Mueller Hinton Broth

Intended Use:
Recommended to determine the susceptibility of bacteria to Sulphonamides by the tube dilution method.

Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>HM infusion B from #</td>
<td>300.000</td>
</tr>
<tr>
<td>Acicase™</td>
<td>17.500</td>
</tr>
<tr>
<td>Starch</td>
<td>1.500</td>
</tr>
</tbody>
</table>

**Formula adjusted, standardized to suit performance parameters

# Equivalent to Beef, infusion from
$ Equivalent to Casein acid hydrolysate

Directions
Label the ready to use LQ182V bottle. Inoculate the sample and Incubate at specified temperature and time.

Principle And Interpretation
The Mueller Hinton formulation was originally developed as a simple, transparent agar medium for the cultivation of pathogenic Neisseria species (2). Other media were subsequently developed that replaced the use of Mueller Hinton Agar for the cultivation of pathogenic Neisseria species, but it became widely used in the determination of sulfonamide resistance of gonococci and other organisms. Mueller Hinton Broth is recommended for dilution antimicrobial susceptibility testing of all species of most commonly encountered aerobic and facultatively anaerobic bacteria (3,1). HM infusion B and Acicase™ provide nitrogenous compounds, carbon, sulphur and other essential nutrients. Starch acts as a protective colloid against toxic substances present in the medium. Starch hydrolysis yields dextrose, which serves as a source of energy. These ingredients are selected for low thymine and thymidine content as determined by MIC values for Enterococcus faecalis with sulfamethoxazoletrimethoprim (SXT). Calcium and magnesium ion concentrations are adjusted to provide the amounts recommended by CLSI to give the correct MIC values with aminoglycosides and Pseudomonas aeruginosa (3).

Type of specimen
Clinical samples - Clinical isolates obtained from urine, csf, vagina, nasal swabs, faeces and other pathological materials

Specimen Collection and Handling
For clinical samples follow appropriate techniques for handling specimens as per established guidelines (5,6).

Warning and Precautions
In Vitro diagnostic 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. After use, contaminated materials must be sterilized by autoclaving before discarding.

Limitations
1. Further biochemical tests must be carried out 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
Sterile clear Mueller Hinton Broth in glass bottle
Colour
Light amber coloured clear solution in bottle

Quantity of Medium
5 ml of medium in glass bottle

pH
7.20-7.40

Sterility Testing
Passes release criteria

Cultural Response
Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

<table>
<thead>
<tr>
<th>Organism</th>
<th>Inoculum (CFU)</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Escherichia coli</em> ATCC 25922 (00013*)</td>
<td>50-100</td>
<td>good-luxuriant</td>
</tr>
<tr>
<td><em>Haemophilus influenzae</em> ATCC 49247</td>
<td>50-100</td>
<td>good-luxuriant</td>
</tr>
<tr>
<td><em>Neisseria gonorrhoeae</em> ATCC 49226</td>
<td>50-100</td>
<td>good-luxuriant</td>
</tr>
<tr>
<td><em>Pseudomonas aeruginosa</em> ATCC 27853 (00025*)</td>
<td>50-100</td>
<td>good-luxuriant</td>
</tr>
<tr>
<td><em>Staphylococcus aureus</em> subsp. aureus ATCC 25923 (00034*)</td>
<td>50-100</td>
<td>good-luxuriant</td>
</tr>
<tr>
<td><em>Enterococcus faecalis</em> ATCC 19433 (00009*)</td>
<td>50-100</td>
<td>good-luxuriant</td>
</tr>
<tr>
<td><em>Streptococcus pneumoniae</em> ATCC 6305</td>
<td>50-100</td>
<td>good-luxuriant</td>
</tr>
</tbody>
</table>

Key : (*) Corresponding WDCM numbers.

Storage and Shelf Life
On receipt store between 15-25°C. Use before expiry date on the label.
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
Disclaimer:

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.