Mitis Salivarius Agar
Selective medium for the isolation of streptococci and enterococci from clinical specimens.

**TYPICAL FORMULA (g/l)**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enzymatic Digest of Casein</td>
<td>15.0</td>
</tr>
<tr>
<td>Enzymatic Digest of Animal Tissue</td>
<td>5.0</td>
</tr>
<tr>
<td>Sucrose</td>
<td>50.0</td>
</tr>
<tr>
<td>Dextrose</td>
<td>1.0</td>
</tr>
<tr>
<td>Dipotassium Phosphate</td>
<td>4.0</td>
</tr>
<tr>
<td>Trypan Blue</td>
<td>0.075</td>
</tr>
<tr>
<td>Crystal Violet</td>
<td>0.0008</td>
</tr>
<tr>
<td>Agar</td>
<td>15.0</td>
</tr>
</tbody>
</table>

**DESCRIPTION**

Mitis Salivarius Agar is a medium used with supplements for the selective isolation of viridans streptococci, such as *Streptococcus mitis* and *Streptococcus salivarius*, and enterococci, from specimens containing mixed microbial flora.

**PRINCIPLE**

Enzymatic digest of casein and enzymatic digest of animal tissue provide amino acids, nitrogen, carbon, minerals, vitamins and other nutrients for organisms growth. Sucrose and dextrose are the fermentable carbohydrates. Dipotassium phosphate is the buffering agent. Trypan blue is absorbed by the colonies, producing a blue colour. Crystal violet inhibits most Gram-negative bacilli and Gram-positive bacteria except streptococci. Agar is the solidifying agent. Potassium Tellurite 1% Supplement (ref. 80022) is added to the medium to aid in suppressing the contaminant bacterial flora.

**PREPARATION**

Suspend 90.0 g of powder in 1 liter of deionized or distilled water. Bring to boil and shake until completely dissolved. Sterilize at 121°C for 15 minutes. Cool up to 45-50°C. Aseptically, add 1 ml of Potassium Tellurite 1% Supplement. Pour in Petri dishes.

**TECHNIQUE**

Inoculate and streak the specimen as soon as possible after it is received in the laboratory. Incubate the plates at 35 ± 2°C for 24-48 hours in atmosphere enriched with 5% carbon dioxide. Include a nonselective agar plate (e.g., blood agar) to increase the chance of recovering organisms present in low numbers and to provide an indication of other organisms present in the specimen.

**INTERPRETATION OF RESULTS**

*S. mitis* cultivates with small blue colonies. These colonies may become easier to distinguish with longer incubation. *S. salivarius* produces blue, smooth or rough “gum drop” colonies, 1-5 mm in diameter depending on the number of colonies on the plate. *Enterococcus* spp. form dark blue or black, shiny, slightly raised, 1-2 mm colonies.

**STORAGE AND TRANSPORT CONDITIONS**

The powder is very hygroscopic, store the powder at 10-30°C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared plates at 2-8°C away from light.

**WARNING AND PRECAUTIONS**

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. The product is designed for in vitro diagnostic use only and must be used by properly trained operators.

**DISPOSAL OF WASTE**

Disposal of waste must be carried out according to the national and local regulations in force.

**REFERENCES**

**PRODUCT SPECIFICATIONS**

**NAME**
Mitis Salivarius Agar

**PRESENTATION**
Dehydrated medium

**STORAGE**
10-30°C

**PACKAGING**

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Content</th>
<th>Packaging</th>
</tr>
</thead>
<tbody>
<tr>
<td>611020</td>
<td>500 g</td>
<td>500 g of powder in plastic bottle</td>
</tr>
<tr>
<td>621020</td>
<td>100 g</td>
<td>100 g of powder in plastic bottle</td>
</tr>
<tr>
<td>6110205</td>
<td>5 kg</td>
<td>5 kg of powder in plastic bottle</td>
</tr>
</tbody>
</table>

**pH OF THE MEDIUM**
7.0 ± 0.2

**USE**
Mitis Salivarius Agar is a medium used with supplements for the selective isolation of viridans streptococci and enterococci from specimens containing mixed microbial flora

**TECHNIQUE**
Refer to technical sheet of the product

**APPEARANCE OF THE MEDIUM**
Powder medium
Appearance: free-flowing, homogeneous
Colour: light blue-beige
Ready-to-use medium
Appearance: clear to very slightly opalescent
Colour: deep blue

**SHELF LIFE**
4 years

**QUALITY CONTROL**
1. Control of general characteristics, label and print
2. Microbiological control
   - Inoculum for productivity: 50-100 CFU
   - Inoculum for selectivity: 10^4-10^6 CFU
   - Incubation Conditions: 18-48 h at 35 ± 2°C, in atmosphere with 5% CO₂

**Microorganism**

<table>
<thead>
<tr>
<th>Microorganism</th>
<th>Growth</th>
<th>Colony Colour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Streptococcus mitis</td>
<td>Good</td>
<td>Blue</td>
</tr>
<tr>
<td>Streptococcus salivarius</td>
<td>Good</td>
<td>Blue</td>
</tr>
<tr>
<td>Streptococcus pyogenes</td>
<td>Good</td>
<td>Blue</td>
</tr>
<tr>
<td>Enterococcus faecalis</td>
<td>Good</td>
<td>Blue-black</td>
</tr>
<tr>
<td>Escherichia coli</td>
<td>Inhibited</td>
<td>---</td>
</tr>
<tr>
<td>Staphylococcus aureus</td>
<td>Inhibited</td>
<td>---</td>
</tr>
</tbody>
</table>

**TABLE OF SYMBOLS**

<table>
<thead>
<tr>
<th>LOT</th>
<th>Batch code</th>
<th>IVD</th>
<th>In vitro Diagnostic Medical Device</th>
<th>Manufacturer</th>
<th>Use by</th>
<th>Fragile, handle with care</th>
</tr>
</thead>
<tbody>
<tr>
<td>REF</td>
<td>Catalogue number</td>
<td>Temperature limitation</td>
<td>Contains sufficient for &lt;n&gt; tests</td>
<td>Caution, consult instructions for use</td>
<td>Do not reuse</td>
<td></td>
</tr>
</tbody>
</table>

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