Peptone from Casein (i23036)

Pancreatic digest of Casein is enzymatically hydrolysed casein that provides a complex nitrogen source in microbiological culture media.

Industry: Fermentation / Ingredients for culture media

Principles & Uses

Peptone from Casein-also known as Tryptone- is an enzymatic hydrolysate that finds applications in various fields. It serves as a crucial ingredient for cultivating a wide range of microorganisms, including bacteria, fungi, molds, and yeasts.

Peptone from Casein, a pancreatic digest of casein, meets stringent USP criteria, ensuring its quality and suitability for microbiological applications. This nitrogen-rich source contains an abundance of free amino acids, notably tryptophan, and is devoid of detectable carbohydrates.

It finds versatile use in the production of various biological substances such as toxins, vaccines, and enzymes. Moreover, it plays a pivotal role in fermentation processes and is a valuable component in microbiological culture media, especially those requiring blood-based formulations.

Chemical Characteristics

Humidity	3.5%
pH (Sol, 2%)	7.2 %
Total Nitrogen. (TN)	12.3%
Ammonia Nitrogen (AN)	4.7%
AN/TN relationship	38.2%

Quality Control

Dehydrated Appearance: Off white to light yellow, homogenous, free flowing powder, having Characteristic odor but not putrescent.

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

Solution Appearance (1X): Yellow and clear.

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.

pH of 2% solution at 25 °C: 6.50- 8.0

Test for pathogens

E. coli	Negative in 10 gr
Salmonella spp.	Negative in 10 gr
Pseudomonas aeruginosa	Negative in 10 gr
Staphylococcus aureus	Negative in 10 gr
C. albicans	Negative in 10 gr
Clostridia	Negative in 10 gr

Cultural Response

The cultural response was assessed by preparing tryptone broth with the inclusion of Peptone from Casein as an ingredient, followed by incubation at 35-37°C for 18-24 hours.

Organism (ATCC*)	Recovery
Escherichia coli (25922)	Good to excellent
Bacillus subtilis (6633)	Luxuriant
Saccharomyces cerevisiae (9080)	Luxuriant

Storage

Keep container tightly closed at 2-30 °C.