Standard Nutrient Agar No. 1

Standard Nutrient Agar No. 1 is used for cultivation of fastidious bacteria.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peptone, special</td>
<td>15.000</td>
</tr>
<tr>
<td>Yeast extract</td>
<td>3.000</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>6.000</td>
</tr>
<tr>
<td>Dextrose</td>
<td>1.000</td>
</tr>
<tr>
<td>Agar</td>
<td>12.000</td>
</tr>
<tr>
<td>Final pH ( at 25°C)</td>
<td>7.5±0.2</td>
</tr>
</tbody>
</table>

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

**Directions**

Suspend 37 grams in 1000 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 and pour into sterile Petri plates.

**Principle And Interpretation**

Nutrient media are basic culture media used for culturing maintaining microorganisms (1), and to check culture purity prior to biochemical or serological testing.

Standard Nutrient Agar No. 1 is used for the isolation and enumeration of bacteria. Standard Nutrient Agar No. 1 can be used as a culture media base, when supplemented with blood, ascetic fluids, serum or egg yolk etc which makes it suitable for the cultivation of relatively fastidious organisms (2). The media can be used for cultivation of Streptococci, Pneumococci and *Erysipelothrix* species.

**Quality Control**

**Appearance**

Cream to yellow homogeneous free flowing powder

**Gelling**

Firm, comparable with 1.2% Agar gel.

**Colour and Clarity of prepared medium**

Light amber coloured clear to slightly opalescent gel forms in Petri plates

**Reaction**

Reaction of 3.7% w/v aqueous solution at 25°C. pH : 7.5±0.2

**pH**

7.30-7.70

**Cultural Response**

<table>
<thead>
<tr>
<th>Organism</th>
<th>Inoculum (CFU)</th>
<th>Growth</th>
<th>Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Escherichia coli ATCC 25922</em></td>
<td>50-100</td>
<td>good-luxuriant</td>
<td>&gt;=70%</td>
</tr>
<tr>
<td><em>Erysipelothrix rhusiopathiae ATCC 19414</em></td>
<td>50-100</td>
<td>good-luxuriant</td>
<td></td>
</tr>
<tr>
<td><em>Listeria monocytogenes ATCC 19111</em></td>
<td>50-100</td>
<td>good-luxuriant</td>
<td>&gt;=70%</td>
</tr>
<tr>
<td><em>Staphylococcus aureus ATCC 25923</em></td>
<td>50-100</td>
<td>good-luxuriant</td>
<td>&gt;=70%</td>
</tr>
<tr>
<td><em>Streptococcus pneumoniae ATCC 6303</em></td>
<td>50-100</td>
<td>good-luxuriant</td>
<td>&gt;=70%</td>
</tr>
</tbody>
</table>
**Streptococcus pyogenes**
*ATCC 19615*

50-100 good-luxuriant >=70%

**Shigella flexneri**
*ATCC 12022*

50-100 good-luxuriant >=70%

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**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**


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**Disclaimer:**

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