

Peptone from Soymeal (i23133)

used as a nutritive substrate for cultivating and reviving a wide range of microorganisms.

Industry: Ingredients for culture media

Principles & Uses

Peptone from soymeal, derived from soybean meal through enzymatic digestion with papain, plays a crucial role as a growth stimulant for microorganisms. Its unique stimulatory properties make it an ideal choice for cultivating fastidious microorganisms. The peptone offers a wealth of nutrients, featuring a high concentration of vitamins and carbohydrates. This nutrient-rich composition, combined with its nitrogen content and naturally occurring vitamins, accelerates the rapid and profuse growth of microorganisms. It's particularly effective for reviving sublethally injured microorganisms.

However, due to its significant fermentable sugar content, Peptone from soymeal is not suitable for fermentation studies based on sugar fermentation. This peptone contributes to increased cell density and enhanced protein production. Additionally, it plays a vital role in the production of vaccines and various biopharmaceutical processes.

Quality Control

Dehydrated Appearance: Light yellow to dark 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 to dark 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: 6.0- 8.0

Test for pathogens

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

Cultural Response

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

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

Storage

Keep container tightly closed at 15-30 °C.