HiCrome™ Campylobacter Agar Base

Intended Use:
For selective isolation and presumptive identification of Campylobacter species from food and clinical samples.

Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peptone mix</td>
<td>25.000</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>5.000</td>
</tr>
<tr>
<td>Chromogenic mix</td>
<td>10.250</td>
</tr>
<tr>
<td>Growth factor</td>
<td>4.280</td>
</tr>
<tr>
<td>Agar</td>
<td>15.000</td>
</tr>
<tr>
<td>Final pH (at 25°C)</td>
<td>7.4±0.2</td>
</tr>
</tbody>
</table>

**Formula adjusted, standardized to suit performance parameters

Directions
Suspend 29.77 grams in 500 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 and aseptically add rehydrated contents of 1 vial of Campylobacter Selective Supplement (Karmali), Modified (FD178). Mix well and pour into sterile Petri plates.

Principle And Interpretation

Campylobacter species are ubiquitous in the environment inhabiting a wide variety of ecological niches (4). Infection with a Campylobacter species is one of the most common causes of human bacterial gastroenteritis (4). Most species are found in animals (cattle, swine) and cause infertility and abortion (1). Campylobacter jejuni and Campylobacter coli both lead to severe diarrhea when ingested (7).

ISO 10272-1:2006 (3), as well as the U.S. Food and Drug Administration BAM(9)recommend the use of modified charcoal cefoperazone deoxycholate agar (mCCDA)(6) as a primary selective medium for detection of Campylobacter species. But colourless colonies of Campylobacter are often difficult to detect on black colored medium. Therefore a chromogenic medium based on conventional mCCDA, was developed for the detection of Campylobacter species.

HiCrome™ Campylobacter Agar Base is well supplemented to support luxuriant growth of Campylobacter species. Osmotic equilibrium of the medium is maintained by sodium chloride. Peptone mix provides carbonaceous, nitrogenous compounds, long chain amino acids, vitamins and other essential growth factors. Sucrose is the fermentable carbohydrate. The antibiotic supplement Campylobacter selective supplement, Karmali, Modified (FD178) reduce the growth of normal enteric bacteria while enhancing the growth and recovery of C. jejuni from faecal specimens. Campylobacter species appear mauve to purple coloured colonies.

Type of specimen
Clinical specimens- faeces; food.

Specimen Collection and Handling
For clinical samples follow appropriate techniques for handling specimens as per established guidelines (4,5).
For food samples, follow appropriate techniques for sample collection and processing as per guidelines (8,10).

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. Incubation of *Campylobacter jejuni* should be carried out at 42°C as it is thermophilic organism. Higher temperature imparts selectivity by inhibiting accompanying microflora and promotes growth of *Campylobacter jejuni*.

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**
Yellow coloured clear to slightly opalescent gel in Petri plates.

**Reaction**
Reaction of 5.95% w/v aqueous solution at 25°C. pH : 7.4±0.2

**pH**
7.20-7.60

**Cultural Response**
Cultural characteristics observed under microaerobic atmosphere with added Campylobacter Selective Supplement, Karmali, Modified (FD178), after an incubation at 35-37°C for 24-48 hours.

**Cultural Response**

<table>
<thead>
<tr>
<th>Organism</th>
<th>Inoculum (CFU)</th>
<th>Growth</th>
<th>Recovery</th>
<th>Colour of colony</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Escherichia coli</em> ATCC 25922 (00013*)</td>
<td>50-100</td>
<td>none-poor</td>
<td>&lt;=10%</td>
<td>Mauve to purple</td>
</tr>
<tr>
<td><em>Campylobacter jejuni</em> ATCC 33291</td>
<td>50-100</td>
<td>good-luxuriant</td>
<td>&gt;=50%</td>
<td>Mauve to purple</td>
</tr>
<tr>
<td><em>Campylobacter coli</em> ATCC 33559</td>
<td>50-100</td>
<td>good-luxuriant</td>
<td>&gt;=50%</td>
<td>Mauve to purple</td>
</tr>
<tr>
<td><em>Staphylococcus aureus subsp. aureus</em> ATCC 25923 (00034*)</td>
<td>50-100</td>
<td>none-poor</td>
<td>&lt;=10%</td>
<td></td>
</tr>
</tbody>
</table>

* Corresponding WDCM numbers

Storage and Shelf Life

Store dehydrated powder in 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 (4,5).

Reference


In vitro diagnostic medical device

CE Marking

Storage temperature

2°C - 8°C

Do not use if package is damaged

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Disclaimer:

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