42376 Violet Red Bile Agar, Vegitone
(Vegitone Violet Red Bile Agar; VRB-Agar, Vegitone; VRBL-Agar, Vegitone; Violet Red Bile Lactose Agar, Vegitone)

Violet Red Bile Agar Vegitone is a selective media used for the detection and enumeration of coliform organisms from water and food.
This medium contains no animal derived peptones.

Composition:**

Ingredients	Grams/Litre
Peptone (vegetable)	7.0
Yeast extract	3.0
Lactose	10.0
Synthetic detergent	1.5
Sodium chloride	5.0
Neutral red	0.03
Crystal violet	0.002
Agar	12.0

Final pH (at 25°C) 7.4 ± 0.2
** Formula adjusted, standardized to suit performance parameters.

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C.

Appearance of Powder:	Beige coloured, homogeneous, free flowing powder.
Gelling:	Firm
Colour and Clarity:	Reddish purple, clear to slightly opalescent gel forms in petri plates.

Directions:
Suspend 38.53 g in 1000 ml distilled water. Heat with stirring to boiling to dissolve the medium completely. **DO NOT AUTOCLAVE.** Cool to 45°C and pour into sterile petri plates containing the inoculum.

Principle and Interpretation:
Violet Red Bile Agar is recommended by APHA for the detection and enumeration of coliform organisms in water, milk, dairy and other food products (1,2). Druce et al (3) found this media equally good as the indicator of coli-aerogenes in milk as MacConkey Broth. Recently, the agar formulation is recommended by ISO committee for the enumeration of coliforms (4).
The media are selective due to the presence of the inhibitors – Synthetic detergent and crystal violet. Crystal violet inhibits gram-positive microorganisms especially Staphylococci. Organisms which rapidly ferment lactose produce red colonies surrounded by red-purple halo (5). Lactose non-fermenters and late lactose fermenters produce pale colonies. Other related gram-negative bacteria can be suppressed by incubation at > 42°C or by anaerobic incubation. An overlay method is helpful to improve the specificity of the medium. Incubation may be carried out at > 42°C for 18 hours, 32°C for 24-48 hours or 4°C for 10 days depending on the temperature characteristics of the organisms to be recovered (6).

Cultural characteristics after 18 - 24 hours at 35°C.

Organisms (ATCC)	Growth	Colour of colony
Escherichia coli (25922)	+++	pinkish red w/bile precipitate
Enterobacter aerogenes (13048)	+++	pink
S. serotype Enteritidis (13076)	+++	colourless
Staphylococcus aureus (25923)	-	-

References:

1. M. Speck (Ed.), Compendium of Methods For The Microbiological Examination of Foods, 2nd ed. APHA, Washington, D.C. (1984)
2. G. Richardson (Ed.), Standard Methods for the Microbiological Examination of Dairy Products, 15th ed., APHA, Washington, D.C. (1985)
3. R.G. Druce et al, J. Appl. Bact., 20, 1 (1957)
4. International Organization for Standardization (ISO), Draft ISO/DIS 4832 (1991)
5. J.G. Davis, Milk Testing, Dairy Industries Limited, London; p. 131 (1951)
6. D.A.A. Mossel, C.L. Vega, Hlth. Lab. Sci., 11, 303 (1973)

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.