LI Broth

M153

Intended Use:

For cultivation of variety of highly fastidious microorganisms including anaerobes and *Brucella* species.

Composition**

Ingredients	g / L
HL Infusion B from 500g#	20.000
Proteose peptone	10.000
Sodium chloride	5.000
Final pH (at 25°C)	6.9±0.2

**Formula adjusted, standardized to suit performance parameters
Equivalent to Beef liver, infusion from

Directions

Suspend 35.0 grams in 1000 ml purified/distilled water. Heat if necessary to dissolve the medium completely. Dispense into tubes or flasks as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

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). 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 media. Half strength Liver Infusion Broth can be used for the isolation of *Entamoeba histolytica* (3).

HL Infusion B and proteose peptone 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 HL infusion create an anaerobic environment, which satisfies the requirements of even fastidious anaerobes. Refer appropriate references for standard procedures (4,5,6). *Brucella* species are highly infectious and extreme care should be taken while handling the cultures.

Type of specimen

Clinical samples - wounds, pus, etc (7)

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (5,8).

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. *Brucella* species are highly infectious and extreme care should be taken while handling the cultures.
2. Some strains might show poor growth due to variations in nutritional requirements.
3. Further biochemical and serological testing is required for complete 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

Light yellow to brownish yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Amber coloured clear solution in tubes

Reaction

Reaction of 3.5% 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 anarobically)

Organism	Inoculum (CFU)	Growth
Brucella melitensis ATCC 4309	50-100	luxuriant
Brucella suis ATCC 4314	50-100	luxuriant
Clostridium sporogenes ATCC 11437	50-100	luxuriant
Streptococcus mitis ATCC 9811	50-100	luxuriant

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 15-30°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 (5,8).

Reference

1. Moyer N. P. and Holcomb L. A., 1988, Brucellosis, p. 143-154, In Balows A., Hausler W. J., Jr. Ohashi M. and Turano A.(Eds.), Laboratory Diagnosis and Infectious Diseases: Principle and Practice, Vol. I., Springer-Verlag, New York.
2. Smith, L. D. and Fieht T. A., 1990, Pathogenesis of Brucella. Crit. Rev. Microbiol., 17: 209-230.
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4. Forbes B. A., Sahm A. S., and Weissfeld D. F., Bailey & Scotts Diagnostic Microbiology, 10th Ed., 1998, Mosby, Inc.,St. Louis, Mo.
5. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
6. 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.
7. M.J. Corbe, "Brucellosis in humans and animals", Produced by the World Health Organization in collaboration with the Food and Agriculture Organization of the United Nations and World Organisation for Animal Health;NLM classification: WC 310;ISBN 92 4 154713 8 and ISBN 978 92 4 154713
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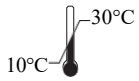
IVD ***In vitro*** **diagnostic medical device**



Storage temperature

EC REP CEpartner4U, Esdoornlaan 13,
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www.cepartner4u.eu

CE Marking

Do not use if package is damaged

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