Soyabean Bile Broth Base

M1286

Intended Use:

Recommended for enrichment and isolation of *Escherichia coli* O157 : H7.

Composition**

Ingredients	g / L
Tryptone	17.000
Soya peptone	3.000
Bile salts mixture	1.120
Dextrose (Glucose)	2.500
Sodium chloride	5.000
Dipotassium hydrogen phosphate	4.000
Final pH (at 25°C)	7.3±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 32.62 grams in 1000 ml purified / distilled water. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C and aseptically add rehydrated contents of 1 vial of NO 20 Selective Supplement (FD290). If desired, aseptically add rehydrated contents of 1 vial of CCV Supplement (FD247) for isolation of *Escherichia coli* O157 from foods. Mix well and dispense as desired.

Principle And Interpretation

Soyabean Bile Broth Base is formulated as recommended by FDA (1) for the enrichment and isolation of *E. coli* O157:H7. Tryptone and soya peptone provide carbonaceous, nitrogenous compounds and other essential growth nutrients. Dextrose is the fermentable carbohydrate and energy source. Bile salts mixture inhibits gram-positive bacteria. Sodium chloride maintains osmotic equilibrium while phosphate buffers the medium well. Novobiocin renders the medium selectivity. Whenever low levels of *E. coli* O157:H7 are suspected, the food is enriched in Soyabean Bile Broth and further plated on selective medium as Sorbitol MacConkey Agar (M298I) or Hemorrhagic coli (HC) Agar (M1158) for isolation and identification.

Type of specimen

Clinical samples - Stool samples; Food samples.

Specimen Collection and Handling

Blend 25 grams food sample to be tested in 224 ml Soyabean Bile Broth and incubate with shaking (about 100 rpm) at 37° C for 18-24 hours. Prepare dilution of the enrichment culture with phosphate buffer and spread 0.1 ml of each dilution on HC Agar or Sorbitol MacConkey Agar (M298I) plates and incubate at 43°C for 24 hours. After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

In Vitro diagnostic Use. For professional use only. 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 clinical 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. Enriched sample must be plated onto Sorbitol MacConkey Agar (M298I) and biochemical and serological tests must be performed for confirmation.

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 temmperature.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Light amber coloured clear solution

Reaction

Reaction of 3.26% w/v aqueous solution at 25°C. pH : 7.3±0.2

pH

7.10-7.50

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C or 41.5°C for 18-48 hours with added NO 20 Selective Supplement (FD290) and if desired CCV Supplement (FD247). Recovery done on Sorbitol MacConkey Agar(M298I).

Organism	Inoculum (CFU)	Growth (on M298I)
Escherichia coli O157:H7 NCTC 12900 (00014*)	50-100	good-luxuriant
Escherichia coli ATCC 25922 (00013*)	50-100	good
Staphylococcus aureus subsp. *aureus* ATCC 25923 (00034*)	>=10^4	none
Enterococcus faecalis ATCC 29212 (00087*)	>=10^4	none

Key *- Corresponding WDCM numbers

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order 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 clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (2,3).

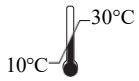
Reference

1. FDA Bacteriological Analytical Manual, 2005, 18th Ed., AOAC, Washington, D.C.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
3. 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.

Revision : 03/2024

HiMedia Laboratories Pvt. Limited,
Plot No.C-40, Road No.21Y,
MIDC, Wagle Industrial Area,
Thane (W) -400604, MS, India

IVD ***In vitro*** **diagnostic medical device**



Storage temperature

EC REP CEpartner4U, Esdoornlaan 13,
3951DB Maarn, NL
www.cepartner4u.eu

CE **CE Marking**

Do not use if package is damaged

Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory,diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.