Potato Dextrose Agar

Intended use

Recommended for the isolation and enumeration of yeasts and moulds from water, dairy and other food products and clinical samples.

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 (Glucose)</td>
<td>20.000</td>
</tr>
<tr>
<td>Agar</td>
<td>15.000</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 39.0 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 before dispensing into tubes or flasks as desired. 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). Potato Dextrose Agar is also used for stimulating sporulation, for maintaining stock cultures of certain dermatophytes and for differentiation of typical varieties of dermatophytes on the basis of pigment production (4). It is also recommended by USP (5), BP (6), EP (3) and JP (7) for growth of fungi. 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.

Type of specimen

Clinical samples- skin scrapings, nail scrapings, etc. food and dairy samples; Water samples,

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (8,9).

For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (1,10).

For water samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards. (11)

After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

In Vitro diagnostic Use. For professional 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. Heating the medium after acidification should be avoided as it may hydrolyse the agar which can render the agar unable to solidify.

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

Cream to yellow homogeneous free flowing powder

Please refer disclaimer Overleaf.
Gelling
Firm, comparable with 1.5% Agar gel

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

**Reaction**
Reaction of 3.9% w/v aqueous solution at 25°C. pH : 5.6±0.2

**pH**
5.40-5.80

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

<table>
<thead>
<tr>
<th>Organism</th>
<th>Growth</th>
<th>Ascospore formation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspergillus brasiliensis ATCC 16404 (00053*)</td>
<td>luxuriant</td>
<td>Negative</td>
</tr>
<tr>
<td>Candida albicans ATCC 10231 (00054*)</td>
<td>luxuriant</td>
<td>Negative</td>
</tr>
<tr>
<td>Saccharomyces cerevisiae ATCC 9763 (00058*)</td>
<td>luxuriant</td>
<td>Positive</td>
</tr>
</tbody>
</table>

Key : (#) - Formerly known as Aspergillus niger; (*) - corresponding WDCM numbers

**Storage and Shelf Life**
Store between 10-30°C in a tightly closed container and the prepared medium at 20-30°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle inorder 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 (8,9).

**Reference**
3. European Pharmacopoeia, 2019, European Dept. for the quality of Medicines.

Revision : 05/2022
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.