CHROMagar™ Campylobacter

MEDIUM PURPOSE
Chromogenic medium for detection, differentiation and enumeration of thermotolerant Campylobacter according to the ISO 10272-1: 2006.

COMPOSITION
The product is composed of a powder base (B) and 1 supplement (S).

<table>
<thead>
<tr>
<th>Product</th>
<th>Base (B)</th>
<th>Supplement (S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total g/L</td>
<td>51.2 g/L</td>
<td>0.21 g/L</td>
</tr>
<tr>
<td>Composition g/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agar</td>
<td>15.0</td>
<td>Chromogenic and selective mix 0.21</td>
</tr>
<tr>
<td>Peptone and yeast extract</td>
<td>25.0</td>
<td></td>
</tr>
<tr>
<td>Salts</td>
<td>9.0</td>
<td></td>
</tr>
<tr>
<td>Chromogenic and selective mix</td>
<td>2.2</td>
<td></td>
</tr>
<tr>
<td>Aspect</td>
<td>Powder Form</td>
<td>Powder Form</td>
</tr>
<tr>
<td>STORAGE</td>
<td>15/30 °C</td>
<td>2/8 °C</td>
</tr>
<tr>
<td>FINAL MEDIA pH</td>
<td>7.4 +/- 0.2</td>
<td></td>
</tr>
</tbody>
</table>

PREPARATION (Calculation for 1L)

**Step 1** Preparation of the base CHROMagar™ Campylobacter (B)
- Disperse slowly 51.2 g of powder base in 1L of purified water.
- Stir until agar is well thickened.
- Heat and bring to boil (100 °C) while swirling or stirring regularly.
  **Warning 1:** If using an autoclave, do so without pressure.
  **Advice 1:** For the 100 °C heating step, mixture may also be brought to a boil in a microwave oven:
  after initial boiling, remove from oven, stir gently, then return to oven for short repeated bursts of heating until complete fusion of the agar grains has taken place (large bubbles replacing foam).
- Cool in a water bath to 45-50 °C. Swirl or stir gently to homogenize.

**Step 2** Preparation of the Supplement (S)
- In a transparent vessel, add 210 mg of Supplement (S) in 10 ml of purified water.
- Swirl well until complete dissolution.
- Filter to sterilize at 0.45 µm.

**Step 3** Base + S
- Add the 10 ml of the supplement solution to the melted base (Step1) at 45-50 °C.
- Swirl or stir gently to homogenize.

**Step 4** Pouring
- Pour into sterile Petri dishes.
- Let it solidify and dry (longer than usual).

Storage
- Store in the dark before use.
- Prepared media plates can be kept for one day at room temperature.
- Plates can be stored for up to 1 month under refrigeration (2/8 °C) if properly prepared and protected from light and dehydration.
  **Advice 2:** If not fully used, rehydrated CHROMagar™ Campylobacter supplement can be stored one month at 2-8°C or at -20°C.

INOCULATION
Related samples can be processed by direct streaking on the plate, as well as prior appropriate enrichment step.
- If the agar plate has been refrigerated, allow to warm to room temperature before inoculation.
- Streak sample onto plate.
- Incubate at 42 °C for 36 - 48 h in micro-aerophilic conditions.
  **Advice 2:** A candle jar can be used for creating a microaerophilic atmosphere.
**INTERPRETATION**

<table>
<thead>
<tr>
<th>Microorganism</th>
<th>Typical colony appearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campylobacter coli</td>
<td>red</td>
</tr>
<tr>
<td>Campylobacter jejuni</td>
<td>red</td>
</tr>
<tr>
<td>Campylobacter lari</td>
<td>red</td>
</tr>
<tr>
<td>Most other microorganisms</td>
<td>blue or inhibited</td>
</tr>
</tbody>
</table>

**PERFORMANCE & LIMITATIONS**

- Final identification may require complementary tests such as hippurate hydrolysis and latex agglutination (Microgen), directly from the plate.
- Other final identification tests can be done from a subculture on blood agar (oxydase, acetate test, ...).
- *C. fetus* might not grow in this medium.

**QUALITY CONTROL**

Please perform Quality Control according to the use of the medium and the local QC regulations and norms.

Good preparation of the medium can be tested, isolating the ATCC strains below:

<table>
<thead>
<tr>
<th>Microorganism</th>
<th>Typical colony appearance</th>
<th>Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>C. jejuni</em> ATCC® 33291</td>
<td>red</td>
<td>&gt; 70%</td>
</tr>
<tr>
<td><em>C. coli</em> ATCC® 33559</td>
<td>red</td>
<td>&gt; 80%</td>
</tr>
<tr>
<td><em>C. lari</em> ATCC® 35221</td>
<td>red</td>
<td>&gt; 80%</td>
</tr>
<tr>
<td><em>E. faecalis</em> ATCC® 29212</td>
<td>inhibited</td>
<td>--</td>
</tr>
<tr>
<td><em>C. albicans</em> ATCC® 60193</td>
<td>inhibited</td>
<td>--</td>
</tr>
<tr>
<td><em>E. coli</em> ATCC® 25922</td>
<td>inhibited</td>
<td>--</td>
</tr>
</tbody>
</table>

**WARNINGS**

- Do not use plates if they show any evidence of contamination or any sign of deterioration.
- Do not use the product beyond its expiry date or if product shows any evidence of contamination or any sign of deterioration.
- For Research Use Only. Not for use in Diagnostic Procedure. Performance has not been established. This laboratory product should be used only by trained personnel in compliance with good laboratory practices.
- Any change or modification in the procedure may affect the results.
- Any change or modification of the required storage temperature may affect the performance of the product.
- Inappropriate storage may affect the shelf life of the product.
- Recap the bottles tightly after each preparation and keep them in a low humidity environment, protected from moisture and light.
- For a good microbial detection: collection and transport of specimen should be well handled and adapted to the particular specimen according to good laboratory practices.

**REFERENCES**

Please contact DRG for further information.

**DISPOSAL OF WASTE**

After use, all plates and any other contaminated materials must be sterilized or disposed of by appropriate internal procedures and in accordance with local legislations. Plates can be destroyed by autoclaving at 121°C for at least 20 minutes.

**IFU/LABEL INDEX**

- Quantity of powder sufficient for X liters of media
- Expiry date
- Required storage temperature
- Store away from humidity

Need some Technical Documents?

Please contact DRG for further information:

- Certificate of Analysis (CoA) --> One per Lot
- Material Safety Data Sheet (MSDS)