Potato Dextrose Agar with 3% Agar

Potato Dextrose Agar with 3% Agar is recommended for isolation and cultivation of fungi-yeasts and moulds from dairy and food products.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potatoes, infusion from</td>
<td>200.000</td>
</tr>
<tr>
<td>Dextrose</td>
<td>20.000</td>
</tr>
<tr>
<td>Agar</td>
<td>30.000</td>
</tr>
<tr>
<td>Final pH ( at 25°C)</td>
<td>5.6±0.2</td>
</tr>
</tbody>
</table>

**Formula adjusted, standardized to suit performance parameters**

**Directions**

Suspend 54 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. Mix well before dispensing. In specific work, when pH 3.5 is required, acidify the medium with sterile 10% tartaric acid. The amount of acid required for 100 ml. of sterile, cooled medium is approximately 1 ml. Do not heat the medium after addition of the acid.

**Principle And Interpretation**

Potato Dextrose Agar is recommended by APHA (1) and F.D.A (2) for plate counts of yeasts and moulds in the examination of foods and dairy products (3). Incorporation of 3% agar enhances sporulation in the medium.

Potato infusion and dextrose promote luxuriant fungal growth. Adjusting the pH of the medium by tartaric acid to 3.5, inhibits the bacterial growth. Heating the medium after acidification should be avoided as it may hydrolyse the agar which can render the agar unable to solidify.

**Quality Control**

**Appearance**

Cream to yellow homogeneous free flowing powder

**Gelling**

Firm, comparable with 3.0% Agar gel

**Colour and Clarity of prepared medium**

Light amber coloured clear to slightly opalescent gel forms in Petri plates.

**Reaction**

Reaction of 5.4% w/v aqueous solution at 25°C. pH : 5.6±0.2

**pH**

5.40-5.80

**Cultural Response**

M937: Cultural characteristics observed after an incubation at 22-25°C for 4-5 days.

<table>
<thead>
<tr>
<th>Organism</th>
<th>Inoculum (CFU)</th>
<th>Growth</th>
<th>Ascospore formation</th>
<th>Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Aspergillus brasiliensis</em> ATCC 16404</td>
<td>50-100</td>
<td>luxuriant</td>
<td>negative</td>
<td></td>
</tr>
<tr>
<td><em>Candida albicans</em> ATCC 10231</td>
<td>50-100</td>
<td>luxuriant</td>
<td>negative</td>
<td>&gt;=70%</td>
</tr>
<tr>
<td><em>Saccharomyces cerevisiae</em> ATCC 9763</td>
<td>50-100</td>
<td>luxuriant</td>
<td>positive</td>
<td>&gt;=70%</td>
</tr>
</tbody>
</table>

Key : * - Formerly known as Aspergillus niger

**Storage and Shelf Life**

Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.
Reference

Disclaimer:
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