Campylo Thioglycollate Broth w/ Selective Supplement

**Intended use**
For isolation and maintenance and transport of cultures of *Campylobacter* species.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tryptone</td>
<td>20.000</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>2.500</td>
</tr>
<tr>
<td>Dipotassium hydrogen phosphate</td>
<td>1.500</td>
</tr>
<tr>
<td>Sodium thioglycollate</td>
<td>0.600</td>
</tr>
<tr>
<td>L-Cystine</td>
<td>0.400</td>
</tr>
<tr>
<td>Sodium sulphite</td>
<td>0.200</td>
</tr>
<tr>
<td>Agar</td>
<td>1.600</td>
</tr>
<tr>
<td>Polymyxin B</td>
<td>1,250 IU</td>
</tr>
<tr>
<td>Vancomycin</td>
<td>5.00 mg</td>
</tr>
<tr>
<td>Trimethoprim</td>
<td>2.50 mg</td>
</tr>
<tr>
<td>Amphotericin B</td>
<td>1.00 mg</td>
</tr>
<tr>
<td>Cephalothin</td>
<td>7.50 mg</td>
</tr>
</tbody>
</table>

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

**Directions**
Label the ready to use LQ132 bottle. Inoculate the sample and Incubate at specified temperature and time.

**Principle And Interpretation**

*Campylobacter* infections occur sporadically in the summer months and usually follow ingestion of improperly handled or cooked food, primarily poultry products (6). Dekeyser et al (3) reported that *Campylobacter jejuni* could be isolated on a selective media supplemented with antimicrobials from the faeces of patients having diarrhea and gastroenteritis (by the filtration technique). The antimicrobials help to inhibit the normal enteric flora of faeces. Skirrow used a selective medium with three antimicrobials i.e. vancomycin, polymyxin B and trimethoprim (8). Later on, Blaser et al isolated *C. jejuni* by direct inoculation of faeces sample on an agar medium containing four antibiotics (6). They also reported that *C. jejuni* could be isolated from faeces sample held at refrigeration temperature for duration of 8-10 hours in Thioglycollate Broth, incorporated with the four antibiotics (2). Blaser et al later included the fifth antibiotic cephalothin to inhibit non-pathogenic *Campylobacter fetus* (7). Campylo Thioglycollate Medium Base (with antibiotics) is generally used as a holding medium when immediate examination and testing of samples is not possible (7). Campylo Thioglycollate Medium Base is also recommended by APHA for maintenance, transport and storage of cultures of *Campylobacter* species (9). It is also used for enrichment of *Campylobacter* species from stool samples (6).

The medium contains necessary nutrients to promote growth of *Campylobacter* species. Also it consists of five antibiotics viz. amphotericin B, cephalothin, polymyxin B, trimethoprim and vancomycin which inhibits multiplication of normal microbial flora in faecal specimens thus facilitating isolation of *C. jejuni*. Cephalothin may not always inhibit *C. fetus* species and some strains may grow at 42°C. Further tests should be performed to confirm *C. jejuni*.

Rectal swabs can be directly inoculated into the medium. About 5 drops of stool sample (prepare a saline suspension if stool is solid) can be placed on the medium about 1cm below the surface. Inoculated Campylo Thioglycollate Medium Base can be refrigerated and subcultured on Campylobacter Agar Base (M994) with Campylobacter Supplement-I (Blaser-Wang, FD006).
Type of specimen
Clinical samples - Faeces

Specimen Collection and Handling:
For clinical samples follow appropriate techniques for handling specimens as per established guidelines (4,5). 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. Due to nutritional variations, some strains may show poor growth.
2. It is generally used as a holding medium when immediate examination and testing of samples is not possible (7).

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 Campythioglycolate Broth in bottles.

Colour
Light to medium amber coloured viscous solution

Quantity of Medium
5 ml of medium in glass bottle.

Reaction
6.80- 7.20

Sterility test
Passes release criteria

Cultural response
Cultural characteristics observed after incubation at 42°C with 5-12% CO2 for 24-48 hours.

<table>
<thead>
<tr>
<th>Organism</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campylobacter coli ATCC 33559 (00007*)</td>
<td>good-luxuriant</td>
</tr>
<tr>
<td>Campylobacter jejuni ATCC 33291 (00005*)</td>
<td>good-luxuriant</td>
</tr>
<tr>
<td>Escherichia coli ATCC 25922 (00013*)</td>
<td>none-poor</td>
</tr>
</tbody>
</table>

Key : (*) Corresponding WDCM numbers.

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 clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (4,5).

Please refer disclaimer Overleaf.
Reference