Anaerobic Fermentation Medium Base

Anaerobic Fermentation Medium Base is recommended for detection of fermentation reactions of anaerobic microorganisms.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biopeptone</td>
<td>16.000</td>
</tr>
<tr>
<td>Beef extract</td>
<td>4.000</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>5.000</td>
</tr>
<tr>
<td>Agar</td>
<td>15.000</td>
</tr>
<tr>
<td>Final pH (at 25°C)</td>
<td>7.2±0.2</td>
</tr>
</tbody>
</table>

**Formula adjusted, standardized to suit performance parameters**

**Directions**

Suspend 40 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 50°C and aseptically add 5-7 % sterile defibrinated horse blood. Mix well before pouring.

**Principle And Interpretation**

A simple and sensitive technique for the determination of fermentation reactions of non sporing anaerobes have been described by Phillips (1). Non-sporing anaerobes are a heterogeneous group of opportunistic pathogens that are a normal flora of skin and mucosal membranes. Biopeptone and beef extract in the medium provides nitrogen, chloride and other nutrients necessary to support bacterial growth. Sodium is an essential ion and helps in maintaining the osmotic balance of the medium. Agar is the solidifying agent.

**Quality Control**

**Appearance**
Cream to yellow coloured homogeneous free flowing powder

**Gelling**
Firm, comparable with 1.5% Agar gel

**Colour and Clarity of prepared medium**
Yellow coloured clear to slightly opalescent gel forms in petri plates.

**Reaction**
Reaction of 4.0% w/v aqueous solution at 25°C. pH : 7.2±0.2

**pH**
7.00-7.40

**Cultural Response**
M978: Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours.

<table>
<thead>
<tr>
<th>Organism</th>
<th>Inoculum (CFU)</th>
<th>Growth</th>
<th>Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clostridium perfringens ATCC 13124</td>
<td>50-100</td>
<td>luxuriant</td>
<td>&gt;=50%</td>
</tr>
<tr>
<td>Clostridium sporogenes ATCC 11437</td>
<td>50-100</td>
<td>luxuriant</td>
<td>&gt;=50%</td>
</tr>
</tbody>
</table>

**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**
Disclaimer:

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