Violet Red Bile Agar BIS

Intended Use

Violet Red Bile Agar BIS is a selective medium used for the detection and enumeration of coliforms in compliance with BIS specification IS:5401-1969.

Summary

Violet Red Bile Agar is recommended by APHA for the detection and enumeration of coliform organisms in water, milk, dairy and other food products. It is also recommended by BIS as a presumptive test solid medium for detection and estimation of coliform bacteria in food stuff. Druce *et al.*, found this medium 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.

Principle

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.

g/L
10.0
7.0
5.0
3.0
1.5
0.03
0.002
15.0
7.4 ± 0.1
neters

Storage and Stability

Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Specimen Collection and Handling

Ensure that all samples are properly labelled. Follow appropriate techniques for handling samples as per established guidelines. Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure. The samples must be stored and tested within the permissible time duration. After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions

- 1. Suspend 41.53 g of the powder in 1000 mL purified / distilled water.
- 2. Mix thoroughly.
- 3. Heat with frequent agitation to dissolve the powder completely. DO NOT AUTOCLAVE.
- 4. Cool to 45°C and pour into sterile petridishes containing the inoculum.

Quality Control

Dehydrated Appearance: Light yellow to pinkish beige coloured, homogenous, free flowing powder.

Prepared Appearance: Light reddish purple to reddish purple coloured, clear to slightly opalescent gel forms in petridishes.

Growth Promotion Test: Growth promotion is carried out in accordance with the harmonized method of USP/EP/JP/IP and growth is observed after an incubation at 30°C-35°C for 18 to 24 hours.

Growth Promoting Properties: The test results observed are within the specified temperature and shortest period of time specified in the test, inoculating \leq 100 cfu of appropriate microorganism at 30°C-35°C for 18 hours. **Indicative Properties :** The test results observed are within the specified temperature and time, inoculating \leq 100 cfu of appropriate microorganism.

Inhibitory Properties: No growth of the test microorganism occurs for the specified temperature and not less than the longest period of the time specified, inoculating > 100 cfu of the appropriate microorganism at 30° C- 35° C for ≥ 24 hours.

Organism (ATCC)	Growth	Colour of Colony
Escherichia coli (25922)	Good	Pinkish red with bile precipitate
Escherichia coli (8739)	Good	Pinkish red with bile precipitate
Klebsiella aerogenes (13048)	Good	Pink
Salmonella enterica subsp. enterica	Good	Colourless
serovar Typhimurium (14028)		

Inhibitory

Staphylococcus aureus subsp. aureus (6538)

Inhibited

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

- 1. Directions
- 2. Storage
- 3. Expiry

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

- 1. Speck M. (Ed.), 1984, Compendium of Methods for The Microbiological Examination of Foods, 2nd ed. APHA, Washington, D.C.
- Richardson G. (Ed.), 1985, Standard Methods for the Microbiological Examination of Dairy Products, 15th ed., APHA, Washington, D.C.
- 3. Bureau of Indian Standards, IS: 5401, 1969 (Second reprint June 1990).
- 4. Druce R.G. et al., 1957, J. Appl. Bact., 20: 1.
- 5. International Organization for Standardization (ISO), 1991, Draft ISO/DIS 4832.
- 6. Data on file: Microxpress[®], A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product Description	Pack Size
201220020500	Dehydrated Culture Media	500 g

Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.