Peizer TB Medium Base

M867

Intended Use:

Recommended for cultivation of *Mycobacterium tuberculosis.*

Composition**

Ingredients	Gms / Litre
Acicase™	10.000
HM peptone B #	3.000
L-Asparagine	3.000
Potato starch	15.000
Ferric ammonium citrate	0.100
Magnesium sulphate	0.015
Dipotassium hydrogen phosphate	3.500
Citric acid	0.100
Agar	15.000

**Formula adjusted, standardized to suit performance parameters
Equivalent to Beef extract
$ Equivalent to Casein acid hydrolysate

Directions

Suspend 49.72 grams in 1000 ml purified / distilled water. Heat to boiling to dissolve the media completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to around 55°C and aseptically add egg yolk emulsion (prepared from 10 sterile egg yolks and 25 ml sterile saline, to which 1 ml of sterile 20% dextrose solution and 13 ml of 1% malachite green solution is added) and add 40 ml sterile glycerol. Mix thoroughly and dispense in tubes, then allow it to solidify as slants.

Principle And Interpretation

Peizer TB Medium was formulated by Peizer et al (1) for the cultivation of *Mycobacterium tuberculosis* and also for the diagnosis of tuberculosis. It can also be used for determining the sensitivity of *Mycobacterium tuberculosis* to therapeutic agents (2).

HM peptone B and Acicase™ are the rich sources of nitrogen and some additional growth factors for the growth of tubercle bacilli (3). Egg yolk emulsion provides fatty acids and proteins required for the metabolism of Mycobacteria. L-Asparagine and starch serves as the amino acid and carbohydrate source respectively. Citric acid holds certain inorganic cations in solution. Malachite green inhibits certain contaminating bacteria.

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

Light yellow to light tan homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Light green coloured opaque gel forms in tube as slants

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 2-4 weeks.

Organism	Growth
Mycobacterium fortuitum ATCC 6841	luxuriant
Mycobacterium kansasii ATCC 12478	luxuriant
M. tuberculosis H37RV ATCC 25618	luxuriant

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 2-8°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. Peizer and Schecter, 1950, Am. J. Clin. Path., 20:682.
2. Peizer, Widelock and Schecter, 1951, Am. J. Clin. Path., 21:982.
3. Dubos and Middlebrook, 1947, Am. Rev. Tuberc., 56:334.
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.

Revision : 04/2023

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IVD *In vitro* diagnostic medical device

10°C 30°C Storage temperature

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CE CE Marking

Do not use if package is damaged