

Casein Enzymic Hydrolysate (Tryptone)

Intended Use

Tryptone is used in the preparation of variety of culture media such as sterility testing media, diagnostic media and media for biochemical characterization.

Summary and Principle

Tryptone is obtained by enzymatic hydrolysis of Casein. Casein is the main milk protein and a rich source of amino nitrogen. Tryptone is used to support the growth of fastidious microorganisms and also suitable for use in fermentation studies.

Storage and Stability

Store dehydrated medium below 30°C in tightly closed container. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Note: TSE/BSE certificate is available on request.

Directions

Refer to the final concentration in the formula of the medium being prepared.

Quality Control

Test	Specification
Appearance	Light yellow / yellowish brown coloured powder.
Solubility	Completely soluble in water.
Colour and Clarity of 1% w/v aqueous solution after autoclaving at 15 psi / 15 min	Light yellow coloured, clear solution.
pH after autoclaving	6.12 – 7.02
Ash Content	Not More Than 12%
Loss on Drying (Moisture Content)	Not More Than 5%
α-amino Nitrogen Content	Not Less Than 2.5%
Total Nitrogen Content	Not Less Than 11%
Total microbial count	Less than 5000 cfu/g
<i>E. coli</i>	Absent
<i>Salmonella</i>	Absent
<i>Pseudomonas aeruginosa</i>	Absent
<i>Staphylococcus aureus</i>	Absent

Cultural Response: Cultural characteristics observed after an incubation of 18-24 hours at 30°C-35°C for bacteria and 2-5 days for fungi at 20°C-25°C

Organism (ATCC)	Growth
<i>Staphylococcus aureus</i> subsp. <i>aureus</i> (6538)	Good
<i>Escherichia coli</i> (8739)	Good
<i>Pseudomonas aeruginosa</i> (9027)	Good
<i>Streptococcus pyogenes</i> Strain Bruno (19615)	Good
<i>Candida albicans</i> 3147 (10231)	Good
<i>Aspergillus brasiliensis</i> WLRI 034(120) (16404)	Good

Note: Growth for *Aspergillus brasiliensis* was observed after 72 hours at 20°C-25°C for quantitative test and the same is carried out for qualitative test and confirmed characteristic growth (White mycelial growth with black spores) after 4-5 days.

Typical Analysis

NaCl (%)	0.0	Isoleucine (% Free)	1.3
Calcium (µg/g)	256	Isoleucine (% Total)	5.5
Magnesium (µg/g)	195	Leucine (% Free)	4.8
Potassium (µg/g)	3257	Leucine (% Total)	7.5
Sodium (µg/g)	33910	Lysine (% Free)	5.5
Chloride (%)	0.06	Lysine (% Total)	6.2
Sulfate (%)	0.33	Methionine (% Free)	1.0
Phosphate (%)	2.58	Methionine (% Total)	2.1
Alanine (% Free)	1.0	Phenylalanine (% Free)	3.0
Alanine (% Total)	3.2	Phenylalanine (% Total)	5.2
Arginine (% Free)	3.1	Proline (% Free)	0.2
Arginine (% Total)	2.7	Proline (% Total)	6.6
Asparagine (% Free)	0.6	Serine (% Free)	0.7
Aspartic acid (% Free)	0.4	Serine (% Total)	2.2
Aspartic acid (% Total)	5.2	Threonine (% Free)	0.7
Cystine (% Free)	0.3	Threonine (% Total)	1.8
Glutamic Acid (% Free)	1.4	Tryptophan (% Free)	0.8
Glutamic Acid (% Total)	15.1	Tyrosine (% Free)	0.5
Glutamine (% Free)	0.05	Tyrosine (% Total)	1.3
Glycine (% Free)	0.2	Valine (% Free)	1.7
Glycine (% Total)	1.7	Valine (% Total)	5.9
Histidine (% Free)	0.5		
Histidine (% Total)	1.9		

Reference

1. United States Pharmacopeial Convention, Inc. 2008. The United States pharmacopeia 31/The national formulary 26, Supp. 1, 8-1-08, online. United States Pharmacopeial Convention, Inc., Rockville, Md.
2. U.S. Food and Drug Administration. 2001. Bacteriological analytical manual, online. AOAC International, Gaithersburg, Md
3. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
202030240500	Casein Enzymic Hydrolysate (Tryptone)	500 g
202030242500	Casein Enzymic Hydrolysate (Tryptone)	2.5 k
202030249925	Casein Enzymic Hydrolysate (Tryptone)	25 k (Bag)
202030249825	Casein Enzymic Hydrolysate (Tryptone)	25 k (Drum)

Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.