Lactalbumin Hydrolysate is prepared by the enzymic digest of milk protein. Being rich in essential amino acids, it is used to supplement fermentation media. It is rich in tryptophan content, therefore, used in Indole test. It is included in preparation of baculovirus serum free medium for production of recombinant protein. It is also used in production of lactobacilli and as a supplement in special diets. It can be used as a substrate for many microorganisms.

**Quality Control**

**Appearance**
Off white to yellow homogenous free flowing powder, having characteristic odour.

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

**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**
5.90-6.90

**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 after an incubation at 35-37°C for 16-24 hours by preparing B12 culture Agar (M035) using Lactalbumin Hydrolysate as an ingredient.

**Organism** | **Growth**
--- | ---
*Lactobacillus leichmannii* ATCC 7830 | Good-luxuriant
*Lactobacillus casei* ATCC 9595 | Luxuriant
*Lactobacillus plantarum* ATCC 8014 | Good-luxuriant
*Lactobacillus viridescens* ATCC 12706 | Luxuriant
Chemical Analysis

<table>
<thead>
<tr>
<th>Component</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Nitrogen</td>
<td>&gt;= 11.0%</td>
</tr>
<tr>
<td>Amino Nitrogen</td>
<td>&gt;= 5.0%</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>&lt;= 5.0%</td>
</tr>
<tr>
<td>Loss on drying</td>
<td>&lt;= 5.0%</td>
</tr>
<tr>
<td>Residue on ignition</td>
<td>&lt;= 12.0%</td>
</tr>
</tbody>
</table>

Storage and Shelf Life

Store below 30°C. Use before expiry date on the label.