VIOLET RED BILE BROTH TM 482

For detection and enumeration of coliforms

Composition

Ingredients	Gms/Ltr.
Lactose	10.00
Peptone	7.00
Sodium chloride	5.00
Yeast extract	3.00
Bile salt mixture	1.50
Neutral red	0.03
Crystal violet	0.002

* Dehydrated powder, hygroscopic in nature, store in a dry place in tightly- sealed containers below 25^{0}C and protect from direct Sunlight.

Instructions for use

Dissolve 26.53gms in 1000ml distilled water. Gently heat to boiling for 2 minutes with gentle swirling and dissolve the medium completely. **DO NOT AUTOCLAVE**. Cool to 45°C and pour into sterile test tubes.

Appearance: Reddish-purple, slightly opalescent
pH (at 25°C): 7.4 ± 0.2

Principle

VIOLET RED BILE BROTH is used for the detection and enumeration of coliforms. Peptone and Yeast extract are the source of nitrogen, sulphur, carbon, vitamins and minerals. Bile salt mixture and Crystal violet are the inhibitors of gram-positive microorganisms. Lactose is the fermentable carbohydrate. Neutral red indicator, changes to red-purple due to the formation of acid during fermentation which change the pH. Sodium chloride is for the osmotic balance. Other gram-negative bacteria can be suppressed by incubation at temperature over 42°C for 18 hours or anaerobic incubation. It can be utilized for the presumptive identification of coliforms in milk and other food materials according to the APHA (Standard Methods for the Examination of Milk Products).

Interpretation

Cultural characteristics observed after inoculating (10^3 - 10^5CFU / ml), on incubation at 35°C for 18 – 24 hours.

Microorganisms	ATCC	Inoculum (CFU/ml)	Growth	Recovery rate	Appearance of colony
Escherichia coli	25922	10^3 - 10^5	Luxuriant	>=50%	pinkish red with bile ppt.
Enterobacter aerogenes	13048	10^3 - 10^5	Luxuriant	>=50%	pink to pinkish red
Salmonella typhimurium	14028	10^3 - 10^5	Good	>50%	Colourless colonies
Staphylococcus aureus	25923	10^5	Inhibited	0%	-

References

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