CAMPY SELECTIVE AGAR BASE (PRESTON) (7443)

Intended Use
Campy Selective Agar Base (Preston) is used with antimicrobics for the selective isolation of *Campylobacter jejuni* and *Campylobacter coli* in a laboratory setting. Campy Selective Agar Base (Preston) is not intended for use in the diagnosis of disease or other conditions in humans.

Product Summary and Explanation
Campy Selective Agar Base (Preston) is based on the formulation described by Bolton and Robertson. This formula, with the addition of the Preston Supplement, was developed to isolate *Campylobacter* species from environmental specimens. The Preston formulation demonstrated improved recovery and selectivity of *Campylobacter* species in comparative studies with other selective media (Skirrow, Butzler, Blaser and Campy-Blood Agar).

Principles of the Procedure
Enzymatic Digest of Animal Tissue and Enzymatic Digest of Casein are the nitrogen and vitamin source in this medium. Sodium Chloride provides the osmotic environment, Agar is the solidifying agent. The addition of 5% lysed horse blood provides essential growth factors.

Formula / Liter
<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enzymatic Digest of Animal Tissue</td>
<td>10 g</td>
</tr>
<tr>
<td>Enzymatic Digest of Casein</td>
<td>10 g</td>
</tr>
<tr>
<td>Sodium Chloride</td>
<td>5 g</td>
</tr>
<tr>
<td>Agar</td>
<td>12 g</td>
</tr>
<tr>
<td>Final pH 7.5 ± 0.2 at 25°C</td>
<td></td>
</tr>
</tbody>
</table>

Antimicrobials / 10 mL
<table>
<thead>
<tr>
<th>Antimicrobial</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polymyxin B</td>
<td>5000 IU</td>
</tr>
<tr>
<td>Trimethoprim</td>
<td>10 mg</td>
</tr>
<tr>
<td>Rifampin</td>
<td>10 mg</td>
</tr>
<tr>
<td>Cycloheximide</td>
<td>100 mg</td>
</tr>
</tbody>
</table>

Precautions
1. For Laboratory Use Only.
2. Follow standard laboratory policies when handling and disposing of contaminated material.

Directions
1. Suspend 37 g of the medium in one liter of purified water.
2. Heat with frequent agitation and boil for one minute to completely dissolve the medium.
3. Autoclave at 121°C for 15 minutes.
4. Cool medium to 45 - 50°C and aseptically add 5% lysed horse blood and 10 mL of a filtered sterilized aqueous solution containing 5000 IU polymyxin B, 10 mg trimethoprim, 10 mg rifampin, and 100 mg cycloheximide.

Quality Control Specifications
Dehydrated Appearance: Powder is homogeneous, free flowing and beige.

Prepared Appearance: Prepared medium with 5% lysed horse blood is red-brown to maroon, clear to trace hazy.

Expected Cultural Response: Cultural response at 42 ± 1°C after 18 - 48 hours on 5% horse blood plates in an atmosphere consisting of approximately 5 - 6% oxygen, 3 - 10% carbon dioxide and 84 - 85% nitrogen (for *Campylobacter sp*). All other organisms incubated aerobically.
Microorganism | Response
--- | ---
*Campylobacter jejuni* ATCC® 29428 | growth
*Campylobacter jejuni* ATCC® 33291 | growth
*Enterococcus faecalis* ATCC® 29212 | inhibited
*Proteus mirabilis* ATCC® 12453 | inhibited

The organisms listed are the minimum that should be used for quality control testing.

**Test Procedure**

1. Inoculate the specimen directly onto the surface of the prepared Campy Selective Agar Base (Preston).
2. Streak for isolation.
3. Incubate inoculated plates at 37°C or 42°C in an atmosphere composed of 5 - 6% oxygen, 3 - 10% carbon dioxide and 84 - 85% nitrogen for 24 - 48 hours. Selective temperatures are required for certain strains of *Campylobacter species*. Refer to appropriate references on the proper temperature and microaerophilic environment of *Campylobacter species*.1

**Results**

Campylobacter colonies are round to irregular with smooth edges. They may have translucent, white colonies to spreading, flat, transparent growth. Some strains appear tan or slightly pink. Normal enteric flora is completely to markedly inhibited.

Typically, *Campylobacter species* are oxidase positive and catalase positive. For complete identification of species and biotype, refer to the appropriate procedures for biochemical reactions.1,4

**Storage**

Store dehydrated medium at 2 - 30°C. Once opened and recapped, place the container in a low humidity environment at the same storage temperature. Protect from moisture and light by keeping container tightly closed.

**Expiration**

Refer to the expiration date stamped on the container. The dehydrated medium should be discarded if it is not free flowing, or if the color has changed from the original beige. Expiry applies to medium in its intact container when stored as directed.

**Limitations of the Procedure**

Due to nutritional variation, some strains may be encountered that grow poorly or fail to grow on this medium.

**Packaging**

<table>
<thead>
<tr>
<th>Campy Selective Agar Base (Preston)</th>
<th>Code No.</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7443A</td>
<td>500 g</td>
</tr>
<tr>
<td></td>
<td>7443B</td>
<td>2 kg</td>
</tr>
<tr>
<td></td>
<td>7443C</td>
<td>10 kg</td>
</tr>
</tbody>
</table>

**References**


**Technical Information**

Contact Acumedia Manufacturers, Inc. at TEL (800)783-3213 in the US/Canada or (410)780-5120 and FAX (800)875-8563 in the US/Canada or (410)780-5470 for Technical Service on questions involving dehydrated culture media preparation or performance.