**Soyabean Casein Digest Agar w/ Yeast Extract and Hemin (Tryptone Soya Agar w/ Yeast Extract and Hemin)**

**Intended Use:**
Recommended for cultivation of fastidious microorganisms like *Bordetella pertussis* and *Neisseria meningitidis*.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tomato juice (400 ml)</td>
<td>17.000</td>
</tr>
<tr>
<td>Soya peptone</td>
<td>3.000</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>5.000</td>
</tr>
<tr>
<td>Yeast extract</td>
<td>5.000</td>
</tr>
<tr>
<td>Dipotassium hydrogen phosphate</td>
<td>2.500</td>
</tr>
<tr>
<td>Hemin</td>
<td>0.020</td>
</tr>
<tr>
<td>Agar</td>
<td>13.000</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**

Suspend 45.52 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Mix well and pour into sterile Petri plates.

**Principle And Interpretation**

Soyabean Casein Digest Agar is recommended by various pharmacopoeias as sterility testing medium (1, 4). Trytone Soya Agar w/ Yeast Extract and Hemin is a modification of Soyabean Casein Agar with the additional ingredients tomato juice, yeast extract and hemin. Tomato juice serves as a source of carbon, protein and nutrients. Yeast extract and soya peptone provides essential nutrients like nitrogen and carbon compounds, long chain amino acids and vitamins. Dipotassium phosphate provides buffering action to the medium. Hemin provides essential growth for fastidious microorganisms like *Bordetella pertussis* (5) and *Neisseria meningitidis*.

**Type of specimen**

Clinical samples - Whooping cough (*Bordetella pertussis*), Cerebrospinal fluid (*Neisseria meningitidis*)

**Specimen Collection and Handling:**

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (2,3). After use, contaminated materials must be sterilized by autoclaving before discarding.

**Warning and Precautions :**

In Vitro diagnostic Use only. Read the label before opening the container. 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 clinical specimens. Safety guidelines may be referred in individual safety data sheets.

**Limitations :**

1. Further biochemical and serological tests must be carried out for further identification.
2. *B. pertussis* colonies may not be visible without the aid of a microscope for 2-4 days.

**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
Cream to yellow homogeneous free flowing powder

Gelling
Firm, comparable with 1.3% Agar gel.

Colour and Clarity of prepared medium
Light yellow to medium amber coloured clear to slightly opalescent gel forms in Petri plates

Reaction
Reaction of 4.55% 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 35-37°C for 18-24 hours.

<table>
<thead>
<tr>
<th>Organism</th>
<th>Inoculum (CFU)</th>
<th>Growth</th>
<th>Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neisseria meningitidis ATCC 50-100</td>
<td>13090</td>
<td>good-luxuriant &gt;=70%</td>
<td></td>
</tr>
<tr>
<td>Staphylococcus aureus subsp. aureus ATCC 25923</td>
<td>50-100</td>
<td>good-luxuriant &gt;=70%</td>
<td></td>
</tr>
<tr>
<td>Enterococcus faecalis ATCC 50-100</td>
<td>29212 (00034*)</td>
<td>good-luxuriant &gt;=70%</td>
<td></td>
</tr>
<tr>
<td>Streptococcus pneumoniae ATCC 6303</td>
<td>50-100</td>
<td>good-luxuriant &gt;=70%</td>
<td></td>
</tr>
</tbody>
</table>

Key : (*) Corresponding WDCM numbers.

Storage and Shelf Life
Store between 10-30°C in a tightly closed container and the prepared medium at 20-30°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. 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 clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (2,3).

Reference
1. Indian Pharmacopeia, 2007, Govt. of India, Ministry of Health and Family Welfare, New Delhi, India.
In vitro diagnostic medical device

CE Marking

Storage temperature

Do not use if package is damaged

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