Andrade Peptone Water M885S

Andrade Peptone Water is a basal medium to which various carbohydrates can be added to study fermentation reactions. It is recommended by BIS committee under the specifications IS:5887(Part I and Part IV)-1976.

Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peptic digest of animal tissue</td>
<td>10.000</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>5.000</td>
</tr>
<tr>
<td>Andrade indicator</td>
<td>0.100</td>
</tr>
<tr>
<td>Final pH (at 25°C)</td>
<td>7.5±0.2</td>
</tr>
</tbody>
</table>

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 15.1 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely and dispense in test tubes containing inverted Durhams tubes. Sterilize by autoclaving at 10 lbs pressure (115°C) for 20 minutes. Cool to room temperature and aseptically add sterile stock solution of carbohydrate to a final concentration of 1.0% (w/v).

Principle And Interpretation

Andrade Peptone Water is recommended by BIS for isolation and detection of *Escherichia coli* from food as peptone water medium for carbohydrate fermentation tests (1). Andrade Peptone Water is used for studying the various carbohydrate fermentation patterns of different organisms including *Vibrio cholerae* and *Vibrio parahaemolyticus* (2, 3). The peptic digest of animal tissues used is free from fermentable carbohydrates (4, 5) and the medium is also free from nitrates which may interfere with gas production. Andrade indicator is a solution of acid fuchsin which when titrated with sodium hydroxide; changes colour from pink to yellow. The Andrade indicator changes colour from yellow to pink as the pH decreases (5). The medium is pink when hot but becomes straw coloured on cooling. Test carbohydrate solutions should be sterilized separately and aseptically added to sterile Andrade Peptone Water. The biochemical identification of organisms capable of growing in this medium is made by various sugar fermentation results (4, 6, 7).

Use fresh cultures of organisms only which have been presumptively identified by Gram staining and colony morphology. For final identification further biochemical tests are required.

Quality Control

Appearance
Light yellow coloured with pink tinge homogeneous free flowing powder

Colour and Clarity of prepared medium
Light pink coloured clear solution without any precipitate.

Reaction
Reaction of 1.51% w/v aqueous solution at 25°C. pH : 7.5±0.2

pH
7.30-7.70

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

Cultural Response

<table>
<thead>
<tr>
<th>Organism</th>
<th>Growth</th>
<th>Acid in absence of dextrose</th>
<th>Gas in absence of dextrose</th>
<th>Acid with added dextrose</th>
<th>Gas with added dextrose</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Escherichia coli</em> ATCC 25922</td>
<td>Luxuriant</td>
<td>Negative reaction</td>
<td>Negative reaction</td>
<td>positive reaction, colour reaction</td>
<td>Positive</td>
</tr>
</tbody>
</table>

Please refer disclaimer Overleaf.
**Klebsiella pneumoniae ATCC13883**
- Luxuriant
- Negative reaction
- Negative reaction
- Positive reaction, colour changes to pink red

**Proteus vulgaris ATCC 13315**
- Luxuriant
- Negative reaction
- Negative reaction
- Positive reaction, colour changes to pink red

**Salmonella Typhi ATCC 6539**
- Luxuriant
- Negative reaction
- Negative reaction
- Positive reaction, colour changes to pink red

**Salmonella Typhimurium ATCC 14028**
- Luxuriant
- Negative reaction
- Negative reaction
- Positive reaction, colour changes to pink red

**Shigella flexneri ATCC 12022**
- Luxuriant
- Negative reaction
- Negative reaction
- Negative reaction, colour changes to pink red

**Shigella sonnei ATCC 25931**
- Luxuriant
- Negative reaction
- Negative reaction
- Positive reaction, colour changes to pink red

**Storage and Shelf Life**
Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.

**Reference**

Revision : 2 / 2015