Nutrient Agar

Recommended for general culture medium for cultivation of less fastidious microorganisms.

Directions
Nutrient Agar is a ready to use solid media in glass bottle. The medium is pre-sterilized, hence it does not need sterilization.
Medium in the bottle can be melted either by using a pre-heated water bath or any other method. Slightly loosen the cap before melting. When complete melting of medium is observed dispense the medium as desired and allow to solidify.

Principle And Interpretation

Nutrient media are basic culture media used for maintaining microorganisms, cultivating fastidious organisms by enriching with serum or blood and are also used for purity checking prior to biochemical or serological testing (1, 2). Nutrient Agar is ideal for demonstration and teaching purposes where a more prolonged survival of cultures at ambient temperature is often required without risk of overgrowth that can occur with more nutritious substrate. This relatively simple formula has been retained and is still widely used in the microbiological examination of variety of materials and is also recommended by standard methods. It is one of the several non-selective media useful in routine cultivation of microorganisms (3, 4). It can be used for the cultivation and enumeration of bacteria which are not particularly fastidious. Addition of different biological fluids such as horse or sheep blood, serum, egg yolk etc. makes it suitable for the cultivation of related fastidious organisms. Peptic digest of animal tissue, beef extract and yeast extract provide the necessary nitrogen compounds, carbon, vitamins and also some trace ingredients necessary for the growth of bacteria. Sodium chloride maintains the osmotic equilibrium of the medium.

Quality Control

Appearance
Sterile glass bottle containing slightly opalescent Nutrient Agar.

Colour
Light Amber coloured medium

Quantity of medium
100ml / 500ml of medium in glass bottle

Reaction
7.20 – 7.60

Cultural response
Cultural characteristics after melting the medium and pouring into sterile petri plates. The plates are inoculated with following test organisms and incubation at 35 – 37°C for 18-24 hours.

Sterility test
Passes release criteria

Cultural Response

<table>
<thead>
<tr>
<th>Organism</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Escherichia coli ATCC 25922</td>
<td>Good-luxuriant</td>
</tr>
<tr>
<td>Staphylococcus aureus ATCC 25923</td>
<td>Good-luxuriant</td>
</tr>
<tr>
<td>Pseudomonas aeruginosa ATCC27853</td>
<td>Good-luxuriant</td>
</tr>
<tr>
<td>Streptococcus pyogenes ATCC 19615</td>
<td>Good-luxuriant</td>
</tr>
</tbody>
</table>

Storage and Shelf Life
Store between 10-25°C. Use before expiry date on the label.

Reference

Revision: 1 / 2011

Disclaimer:

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