

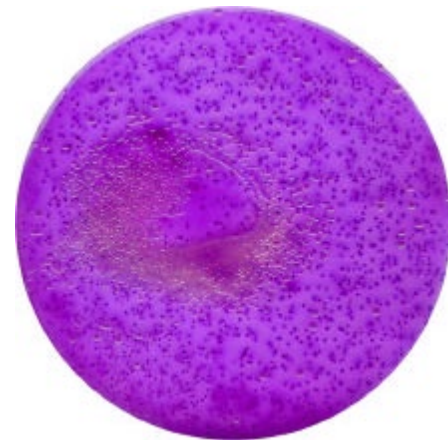
## Violet Red Bile Agar

### Intended Use

Violet Red Bile Agar is selective medium used for the selective isolation, detection and enumeration of coliform bacteria including E. coli in water, milk and other dairy food products.

### Typical Composition (g/litre)

Peptic digest of animal tissue 7.0 ; Yeast Extract 3.0 ; Lactose 10.0 ; Bile salts mixture 1.5 ; Sodium chloride 5.0 ; Neutral red 0.030 ; Crystal violet 0.002 ; Agar 15.0 .



**Escherichia coli**

### Mode of Action

Crystal violet inhibits the accompanying bacterial flora inhibits especially Staphylococci. This media is selective due to presence of the inhibitors bile salts and crystal violet. Glucose fermenting strains produce red colonies with pink-red halos in the presence of neutral red. Lactose non-fermenters and late lactose fermenters produce pale colonies

### Preparation

Suspend 41.53 grams in 1 litre distilled water. Heat with stirring while boiling to dissolve the medium completely. DO NOT AUTOCLAVE. Cool to 45°C and pour into sterile petri plates.

pH: 7.4 ± 0.2 at 25 °C.

### Storage

Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Best to use before expiry date on the label.

### Experimental Procedure and Evaluation

Culture medium is usually inoculated by the pour-plate procedure. Cultural characteristics observed after incubation at 35-37°C for 18 - 24 hours

### Quality Control

| Organism                          | Inoculum          | Growth    | Recovery | Colony colour          |
|-----------------------------------|-------------------|-----------|----------|------------------------|
| Enterobacter aerogenes ATCC 13048 | 50 - 100          | Luxuriant | >=50 %   | Pink                   |
| Escherichia coli ATCC 25922       | 50 - 100          | Luxuriant | >=50 %   | Pink-red with bile ppt |
| Salmonella Enteritidis ATCC 13076 | 50 - 100          | Luxuriant | >=50 %   | Colourless             |
| Staphylococcus aureus ATCC 25923  | >=10 <sup>3</sup> | Inhibited | 0%       |                        |

## Reference

1. APHA Compendium of Methods for microbiological Examination of Foods. - 3rd ed. (1992).
2. International Organization for Standardization (ISO), 1991, Draft ISO/DIS 4832.
3. Richardson G. (Ed.), 1985, Standard Methods for the Microbiological Examination of Dairy Products, 15th ed., APHA, Washington, D.C
4. Davis J.G., 1951, Milk Testing, Dairy Industries Limited, London