

Technical Data

Tryptone Soya Yeast Extract Broth

Intended Use:

Recommended for confirmation of *Listeria* in Henry's light. The composition and performance criteria of this media is as per the specification laid down in ISO 11290-1:2017, ISO 11290-2:2017 and ISO 11133:2014 (E) /Amd. :2020.

Composition**

ISO specification - Tryptone Soya	Yeast
Extract Broth	

M1263 - Tryptone Soya Yeast Extract Broth

Ingredients	g / L	Ingredients	g / L
Enzymatic digest of casein	17.000	Tryptone\$	17.000
Papaic digest of soyabean meal	3.000	Soya peptone#	3.000
Sodium chloride	5.000	Sodium chloride	5.000
Dipotassium hydrogen phosphate	2.500	Dipotassium hydrogen phosphate	2.500
Dextrose (Glucose)	2.500	Dextrose (Glucose)	2.500
Yeast extract	6.000	Yeast extract	6.000
Final pH (at 25°C)	7.3±0.2	Final pH (at 25°C)	7.3±0.2

**Formula adjusted, standardized to suit performance parameters

Key \$ - Equivalent to Enzymatic digest of casein , # - Equivalent to Papaic digest of soyabean meal

Directions

Suspend 36 gram in 1000 ml purified / distilled water. Heat if necessary to dissolve the medium completely. Dispense in tubes or flasks as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle And Interpretation

Tryptone Soya Yeast Extract Broth is formulated as per APHA (1) for the isolation and cultivation of *Listeria* monocytogenes from foods. ISO Committee (2-4).

Tryptone and soya peptone provide nitrogeneous and carbonaceous compounds, long chain amino acids and other essential nutrients. Dextrose is the energy source. Dipotassium hydrogen phosphate acts as buffering system to control pH. Yeast extract is the rich source of vitamin B complex.

Type of specimen

Food and animal feeds, environmental samples

Specimen Collection and Handling:

For food and animal feeds, environmental samples follow appropriate techniques for handling specimens as per established guidelines (1-4). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. Individual organisms differ in their growth requirement and may show variable growth patterns on the medium.

2. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.

3. Further confirmation of organisms on selective media is required.

M1263

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Yellow coloured clear solution in tubes.

Reaction

Reaction of 3.6% w/v aqueous solution at 25°C. pH : 7.3±0.2

pН

7.10-7.50

Cultural Response

Productivity : Cultural characteristics observed after an incubation at 25 ± 1 °C for 21 ± 3 hours.

Organism	Inoculum (CFU)	Growth
Productivity		
Listeria monocytogenes ATCC 13932 (00021*)	50-100	good-luxuriant
Listeria monocytogenes ATCC 35152 (00109*)	50-100	good-luxuriant

Key: *Corresponding WDCM numbers.

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 15-30°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle inorder to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition Seal the container tightly after use. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques (5,6).

Reference

1. Salfinger Y. and Tortorello M. L., (Eds.), 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., APHA, Washington, D.C..

2. Microbiology of the food chain — Horizontal method for the detection and enumeration of *Listeria monocytogenes* and of *Listeria* spp. - Part 1, Detection method; ISO 11290-1:2017.

3. Microbiology of the food chain — Horizontal method for the detection and enumeration of *Listeria monocytogenes* and of *Listeria* spp. - Part 2, Enumeration method; ISO 11290-2:2017.

4. Microbiology of food, animal feeding stuffs and water- Preparation, production, storage and performance culture media, EN ISO 11133:2014 (E) /Amd. :2020.

5. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.

6. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

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