DEV Lactose Peptone Broth

For enrichment and titre determination of coliform bacteria.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meat peptone</td>
<td>10.000</td>
</tr>
<tr>
<td>Lactose</td>
<td>10.000</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>5.000</td>
</tr>
<tr>
<td>Bromo cresol purple</td>
<td>0.010</td>
</tr>
<tr>
<td>Final pH (at 25°C)</td>
<td>7.0±0.2</td>
</tr>
</tbody>
</table>

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

**Directions**

Suspend 25.01 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

**Principle And Interpretation**

DEV Lactose Peptone Broth is used for enrichment and titre determination of coliform bacteria.

Meat peptone provides carbon and other essential nutrients for growth. Sodium chloride is for the osmotic balance. Lactose is the carbohydrate source. Bromocresol purple is a pH indicator which has a yellow colour below pH 5.3 and purple colour above pH 6.7. Due to the fermentation of lactose and the subsequent acid production the colour changes to yellow (1).

**Quality Control**

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

**Colour and Clarity of prepared medium**
Purple coloured clear solution

**Reaction**
Reaction of 2.5 % w/v aqueous solution at 25°C. pH : 7.0±0.2

**pH**
6.80-7.20

**Cultural Response**

M1356: Cultural characteristics observed after an incubation at 37°C for 18-24 hours.

<table>
<thead>
<tr>
<th>Organism</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterobacter aerogenes ATCC 13048</td>
<td>good</td>
</tr>
<tr>
<td>Escherichia coli ATCC 25922</td>
<td>good</td>
</tr>
<tr>
<td>Klebsiella pneumoniae ATCC 13883</td>
<td>good</td>
</tr>
</tbody>
</table>

**Storage and Shelf Life**

Store below 30°C in tightly closed container and use freshly prepared medium. Use before expiry date on the label.

**Reference**

Please refer disclaimer Overleaf.

Disclaimer:

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