Soyabean Casein Digest Agar Plate (Tryptone Soya Agar Plate) MP290GT (Gamma-irradiated) (Triple pack))

**Intended use**
Recommended for cultivation of a wide variety of microorganisms from clinical and non-clinical samples and for sterility testing in pharmaceutical procedures.

**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>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. 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 (1).

**Type of specimen**
Pharmaceutical samples

**Specimen Collection and Handling:**
For Pharmaceutical samples follow appropriate techniques for sample collection, handling and processing as per pharmacopoeias. 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 strain of a microorganism may have unique growth requirements with respect to nutrients and physical conditions. Based on which the growth pattern of each varies on a medium and some even may display significant delay in development.
2. Environmental Monitoring Test : Exposure of media plates for 4 h as a settle plate or in air sampler or even under laminar air flow may lead reduction in some available moisture on the surface. This may cause development of tiny colonies.
cracks in the agar or slight shrinkage. This however, does not impact the performance of the media.

3) 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.

4) It is recommended to store the plates at 24-30°C to avoid minimum condensation.

**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 Soybean-Casein Digest Agar in 90 mm disposable plates (Gamma irradiated). (Triple packed)

**Colour of medium**
Light yellow coloured medium

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

**pH**
7.10-7.50

**Dose of irradiation (Kgy)**
13.00-20.00

**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 <=5 days.

<table>
<thead>
<tr>
<th>Organism</th>
<th>Inoculum (CFU)</th>
<th>Growth</th>
<th>Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bacillus subtilis subsp. spizizenii ATCC 6633 (00003*)</td>
<td>50 -100</td>
<td>luxuriant</td>
<td>&gt;=70 %</td>
</tr>
<tr>
<td>Staphylococcus aureus subsp. aureus ATCC 25923 (00034*)</td>
<td>50 -100</td>
<td>luxuriant</td>
<td>&gt;=70 %</td>
</tr>
<tr>
<td>Staphylococcus aureus subsp. aureus ATCC 6538 (00032*)</td>
<td>50 -100</td>
<td>luxuriant</td>
<td>&gt;=70 %</td>
</tr>
<tr>
<td>Escherichia coli ATCC 25922 (00013*)</td>
<td>50 -100</td>
<td>luxuriant</td>
<td>&gt;=70 %</td>
</tr>
<tr>
<td>Escherichia coli ATCC 8739 50 -100 (00012*)</td>
<td>50 -100</td>
<td>luxuriant</td>
<td>&gt;=70 %</td>
</tr>
<tr>
<td>Escherichia coli ATCC 11775 (00090*)</td>
<td>50 -100</td>
<td>luxuriant</td>
<td>&gt;=70 %</td>
</tr>
<tr>
<td>Escherichia coli NCTC 13167 (00179*)</td>
<td>50 -100</td>
<td>luxuriant</td>
<td>&gt;=70 %</td>
</tr>
<tr>
<td>Escherichia coli NCTC 9002 50 -100</td>
<td>luxuriant</td>
<td>&gt;=70 %</td>
<td></td>
</tr>
<tr>
<td>Pseudomonas aeruginosa ATCC 27853 (00025*)</td>
<td>50 -100</td>
<td>luxuriant</td>
<td>&gt;=70 %</td>
</tr>
<tr>
<td>Pseudomonas aeruginosa ATCC 9027 (00026*)</td>
<td>50 -100</td>
<td>luxuriant</td>
<td>&gt;=70 %</td>
</tr>
<tr>
<td>Pseudomonas aeruginosa ATCC 10145 (00024*)</td>
<td>50 -100</td>
<td>luxuriant</td>
<td>&gt;=70 %</td>
</tr>
<tr>
<td>Salmonella Abony NCTC 6017 (00029*)</td>
<td>50 -100</td>
<td>luxuriant</td>
<td>&gt;=70 %</td>
</tr>
</tbody>
</table>

Please refer disclaimer Overleaf.
### Storage and Shelf Life
On receipt store between 20-30°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:
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