BacterLab Division

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BAGGED MEDIUM

BacterBag™ Tryptone Soya Broth (TSB)

A highly nutritious general purpose medium for the cultivation of a wide variety of micro-organisms. For identification of *Salmonella* species from food samples in accordance with FDA BAM.

Code:10007

1. PURPOSE OF USE

BacterBag™ Tryptone Soya Broth (TSB) for highly nutritious general purpose medium for the cultivation of a wide variety of micro-organisms. The medium is primarily intended for the culture of fungi and aerobe bacteria. For identification of Salmonella species from food samples in accordance with FDA BAM.

2. PRINCIPLE

BacterBag™ Tryptone Soya Broth (TSB) contains Tryptone, Tryptose, Soybean Peptone and Yeast Extract to provide carbon, nitrogen compounds, long-chain amino acids, vitamins and other trace mineral sources necessary for the growth of microorganisms. Dextrose provides the necessary carbon source for the medium. Sodium chloride maintains the osmotic balance of the medium. Dipotassium hydrogen phosphate acts as a buffer.

Basic Composition:

For 1L of medium (reference):

Tryptone	8,5 g
Soya peptone	1,5 g
Sodium chloride	5,1 g
Dextrose (Glucose)	1,77 g
Dipotassium hydrogen phosphate	1,25 g
Tryptose	10,38 g
Yeast extract	3,0 g

pH of the complete medium at 25°C: 7,2 ± 0,2

3. MEDIUM PREPARATION

- The medium bags are pre-prepared and require no further formulation.

4. INSTRUCTIONS FOR USE

4.1. Contamination check

- Control sterility by inoculating samples into water prepared as above so that - no dilution exceeds 1:10.
- Incubate for 14 days at 20 – 25ºC.

4.2. Testing *Salmonella* in food samples

- Add 25g of the food sample(s) suspected to be contaminated with *Salmonella* into 225mL culture broth (1:9 ratio).
- Incubate at 35 ± 2 º C for 24 ± 2 hours in accordance with the BAM protocol.
- The incubated sample is processed for isolation of the species by inoculation into selective media such as Selenite broth, Rappaport Vassiliadis Medium.
- Incubation for 24hrs at appropriate temperatures.

- Thoroughly mix and streak a 3 mm loopful of the incubated broth on Bismuth Sulphite Agar, XLD agar and Hektoen Enteric Agar.
- Organism is identified by its colony characteristics in respective media.
- The organism can be confirmed through biochemical and serological tests.

5. RESULT INTERPRETATION

- This medium is used for the recovery and enrichment of bacteria present in the sample. Thus, secondary culturing in other selective media is necessary for bacterial identification.

6. QUALITY CONTROL

BacterLab ensures the quality of each product batch by testing it with standard ATCC strains.

Reference strains	Incubation conditions	Expected results
Staphylococcus aureus ATCC 25923 (WDCM 00034)	18 – 24 hours at 35 - 37°C	Good growth
Escherichia coli ATCC 25922 (WDCM 00013*)*		Good growth
Pseudomonas aeruginosa ATCC 27853 (WDCM 00025)		Good growth
Salmonella Typhimurium ATCC 14028 (WDCM 00031)		Good growth
No culturing	72 hours at 35 - 37°C	No contamination

7. STORAGE AND TRANSPORT CONDITIONS

- Storage**:** 4 – 25°C.
- Transport: Ambient temperature.

8. PACKAGING

- Packaging: 5 liter/ bag or as per customer requirements.

9. SHELF LIFE

- Expiration Date: 12 months from the date of manufacture.

10. REFERENCES

- FDA, U.S. 1998. Bacteriological Analytical Manual. 8 ed. Gaithersburg, MD: AOAC International.
- Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
- 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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