Potato Dextrose Sucrose Agar

Potato Dextrose Sucrose Agar is used for the isolation and cultivation of *Zygosaccharomyces rouxii* from chocolate syrup.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
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</thead>
<tbody>
<tr>
<td>Sucrose</td>
<td>600.000</td>
</tr>
<tr>
<td>Dextrose</td>
<td>40.000</td>
</tr>
<tr>
<td>Potato infusion from</td>
<td>4.000</td>
</tr>
<tr>
<td>Agar</td>
<td>15.000</td>
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**Formula adjusted, standardized to suit performance parameters**

**Directions**

Suspend 65.9 grams in 100 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.

**Principle And Interpretation**

Potato Dextrose media are 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). Yeasts are the principle causes of spoilage in confectionaries (4). *Zygosaccharomyces rouxii* is identified as a principal cause of spoilage, which grows over a wide range of pH (5). *Z. rouxii* is an osmophillic yeast that has been commercially important for the production of soy sauce (6). Yeast spoilage of chocolate-covered creams is evident by cracking of the coating and leaking of the fondant and syrup.

Potato Dextrose Sucrose Agar is formulated as recommended by APHA (1) and used for the isolation and cultivation of *Z. rouxii* from chocolate syrup.

Potato infusion and dextrose promote luxuriant fungal growth. Acidifying the medium to pH 3.5 by tartaric acid inhibits bacterial growth. Heating the medium after acidification should be avoided as it may hydrolyse the agar, which can render the agar unable to solidify. Very high percentage of sucrose along with the 4% dextrose and the potato infusion supports good growth of *Z. rouxii*.

**Quality Control**

**Appearance**

White to light yellow homogenous 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**

M1174: Cultural characteristics observed after an incubation at 22-30°C for 48-72 hours.

**Organism**

*Zygosaccharomyces rouxii* luxuriant

**ATCC 34890**

**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

Revision : 2 / 2015

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