HiDip PCA-VRBA Medium

For selective screening of food and water.

**Composition**

**Directions**

**Surfaces**
Loosen cap and remove the HiDip slide from container. Aseptically remove the protective plastic cover from slide by taking care not to touch agar surfaces. Check for dehydration or contamination. Gently lower the slide and press agar to touch the test surface by bending the scull around the hinge line. Apply even and firm pressure for few seconds. Take care not to smudge agar over the test surface. Repeat procedure using the second agar surface on an area adjacent to the initial test side. Return the slide to the container and close tightly. Incubate in an up right position at indicated temperature.

**Liquids**
Loosen cap and remove the HiDip slide from the container. Aseptically remove the protective plastic cover from slide by taking care not to touch agar surfaces. Check for dehydration or contamination. Dip slide into test fluid so that agar surface becomes totally covered. (In case of inadequate liquid sample availability, pour sample over the surface of the slide). Allow to drain.

Return the slide to the container and close tightly. Incubate in an upright position at indicated temperature. Label the container for sample number, source, date and time etc. for reference.

**Disposal**
Used HiDip slides should be handled carefully, as it contains live microorganisms. These slides can be best disposed off either by or by immersing in a suitable disinfectant solution (i.e. dettol, phenyl etc.) over night or by autoclaving them after loosening the cap. An autoclave is not essential, a domestic pressure cooker will suffice.

**Principle And Interpretation**

**Field of application:**

HiDip slide is a handy tool for Isolation, enumeration and identification of specific bacteria in urine, food and water samples. These slides can also be used as touch slides for assessing the microbiological contamination of surfaces. HiDip slides are designed to monitor the microbial flora of liquids (e.g. urine, milk, water) and equipment surfaces in the clinical and food industries.

HiDip slide contains a double sided, hinged plastic scull containing two agar surfaces. The HiDip slides containing combination of three agar media are prism shaped having all three agar media on separate, individual surfaces. The hinged scull allows easy touch against each test area during sampling. The surface area of scull is divided into ten units of one centimeter each to allow direct counting of microbial density per unit area.

Plate count Agar is recommended for the plate count of microorganisms in foods, water and waste water. It is recommended by APHA, FDA and also by ISO Committee. Incubate the slides 35-37°C for 18-24 hours to observe colony characteristics. Growth indicator present in the medium aids in easier observation and enumeration of colonies VRBA medium is selective medium for the detection and enumeration of coliforms microorganisms from water and food products. It is recommended by ISO committee for enumeration of coliforms. It is selective due to the presence of the inhibitors- bile salt and crystal violet. Organisms which rapidly ferment lactose produce red colonies surrounded by red-purple halo. Lactose non-fermenters and late lactose fermenters produce pale colonies. Incubate slides at 35-37°C for 18-24 hours to observe colony characteristics.

**Quality Control**

**Appearance**
The HiDip slide containing combination of sterile PCA Medium and VRBA Medium on separate individual surfaces.
Colours
Light yellow coloured medium Reddish purple coloured medium

Quantity of medium
2.5ml of medium per surface

pH of PCA medium
6.80 - 7.20

pH of VRBA medium
7.20 - 7.60

Cultural response
Cultural characteristics was observed after incubation at 35-37°C for of 18-24 hours.

Cultural Response

<table>
<thead>
<tr>
<th>Organism</th>
<th>Growth</th>
<th>Colour of Colony</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Part A: PCA medium</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Bacillus subtilis</em> ATCC 6633</td>
<td>luxuriant</td>
<td>Red to maroon</td>
</tr>
<tr>
<td><em>Enterococcus faecalis</em> ATCC 29212</td>
<td>luxuriant</td>
<td>Red to maroon</td>
</tr>
<tr>
<td><em>Escherichia coli</em> ATCC 25922</td>
<td>luxuriant</td>
<td>pinkish red with bile precipitate</td>
</tr>
<tr>
<td><em>Lactobacillus casei</em> ATCC 9595</td>
<td>luxuriant</td>
<td>Red to maroon</td>
</tr>
<tr>
<td><em>Staphylococcus aureus</em> ATCC 25923</td>
<td>inhibited</td>
<td>Red to maroon</td>
</tr>
<tr>
<td><em>Streptococcus pyogenes</em> ATCC 19615</td>
<td>luxuriant</td>
<td>Red to maroon</td>
</tr>
<tr>
<td><strong>Part B: VRBA medium</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Enterobacter aerogenes</em> ATCC 13048</td>
<td>luxuriant</td>
<td>pink to pinkish red</td>
</tr>
<tr>
<td><em>Salmonella Enteritidis</em> ATCC 13076</td>
<td>luxuriant</td>
<td>Colourless to orangish yellow</td>
</tr>
</tbody>
</table>

Storage and Shelf Life
Store between 15-25°C. Use before expiry date on the label.

Reference
Disclaimer:

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