

Technical Information

Mycoplasma MiVeg Broth Base w/CV

Product Code: VM1268

Application:- Mycoplasma MiVeg Broth Base (PPLO MiVeg Broth Base) with the addition of enrichment, is used for isolation and cultivation of *Mycoplasma* (pleuropneumonia like organisms).

Composition

Ingredients	Gms / Litre	
MiVeg infusion	6.00	
MiVeg peptone	10.00	
Sodium chloride	5.00	
Crystal violet	0.01	
Final pH (at 25°C)	7.8±0.2	

^{**} Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Mycoplasma MiVeg Broth Base w/ CV is prepared by using Miveg peptone in place of animal based peptones which makes the media free from BSE/TSE risks. This medium is the modification of media which were devised by Morton et al (1) and is used for the isolation of *Mycoplasma* from clinical specimens, such as sputum and mixed cultures. The medium ingredients and all the supplements used for the cultivation of *Mycoplasma* should be free of any toxic substances even in small amounts. Many *Mycoplasma* require serum for their good growth and also the presence of antibiotic is necessary to prevent the growth of contaminating organisms. Crystal violet and potassium tellurite is incorporated in the medium to inhibit many gram-negative and gram-positive bacteria. 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. The inoculated broth 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. Mix thoroughly. Heat to boiling 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 (BA2239) or 10 vials of Mycoplasma Enrichment Supplement (MS2075) and add 2.85 ml of 1% Potassium tellurite (MS2052). Mix well before dispensing. 25% Ascitic fluid can be used instead of Horse serum.

Quality Control

Physical Appearance

Yellow coloured, may have slightly greenish tinge,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 pH: 7.8 ±0.2 at 25°C

pH range

7.6-8.0-

Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35°C for 48-72 hours with 10% Carbon dioxide, and added Horse serum (BA2239)/Mycoplasma Enrichment Supplement (MS2075).

Organisms (ATCC) Inoculum (CFU) Growth





Mycoplasma bovis (25523)	102-103	good-luxuriant
Mycoplasma gallinarium (19708)	102-103	good-luxuriant
Mycoplasma pneumoniae (15531)	102-103	good-luxuriant
Streptococcus pneumoniae (6303)	102-103	inhibited

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 Leverman, 1951, Am. J. Syphilis Gonorrh. Veneral Diseases, 35: 361

Disclaimer:

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