

Specification

Liquid medium to differentiate enteric bacteria using L-Lysine decarboxylation assays according to ISO and IDF standards.

Presentation

	Packaging Details	Shelf Life	Storage
20 Tubes Tube 16 x 113 mm with: 7 ± 0,2 ml	16x113 mm glass tubes, ink labelled, metal-Non injectable cap. - 20 tubes per box	9 months	8-25°C

Composition

Composition (g/l):

Yeast extract.....	3.000
Dextrose.....	1.000
Bromcresol purple.....	0.015
L-Lysine.....	5.000

Description /Technique

Description:

The capacity to decarboxylate some amino acids has been widely employed in the classification of Enterobacteriaceae.

Taylor's formulation, including lysine, has been recently included in several standards for the identification of *Salmonella*. This modification shows an improved performance, in comparison to Falkow's formulation.

Technique:

It is advisable to use a vaseline seal to avoid spontaneous oxidation. The use of glucose in anaerobic conditions produces an acidification of the medium; causing the indicator to turn yellow.

If the organism can decarboxylase the amino acid alkaline bioproducts will be formed turning the medium grey and finally violet. The observations of these biochemical tests are performed after an incubation period of 24 hours at 37°C.

Quality control

Physical/Chemical control

Color : Violet pH: 6.1 ± 0.2 at 25°C

Microbiological control

Inoculum 100 - 1.000 CFU

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

Microorganism

Proteus mirabilis ATCC® 12453

Salmonella typhimurium ATCC® 14028, WDCM 00031

Escherichia coli ATCC® 25922, WDCM 00013

Growth

Good - Yellow

Good - Violet

Good- variable reaction

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

- DOWNES, F.P. & K. ITO (2001) Compendium of methods for the microbiological examination of foods. APHA. Washington.
- FIL-IDF Standard 93 (2001) Detection of *Salmonella* spp.
- ISO Standard 6579-1 (2017) Microbiology of food chain - Horizontal method for the detection, enumeration and serotyping of *Salmonella* - Part 1 : Detection of *Salmonella* spp.
- ISO 21567 Standard (2004) Food and feeding stuffs - Horizontal method for the detection of *Shigella* spp.
- ISO 22964 (2017) Microbiology of the food chain.- Horizontal method for the detection of *Cronobacter* spp
- TAYLOR, W. I. (1961) Isolation of Salmonellae from Food Supplies. V. Determination of the Method of Choice for Enumeration of *Salmonella*. Appl. Microbiol. 9:487-490.