Frey Mycoplasma Broth Base

M1050

Intended Use:

Recommended for the cultivation of avian *Mycoplasma*.

Composition**

Ingredients	g / L
Tryptone	7.500
Soya peptone	2.500
Yeast extract	5.000
Sodium chloride	5.000
Potassium chloride	0.400
Magnesium sulphate	0.200
Disodium hydrogen phosphate	1.600
Potassium dihydrogen phosphate	0.100
Final pH (at 25°C)	7.7±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 22.3 grams in 900 ml purified / distilled water. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C and add 100 ml of sterile inactivated (at 56°C for 30 minutes) Horse Serum (RM1239). Mix well and dispense into sterile tubes or flasks as desired.

Principle And Interpretation

Poultry flocks are susceptible to respiratory infections from a variety of agents, including *Mycoplasmas*. The common types of infections from *Mycoplasma* are chronic respiratory diseases, air sacculitis, sinusitis and synovitis. In many cases, however the infection may be identified only through serological and culture methods (1). *Mycoplasmas* require very complex media that complicates identification procedures in laboratory diagnosis (2,3). Frey et al (4) formulated Mycoplasma Broth with horse serum for the cultivation of avian *Mycoplasma. Mycoplasma gallisepticum, Mycoplasma synoviae, Mycoplasma meleagridis* are few of the *Mycoplasma* species which cause infections in birds.

Tryptone, soya peptone and yeast extract are the sources of organic nitrogen, carbon, sulphur, Vitamin B and trace elements. Potassium chloride, magnesium chloride and magnesium sulphate provide essential ions. Addition of inactivated horse serum serves as a source of growth factors including lipid compounds and cholesterol, a stimulant of growth (5).

Type of specimen

Clinical samples

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (6,7).

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

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Light yellow coloured, clear to slightly opalescent solution

Reaction

Reaction of 2.23% w/v aqueous solution at 25°C. pH : 7.7±0.2

pH

7.50-7.90

Cultural Response

Cultural characteristics observed in moist aerobic or anaerobic atmosphere with 5-10% carbon dioxide with added sterile inactivated Horse Serum (RM1239) after an incubation at 35-37°C for 36-72 hours .

Organism	Growth
Escherichia coli ATCC 25922 (00013*)	good - luxuriant
Mycoplasma gallisepticum ATCC 19610	luxuriant
Mycoplasma synoviae ATCC 25204	luxuriant

Key : *Corresponding WDCM numbers.

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 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 (6,7).

Reference

1. Jordan F. T. W., Pattison M., Alexander D. J., Faragher T., (Eds.),2001, Poultry diseases, 5th Edi., Philadelphia, Pa: WB Saunders.
2. Hayflick and Chanock, 1965, Bacteriol. Rev., 29:185.
3. Hayflick and Stanbridge, 1967, Ann. N.Y. Acad. Sci., 143:608.
4. Frey, Hanson and Anderson, 1968, Am. J. Vet. Res., 29:2163.
5. Murray P. R., Baron J. H., Pfaller M. A., Jorgensen J. H. and Yolken R. H., (Eds.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.
6. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
7. 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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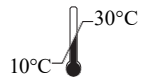

Storage temperature

Do not use if package is damaged

Disclaimer :

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