HiCrome™ Enterobacter sakazakii Agar

**Intended Use:**
Recommended for the isolation and identification of *Cronobacter sakazakii* from food, dairy and clinical products.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tryptone</td>
<td>15.000</td>
</tr>
<tr>
<td>Soya peptone</td>
<td>5.000</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>5.000</td>
</tr>
<tr>
<td>Sodium deoxycholate</td>
<td>0.500</td>
</tr>
<tr>
<td>Sodium thiosulphate</td>
<td>1.000</td>
</tr>
<tr>
<td>Chromogenic mixture</td>
<td>10.170</td>
</tr>
<tr>
<td>Agar</td>
<td>15.000</td>
</tr>
<tr>
<td>Final pH (at 25°C)</td>
<td>7.3±0.2</td>
</tr>
</tbody>
</table>

**Directions**

Suspend 51.67 grams in 1000 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. Mix well and pour into sterile Petri plates.

**Principle And Interpretation**

*Enterobacter* species are widely distributed in nature occurring in fresh water, soil, sewage, plants, vegetables, animal and human feaces. *Cronobacter sakazakii* has been closely associated with neonatal meningitis and sepsis (5). The chromogenic substrate in HiCrome™ Enterobacter sakazakii Agar is cleaved specifically (1) by the glucosidase enzyme possessed by *Enterobacter* species resulting in formation of blue-green colonies. Other organisms, which do not cleave this substrate, produce yellow coloured colonies. Incorporation of the chromogenic mixture in the media renders an intense blue colour to *C.sakazakii* colonies whereas light blue green colour to the other *Enterobacter* species.

Tryptone and soya peptone provide nitrogenous and carbonaceous compounds, long chain amino acids, vitamins and other essential growth nutrients. Sodium chloride helps in maintaining the osmotic equilibrium of the medium. Sodium deoxycholate inhibits the accompanying gram-positive flora.

Key: *: Formerly known as *Enterobacter sakazakii*

**Type of specimen**

Clinical samples- Blood and Cerebrospinal fluid; Food and Dairy samples

**Specimen Collection and Handling**

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (3,4).

For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (1,6,7).

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. Slight variation in colour may be observed depending on enzyme production by organism and substrate utilization from the medium.
2. Some species may show poor growth due to nutritional variations.
2. Further biochemical tests must be carried out for confirmation.

**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**
Light yellow to pink homogeneous free flowing powder

**Gelling**
Firm, comparable with 1.5% Agar gel

**Colour and Clarity of prepared medium**
Purple coloured, clear to slightly opalescent gel forms in Petri plates

**Reaction**
Reaction of 5.16% w/v aqueous solution at 25°C. pH : 7.3±0.2

**pH**
7.10-7.50

**Cultural Response**
Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

<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 (WDCM 00013)</td>
<td>50-100</td>
<td>good-luxuriant</td>
<td>&gt;=50%</td>
<td>yellow</td>
</tr>
<tr>
<td><em>Klebsiella pneumoniae ATCC 13883</em> (WDCM 00097)</td>
<td>50-100</td>
<td>good-luxuriant</td>
<td>&gt;=50%</td>
<td>Green</td>
</tr>
<tr>
<td><em>Enterococcus faecalis</em> ATCC 29212 (WDCM 00087)</td>
<td>(&gt;=10^3)</td>
<td>inhibited</td>
<td></td>
<td></td>
</tr>
<tr>
<td># <em>Klebsiella aerogenes ATCC 13048</em> (WDCM 00175)</td>
<td>50-100</td>
<td>good-luxuriant</td>
<td>&gt;=50%</td>
<td>bluish green</td>
</tr>
<tr>
<td><em>Cronobacter sakazakii ATCC 12868</em></td>
<td>50-100</td>
<td>good-luxuriant</td>
<td></td>
<td>blue</td>
</tr>
<tr>
<td><em>Staphylococcus aureus subsp.aureus</em> ATCC 25923 (WDCM 00034)</td>
<td>(&gt;=10^3)</td>
<td>inhibited</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

# - Formerly known as *Enterobacter aerogenes*  *
- Formerly known as *Enterobacter sakazakii*

**Storage and Shelf Life**
Store dehydrated powder and prepared medium on receipt at 2-8°C. Use before expiry period 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 (2,5).

**Reference**

Disclaimer:
User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.

In vitro diagnostic medical device
CE Marking
Storage temperature
2°C – 8°C
Do not use if package is damaged

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