**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>Peptone</td>
<td>10.000</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>5.000</td>
</tr>
<tr>
<td>Yeast extract</td>
<td>2.000</td>
</tr>
<tr>
<td>Dextrose (Glucose)</td>
<td>1.000</td>
</tr>
<tr>
<td>Ferrous sulphate</td>
<td>0.500</td>
</tr>
<tr>
<td>Sodium pyruvate</td>
<td>0.500</td>
</tr>
<tr>
<td>Sodium bisulphite</td>
<td>0.350</td>
</tr>
<tr>
<td>Agar</td>
<td>15.000</td>
</tr>
</tbody>
</table>

**Final pH (at 25°C)**: 7.0±0.2

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

**Directions**

Suspend 49.35 grams in 950 ml purified / 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. Aseptically add 10% defibrinated sheep blood or 5-7% v/v laked horse blood and rehydrated contents of one vial of Park and Sanders Selective Supplement II (FD105). Mix well and pour into sterile Petri plates.

**Principle And Interpretation**

*Campylobacter* species were associated with variety of veterinary diseases and also has been characterized as bacterial agents of human foodborne gastroenteritis. The organisms may also be transmitted by contaminated food or water. *Campylobacter Cefex Agar Base* is used for isolation and cultivation of *Campylobacter* species (2). *Campylobacter Agar* with antimicrobics and 50 ml sheep blood is recommended as a selective medium for the primary isolation and cultivation of *Campylobacter species*. *Campylobacter Cefex Agar Base* is a highly nutritious base and the addition of horse blood supplements the medium with X-factor and other growth factor requirements. Tryptone, Peptone and yeast extract provide nitrogenous compounds, carbon, sulphur, vitamins and trace ingredients. Glucose is utilized as an energy source. Sheep blood supplies the X-factor (heme) and other growth requirements. Incorporation of antibiotics (FD105) suppresses the growth of the normal microbial flora in the specimens thereby facilitating isolation of *Campylobacter* species. The addition of antimicrobials to the medium is required to suppress the growth of normal flora. Cefoperazone is added to inhibit many gram-positive and gram-negative organisms (Aerobic and anaerobic). Cycloheximide is added to inhibit the growth of contaminating fungi. *Campylobacter Cefex Agar Base* can be used for direct inoculation or indirect inoculation. After inoculation, incubate the plates at 42°C for 48-72 hours in microaerophilic atmosphere. In addition, media may be set up in duplicate with the second set incubated at 35-37°C to allow for the growth of certain *Campylobacter* species. *Campylobacter jejuni* colony morphology may appear as small mucoid, grayish flat colonies with irregular edges and no hemolytic patterns after 24-48 hours. Colonies may also appear pink or yellowish gray with some colonies exhibiting a tailing effect along the streak line (4). They may also appear as round, convex, entire, glistening, 1-2 mm in diameter.

Cephalothin-sensitive *Campylobacter* species such as *C.fetus* and *C.upsaliensis* may not be recovered on Campylobacter Cefex Agar Base because it contains cefoperazone (7). These agents in selective media may inhibit some strains of desired species. Therefore, specimens cultured on selective media should also be cultured on non-selective media to obtain additional information and to ensure recovery of potential pathogens.

**Type of specimen**

Clinical samples - feces; Food and dairy samples; Water samples
Specimen Collection and Handling
For clinical samples follow appropriate techniques for handling specimens as per established guidelines (5,6).
For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (1,8,9).
For water samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards.(3)
After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions:
In Vitro diagnostic Use. 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. Some agents in selective media may inhibit some strains of desired species.
2. Furthermore, specimens cultured on selective media should also be cultured on non-selective media to obtain additional information and to fortify recovery of potential pathogens.

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 1.5% Agar gel

Colour and Clarity of prepared medium
Basal medium : Yellow coloured clear to slightly opalescent gel. After addition of blood: Cherry red coloured opaque gel forms in Petri plates

Reaction
Reaction of 4.94% w/v aqueous solution at 25°C. pH : 7.0±0.2

pH
6.80-7.20

Cultural Response
Cultural characteristics observed under microaerobic atmosphere with added 10%v/v defibrinated sheep blood or 5-7%v/v laked horse blood and Park and Sanders Selective Supplement II, (FD105), 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>Campylobacter jejuni ATCC 29428</td>
<td>50-100</td>
<td>good-luxuriant</td>
<td>&gt;=50%</td>
</tr>
<tr>
<td>Escherichia coli ATCC 25922</td>
<td>50-100</td>
<td>none-poor</td>
<td>&lt;=10%</td>
</tr>
<tr>
<td>Enterococcus faecalis ATCC 29212</td>
<td>50-100</td>
<td>none-poor</td>
<td>&lt;=10%</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 2-8°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. 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 clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (5,6).

Reference


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.