Dextrose Broth

**Intended Use:**
Recommended for cultivation of wide variety of microorganisms.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tryptose</td>
<td>10.000</td>
</tr>
<tr>
<td>HM peptone B#</td>
<td>3.000</td>
</tr>
<tr>
<td>Dextrose (Glucose)</td>
<td>5.000</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>5.000</td>
</tr>
<tr>
<td>Final pH (at 25°C)</td>
<td>7.2±0.2</td>
</tr>
</tbody>
</table>

**Directions**
Suspend 23 grams in 1000 ml purified/distilled water. Heat if necessary to dissolve the medium completely. Dispense into tubes or flasks or as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

**Principle And Interpretation**
Dextrose in culture media serves as a source of energy. Dextrose Broth is useful when the organism has to be revived from small inocula. Dextrose Broth can also be used for anaerobic growth by the addition of 0.1-0.2% Agar. Agar, thus added, helps to disperse the growth formed and also expel the CO$_2$ formed. Facultatively aerobic organisms tend to grow near the surface, in upper zone of the tube. Dextrose Broth is used for antibiotic sensitivity testing using the tube dilution method. Sensitivity testing of neomycin and chlortetracycline is better done using this medium. HM peptone B and tryptose serve as sources of nitrogenous compounds, sulphur, carbon, vitamins and minerals. Dextrose is an energy source. Sodium chloride maintains the osmotic equilibrium of the medium.

**Type of specimen**
Food samples

**Specimen Collection and Handling:**
For food samples, follow appropriate techniques for sample collection and processing as per guidelines. 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. This medium is general purpose medium and may not support the growth of fastidious organisms.

**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 in tubes

*Please refer disclaimer Overleaf.*
**Reaction**

Reaction of 2.3% w/v aqueous solution at 25°C. pH : 7.2±0.2

**pH**

7.00-7.40

**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>
<th>Gas</th>
<th>Growth (with 0.1% Agar)</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Escherichia coli ATCC 25922 (00013</em>)*</td>
<td>50-100</td>
<td>good-luxuriant</td>
<td>positive reaction</td>
<td>good-luxuriant</td>
</tr>
<tr>
<td><em>Neisseria gonorrhoeae ATCC 19424</em></td>
<td>50-100</td>
<td>good-luxuriant</td>
<td>negative reaction</td>
<td>good-luxuriant</td>
</tr>
<tr>
<td><em>Neisseria meningitidis ATCC 13090</em></td>
<td>50-100</td>
<td>good-luxuriant</td>
<td>negative reaction</td>
<td>good-luxuriant</td>
</tr>
<tr>
<td><em>Staphylococcus aureus subsp. aureus ATCC 25923 (00034</em>)*</td>
<td>50-100</td>
<td>good-luxuriant</td>
<td>negative reaction</td>
<td>good-luxuriant</td>
</tr>
<tr>
<td><em>Streptococcus pyogenes ATCC 19615</em></td>
<td>50-100</td>
<td>good-luxuriant</td>
<td>negative reaction</td>
<td>good-luxuriant</td>
</tr>
<tr>
<td><em>Streptococcus pneumoniae ATCC 6305</em></td>
<td>50-100</td>
<td>good-luxuriant</td>
<td>negative reaction</td>
<td>good-luxuriant</td>
</tr>
</tbody>
</table>

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 (1,2).

**Reference**


Revision : 03/2019

**Disclaimer**

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