Plate Count Agar Plate

Intended use
Recommended for the determination of plate counts of microorganisms in food, water, waste water and also from clinical samples

Composition

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tryptone</td>
<td>5.000</td>
</tr>
<tr>
<td>Yeast extract</td>
<td>2.500</td>
</tr>
<tr>
<td>Dextrose (Glucose)</td>
<td>1.000</td>
</tr>
<tr>
<td>Agar</td>
<td>15.000</td>
</tr>
<tr>
<td>Final pH (at 25°C)</td>
<td>7.0±0.2</td>
</tr>
</tbody>
</table>

**Formula adjusted, standardized to suit performance parameters

Directions
Either streak, inoculate or surface spread the test inoculum (50-100 CFU) aseptically on the plate.

Principle And Interpretation
Plate Count Agar is formulated as described by Buchbinder et al (2) which is recommended by APHA (1,6,7) and FDA (3). Tryptone provides nitrogenous and carbonaceous compounds, long chain amino acids, and other essential nutrients. Yeast extract supplies Vitamin B complex. APHA recommends the use of pour plate technique. The samples are diluted and appropriate dilutions are added in Petri plates. Sterile molten agar is added to these plates and plates are rotated gently to ensure uniform mixing of the sample with agar. The poured plate count method is preferred to the surface inoculation method, since it gives higher results. Plate Count Agar is also suitable for enumerating bacterial count of sterile rooms.

Type of specimen
Clinical samples - Blood; Food and dairy samples; Water samples

Specimen Collection and Handling
For clinical samples follow appropriate techniques for handling specimens as per established guidelines (4.5).
For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (6,7). For water samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards(1).
After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions:
In Vitro diagnostic Use. Read the label before opening the pack. 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. Individual organisms differ in their growth requirement and may show variable growth patterns on the medium
2. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user’s unique requirement.
3. It is recommended to store the plates at 24-30°C to avoid minimum condensation.

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
Sterile Plate Count Agar Plate in 90 mm disposable plates.

Colour of medium
Light yellow coloured medium

Please refer disclaimer Overleaf.
Quantity of medium
25 ml of medium in 90 mm disposable plates.

pH
6.80-7.20

Sterility Test
Passes release criteria

Cultural Response
Cultural characteristics observed after an incubation at 35 - 37°C for 18 - 48 hours.

<table>
<thead>
<tr>
<th>Organism</th>
<th>Inoculum (CFU)</th>
<th>Growth</th>
<th>Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bacillus subtilis subsp. spizizenii ATCC 6633 (00003*)</td>
<td>50-100</td>
<td>luxuriant</td>
<td>&gt;=70%</td>
</tr>
<tr>
<td>Enterococcus faecalis ATCC 50-100</td>
<td>luxuriant</td>
<td>&gt;=70%</td>
<td></td>
</tr>
<tr>
<td>Escherichia coli ATCC 25922 (00013*)</td>
<td>luxuriant</td>
<td>&gt;=70%</td>
<td></td>
</tr>
<tr>
<td>Lactobacillus casei ATCC 9595</td>
<td>luxuriant</td>
<td>&gt;=70%</td>
<td></td>
</tr>
<tr>
<td>Staphylococcus aureus subsp. aureus ATCC 25923 (00034*)</td>
<td>luxuriant</td>
<td>&gt;=70%</td>
<td></td>
</tr>
<tr>
<td>Streptococcus pyogenes ATCC 19615</td>
<td>luxuriant</td>
<td>&gt;=70%</td>
<td></td>
</tr>
</tbody>
</table>

Key : *Corresponding WDCM numbers.

Storage and Shelf Life
On receipt store between 20-30°C 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 (4,5).

Reference

Revision : 01/ 2019
In vitro diagnostic medical device

CE Marking

Storage temperature

Do not use if package is damaged

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Disclaimer:

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