Mycoplasma Synoviae Medium Base

M624

Intended Use:

Used for cultivation of avian strains of *Mycoplasmas.*

Composition**

Ingredients	g / L
HM Infusion powder#	12.50
BHI Powder##	5.000
Proteose peptone	10.000
Sodium chloride	5.000
Disodium hydrogen phosphate	2.500
Dextrose (Glucose)	2.000
Yeast autolysate	5.000
Tris buffer	0.250
2,3,5-Triphenyl tetrazolium chloride	0.050
Final pH (at 25°C)	8.0±0.2

**Formula adjusted, standardized to suit performance parameters
Equivalent to Calf brain, infusion from
Equivalent to Beef heart, infusion from

Directions

Suspend 42.3 grams in 900 ml purified/distilled water. Mix well to dissolve the medium completely. Sterilize by filtration and aseptically add 100 ml sterile Horse Serum (RM1239) and 1,000,000 units Penicillin and 0.25 gram Thallium acetate. Mix well and dispense into sterile tubes or flasks as desired.

Principle And Interpretation

Genus *Mycoplasma* belongs to the class Mollicutes characterized by absence of cell wall, small genome and low G+C content, and were first recognized from a case of pleropneumonia in a cow (1). The organism was designated “pleuropneumonia-like organism”, or PPLO.

For the cultivation of *Mycoplasma* the medium ingredients and all the supplements should be free of any toxic substances even in small amounts. HM Infusion powder, BHI Powder and proteose peptone provide nitrogen, vitamins, amino acids and carbon sources.Sodium chloride maintains the osmotic balance. 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.

Mycoplasma Synoviae Medium contains yeast autolysate which is a rich source of Nicotinamide Adenine Dinucleotide (NAD) required by *Mycoplasma synoviae*. HM Infusion powder and BHI Powder along with the proteose peptone provide organic nitrogen, carbon, sulphur, vitamins and trace elements. Tris buffer and disodium phosphate buffers the medium. Horse serum provides growth factors including lipid compounds to *Mycoplasma*. TTC helps to identify TTC reducing *Mycoplasmas* (2). Penicillin and thallium acetate are added to the medium to inhibit bacterial growth.

Type of specimen

Clinical samples - Swabs from trachea or choanal (palatine), cleft (from poultry)

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (3,4).

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 microaerophilic, 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 to slightly opalescent solution

Reaction

Reaction of 4.23% w/v aqueous solutions at 25°C. pH : 8.0±0.2

pH

7.80-8.20

Cultural Response

Cultural characteristics observed in presence of 10% Carbon dioxide (CO_2), with added sterile Horse Serum (RM1239) and 1,000,000 units Penicillin and 0.25 gram thallium acetate,after an incubation at 35-37°C for 36-72 hours.

Organism	Growth
Mycoplasma gallinarium ATCC 19708	good-luxuriant
Mycoplasma synoviae ATCC 25204	good-luxuriant

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 20-30°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 (3,4).

Reference

1.Bauriaud R., Seror C., Lareng M. B., Lefevre J. C.,1992, Pathologie Biologie, 40, 479-482.

2.Forbes. A. B., Sahm D. F., 2002, Bailey and Scott's Diagnostic Microbiology, 11th Ed., The C.V. Mosby Co., St. Louis.

3.Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.

4.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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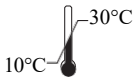
IVD ***In vitro* diagnostic medical device**



Storage temperature

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

CE Marking

Do not use if package is damaged

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