HiVeg™ Hydrolysate No. 4

Principle And Interpretation

It is hydrolysed under controlled conditions from vegetable proteins, that can successfully replace Lactalbumin Hydrolysate (RM012). It is rich in essential amino acids. Recommended in tissue culture media for production of vaccines of viral origin. It can be used as a substrate for many microorganisms including Lactobacilli, for sporulation of Clostridia and fermentation procedures.

Quality Control

Appearance
Light yellow to yellow, may have slight green tinge homogenous free flowing powder, having characteristic odour.

Solubility
Freely soluble in distilled/ purified water, insoluble in alcohol, chloroform.

Clarity
1% w/v aqueous solution is clear to slight opalescent after autoclaving at 15 lbs pressure (121°C ) for 15 minutes.

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

pH
5.50 - 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

Indole test
Tryptophan content: Passes

Cultural response
Cultural response observed after an incubation at 35-37°C for 18-24 hours by preparing Soyabean HiVeg™ Agar (MV290) using HiVeg™ Hydrolysate No. 4 as an ingredient.

Cultural response

<table>
<thead>
<tr>
<th>Organism</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bacillus subtilis ATCC 6633</td>
<td>Luxuriant</td>
</tr>
<tr>
<td>Staphylococcus aureus ATCC 25923</td>
<td>Luxuriant</td>
</tr>
<tr>
<td>Staphylococcus aureus ATCC 6538</td>
<td>Luxuriant</td>
</tr>
<tr>
<td>Escherichia coli ATCC 25922</td>
<td>Luxuriant</td>
</tr>
<tr>
<td>Escherichia coli ATCC 8739</td>
<td>Luxuriant</td>
</tr>
<tr>
<td>Escherichia coli NCTC 9002</td>
<td>Luxuriant</td>
</tr>
<tr>
<td>Pseudomonas aeruginosa ATCC 27853</td>
<td>Luxuriant</td>
</tr>
<tr>
<td>Pseudomonas aeruginosa ATCC 9027</td>
<td>Luxuriant</td>
</tr>
<tr>
<td>Salmonella Abony NCTC 6017</td>
<td>Luxuriant</td>
</tr>
</tbody>
</table>
**Micrococcus luteus** ATCC 9341  
**Streptococcus pneumoniae** ATCC 6303  
**Salmonella Typhimurium** ATCC 14028  
**Candida albicans** ATCC 10231  
**Candida albicans** ATCC 2091  
*Aspergillus brasiliensis* ATCC 16404  
**Lactobacillus casei** ATCC 9595  

**Key:** *Formerly known as Aspergillus niger.*

### Chemical Analysis

- **Total Nitrogen**  
  $\geq 8.0\%$
- **Amino Nitrogen**  
  $\geq 3.0\%$
- **Sodium chloride**  
  $\leq 5.0\%$
- **Loss on drying**  
  $\leq 7.0\%$
- **Residue on ignition**  
  $\leq 15\%$

### Storage and Shelf Life

Store between 10 - 30°C in tightly closed container and away from bright light. Use before expiry date on label. On opening, product should be properly stored in dry ventilated area protected from extremes of temperature and sources. Seal the container tightly after use.

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**Disclaimer:**

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