Proteose Peptone

RM005

It is used in culture media used for bulk production of antibiotics, enzymes, veterinary preparations and bacterial toxins. It is used in synthetic media in acclimatization of microorganisms in bioreactor studies. Also, it finds application as lyoprotectant in preparation of freeze-dried cultures of *Campylobacter jejuni* which is widely used in the food and microbiological industry for reference materials and culture collections.

Principle And Interpretation

Proteose Peptone is prepared from peptic digest of animal tissue. It is rich in proteoses, peptones and free amino acids.
It is a highly nutritious ingredient employed in media used for bulk production of antibiotics, enzymes, bacterial toxins etc.

Quality Control

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

Solubility
Freely soluble in distilled water, insoluble in alcohol.

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

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

pH
6.30- 7.30

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 sample2. *Salmonella* species-Negative in 10 gms of sample3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample4. *Staphylococcus aureus*- Negative in 10 gms of sample5. *C.albicans*- Negative in 10 gms of sample6. 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

Organism	Growth	Haemolysis
Cultural response		
Staphylococcus aureus ATCC 25923	Good-luxuriant	beta
Streptococcus pyogenes ATCC 19615	Good-luxuriant	beta
Streptococcus pneumoniae ATCC 6303	Good-luxuriant	alpha
Neisseria meningitidis ATCC 13090	Good-luxuriant	none

Chemical Analysis

Total Nitrogen	>= 12.0%
AminoNitrogen	>= 3.50%
Sodium chloride	<= 5.0%
Loss on drying	<= 5.0%
Residue on ignition	<= 15%

Storage and Shelf Life

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