



PPLO Modified Broth Base w/o CV

M1586

Intended Use:

Recommended for isolation and cultivation of *Mycoplasma* (Pleuropneumonia like organisms).

Composition**

Ingredients	g / L
HM infusion B from 50g #	6.000
Peptone	10.000
Sodium chloride	5.000
Final pH (at 25°C)	7.8±0.2

**Formula adjusted, standardized to suit performance parameters

Equivalent to Meat infusion from

Directions

Suspend 21.0 grams in 700 ml purified / distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C and aseptically add 300 ml Horse serum (RM1239) or 10 vials of HPYT Enrichment Supplement (FD075). Mix well and dispense into tubes or flasks as desired.

Principle And Interpretation

PPLO Agar was described by Morton, Smith and Leberman (1). It was used in a study of the growth requirements of *Mycoplasma* (2), along with the identification and cultivation of this organism. (3-5). Pivotal information regarding *Mycoplasma* has been documented by Sabin (6). Hayflick et al have reported the information regarding the cultivation of *Mycoplasma* (7).

PPLO Broth without crystal violet is prepared according to the formula described by Morton and Lecce (2). Crystal violet is omitted from this formula due to its inhibitory action on some *Mycoplasma*. It has been used for the cultivation of *Mycoplasma* for research studies (8,9).

For the cultivation of *Mycoplasma* the medium ingredients and all the supplements should be free of any toxic substances even in small amounts. Many *Mycoplasma* require serum for their good growth and also presence of antibiotic is necessary to prevent the growth of contaminating organisms. Mostly the *Mycoplasma* species are aerobic or facultatively anaerobic but some are microaerophilic. Few are anaerobic saprophytic *Mycoplasma* which grow best at 22-35°C while pathogenic strains grow at 35°C.

Tubes should be incubated in an atmosphere containing 5-10% carbon dioxide and examined after incubation of 48 hours but they should not be discarded as negative until after incubation for 3 weeks.

Type of specimen

Clinical samples

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (10,11).

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. Since *Mycoplasma* species are aerobic or facultatively anaerobic but some are micro aerophilic, proper incubation should be carried out for optimal recovery.
2. Few are anaerobic saprophytic *Mycoplasma* which grow best at 22-35°C while pathogenic strains grow at 35°C, hence growth conditions must be maintained.
3. Since the medium is highly enriched care must be taken during inoculation to avoid contamination.

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

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Yellow coloured clear solution in tubes

Reaction

Reaction of 2.1% w/v aqueous solution at 25°C. pH : 7.8±0.2

pH

7.60-8.00

Cultural Response

Cultural characteristics observed in presence of 10% CO₂ with added Horse serum (RM1239) OR 10 vials of HPYT Enrichment Supplement (FD075), after an incubation at 22-35°C for 24-48 hours

Organism	Growth
<i>Mycoplasma bovis</i> ATCC 25523	good-luxuriant
<i>Mycoplasma gallinarium</i> ATCC 19708	good-luxuriant
<i>Mycoplasma pneumoniae</i> ATCC 15531	good-luxuriant
<i>Streptococcus pneumoniae</i> ATCC 6303	good-luxuriant

Storage and Shelf Life

Store below 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 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 (10,11).

Reference

1. Morton, Smith and Leberman, 1951, Am. J. Syphilis Gonorrh. Veneral Diseases, 35: 361.
2. Morton and Lecce, 1953. J. Bacteriol., 66:646.
3. Chanock, James, Fox, Turner, Mufso and Hayflick, 1962, Soc. Exp. Biol. Med., 110:884.
4. Craven, Wenzel, Calhoun, Hendley, Hamory and Gwaltney, 1976, J. Clin. Microbiol., 4:225.
5. Gregory and Cundy, 1970, Appl. Microbiol., 19:268.
6. Sabin, 1941, Bacteriol. Rev., 5:1, 331.
7. Hayflick and Chanock, 1965, Bacteriol. Rev., 29:185.
8. Adler and Da Massa, 1967, Appl. Microbiol., 15:245.
9. Leland, Lapworth, Jones and French, 1982, J. Clin. Microbiol., 16:709.
10. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition
11. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual Clinical Microbiology, 11th Edition. Vol. 1.

Revision :04/2024



HiMedia Laboratories Pvt. Limited,
Plot No.C-40, Road No.21Y,
MIDC, Wagle Industrial Area,
Thane (W) -400604, MS, India



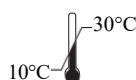
CEpartner4U, Esdoornlaan 13,
3951DB Maarn, NL
www.cepartner4u.eu



In vitro diagnostic
medical device



CE Marking



Storage temperature



Do not use if
package is damaged

Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.