Super Growth Medium

Super Growth Medium is an extremely rich medium for obtaining high yields of lambda bacteriophage in liquid lysates.

**Composition**: 

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Grams/Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tryptone</td>
<td>35.00</td>
</tr>
<tr>
<td>Yeast extract</td>
<td>20.00</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>5.00</td>
</tr>
</tbody>
</table>

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

**Directions**: 

Suspend 60 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Dispense as desired and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

**Principle and Interpretation**: 

Super Growth Medium is an extremely rich medium for obtaining high yields of lambda bacteriophage in liquid lysates. This media contains tryptone, yeast extract and sodium chloride. Tryptone and yeast extract provide nitrogenous compounds, vitamin B complex and other essential growth nutrients. Sodium chloride maintains osmotic equilibrium. This media was developed by Botstein, D. et al. (1) which contains 3.5 times more tryptone and 4 times more yeast extract. Therefore, Super Growth Media is very rich in tryptone and yeast extract.

**Quality Control**: 

**Appearance of Powder**:
Cream to yellow coloured, homogeneous, free flowing powder.

**Colour and Clarity**: 
Light yellow coloured, clear solution without any precipitate.

**Reaction**: 
Reaction of 6.0% w/v aqueous solution is pH 7.5 ± 0.2 at 25°C.

**Cultural Response**: 
Cultural characteristics observed after an incubation at 35-37°C for 18 - 48 hours.
Organisms (ATCC) | Inoculum (CFU) | Growth
---|---|---
Escherichia coli ATCC 23724 | 50 - 100 | good-luxuriant
Escherichia coli ATCC 25922 | 50 - 100 | good-luxuriant
Escherichia coli MTCC 1652 | 50 - 100 | good-luxuriant

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.

References: