Soyabean Casein Digest Medium w/ Mannitol, Sterile powder

Gamma irradiated sterile powder recommended for the evaluation of sterility in manufacturing process. It can also be used for cultivation of a wide variety of microorganisms.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pancreatic digest of casein</td>
<td>17.000</td>
</tr>
<tr>
<td>Papaic digest of soyabean meal</td>
<td>3.000</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>5.000</td>
</tr>
<tr>
<td>Phenol red</td>
<td>0.018</td>
</tr>
<tr>
<td>Mannitol</td>
<td>5.000</td>
</tr>
<tr>
<td>Final pH ( at 25°C)</td>
<td>7.3±0.2</td>
</tr>
</tbody>
</table>

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

**Directions**

Sterile powder can be used directly for the evaluation of sterility in manufacturing process. For sterile liquid medium aseptically add 30.02 grams in 1000 ml sterile distilled / purified water. Heat if necessary to dissolve the medium completely. DO NOT AUTOCLAVE OR OVERHEAT. Excessive heating is detrimental. Dispense aseptically in sterile tubes or flasks as desired.

**Principle And Interpretation**

Soyabean Casein Digest Medium is recommended as a sterility testing medium (1,2). Soyabean Casein Digest Medium w/ Mannitol is modified by addition of mannitol as the fermentable carbohydrate and phenol red as the indicator. It is also used for the sensitivity testing by the tube dilution method for antimicrobial agents (3).

The combination of pancreatic digest of casein and papaic digest of soyabean meal makes this medium nutritious by providing amino acids and long chain peptides for the growth of microorganisms. Sodium chloride maintains the osmotic balance of the medium. Mannitol is the fermentable carbohydrate and phenol red is the pH indicator. Organisms ferment mannitol and produce acid which is indicated by the colour change of the medium from red to yellow.

**Quality Control**

**Appearance**

Light yellow to pink homogeneous free flowing powder

**Colour and Clarity of prepared medium**

Red coloured clear solution without any precipitate.

**Reaction**

pH of 3.0% w/v aqueous solution at 25°C. pH : 7.3±0.2

**pH**

7.10-7.50

**Cultural Response**

Cultural characteristics observed after an incubation at 30-35°C for 18-48 hours .

**Cultural Response**

<table>
<thead>
<tr>
<th>Organism</th>
<th>Inoculum (CFU)</th>
<th>Growth</th>
<th>Colour change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staphylococcus aureus</td>
<td>50-100</td>
<td>luxuriant</td>
<td>Red to yellow</td>
</tr>
<tr>
<td>ATCC 6538</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staphylococcus aureus</td>
<td>50-100</td>
<td>luxuriant</td>
<td>Red to yellow</td>
</tr>
<tr>
<td>ATCC 25923</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please refer disclaimer Overleaf.
Escherichia coli ATCC 8739 50-100 luxuriant Red to yellow
Escherichia coli ATCC 25922 50-100 luxuriant Red to yellow
Escherichia coli NCTC 9002 50-100 luxuriant Red to yellow
Bacillus subtilis ATCC 6633 50-100 luxuriant Red to yellow
Salmonella Typhimurium ATCC 14028 50-100 luxuriant Red to yellow
Salmonella Abortus NCTC 6017 50-100 luxuriant Red to yellow

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

Reference
2. Indian Pharmacopeia, 2010, Govt. of India, Ministry of Health and Family Welfare, New Delhi, India.