**Soyabean Casein Digest Agar Plate w/ 5% Sheep blood**

**Intended use:**
A general purpose medium used for the cultivation of wide variety of microorganisms and to study the haemolytic reactions.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tryptone #</td>
<td>15.000</td>
</tr>
<tr>
<td>Soya peptone</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>
<tr>
<td>Sheep blood</td>
<td>50 ml</td>
</tr>
<tr>
<td>Final pH ( at 25°C)</td>
<td>7.3±0.2</td>
</tr>
</tbody>
</table>

**Directions**

Either streak, inoculate or surface spread the test inoculum (50-100 CFU) aseptically on the plate.

**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. It's 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 (6, 3).

Tryptone Soya Agar conforms as per USP (6) and is used in microbial limit test and antimicrobial preservative - effective test. Gunn et al (2) used this medium for the growth of fastidious organisms and study of haemolytic reaction after addition of 5% v/v blood. The combination of tryptone and soya peptone makes this media nutritious by providing amino acids and long chain peptides for the growth of microorganisms. Sodium chloride maintains the osmotic balance.

**Type of specimen**
Isolated Microorganism

**Specimen Collection and Handling:**
After use, contaminated materials must be sterilized by autoclaving before discarding.

**Warning and Precautions**
Read the label before opening the pack. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

**Limitations :**

1. Individual organisms differ in their growth requirement and may show variable growth patterns on the medium
2. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user’s unique requirement.

**Performance and Evaluation**
Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

**Quality Control**

**Appearance**
Sterile Soyabean Casein Digest Agar Plate w/ 5% Sheep blood in 90 mm disposable plates.
**Organism** | **Inoculum (CFU)** | **Growth** | **Recovery** | **Haemolysis**
--- | --- | --- | --- | ---
*Bacillus subtilis* subsp. *spizizenii* ATCC 6633 (00003*) | 50 -100 | luxuriant | >=70 % | none
*Staphylococcus aureus* subsp. *aureus* ATCC 25923 (00034*) | 50 -100 | luxuriant | >=70 % | beta
*Staphylococcus aureus* subsp. *aureus* ATCC 6538 (00032*) | 50 -100 | luxuriant | >=70 % | beta
*Escherichia coli* ATCC 25922 (00013*) | 50 -100 | luxuriant | >=70 % | none
*Escherichia coli* ATCC 8739 50 -100 | luxuriant | >=70 % | none
*Escherichia coli* ATCC 11775 (00090*) | 50 -100 | luxuriant | >=70 % | none
*Escherichia coli* NCTC 13167 (00179*) | 50 -100 | luxuriant | >=70 % | none
*Escherichia coli* NCTC 9002 50 -100 | luxuriant | >=70 % | none
*Pseudomonas aeruginosa* ATCC 27853 (00025*) | 50 -100 | luxuriant | >=70 % | -
*Pseudomonas aeruginosa* ATCC 9027 (00026*) | 50 -100 | luxuriant | >=70 % | -
*Pseudomonas aeruginosa* ATCC 10145 (00024*) | 50 -100 | luxuriant | >=70 % | -
*Salmonella* Abony NCTC 6017 (00029*) | 50 -100 | luxuriant | >=70 % | -
*Micrococcus luteus* ATCC 9341 | 50 -100 | luxuriant | >=70 % | -
*Streptococcus pneumoniae* ATCC 6305 | 50 -100 | luxuriant | >=70 % | -
*Salmonella Typhimurium* ATCC 14028 (00031*) | 50 -100 | luxuriant | >=70 % | -
*Enterococcus faecalis* ATCC 29212 (00087*) | 50 -100 | luxuriant | >=70 % | -
*Candida albicans* ATCC 10231 (00054*) | 50 -100 | luxuriant | >=70 % | -
*Candida albicans* ATCC 2091 (00055*) | 50 -100 | luxuriant | >=70 % | -

**Colours of medium**
Red coloured medium

**Quantity of medium**
25 ml of medium in 90 mm disposable plates.

**pH**
7.10-7.50

**Sterility Test**
Passes release criteria

**Cultural response**
Cultural characteristics was observed after an incubation for Bacterial at 30-35°C 18-24 hours and for Fungal at 30-35°C <=5days.

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**Technical Data**

**Storage and Shelf Life**
On receipt store between 2-8°C. Use before expiry date on the label. Product performance is best if used within stated expiry period.

**Disposal**
User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques (4,5).

**Reference**
3. Indian Pharmacopoeia, 2018, Govt. of India, Ministry of Health and Family Welfare, New Delhi, India.

**Disclaimer**
User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.