

Specification

Fluid medium used for determining the oxidative and/or fermentative metabolism of Gram negative bacilli (Enterobacteriaceae).

Presentation

20 Tubes
Tube 16 x 113 mm
with: 10 ± 0,2 ml

Packaging Details

1 box with 20 tubes, 16x113 mm glass tubes, ink
labelled and metal-Non injectable cap.

Shelf Life

12 months

Storage

8-25°C

Composition

Composition (g/l):

Casein peptone.....2.00
Sodium chloride.....5.00
D(+) Glucose.....10.0
Dipotassium phosphate.....0.20
Bromothymol Blue.....0.08
Agar.....2.50

Description /TechniqueDescription

Using this medium Hugh and Leifson were able to differentiate Gram negative bacteria into three categories: fermentative, oxidative and inactive.

Technique

The inoculation technique is stab inoculation. One tube is covered with vaseline® layer to induce an anaerobic environment that forces the strain to carry out fermentation.

Fermentative organisms produce a large amount of acid in both the tubes, and this is indicated by the yellow colouration of the Bromothymol Blue indicator. Bacteria that utilise an oxidative metabolic pathway carry out this reaction only in the tube without the vaseline ®. Inactive strains do not use sugars and therefore do not induce any change in either tube.

In some instances a slight blue colouration, probably due to alkalinization by peptone degradation, can occur.

Note: pH decrease may appear over time without affecting its performance.

Quality controlPhysical/Chemical control

Color : Green

pH: 7.1 ± 0.2 at 25°C

Microbiological control

Inoculate by stabbing

Aerobiosis. Incubation at 35 ± 2°C. Reading at 24 hours.

Microorganism

Ps. aeruginosa ATCC® 27853, WDCM 00025

Escherichia coli ATCC® 25922, WDCM 00013

Salmonella typhimurium ATCC® 14028, WDCM 00031

Salmonella enterica ATCC® 13076, WDCM 00030

Growth

Good growth- O/F: Pos./Neg.

Good growth- O/F: Pos./Pos. Yellow medium

Good growth- O/F: Pos./Pos. Yellow medium

Good growth- O/F: Pos./Pos. Yellow medium

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

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