

LAURYL SULFATE BROTH WITH MUG (9 ML) (DURHAM TUBE)

INTENDED USE:

Lauryl Sulfate Broth with MUG (LSTB w/MUG), are used for the detection of *Escherichia coli* in water, food and dairy samples by a fluorogenic procedure.

PRINCIPLE AND INTERPRETATION:

Lactose is a source of energy for organisms. Peptone provides additional nutrients. The phosphate compounds provide buffering capacity. Sodium lauryl sulfate is inhibitory to many organisms but not for coliforms.

The substrate 4-methylumbelliferyl- β -D-glucuronide is hydrolyzed by an enzyme, β -glucuronidase, possessed by most *E. coli* and a few strains of *Salmonella*, *Shigella* and *Yersinia*, to yield a fluorescent end product, 4-methylumbelliferone.

Development of fluorescence permits the detection of *E. coli* in pure or mixed cultures within 4-24 hours following inoculation and incubation of the medium.

COMPOSITION:

Ingredients	Gr/Liter
Tryptose	10 gr
Lactose	10 gr
Dipotassium Phosphate	3 gr
Monopotassium Phosphate	1 gr
Sodium Chloride	0,02 gr
Sodium Lauryl Sulfate	5 gr
MUG (4-methylumbelliferyl- β -D-glucuronide)	2 gr

***Formula adjusted, standardized to suit performance parameters

pH: 6,8 \pm 0,2

PRECAUTIONS:

For professional use only. Do not use tubes if they show evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.

TEST PROCEDURE:

Inoculate and incubate at 35 \pm 2°C for 48 hours or longer, if necessary. Follow standard methods for the test being performed. Observe the medium periodically during the incubation period for the development of fluorescence, using a long-wave UV light source (approximately 366 nm) as well as for characteristic growth and/or gas production.

QUALITY CONTROL:

1.Sterility Control:

Incubation 48 hours at 30-35°C and 72 hours at 20-25°C: NO GROWTH

2.Physical/Chemical Control

pH: 6,8 \pm 0,2

Apperance: Amber

3.Microbiological Control: Incubation at a temperature of 35 \pm 2°C and observed after 24-48 hours.

Microorganism	Inoculum (CFU)	Results	
		Growth	Reaction
<i>Enterobacter aerogenes</i> ATCC 13048	10-100	Good	Gas (+) 48h Fluorescence (-)
<i>Escherichia coli</i> ATCC 25922	10-100	Good	Gas (+) Fluorescence (+)
<i>Salmonella typhimurium</i> ATCC 14028	10-100	Good	Gas (-) Fluorescence (-)
<i>Staphylococcus aureus</i> ATCC 25923	100-1000	Inhibition	Ilhibition

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STORAGE CONDITIONS AND SHELF LIFE:

Store the prepared medium at 2- 12°C. Use before expiry date on the label. Do not use beyond stated expiry date.

DISPOSAL:

Incubated medium may contain active bacteria and micro-organisms. Do not open infected medium. Infected tube should be autoclaved, incinerated or opened and soaked in a chlorine-based disinfectant (liquid bleach) for 20 minutes prior to disposal.












PACKAGING:

Katalog Number: 01042

Content/Packaging: 50 Tubes/Box

REFERENCES:

1. Feng and Hartman. 1982. Appl. Environ. Microbiol. 43:1320.
2. Robison. 1984. Appl. Environ. Microbiol. 48:285.
3. Downes and Ito. 2001. Compendium of methods for the microbiological examination of foods, 4th ed. American Public Health Association, Washington, D.C.
4. Wehr and Frank (ed.). 2004. Standard methods for the examination of dairy products, 17th ed. American Public Health Association, Washington, D.C.
5. Horwitz (ed.). 2007. Official methods of analysis of AOAC International, 18th ed., online. AOAC International, Gaithersburg, Md.

	Aseptic Sterile		Use by		Look at user manual
	Batch Code		Temperature Limitation		Manufacturer
	Catalogue Number		Do not reuse		
	Negative Controls		Contains sufficient for <n> tests		
	Positive Controls				