



Lactalbumin Hydrolysate

RM012

Principle And Interpretation

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 : \leq 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 : \leq 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

Cultural response

Lactobacillus leichmannii
ATCC 7830

Good-luxuriant

Lactobacillus casei
ATCC 9595

Luxuriant

Lactobacillus plantarum
ATCC 8014

Good-luxuriant

Lactobacillus viridescens
ATCC 12706

Luxuriant

Chemical Analysis

Total Nitrogen	$\geq 11.0\%$
Amino Nitrogen	$\geq 5.0\%$
Sodium chloride	$\leq 5.0\%$
Loss on drying	$\leq 5.0\%$
Residue on ignition	$\leq 12.0\%$

Storage and Shelf Life

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

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