

## Casein Enzymic Hydrolysate (Tryptone), Type I

### Intended Use

Tryptone Type I 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 Type I 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 4.5%
Total Nitrogen Content	Not Less Than 12%
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> (6538)	Good
<i>Escherichia coli</i> (8739)	Good
<i>Pseudomonas aeruginosa</i> (9027)	Good
<i>Streptococcus pyogenes</i> (19615)	Good
<i>Candida albicans</i> (10231)	Good
<i>Aspergillus brasiliensis</i> (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
202031140500	Casein Enzymic Hydrolysate (Tryptone), Type I	500 g
202031142500	Casein Enzymic Hydrolysate (Tryptone), Type I	2.5 k
202031149925	Casein Enzymic Hydrolysate (Tryptone), Type I	25 k (Bag)
202031149825	Casein Enzymic Hydrolysate (Tryptone), Type I	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.