Soyabean Casein Digest Agar

Recommended as a general purpose medium for cultivation of 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>15.000</td>
</tr>
<tr>
<td>Papaic digest of soyabean meal</td>
<td>5.000</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>5.000</td>
</tr>
<tr>
<td>Agar</td>
<td>15.000</td>
</tr>
</tbody>
</table>

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

**Directions**

Soyabean Casein Digest Agar is a ready to use solid media in glass bottle. The medium is pre-sterilized; hence it does not need sterilization. Medium in the bottle can be melted either by using a pre-heated water bath or any other method. Slightly loosen the cap before melting. When complete melting of medium is observed dispense the medium as desired and allowed to solidify.

**Principle And Interpretation**

Soyabean Casein Digest Agar is a widely used medium, which supports the growth of wide variety of organisms even that of fastidious ones such as *Neisseria, Listeria*, and *Brucella* etc. The medium with addition of blood provides perfectly defined haemolysis zones, while preventing the lysis of erythrocytes due to its sodium chloride content. It has been frequently used in the health industry to produce antigens, toxins etc. Its simple and inhibitor-free composition makes it suitable for the detection of antimicrobial agents in the food and other products. Tryptone Soya Agar is recommended by various pharmacopoeias as sterility testing medium (1, 2).

Tryptone Soya Agar conforms as per USP (1) and is used in microbial limit test and antimicrobial preservative - effective test. Gunn et al (3) used this medium for the growth of fastidious organisms and study of haemolytic reaction after addition of 5% v/v blood. The combination of Pancreatic digest of casein and papaic digest of soyabean meal makes this media nutritious by providing amino acids and long chain peptides for the growth of microorganisms. Sodium chloride maintains the osmotic balance.

Soyabean Casein Digest Agar does not contains X and V growth factors. It can be conveniently used in determining the requirements of these growth factors by isolates of Haemophilus by the addition of X-factor (DD020), V-factor (DD021), and X+V factor discs (DD022) factor to inoculated TSA plates (4).

**Quality Control**

**Appearance**
Sterile glass bottle containing slightly opalescent Soyabean Casein Digest Agar.

**Colour**
Light yellow coloured medium

**Quantity of Medium**
500 ml

**Reaction**
7.10 - 7.50

**Sterility Test**
Passes release criteria.

**Cultural Response**
Growth Promotion was carried out and growth was observed after an incubation as specified. (*- Formerly known as Aspergillus niger) Recovery rate is considered 100% for bacteria growth on Blood Agar and fungus growth on Sabouraud Dextrose Agar.
<table>
<thead>
<tr>
<th>Organism</th>
<th>Growth</th>
<th>Inoculum (CFU)</th>
<th>Observed Lot value (CFU)</th>
<th>Recovery (%)</th>
<th>Incubation temperature</th>
<th>Incubation period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bacillus subtilis ATCC 6633</td>
<td>luxuriant</td>
<td>50 - 100</td>
<td>35 - 100</td>
<td>&gt;=70%</td>
<td>30 - 35 °C</td>
<td>18 - 24 hrs</td>
</tr>
<tr>
<td>Staphylococcus aureus ATCC 25923</td>
<td>luxuriant</td>
<td>50 - 100</td>
<td>35 - 100</td>
<td>&gt;=70%</td>
<td>30 - 35 °C</td>
<td>18 - 24 hrs</td>
</tr>
<tr>
<td>Staphylococcus aureus ATCC 6538</td>
<td>luxuriant</td>
<td>50 - 100</td>
<td>35 - 100</td>
<td>&gt;=70%</td>
<td>30 - 35 °C</td>
<td>18 - 24 hrs</td>
</tr>
<tr>
<td>Escherichia coli ATCC 25922</td>
<td>luxuriant</td>
<td>50 - 100</td>
<td>35 - 100</td>
<td>&gt;=70%</td>
<td>30 - 35 °C</td>
<td>18 - 24 hrs</td>
</tr>
<tr>
<td>Escherichia coli ATCC 8739</td>
<td>luxuriant</td>
<td>50 - 100</td>
<td>35 - 100</td>
<td>&gt;=70%</td>
<td>18 - 24 hrs</td>
<td></td>
</tr>
<tr>
<td>Escherichia coli NCTC 9002</td>
<td>luxuriant</td>
<td>50 - 100</td>
<td>35 - 100</td>
<td>&gt;=70%</td>
<td>18 - 24 hrs</td>
<td></td>
</tr>
<tr>
<td>Pseudomonas aeruginosa ATCC 27853</td>
<td>luxuriant</td>
<td>50 - 100</td>
<td>35 - 100</td>
<td>&gt;=70%</td>
<td>18 - 24 hrs</td>
<td></td>
</tr>
<tr>
<td>Pseudomonas aeruginosa ATCC 9027</td>
<td>luxuriant</td>
<td>50 - 100</td>
<td>35 - 100</td>
<td>&gt;=70%</td>
<td>18 - 24 hrs</td>
<td></td>
</tr>
<tr>
<td>Micrococcus luteus ATCC 9341</td>
<td>luxuriant</td>
<td>50 - 100</td>
<td>35 - 100</td>
<td>&gt;=70%</td>
<td>18 - 24 hrs</td>
<td></td>
</tr>
<tr>
<td>Streptococcus pneumoniae ATCC 6305</td>
<td>luxuriant</td>
<td>50 - 100</td>
<td>35 - 100</td>
<td>&gt;=70%</td>
<td>18 - 24 hrs</td>
<td></td>
</tr>
<tr>
<td>Salmonella Typhimurium ATCC 14028</td>
<td>luxuriant</td>
<td>50 - 100</td>
<td>35 - 100</td>
<td>&gt;=70%</td>
<td>18 - 24 hrs</td>
<td></td>
</tr>
<tr>
<td>Candida albicans ATCC 10231</td>
<td>luxuriant</td>
<td>50 - 100</td>
<td>35 - 100</td>
<td>&gt;=70%</td>
<td>&lt;= 5 d</td>
<td></td>
</tr>
<tr>
<td>Candida albicans ATCC 2091</td>
<td>luxuriant</td>
<td>50 - 100</td>
<td>35 - 100</td>
<td>&gt;=70%</td>
<td>&lt;= 5 d</td>
<td></td>
</tr>
<tr>
<td>Aspergillus brasiliensis ATCC 16404</td>
<td>Good-luxuriant</td>
<td>25 - 70</td>
<td>50 - 100</td>
<td>50 - 70 %</td>
<td>&lt;= 5 d</td>
<td></td>
</tr>
<tr>
<td>Aspergillus brasiliensis ATCC 16404</td>
<td>Luxuriant</td>
<td>50 - 100</td>
<td>35 - 100</td>
<td>&gt;=70%</td>
<td>20 - 25 °C</td>
<td>&lt;= 5 d</td>
</tr>
<tr>
<td>Salmonella Abony NCTC 6017</td>
<td>luxuriant</td>
<td>50 - 100</td>
<td>35 - 100</td>
<td>&gt;=70%</td>
<td>30 - 35 °C</td>
<td>18 - 24 hrs</td>
</tr>
</tbody>
</table>

**Reference**


**Storage and Shelf Life**

Store between 15-25°C. Use before expiry date on the label.

**Disclaimer**

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