Proteose Peptone B

Principle And Interpretation

Proteose Peptone B is manufactured under controlled conditions while maintaining degree of hydrolysis so as to retain its nutritive value. It is obtained by enzymatic hydrolysis of protein, rich in proteases, peptide and free amino acids. It provides superior nutrition for fastidious organisms including pyogenic cocci.

Quality Control

Appearance
Light yellow to brownish yellow free flowing powder, homogenous, having characteristic odour but not putrescent.

Solubility
Soluble in distilled/purified water, insoluble in alcohol.

Clarity
1% w/v aqueous solution is clear without any haziness after autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Reaction
Reaction of 2% w/v aqueous solution at 25°C.

pH
6.50-7.50

Microbial Load:

Total aerobic microbial count (cfu/gm)
By plate method when incubated at 30-35°C for not less than 3 days.
Bacterial Count : <= 2000 CFU/gram

Total Yeast and mould count (cfu/gm)
By plate method when incubated at 20-25°C for not less than 5 days.
Yeast & mould Count : <= 100 CFU/gram

Test for Pathogens
1. E.coli - Negative in 10 gms of sample
2. Salmonella species - Negative in 10 gms of sample
3. Pseudomonas aeruginosa - Negative in 10 gms of sample
4. Staphylococcus aureus - Negative in 10 gms of sample
5. C.albicans - Negative in 10 gms of sample
6. Clostridia - Negative in 10 gms of sample

Indole Test
Tryptophan content: Passes

Cultural Response

Cultural response observed with added 5-7% sterile defibrinated blood after incubation at 35 - 37°C for 18-48 hours by preparing Blood Agar Base No. 2, using Proteose Peptone as an ingredient.

Cultural Response

<table>
<thead>
<tr>
<th>Organism</th>
<th>Growth</th>
<th>Haemolysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Staphylococcus aureus</em></td>
<td>Good-luxuriant</td>
<td>beta</td>
</tr>
<tr>
<td>ATCC 25923</td>
<td></td>
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<tr>
<td><em>Streptococcus pyogenes</em></td>
<td>Good-luxuriant</td>
<td>beta</td>
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<tr>
<td>ATCC 19615</td>
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<td></td>
</tr>
<tr>
<td><em>Streptococcus pneumoniae</em></td>
<td>Good-luxuriant</td>
<td>alpha</td>
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<tr>
<td>ATCC 6303</td>
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<tr>
<td><em>Neisseria meningitidis</em></td>
<td>Good-luxuriant</td>
<td>none</td>
</tr>
<tr>
<td>ATCC 13090</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Chemical Analysis
Total Nitrogen >= 12.50%
AminoNitrogen >= 3.50%
Sodium chloride <= 11.0%
Loss on drying <= 5.0%
Residue on ignition <= 15.0%

Storage and Shelf Life
Store below 30°C. Use before expiry date on the label.