

Hartley's Digest HiVeg™ Broth

MV551

Intended Use:

Recommended as a general purpose medium for the cultivation of a wide variety of bacteria from blood, especially fastidious Streptococci and *Corynebacterium diphtheriae*.

Composition**

Ingredients	g / L
HiVeg™ special infusion	29.000
Final pH (at 25°C)	7.6±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 29.0 grams in 1000 ml purified/distilled water. 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

Hartley (1) described the value of tryptic digest of muscle for the production of diphtheria toxin. Since then it is used as a general-purpose broth, capable of initiating the growth of demanding (fastidious) organisms from a small inocula. Hartley's Digest Broth can be used for the recovery of fastidious organisms such as Group A, C, G Streptococci and *Streptococcus pneumonia* from small inocula. Douglas (2) used the same medium to recover *Corynebacterium diphtheriae*, while Monckton (3) used it in an enrichment medium for *C. diphtheriae*. Hartley's Digest HiVeg™ Broth may be used for cultivation of blood samples, sterility testing, production of diphtheria toxin etc. Hartley's Digest HiVeg™ Broth is prepared by completely replacing animal based peptone with vegetable peptones to avoid BSE/TSE risks associate with animal peptones. Hartleys Digest Broth is prepared as per the method described by Cruickshank (4) by the tryptic digestion of de-fatted, fresh ox-heart under controlled conditions.

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 specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. Some species may show poor growth due to nutritional variations.

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 solution without any precipitate

Reaction

Reaction of 2.9% w/v aqueous solution at 25°C. pH : 7.6±0.2

pH

7.40-7.80

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours

Organism	Inoculum (CFU)	Growth
<i>Corynebacterium diphtheriae</i> ATCC 11913	50-100	luxuriant
<i>Enterococcus faecalis</i> ATCC 50-100 29212 (00087*)		luxuriant
<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC 25923 (00034*)	50-100	luxuriant
<i>Streptococcus pneumoniae</i> ATCC 6303	50-100	luxuriant
<i>Streptococcus pyogenes</i> ATCC 19615	50-100	luxuriant

Key : (*) Corresponding WDCM numbers.

Storage and Shelf Life

Store between 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 (5,6).

Reference

- Hartley P., 1922, J. Path. Bact., 25:479.
- Douglas S. R., 1922-23, Brit. J. Expt. Pathol., 3:263.
- Monckton J. C., 1947, Bull Inst. Med. Lab. Technol., 13(1):2.
- Cruickshank R., 1962, "Mackie and McCartney's Handbook of Bacteriology" 10th Ed., Livingstone Ltd., Edinburgh and London, pp. 192.
- Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
- 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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