YEP Agar

Intended use

YEP Agar is recommended for isolation of dimorphic fungi from clinical and other nonclinical samples.

Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yeast extract</td>
<td>1.000</td>
</tr>
<tr>
<td>Disodium hydrogen phosphate</td>
<td>0.200</td>
</tr>
<tr>
<td>Potassium dihydrogen phosphate</td>
<td>0.300</td>
</tr>
<tr>
<td>Phenol red</td>
<td>0.001</td>
</tr>
<tr>
<td>Agar</td>
<td>20.000</td>
</tr>
</tbody>
</table>

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 21.50 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 to make deep-filled plates to reduce the drying effect during prolonged incubation. After inoculating the plate, add one drop of concentrated ammonia at the edge of the medium. Allow to remain undisturbed for 20 minutes before inverting the plates. Incubate the plates at 25-30°C.

Principle And Interpretation

Smith and Goodman developed YEP Agar for the primary isolation of dimorphic fungi from clinical specimens (5). Ammonium hydroxide is added to the medium which helps in inhibiting bacteria, yeasts and saprophytic fungi (1,4). Phenol red changes the colour of the medium from pale tan to pink to show that the 1 N NH\(_4\)OH has been applied to Yeast extract supplies B-complex vitamins, amino acids and carbohydrates to support fungal growth. Phosphate buffer maintains a slightly acidic pH.

Type of Specimen

Clinical specimen: Skin, Blood. Nonclinical: Environmental, Soil samples

Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (2,3). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

In Vitro diagnostic 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. Colony growth should be examined microscopically for switching nature of dimorphic fungus that has grown.
2. Prolonged incubation time may result in growth of undesirable organisms.
3. Additional selective media and biochemical tests are necessary for identification of fungal growth.

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. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens.
Quality Control

Appearance
Light yellow to beige homogeneous free flowing powder

Gelling
Firm, comparable with 2.0% agar gel.

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

Cultural Response
Cultural characteristics observed after an incubation at 25-30°C for 1-4 weeks.

<table>
<thead>
<tr>
<th>Organism</th>
<th>Inoculum</th>
<th>Growth</th>
<th>Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blastomyces dermatidis</td>
<td>50-100</td>
<td>good</td>
<td>-</td>
</tr>
<tr>
<td>ATCC 14112</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staphylococcus aureus</td>
<td>50-100</td>
<td>none-poor</td>
<td>&lt;= 10%</td>
</tr>
<tr>
<td>ATCC 25923</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 2-8°C. Use before expiry date 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 (2,3).

Reference

In vitro diagnostic medical device

CE Marking

Storage temperature

Do not use if package is damaged

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