Reference: 300440ZA **Technical Data Sheet**

Product: **Lactose Broth - 100 ml**

Specification

Medium for pre-enrichment and detection of enterobacteria and coliforms in milk and water according to ISO standards.

Presentation

	Packaging Details	Shelf Life	Storage
10 Prepared bottle Bottle 125 ml with: 100 ± 3 ml	1 box with 10 bottles 125 ml. Injectable cap: Plastic screw inner cap. The use of syringes needles with a diameter greater than 0.8 mm is not recommended.	16 months	8-25 ºC

Composition

Composition (g/l):
Gelatin Peptone..... 5.00
Meat extract..... 3.00
Lactose.....5.00

Description /Technique

Description

Lactose Broth is a classical medium for use in the presumptive testing for coliforms and for the enrichment of *Salmonella*. This formulation is per the standards recommended by APHA, AWWA, USP-NF and ISO.Since 2012, the ISO has adopted more selective and / or differential media such as LST, BLBVB and Colilert, replacing C. Lactosado.
It is commonly used with Durham fermentation tubes for the detection of gas formation. If a specific volume of sample is to be inoculated this must be taken into consideration when making up the medium as the concentration must not be alteredon addition of the inoculum.
Although it is not Eijkman's original formulation, this broth provides excellent results in assays of gas production at 44,5ºC ±0,5, which is a characteristic of *Escherichia coli*.
While preparing this medium it is important to avoid overheating and to distribute it into tubes before sterilization.

Technique

Collect, dilute and prepare samples and volumes as required according to specifications, directives, official standard regulations and/or expected results.
Dispense liquid medium in appropiate containers if the original container is of large volume.
Add to each tube a Durham tube glass before incubation to study superfermentation when used as a medium for coliform detection.
Inoculate asseptically the tubes with the prepared sample or its dilution.
Incubate the tubes tightly closed aerobically at 37±1ºC for 24 hours when used as pre-enrichment broth.
Read the turbity increase as growth indicator.
(Incubation times, temperature and sample volumes may vary depending on the sample or on the specifications).
Each laboratory must evaluate the results according to their specifications.

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Quality control

Physical/Chemical control

Color : yellow pH: 6.9 ± 0.2 at 25ºC

Microbiological control

Prepare tubes - Inoculate: Practical range 100 ± 20 CFU. min. 50 CFU (productivity).

Add an inverted Durham bell into each tube

Analytical methodology according to ISO 11133:2014/A1:2018; A2:2020.

Aerobiosis. Incubation at 37 ± 1 ºC, reading after 24 ± 3 h

Microbiological control according to ISO 11133:2014/A1:2018; A2:2020.

Microorganism	Growth
Escherichia coli ATCC® 25922, WDCM 00013	Good - Gas Positive
Salmonella typhimurium ATCC® 14028, WDCM 00031	Good . Gas Negative
Escherichia coli ATCC® 8739, WDCM 00012	Good - Gas Positive
Citrobacter freundii ATCC® 43864, WDCM 00006	Good - Gas Positive
Enterococcus faecalis ATCC® 29212, WDCM 00087	Good . Gas Negative
Ps. aeruginosa ATCC® 27853, WDCM 00025	Good . Gas Negative

Sterility Control

Incubation 48 h at 30-35 ºC and 48 h at 20-25 ºC: NO GROWTH.
Check at 7 days after incubation in same conditions.

Bibliography

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