Tryptose Broth, HiVeg™ MV177

Intended Use:

Recommended for cultivation of *Brucella* species.

Composition**

Ingredients	g / L
HiVeg™ hydrolysate No. 1	20.000
Dextrose (Glucose)	1.000
Sodium chloride	5.000
Final pH (at 25°C)	7.3±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 26.0 grams in 1000 ml purified/distilled water. If desired, add 0.5-1.0% agar to the medium. Heat if necessary to dissolve the medium completely. Dispense in tubes or flasks as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle And Interpretation

Huddleson used Tryptose media for the isolation of *Brucella* species from man (1). Tryptose containing media, rather than the conventionally used meat infusion media have been used for the enumeration and isolation of *Brucella* species (2, 3). Tryptose Broth, HiVeg™ is prepared by using vegetable peptones in place of animal based peptones which make the media free of BSE/TSE risks.

Tryptose Broth is also recommended by APHA (4) and FDA (5). This medium can be used as general purpose media for cultivation of wide variety of organisms. It can also be supplemented with defibrinated blood (sheep, horse) to prepare blood containing medium for the isolation of fastidious organisms like Brucella. Tryptose Broth, HiVeg™ can be supplemented with 0.1%agar for the cultivation of anaerobes.

Dextrose is the source of energy. HiVeg™ hydrolysate No. 1 serves as nitrogen source while sodium chloride maintains osmotic equilibrium.

Type of specimen

Food samples

Specimen Collection and Handling

For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (4) 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 specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations

1. All presumptive anaerobic organisms must be identified by confirmatory test.

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

Basal Medium : Yellow coloured, clear solution. With addition of 5% v/v sterile defibrinated blood, cherry red coloured, opaque solution forms in tubes.

Reaction

Reaction of 2.6% w/v aqueous solution at 25°C. pH : 7.3±0.2

pH

7.10-7.50

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 48-72 hours with added 5% v/v sterile defibrinated blood in presence of 10% Carbon dioxide (CO_2).

Organism	Inoculum (CFU)	Growth
Brucella melitensis ATCC 4309	50-100	good-luxuriant
Brucella suis ATCC 4314	50-100	good-luxuriant
Streptococcus pneumoniae ATCC 6303	50-100	good-luxuriant
Streptococcus pyogenes ATCC 19615	50-100	good-luxuriant

Storage and Shelf Life

Store below 10-30°C in a tightly closed container and the prepared medium at 15-25°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 (6,7).

Reference

1. Huddleson I. F., 1943, Brucellosis in man and animals, rev., Ed., The Commonwealth Fund, New York, N.Y.
2. Huddleson I. F., 1939, Brucellosis in Man and Animals, Oxford University Press, Oxford, England.
3. Ruiz Castañeda M., 1947, Proc. Soc. Exp. Biol. Med., 64:114.
4. Salfinger Y., and Tortorello M.L., 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
5. U.S. Food and Drug Administration, 1995, Bacteriological Analytical Manual, 8th Ed., AOAC International, Gaithersburg, Md.
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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