Technical Data Sheet

AVRB001

Violet Red Bile Glucose Agar

For selective isolation, detection and enumeration of coli-aerogenes bacteria in water, milk and other dairy, food products.

Composition	Ingredients Gms / Litre
Peptone	7.000
Yeast extract	3.000
Sodium chloride	5.000
Bile salts mixture	1.500
Lactose	10.000
Neutral red	0.030
Crystal violet	0.002
Agar-Agar	15.000

Appearance:

Pink to Reddish purple Colour Sterile Violet Red Bile Glucose Agar in 90 mm Petri Plates

pH (at 25°C):

7.20 to 7.60

Principle:

The coliform group consists of several genera of bacteria belonging to the family Enterobacteriaceae . The historical definition of this group has been based on the method used for detection i.e. lactose fermentation. This group is defined as all aerobic and facultative anaerobic, gram-negative, non-spore-forming rod shaped bacteria that ferment lactose with gas and acid formation within 48 hour at 35°C. Examination of foods, ingredients and raw materials, for the presence of marker groups such as coliforms is the one of the common tests. Violet Red Bile Agar, a modification of MacConkeys original formulation is used for the enumeration of coli-aerogenes bacterial group. It relies on the use of the selective inhibitory components crystals violet and bile salts and the indicator system lactose, and neutral red. Thus, the growth of many unwanted organisms is suppressed, while tentative identification of sought bacteria can be made. Organisms, which rapidly attack lactose, produce purple colonies surrounded by purple halos. Selectivity of VRBA can be increased by incubation under anaerobic conditions and/ or at elevated temperature, i.e. equal to or above 42°C. Peptic digest of animal tissue and yeast extract serve as sources of carbon, nitrogen, vitamins and other essential growth nutrients. Lactose is the fermentable carbohydrate, utilization of which leads to the production of acids. Neutral red indicator detects the acidity so formed. Crystal violet and bile salts mixture help to inhibit the accompanying gram-positive and unrelated flora. Sodium chloride maintains the osmotic equilibrium. Violet Red Bile Agar is not completely specific for enteric; other accompanying bacteria may give the same reaction. Further biochemical tests are necessary for positive identification.

Quantity of Medium

30ml of medium in 90mm plates

Dose of Gamma irradiation

12to 17 KGy

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Cultural Response

Cultural characteristics observed by using standard ATCC cultures after an incubation 24 hours at 30-35°C and recovery should be greater than 70%.

Sterility Test:

Passes release criteria.

Shelf Life and Storage Conditions:

Use before expiry date on the label and store below 25°C.

Reference Pharmacopoeia:

USP/EP / BP / JP / IP