Carnobacterium Selective Agar Base (CTAS Agar Base)

**Intended Use:**
Recommended for the detection of *Carnobacterium* species.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casitose ▲</td>
<td>10.000</td>
</tr>
<tr>
<td>Yeast extract</td>
<td>10.000</td>
</tr>
<tr>
<td>Sucrose</td>
<td>20.000</td>
</tr>
<tr>
<td>Polysorbate 80 (Tween 80)</td>
<td>1.000</td>
</tr>
<tr>
<td>Trisodium citrate dihydrate</td>
<td>15.000</td>
</tr>
<tr>
<td>Manganese sulphate tetrahydrate</td>
<td>4.000</td>
</tr>
<tr>
<td>Dipotassium hydrogen phosphate</td>
<td>2.000</td>
</tr>
<tr>
<td>Thallium (I) acetate</td>
<td>1.000</td>
</tr>
<tr>
<td>Nalidixic acid, sodium salt</td>
<td>0.040</td>
</tr>
<tr>
<td>Cresol red</td>
<td>0.004</td>
</tr>
<tr>
<td>Agar</td>
<td>15.000</td>
</tr>
<tr>
<td>Final pH ( at 25°C)</td>
<td>9.0±0.2</td>
</tr>
</tbody>
</table>

**Formula adjusted, standardized to suit performance parameters
▲ - Equivalent to Peptone from casein

**Directions**

Suspend 74.91 grams (the equivalent weight of dehydrated medium per litre) in 990 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 and add 10ml of 10% 2, 3, 5-Triphenyl Tetrazolium Chloride (TTC)(FD057). Mix well and pour into sterile Petri plates.

**Principle And Interpretation**

*Carnobacterium* species are Gram-positive rods belonging to the family Lactobacillaceae and are not considered as human pathogens. It comprises of 11 species, of which only two of these, *Carnobacterium divergens* and *Carnobacterium maltaromaticum*, are isolated frequently from the environment and food (4). *Carnobacterium* species are commonly isolated from a variety of foods like meats stored under anaerobic atmospheres at refrigeration temperatures, but the role of these organisms in the spoilage of meat and meat products is yet to be determined.

Casitose serves as a source of nitrogen and amino acids. Yeast extract is the vitamin source. Sucrose and citrate is the carbon source. Polysorbate 80 acts as an emulsifier. Dibasic potassium phosphate buffer the medium. Manganese sulfate helps to stimulate growth of carnobacteria whereas Thallium acetate and nalidixic acid are used as inhibitory substance for selective isolation of *Carnobacterium* spp.

**Type of specimen**

Clinical samples - Ascitic fluid, Pus. Food and Dairysamples- Fish samples.

**Specimen Collection and Handling:**

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (2,3). For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (1,5,6). 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. Some species may show poor growth due to nutritional variations.
2. Further biochemical testing is required for complete identification.

Quality Control

Appearance
Light yellow to greenish yellow homogeneous free flowing powder

Gelling
Firm, comparable with 1.5% Agar gel.

Colour and Clarity of prepared medium
Red to purple-red coloured clear to slightly opalescent gel with precipitate forms in Petri plates.

Reaction
Reaction of 7.5% w/v aqueous solution at 25°C. pH : 9.0±0.2

pH
8.80-9.20

Cultural Response
Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours or longer (with 5% CO2)

<table>
<thead>
<tr>
<th>Organism</th>
<th>Inoculum (CFU)</th>
<th>Growth</th>
<th>Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Carnobacterium maltaromaticum</em> ATCC 35586</td>
<td>50-100</td>
<td>luxuriant</td>
<td>&gt;=50%</td>
</tr>
<tr>
<td><em>Carnobacterium divergens</em> ATCC 35677 (00075*)</td>
<td>50-100</td>
<td>luxuriant</td>
<td>&gt;=50%</td>
</tr>
<tr>
<td><em>Lactobacillus sakei</em> subsp. sakei ATCC 15521 (00015*)</td>
<td>&gt;=10^4</td>
<td>inhibited</td>
<td>0%</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.

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 (2,3).

Reference

Please refer disclaimer Overleaf.
In vitro diagnostic medical device

CE Marking

Storage temperature

Do not use if package is damaged

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