

## Specification

Medium for the detection and enumeration of coliforms in milk and other dairy products, according to APHA and ICMSF, FIL-IDF and ISO Standards.

## Presentation

20 Prepared Plates  
90mm  
with:  $21 \pm 2$  ml

### Packaging Details

1 box with 2 packs of 10 plates/pack. Single cellophane..

### Shelf Life

3 months

### Storage

2-14°C

## Composition

Composition (g/l):

Yeast extract.....	3.000
Peptone from meat.....	7.000
Bile salts mixture .....	1.500
Lactose.....	10.000
Sodium chloride.....	5.000
Neutral red.....	0.030
Crystal violet.....	0.002
Agar.....	13.000

## Description /Technique

### Description

The Violet Red Bile Agar corresponds to the classic formulation of standardized media for the screening of coliforms in milk and other dairy products. This medium has been adopted for the enumeration of coliforms as well as for differentiating between lactose-fermenting and non-lactose fermenting organisms, due to its contents of crystal violet and bile salts, whose inhibiting or selective properties have been widely confirmed.

### Technique

For plate inoculation follow the laboratories standard methods or the applicable norms (spiral plating method, econometric methods, streak plating, dilution banks, spread plating with drigralsky rod etc ...)

The plates are read after 24 hours of incubation at 30°C.

The size of the colonies ranges from 2 to 5 mm, depending on the amount per plate. If enterococci develop they will appear small in size and pink coloured. Lactose fermenting enterobacteria acquire a dark red colour with a clearing zone around them, while lactose non-fermenting ones form colourless colonies.

## Quality control

### Physical/Chemical control

Color : Violet-pink

pH:  $7.4 \pm 0.2$  at 25°C

### Microbiological control

Spiral Spreading: Practical range  $100 \pm 20$  CFU; Min. 50 CFU (Productivity) /  $10^4$ - $10^6$  CFU (Selectivity).

Aerobiosis. Incubation at  $30 \pm 1$  °C during 18-24 h

### Microorganism

*Enterococcus faecalis* ATCC® 19433, WDCM 00009

*Ps. aeruainosa* ATCC® 9027, WDCM 00026

*Salmonella typhimurium* ATCC® 14028, WDCM 00031

*Escherichia coli* ATCC® 8739, WDCM 00012

*Escherichia coli* ATCC® 25922, WDCM 00013

### 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

### Growth

Inhibited

Colourless to beige colonies

Colourless to beige colonies

Good ( $\geq 50\%$ )- Red purple colonies

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**Bibliography**

- DOWNES, F.P. & K. ITO (2001). Compendium of Methods for the Microbiological Examination of Food. 4<sup>th</sup> ed. APHA, Washington. DC.
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