

# **Technical Data**

## **Hartleys Digest Broth**

**M551** 

## **Intended Use:**

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

## Composition\*\*

 Ingredients
 g / L

 HM hydrolysate #
 29.000

 Final pH ( at 25°C)
 7.6±0.2

### **Directions**

Suspend 29.0 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**

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 pneumoniae* 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 Broth may be used for cultivation of blood samples, sterility testing, production of diphtheria toxin etc.

Hartleys Digest Broth is prepared as per the method described by Cruickshank (4). HM hydrolysate provides nitrogeneous and carbonaceous compounds, long chain amino acids, vitamins and other essential nutrients.

#### Type of specimen

Clinical samples - Blood

### **Specimen Collection and Handling:**

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (5,6). 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.Individual organisms differ in their growth requirement and may show variable growth patterns on the medium.

2.Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.

### **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

<sup>\*\*</sup>Formula adjusted, standardized to suit performance parameters

<sup>#</sup> Equivalent to Tryptic digest of heart muscle

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#### Reaction

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

#### pН

7.40-7.80

#### **Cultural Response**

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

Organism	Inoculum (CFU)	Growth
Corynebacterium diphtheriae ATCC 11913	50-100	luxuriant
Enterococcus faecalis ATCC 29212 (00087*)	50-100	luxuriant
Staphylococcus aureus subsp. aureus ATCC 25923 (00034*)	50-100	luxuriant
Streptococcus pneumoniae ATCC 6303	50-100	luxuriant
Streptococcus pyogenes 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 15-30°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 (5,6).

## Reference

- 1. Hartley P., 1922, J. Path. Bact., 25:479.
- 2.Douglas S. R., 1922-23, Brit. J. Expt. Pathol., 3:263.
- 3. Monckton J. C., 1947, Bull Inst. Med. Lab. Technol., 13(1):2.
- 4.Cruickshank R., 1962, "Mackie and McCartneys Handbook of Bacteriology" 10th Ed., Livingstone Ltd., Edinburgh and London, pp. 192.
- 5. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
- 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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HiMedia Laboratories Pvt. Limited, Plot No.C-40, Road No.21Y, MIDC, Wagle Industrial Area, Thane (W) -400604, MS, India



In vitro diagnostic medical device



Storage temperature



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Do not use if package is damaged

#### Disclaimer:

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