**HiCrome™ Enterobacter sakazakii HiVeg™ Agar**

(HiCrome™ Cronobacter sakazakii HiVeg™ Agar)

(*Enterobacter sakazakii now referred as Cronobacter sakazakii*).

**Intended Use:**

Recommended for the isolation and identification of *Enterobacter sakazakii* now referred as *Cronobacter sakazakii* from food, dairy products and clinical samples.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>HiVeg™ hydrolysate</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>Synthetic detergent No. III</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 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. 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 faeces. *Cronobacter sakazakii* has been closely associated with neonatal meningitis and sepsis (5). The chromogenic substrate in the media 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 *Cronobacter sakazakii* colonies whereas light blue green colour to the other *Enterobacter* species. HiCrome™ Cronobacter sakazakii HiVeg™ Agar is prepared by completely replacing animal based peptone with vegetable peptones to avoid BSE/TSE risks associate with animal peptones.

HiVeg™ hydrolysate 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. Synthetic detergent No. III 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. 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.

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

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>Escherichia coli ATCC 25922 (WDCM 00013)</td>
<td>50-100</td>
<td>good-luxuriant</td>
<td>&gt;=50%</td>
<td>yellow</td>
</tr>
<tr>
<td>Klebsiella pneumoniae ATCC 13883 (WDCM 00097)</td>
<td>50-100</td>
<td>good-luxuriant</td>
<td>&gt;=50%</td>
<td>Green</td>
</tr>
<tr>
<td>Enterococcus faecalis ATCC 29212 (WDCM 00087)</td>
<td>&gt;=10⁴</td>
<td>inhibited</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td># Klebsiella aerogenes ATCC 13048 (WDCM 00175)</td>
<td>50-100</td>
<td>good-luxuriant</td>
<td>&gt;=50%</td>
<td>bluish green</td>
</tr>
<tr>
<td>*Cronobacter sakazakii ATCC 12868</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staphylococcus aureus subsp.aureus ATCC 25923 (WDCM 00034)</td>
<td>&gt;=10⁴</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.