Streptococcus Selection Broth is recommended for selective isolation and enumeration of all types of Streptococci, including group A beta haemolytic strains.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casein enzymic hydrolysate</td>
<td>15.000</td>
</tr>
<tr>
<td>Papaic digest of soyabean meal</td>
<td>5.000</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>4.000</td>
</tr>
<tr>
<td>Sodium citrate</td>
<td>1.000</td>
</tr>
<tr>
<td>L-Cystine</td>
<td>0.200</td>
</tr>
<tr>
<td>Sodium sulphite</td>
<td>0.200</td>
</tr>
<tr>
<td>Dextrose</td>
<td>5.000</td>
</tr>
<tr>
<td>Sodium azide</td>
<td>0.200</td>
</tr>
<tr>
<td>Crystal violet</td>
<td>0.0002</td>
</tr>
<tr>
<td><strong>Final pH (at 25°C)</strong></td>
<td>7.4±0.2</td>
</tr>
</tbody>
</table>

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

**Directions**

Suspend 30.6 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Autoclaving is not required if medium is used on the same day. If storage is desired, sterilize by autoclaving at 118°C for 15 minutes. Avoid overheating which causes the medium to become more inhibitory. Mix well and dispense as desired.

Caution: Sodium azide has a tendency to form explosive metal-azide with plumbing material. It is advisable to use enough water to flush off the disposable.

**Principle And Interpretation**

Streptococcus Selection Broth is based on the suggestion of Pike (1), for the selective isolation of Streptococci from various materials, specially those which are heavily contaminated with accompanying microbial flora (2). Welch et al (3) also reported the abilities of this medium to recover group A b-haemolytic Streptococci.

Casein enzymic hydrolysate, papaic digest of soyabean meal, dextrose and salts provide nutrients essential for the growth of Streptococci. Sodium azide, sodium sulphite inhibits gram-negative rods and the crystal violet suppresses Staphylococci. However, Streptococci are not affected by these inhibitors at these concentrations. Due to this reason, these media are useful in studies of streptococcal flora from nutritional, dental and epidemiological research. Growth of coliforms, *Proteus*, *Pseudomonas* and *Bacillus* species is markedly suppressed in this medium. However, some strains of Staphylococci and Pneumococci may grow in this medium. All presumptive streptococci must be confirmed for identification.

**Quality Control**

**Appearance**

Cream to yellow homogeneous free flowing powder

**Colour and Clarity of prepared medium**

Light to medium amber coloured clear to slightly opalescent solution in tubes

**Reaction**

Reaction of 3.06% w/v aqueous solution at 25°C. pH : 7.4±0.2

**pH**

7.20-7.60

**Cultural Response**

M303: Cultural characteristics observed after an incubation at 35 - 37°C for 18 - 24 hours.
### Organism | Inoculum (CFU) | Growth
---|---|---
*Bacillus subtilis* ATCC 6633 | $\geq 10^3$ | inhibited
*Escherichia coli* ATCC 25922 | 50-100 | none-poor
*Enterococcus faecalis* ATCC 29212 | 50-100 | luxuriant
*Pseudomonas aeruginosa* ATCC 27853 | $\geq 10^3$ | inhibited
*Staphylococcus aureus* ATCC 25923 | 50-100 | none-poor
*Streptococcus pyogenes* ATCC 19615 | 50-100 | luxuriant

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

### Reference

Revision : 1 / 2011

Disclaimer:
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