

Technical Information

PPLO Broth Base w/ CV (Mycoplasma Broth Base w/ CV)

Product Code: DM 1268

Application: PPLO Broth Base w/ CV (Mycoplasma Broth Base w/ CV) with the addition of enrichment, is used for isolation and cultivation of *Mycoplasma* species (pleuropneumonia like organisms) from clinical specimens and mixed cultures.

Composition**

Ingredients	Gms / Litre
Beef heart, infusion from	250.000
Peptic digest of animal tissue	10.000
Sodium chloride	5.000
Crystal violet	0.010
Final pH (at 25°C)	7.8±0.2
**Formula adjusted, standardized to suit performance parameters	

Principle & Interpretation

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

For the cultivation of *Mycoplasma* the medium ingredients and all the supplements should be free of any toxic substances even in traces. Many *Mycoplasma* require serum for their good growth and of antibiotic to prevent the growth of contaminating organisms. Crystal violet and potassium tellurite inhibits many gram-negative and gram-positive bacteria. Mostly the *Mycoplasma* species are aerobic or facultatively anaerobic but some are microaerophilic. Saprophytic *Mycoplasma* grow best at 22-35°C while pathogenic strains grow at 35°C.

Mycoplasma when grow in the agar medium show typical morphology, and form colonies below the agar surface and do not grow without serum.

After subculture to plates of PPLO Agar, possible broth cultures produce colonies exhibiting the typical morphology, i.e., fried egg appearance.

Plates or 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.

Methodology

Suspend 21 grams of powder media in 700 ml distilled water. Shake well & heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45°C and aseptically add 300 ml Horse serum (MS3239) or 10 vials of Mycoplasma Enrichment Supplement (MS2075). Mix well before dispensing. Add 2.85 ml of 1% Potassium tellurite (MS2052) along with MS3239 or MS2075. 25% Ascitic fluid can be used instead of Horse serum.

Quality Control

Physical Appearance

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Yellow coloured may have purple tinge, clear solution in tubes. clear solution in tubes.

Reaction

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

pH Range 7.60-8.00

Cultural Response/Characteristics

DM 1268: Cultural characteristics observed in presence of 10% Carbon dioxide with added 1% Potassium tellurite (MS2052), 1% Horse serum (MS3239) and Mycoplasma Enrichment Supplement (MS2075) after an incubation at 22-35°C for 48 hours.



Dehydrated Culture Media
Bases / Media Supplements

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

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

Prepared Media: 2-8⁰ in sealable plastic bags for 2-5 days.

Further Reading

1. Morton, Smith and Leberman, 1951, Am. J. Syphilis Gonorrh. Venereal 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.

Disclaimer :

User must ensure suitability of the product(s) in their application prior to use.

The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate

Central Drug House 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 diagnostic or therapeutic use but for laboratory, research or further manufacturing of diagnostic reagents extra.

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. Do not use the products if it fails to meet specifications for identity and performance parameters.



Central Drug House (P) Ltd. Corp. Office : 7/28, Vardaan House, Ansari Road, Daryaganj, New Delhi-110002 (INDIA)

Phone : +91-11- 49404040 (100 Lines) Fax : +91-11- 49404050 E-mail : sales@cdhfinechemical.com Website : www.cdhfinechemical.com