

# TECHNICAL DATA SHEET

Article No. 9168

VRBD Agar (Violet Red Bile Dextrose Agar), prepared plates

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## SYNONYMS

Violet Red Bile Glucose Agar, VRBG Agar, VRBGA, VRDBA, MacConkey Dextrose Agar

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## SPECIFICATION

Selective solid medium for the enumeration of enterobacteria according to ISO standard 21528.

Color: violet-pink  
pH: 7.4 ±0.2 at 25 °C

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## COMPOSITION IN G/L

Yeast extract	3.000
Gelatin peptone	7.000
Bile salts mixture	1.500
D(+)-Glucose (Dextrose)	10.000
Sodium chloride	5.000
Neutral red	0.030
Crystal violet	0.002
Agar	13.000

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## PACKAGING DETAILS

### 9168-20PLATES

20 prepared plates 90 mm

Content: 21 ±2 ml

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



## GUIDELINES

### Description:

This medium is a modification of the Violet Red Bile Agar and the MacConkey Agar as described by Mossel *et al.* The addition of glucose to the Violet Red Bile Agar enhances both the growth of most fastidious enterobacteria and the recovery of those having suffered from adverse conditions. Mossel realized that by removing the lactose and keeping the glucose, the medium's efficiency remains stable.

### 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 Drigalsky rod etc.). Violet Red Bile Dextrose Agar is widely used in the analysis of food, medicines and cosmetics. It is particularly indicated for the recovery of bacteria which have been damaged during preparation. In such cases, a progressive enrichment is recommended in TSB and subsequently in EE Broth. The enriched culture can be inoculated in tubes or on Violet Red Bile Dextrose Agar plates. For a count of enterobacteria, follow the technique described for Violet Red Bile Agar.

Results can be read after 24 hours of incubation at 37 ±1 °C. Enterobacterial colonies show an intense purple color surrounded by a clearer zone. If enterococci colonies develop eventually, they will be small and pink colored.

Note: Incubation times longer than those mentioned above or different incubation temperatures may be required depending on the sample and on the specifications.

## MICROBIOLOGICAL CONTROL

Inoculate: Practical range 100 ±20 CFU. min. 50 CFU (productivity)/ 10<sup>4</sup>-10<sup>6</sup> (selectivity).

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

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

Aerobiosis. Incubation: 30-35 °C. Reading at 24 h (E.P.)/ 37 ±1 °C. Reading at 24 h (ISO).

Note: results ATCC® 8739/6538/9027 (30-35 °C) & ATCC® 8739/25922/19433/14028 (37 °C).

Microorganism	Growth
<i>Enterococcus faecalis</i> ATCC® 19433, WDCM 00009	Inhibited
<i>Staphylococcus aureus</i> ATCC® 6538, WDCM 00032	Inhibited
<i>Salmonella typhimurium</i> ATCC® 14028, WDCM 00031	Good (≥50 %) - red purple colonies, biliar precipitate
<i>Escherichia coli</i> ATCC® 25922, WDCM 00013	Good (≥50 %) - red purple colonies, biliar precipitate
<i>P. aeruginosa</i> ATCC® 9027, WDCM 00026	Good (≥50 %) - colorless colonies
<i>Escherichia coli</i> ATCC® 8739, WDCM 00012	Good (≥50 %) - red purple colonies, biliar precipitate

### Sterility control:

Incubation 48 h at 30-35 °C and 48 h at 20-25 °C: NO GROWTH.

Check at 7 days after incubation in same conditions.



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## BIBLIOGRAPHY

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- PASCUAL ANDERSON, M<sup>a</sup> R. (1992) Microbiología Alimentaria. Díaz de Santos, S.A. Madrid.
- USP 33 - NF 28 (2011) <62> Microbiological examination of non-sterile products: Test for specified microorganisms. Harmonised Method. USP Corp. Inc. Rockville. MD. USA.

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## STORAGE

2-14 °C

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## SHELF LIFE

3 months unopened from date of manufacture

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created: 21.03.2022

