

TECHNICAL DATA SHEET

Article No. 9875

Violet Red Bile Lactose Agar (VRBL), prepared plates

SPECIFICATION

Ready-to-use plates, 90 mm. Culture medium for the detection and enumeration of coliforms in milk and other dairy products, according to APHA, ICMSF, FIL-IDF, ISO 5541-1, ISO 4832.

Colour: Violet-pink
pH: 7.4 ± 0.2 at 25 °C

COMPOSITION IN G/ L

Yeast extract	3.00
Peptone from meat	7.00
Bile salts mixture	1.50
Lactose	10.00
Sodium chloride	5.00
Neutral red	0.03
Crystal violet	0.002
Agar	13.00

PACKAGE DETAILS

9875-20PLATES

20 Plates 90 mm

Content: 21 ± 2 ml

Packaging unit: 1 box with 2 packs of 10 plates/pack. Single cellophane wrapping.

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 nonfermenting ones form colourless colonies.

MICROBIOLOGICAL CONTROL

Spiral Spreading: Practical range 100 ± 20 CFU. min. 50 CFU (productivity) / 10⁴- 10⁶ (selectivity).

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

Aerobiosis. Incubation at 30 ± 1 °C during 24 ± 2 h.

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

Microorganism	Growth
<i>Enterococcus faecalis</i> ATCC® 19433, WDCM 00009	Inhibited
<i>Ps. aeruginosa</i> ATCC® 9027, WDCM 00026	Colourless to beige colonies
<i>Salmonella typhimurium</i> ATCC® 14028, WDCM 00031	Colourless to beige colonies
<i>Escherichia coli</i> ATCC® 8739, WDCM 00012	Good (≥50%)- Red purple colonies
<i>Escherichia coli</i> ATCC® 25922, WDCM 00013	Good (≥50%)- Red purple colonies

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.

REFERENCES

- DOWNES, F.P. & K. ITO (2001). Compendium of Methods for the Microbiological Examination of Food. 4th ed. APHA, Washington. DC.
- FIL-IDF. (1998) Standard 73B. Enumeration of coliform bacteria. ICMSF (1978). Microorganisms in Food, University of Toronto Press.
- ISO (1986) Standard 5541-1 Milk and Milk Products. enumeration of coliforms. Colony count technique at 30°C.
- ISO (2006) Standard 4832: 2006 (E) - Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of coliformes - Colony-count technique.
- ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
- MARSHALL, R.T. (1992) Standard Methods for the Examination of Dairy Products. 16th ed. APHA, Washington. DC.
- PASCUAL ANDERSON, M^a R. (1992) Microbiología Alimentaria. Díaz de Santos, S.A., Madrid.

STORAGE

2 - 14 °C

SHELF LIFE

3 months unopened from date of manufacture

updated: 13.09.2023

