LI Agar, HiVeg™

MV374

Intended Use:

Recommended for cultivation of *Brucella* and other pathogenic bacteria.

Composition**

Ingredients	g / L
HiVeg™ infusion No. 1	20.000
HiVeg™ peptone No. 3	10.000
Sodium chloride	5.000
Agar	20.000
Final pH (at 25°C)	6.9±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 55.0 grams in 1000 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. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Brucella, a gram-negative intracellular parasite causes epizootic abortions in animals and septicemic febrile illness or localized infection of bone, tissue or organ systems in humans (1,2). *Brucella* species are the causative agents of Brucellosis, a zoonotic disease with a domestic animal reservoir (1). Tryptose Agar with 5% serum remains the media of choice for isolation of *Brucella* species. However the growth is highly enhanced when grown on Liver Infusion or Brucella Agar (3), due to the high nutritive content of the infusion media. Further enhancement of growth can be achieved by the addition of 5% horse or rabbit serum to the medium (4). While isolating *Brucella* species from samples such as contaminated milk, inhibition of accompanying gram-positive bacteria is attained by the addition of crystal violet. Half strength Liver Infusion Agar can be used for the isolation of *Entamoeba histolytica*.

LI Agar, HiVeg™ is prepared by using vegetable peptones in place of animal based peptones which make the media free of BSE/TSE risks. HiVeg™ infusion No. 1 and HiVeg™ peptone No. 3 provide the nitrogen, amino acids, vitamins and carbon sources which permit luxuriant growth of *Brucella* and other fastidious pathogens. Sodium chloride maintains the osmotic balance. The reducing substances present in liver tissue create an anaerobic environment, which satisfies the requirements of even fastidious anaerobes. Refer appropriate references for standard procedures (2,5,6).

Type of specimen

Please add specimens

Specimen Collection and Handling:

After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

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. *Brucella* species are highly infectious and extreme care should be taken while handling the cultures.

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

Light yellow to light brown homogeneous free flowing powder

Gelling

Firm, comparable with 2.0% agar gel.

Colour and Clarity of prepared medium

Amber coloured clear to slightly opalescent gel forms in Petri plates

Reaction

Reaction of 5.5% w/v aqueous solution at 25°C. pH : 6.9±0.2

pH

6.70-7.10

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours .(*Clostridium* species incubated anaerobically)

Organism	Growth
Brucella melitensis ATCC 4309	luxuriant
Brucella suis ATCC 6597	luxuriant
Streptococcus mitis ATCC 9895	luxuriant
Clostridium sporogenes ATCC 11437	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 sample must be decontaminated and disposed of in accordance with current laboratory techniques (4,6).

Reference

1.Carter G. R., 1979, Diagnostic Procedures in Veterinary Bacteriology and Mycology, 3rd Ed., Charles C., Thomas, Springfield, III.

2.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.

3.Cleveland L. R. and Sanders E. P., 1930, Arch. Protietenkd. 70:223.

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

5.Forbes B. A., Sahm A. S., and Weissfeld D. F., Bailey & Scotts Diagnostic Microbiology, 10th Ed., 1998, Mosby, Inc., St. Louis, Mo.

6.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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