Peptone from Casein, Tryptone AS-1006

For preparation of microbial culture media, especially for fastidious bacteria, molds, and bacterial vaccine production.

Enzymatic digestion (hydrolysis) of casein, the primary protein in milk, yields a complex combination known as tryptone. As a rich source of nutrients for bacterial growth, it is useful in microbiology laboratories.

One of the many free amino acids that can be found in tryptone is tryptophan, which is present in particularly high concentrations. This can be useful in cultivating bacteria that need tryptophan for specific metabolic processes. The lack of observable carbohydrates is another benefit of tryptone. This allows to use in culture media formulations where the presence of carbohydrates might interfere with specific test results.

Typical analysis

Powder appearance	Beige, free flowing
Solubility	Freely soluble in water, not soluble in alcohol
1% solution appearance	clear
pH (10% in water)	6.3 – 7.3

Chemical analysis

Total nitrogen	≥11
Sodium chloride	≤5
Amino nitrogen	≥4
Moisture	≤11

Amino acid composition (mg/g)

Aspartic acid	54
Threonine	32
Serine	41
Glutamic acid	167
Proline	81
Glycine	15
Alanine	24
Cysteine	2
Valine	50
Methionine	17
Isoleucine	40
Leucine	70
Tyrosine	30
Phenylalanine	39
Histidine	21
Lysine	60
Arginine	28
Tryptophan	10

Microbial Quality Control

Cultural response after 18-48 hours incubation at 35-37 °C on Soybean Casein Digest Medium (AS-1370) prepared by Tryptone as a component.

Strain	ATCC	Growth
Escherichia coli	25922	Luxuriant
Salmonella typhi	6539	Luxuriant
Staphylococcus aureus	25923	Luxuriant
Enterococcus faecalis	11700	Luxuriant
Klebsiella pneumoniae	13883	Luxuriant

Shelf life and storage

Store between 10-30 °C in a ventilated and low humidity place and protected from light. Close the container tightly after use. Use before expiry date.

Note that this product is for R&D use only. DO NOT USE for drug, household, or any other uses.