PRODUCT INFORMATION

Product Type: Tubes (10ml)

Cat No. TT254/BL - LAURYL TRYPTOSE BROTH LX2/BL

Intended Use:

Lauryl Sulphate Broth (LSB) at double-strength formulation of this selective enrichment medium, commonly used for the detection and enumeration of coliform bacteria in water, food, and dairy samples. This concentration is specifically prepared for testing larger sample volumes (typically 10 mL or more), as opposed to the standard single-strength used for smaller inocula.

Principles and uses:

Double-strength LSB is used when the test protocol requires the addition of a larger sample volume to the medium, ensuring that the final concentration of nutrients and selective agents remains effective after dilution by the sample.
This is standard practice in Most Probable Number (MPN) methods for water and food microbiology, where 10 mL or more of sample is added to 10 mL of double-strength broth.
The medium is selective for coliforms due to sodium lauryl sulphate, which inhibits non-coliform bacteria, while lactose fermentation (with gas production) indicates a presumptive positive result.
Lauryl Sulphate Broth is designed to obtain rich growth and substantial amount of gas from small inocula of coliform organisms. Aerobic spore-bearers are completely inhibited in this medium. Tryptose provides essential growth substances, such as nitrogen and carbon compounds, sulphate and trace ingredients. The potassium phosphates provide buffering system, while sodium chloride maintains osmotic equilibrium. Sodium lauryl sulphate inhibits organisms other than coliforms. For inoculum of 1 ml or less, use single strength medium. For inocula of 10 ml or more, double strength or proportionate medium should be prepared.
After inoculation, incubate the tubes at 37°C for 24 to 48 hours. For every tube showing fermentation (primary fermentation), inoculate two tubes of Lauryl Tryptose Broth from the tube showing primary fermentation and incubate these tubes at 37°C and 44°C respectively. If there is fermentation in the tube incubated at 44°C after 8 to 24 hours, perform indole test by adding Kovacs reagent. A positive indole test in a broth tube showing gas production at 44°C indicates the presence of *Escherichia coli.* If no fermentation occurs in the tube incubated at 37°C after 24 hours, the primary fermentation is assumed to be due to organisms other than coliforms. Broth becomes cloudy if stored at 2-8°C, but it gets cleared at room temperature. Refer appropriate references for standard procedures.

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.

Composition:
Tryptose 40.0 g/L
Lactose 10.0 g/L
Sodium chloride 10.0 g/L
Dipotassium hydrogen phosphate 5.50 g/L
Potassium dihydrogen phosphate 5.50 g/L
Sodium lauryl sulphate (SLS) 0.20 g/L

Storage: 15°-25°C
Package contents: 50 Tubes
Appearance: clear, Light yellow
pH Range: 6.6 - 7.0
Exp. Date: Printed on label and on the item.
Required materials not supplied: Laboratory equipment as required.

Warning and Precautions:

Warning and Precautions - For professional use only. Follow good microbiological lab practices while handling specimens and culture. Do not use Tubes if they show evidence of microbial contamination, discoloration, drying, cracking, or other signs of deterioration. Avoid freezing and overheating. The Tubes may be used / inoculated up to the expiration date and incubated for the recommended incubation times. After use and prior to discarding, specimen containers and all contaminated material, including the used culture media and contaminated culture containers, must be sterilized or incinerated by validated procedures. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.

Waste Disposal

After interpretation all items should be destroyed by standard incineration methods.

Performance Testing Results:

INOCULUM: 1000-10000 CFU

Test	ATCC NO	Incubation Temp. (℃)	Incubation Cond.	Reaction 1	
Volume 10 ml					
Escherichia coli	25922	33-37 ℃	Aerobic, 24-48 hours	Growth	Gas production
Enterobacter aerogenes	13048	33-37 ℃	Aerobic, 24-48 hours	Growth	Gas production
Pseudomonas aeruginosa	27853	33-37 ℃	Aerobic, 24-48 hours	Scanty growth	w/o gas production
Staphylococcus aureus	25923	33-37 ℃	Aerobic, 24-48 hours	Inhibited	

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