Condalab

Reference: 4039 **Technical Data Sheet**

Product: **LAURYL SULFATE BROTH (Lauryl Trytose Broth – L.T. B)**

Specification

Liquid medium used for the detection and enumeration of coliform bacteria according to IDF-FIL 73B and ISO Standards.

Presentation

	Packaging Details	Shelf Life	Storage
20 Tubes/Durham tube Tube 16 x 113 mm with: 9 ± 0,1 ml	16x113 mm glass tubes, ink labelled, with Durham´s tube and metal-Non injectable cap. - 20 tubes per box.	12 months	8-25°C

Composition

Composition (g/l):

Tryptose	20.0
Lactose	5.00
Sodium chloride	5.00
Dipotassium hydrogen phosphate	2.75
Potassium dihydrogen phosphate	2.75
Sodium lauryl sulfate	0.10

Description /Technique

Description:

Lauryl sulfate broth is used for the MPN Presumptive Test of coliforms in water and sewage, confirmatory test of lactose fermentation with gas production for milk and detection of coliforms in food.

The high nutrient quality and the presence of phosphate buffer in this medium ensure rapid growth and increased gas production, even by slow lactose-fermenting coliforms.

Indol production is observed by adding a few drops of Kovacs' Reagent to the broth (with or without previous extraction) and shaking gently. Formation of a red ring indicates indol production.

Technique:

If the volume of sample is substantial, then reconstitute the medium such that the final concentration remains normal.

Incubate at 37°C for 24-48 hours. Lactose fermentation is shown by the appearance of gas in the Durham tubes, indicating the presence of coliform bacteria.

Verification can be done by the isolation and identification of the coliforms on an appropriate medium.

It is possible that air bubbles are generated in the Durham tube during the transport. If air bubbles are present in the Durham tube prior to inoculation, the tube should be inverted until the air is released from the Durham tube. Failure to remove air bubbles prior to inoculation may result in reading the result as a false-positive reaction in gas production.

Quality control

Physical/Chemical control

Color : Yellow- orangey pH: 6.8 ± 0.2 at 25°C

Microbiological control

Inoculate: Practical range 10-100 CFU (Productivity)/ 10^4-10^6 (Selectivity).
Microbiological control according to ISO 11133:2014/ Adm 1:2018.

Aerobiosis. Incubation at 37 °C±1, reading after 24-48±2h

Microorganism	Growth
Escherichia coli ATCC® 25922, WDCM 00013	Good - Gas Positive
Escherichia coli ATCC® 8739, WDCM 00012	Good - Gas Positive
Citrobacter freundii ATCC® 43864, WDCM 00006	Good - Gas Positive
Enterococcus faecalis ATCC® 19433, WDCM 00009	Inhibited - poor

Sterility Control

Incubation 48 hours at 30-35°C and 48 hours at 20-25°C: NO GROWTH
Check at 7 days after incubation in same conditions

Bibliography

· APHA AWWA WPCF (1995) Standard Methods for the examination of water and wastewater. APHA. Washington.
· DOWNES, F.P. & K. ITO (2001) Compendium of Methods for the Microbiological Examination of Food. 4th ed. APHA. Washington.
· FDA (Food and Drug Adminstrations) (1998) Bacteriological Analytical Manual. 8th ed. Revision A. AOAC International Gaithersburg. MD.
· FIL IDF Standard 73B (1998) Milk and milk products. Enumeration of coliforms. IDF. Brussels.
· HORWITZ, W. (2000) Official methods of Analysis. 17th ed. AOAC International. Gaithersburg. MD.
. ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
· ISO 4831 Standard (1991) General guidance for the enumeration of coliforms - MPN technique.
· ISO 7251 Standard (1993) General guidance for enumeration of E.coli by MPN technique.
· MARSHALL R.T. (1992) Standard Methods for the examination of dairy products. 16th ed. APHA. Washington.