Enriched Thioglycollate Broth

Enriched Thioglycollate Broth is used for isolation, cultivation and identification of a wide variety of obligate anaerobic bacteria.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casein enzymic hydrolysate</td>
<td>17.000</td>
</tr>
<tr>
<td>Soya peptone</td>
<td>3.000</td>
</tr>
<tr>
<td>Dextrose</td>
<td>6.000</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>2.500</td>
</tr>
<tr>
<td>Sodium thioglycollate</td>
<td>0.500</td>
</tr>
<tr>
<td>L-Cystine</td>
<td>0.250</td>
</tr>
<tr>
<td>Sodium sulphite</td>
<td>0.100</td>
</tr>
<tr>
<td>Hemin</td>
<td>0.005</td>
</tr>
<tr>
<td>Vitamin K1</td>
<td>0.0001</td>
</tr>
<tr>
<td>Agar</td>
<td>0.700</td>
</tr>
<tr>
<td>Sodium bicarbonate</td>
<td>1.000</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 31.06 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Dispense as desired and sterilize by autoclaving at 118-121°C for 15 minutes(12-15 lbs pressure respectively). Aseptically add 10% rabbit or horse serum. Cool and dry under 85% N2, 10% H2 and 5% CO2 atmosphere.

**Principle And Interpretation**

Enriched Thioglycollate Medium is recommended for use in isolation and cultivation of fastidious and obligate anaerobic bacteria from clinical materials (1). This medium is often used for susceptibility testing of anaerobes by broth disk elution method. This medium is the modification of original Brewers formulation (2, 3), with the addition of vitamin K1, sodium bicarbonate, hemin and rabbit or horse serum.

Casein enzymic hydrolysate and soya peptone supports growth of wide variety of fastidious microorganisms. Sodium thioglycollate lowers the oxidation-reduction potential for anaerobic growth and also neutralizes the bacteriostatic effect of mercurial compounds. Most organisms show earlier and more vigorous growth in presence of dextrose, hemin and vitamin K1. Hemin is the source of X-factor, which stimulates the growth of many microorganisms.

**Quality Control**

**Appearance**

Cream to yellow homogeneous free flowing powder

**Colour and Clarity of prepared medium**

Light amber coloured, clear to slightly opalescent solution in tubes

**Reaction**

Reaction of 3.0% w/v aqueous solution at 25°C. pH : 7.0±0.2

**pH**

6.80-7.20

**Cultural Response**

M738: Cultural characteristics observed under anaerobic condition, after an incubation at 35-37°C for 18-48 hours.

<table>
<thead>
<tr>
<th>Organism</th>
<th>Inoculum (CFU)</th>
<th>Growth</th>
</tr>
</thead>
</table>

Please refer disclaimer Overleaf.
### Bacteroides vulgatus ATCC 8482
- 50-100 luxuriant

### Clostridium perfringens ATCC 12924
- 50-100 luxuriant

### Clostridium sporogenes ATCC 11437
- 50-100 luxuriant

### Neisseria meningitidis ATCC 13090
- 50-100 luxuriant

### Streptococcus pyogenes ATCC 19615
- 50-100 luxuriant

### 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: 02 / 2015

**Disclaimer:**
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