growth
Mycobacterium tuberculosis H37RV ATCC 25618	50-100	good-luxuriant
Mycobacterium kansasii ATCC 12478	50-100	good-luxuriant
Mycobacterium gordonae ATCC 14470	50-100	good-luxuriant
Mycobacterium avium ATCC 25291	50-100	good-luxuriant
Mycobacterium smegmatis ATCC 14468	50-100	good-luxuriant

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 inorder 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. Proskauer, B. and Beck, M. 1898, Z. Hyg. Infectionskrankh., Vol. 18, p128.
2. L. Larsson , E. Jantzen and J. Johnsson, Oct. 1985. European Journal of Clinical Microbiology & Infectious Diseases, Vol. 4, No.5, p. 483.
3. Official Methods of Analysis of AOAC International 2000, 17th edition. Vol. I Chapter 6., Disinfectants, Editor. Emma Singleton Subchapter 3: Other Tests 6.3.06 AOAC Official method 965.12 Tuberculoid Activity of disinfectants. Official Method p.14.
4. Isenberg, (Ed.), 1992, Clinical Microbiology Procedures Handbook, Vol. I, ASM, Washington, D. C.
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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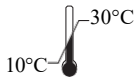
IVD ***In vitro* diagnostic medical device**



Storage temperature

EC REP CEpartner4U, Esdoornlaan 13,
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www.cepartner4u.eu

CE Marking

Do not use if package is damaged