Hartleys Digest Broth

Hartleys Digest Broth is recommended as a general-purpose medium for the cultivation of a wide variety of bacteria from blood especially fastidious Streptococci and Corynebacterium diphtheriae.

Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tryptic digest of heart muscle</td>
<td>29.000</td>
</tr>
<tr>
<td>Final pH (at 25°C)</td>
<td>7.6±0.2</td>
</tr>
</tbody>
</table>

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 29 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Dispense as desired and 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. Hartleys 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 (3) used the same medium to recover Corynebacterium diphtheriae, while Monckton (2) used it in an enrichment medium for C. diphtheriae. Hartleys 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) by the tryptic digestion of de-fatted, fresh ox-heart under controlled conditions.

Quality Control

Appearance
Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium
Light yellow coloured, clear solution without any precipitae

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

pH
7.40-7.80

Cultural Response
M551: Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours.

<table>
<thead>
<tr>
<th>Organism</th>
<th>Inoculum (CFU)</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corynebacterium diphtheriae ATCC 11913</td>
<td>50-100</td>
<td>luxuriant</td>
</tr>
<tr>
<td>Enterococcus faecalis ATCC 50-100</td>
<td>29212</td>
<td>luxuriant</td>
</tr>
<tr>
<td>Staphylococcus aureus ATCC 25923</td>
<td>50-100</td>
<td>luxuriant</td>
</tr>
<tr>
<td>Streptococcus pneumoniae ATCC 6303</td>
<td>50-100</td>
<td>luxuriant</td>
</tr>
<tr>
<td>Streptococcus pyogenes ATCC 19615</td>
<td>50-100</td>
<td>luxuriant</td>
</tr>
</tbody>
</table>

Storage and Shelf Life

Store below 30°C in tightly closed container and prepared medium at 2-8°C. Use before expiry period on the label.
Reference

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