Preservative Resistant Yeast Agar Base (PRY)

For cultivation of Yeasts

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yeast extract</td>
<td>10.000</td>
</tr>
<tr>
<td>Mannitol</td>
<td>10.000</td>
</tr>
<tr>
<td>Agar</td>
<td>15.000</td>
</tr>
</tbody>
</table>

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

**Directions**

Suspend 35 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 121°C for 15 minutes. Cool to 45-50°C and add 10ml glacial acetic acid and immediately dispense as desired, because the medium cannot be reheated.

**Principle And Interpretation**

Preservative Resistant Yeast Medium is used to selectively isolate and enumerate *Zygosaccharomyces* species. It is used for the detection of preservative resistant yeast in water and beverages. The medium prevents growth of other yeasts such as *Saccharomyces cerevisiae* that are tolerant to lower levels of commonly used food preservatives. Spoilage resulting from growth of the yeast *Zygosaccharomyces* is widespread, which has caused significant economic losses to the food industry. Within this genus, *Z. bailii* is one of the most troublesome species due to its exceptional tolerance to various stressful conditions (1). Also *Z. lentus* is a significant new osmophilic, preservative-resistant spoilage yeast, capable of growth at low temperature (2).

Yeast extract in the medium provides the essential nutrients, while mannitol acts as source of fermentable carbohydrate.

**Quality Control**

**Appearance**
Cream to yellow homogeneous free flowing powder

**Gelling**
Firm, comparable with 1.5% Agar gel

**Colour and clarity of prepared medium**
Light amber coloured clear to slightly opalescent gel forms in Petri plates

**Cultural Response**
Cultural Response was observed at 20-25°C for 2-7 day's. Recovery rate is considered as 100% for fungus growth on Sabouraud Dextrose Agar

<table>
<thead>
<tr>
<th>Organism</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Candida albicans ATCC 10231</em></td>
<td>luxuriant</td>
</tr>
<tr>
<td><em>Zygosaccharomyces bailii</em></td>
<td>luxuriant</td>
</tr>
<tr>
<td><em>Saccharomyces cerevisiae ATCC 9763</em></td>
<td>good</td>
</tr>
</tbody>
</table>

**Storage and Shelf Life**
Store below 30°C in tightly closed container and prepared medium at 2-8°C. Use before expiry date on label.

**Reference**


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