

CM 22162 - VIOLET-RED BILE AGAR (IS : 5401 (Part 1) : 2002)

INTENDED USE

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

PRODUCT SUMMARY AND EXPLANATION

Violet Red Bile Agar is a selective medium, used for the detection and enumeration of Enterobacteriaceae in water, milk, dairy and other food samples. BIS has recommended this medium for detection and estimation of coliform bacteria in food stuff. The selectivity of this medium is attributed to crystal violet and bile salt that are added in this medium to inhibit the growth of gram-positive bacteria.

COMPOSITION

Ingredients	Gms / Ltr
Agar	15.000
Lactose	10.000
Peptic digest of animal tissue	7.000
Sodium chloride	5.000
Yeast extract	3.000
Bile salt mixture	1.500
Neutral red	0.030
Crystal violet	0.002

PRINCIPLE

The medium contains Peptic digest of animal tissue and yeast extract that 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. Agar is the solidifying agent.

INSTRUCTION FOR USE

Dissolve 41.53 grams in 1000ml distilled water.

Gently heat to boiling with gentle swirling and dissolve the medium completely.

Do Not Autoclave.

Transfer the medium immediately to a water bath at 45 – 50°C and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Dehydrated powder	:	Light yellow to pink, homogeneous free flowing powder
Appearance of Prepared medium	:	Reddish purple colored, clear to slightly opalescent gel
pH (at 25°C)	:	7.4± 0.2

INTERPRETATION

Cultural characteristics observed after incubation. Recovery rate is considered 100% for bacteria growth on Soya Agar.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of colony	Incubation Temperature	Incubation Period
Enterobacter arogenes	13048	50-100	Luxuriant	>=50%	Pink to pinkish red	35-37°C	18-24 Hours
Escherichia coli	25922	50-100	Luxuriant	>=50%	pinkish red with bile ppt	35-37°C	18-24 Hours
Salmonella enteritidis	13076	50-100	Luxuriant	>=50%	Colourless	35-37°C	18-24 Hours
Staphylococcus aureus	25923	≥1000	Inhibited	0%	-	35-37°C	18-24 Hours

PACKAGING:

In 100 & 500 gm packaging size.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out, replace the cap tightly to protect from hydration.

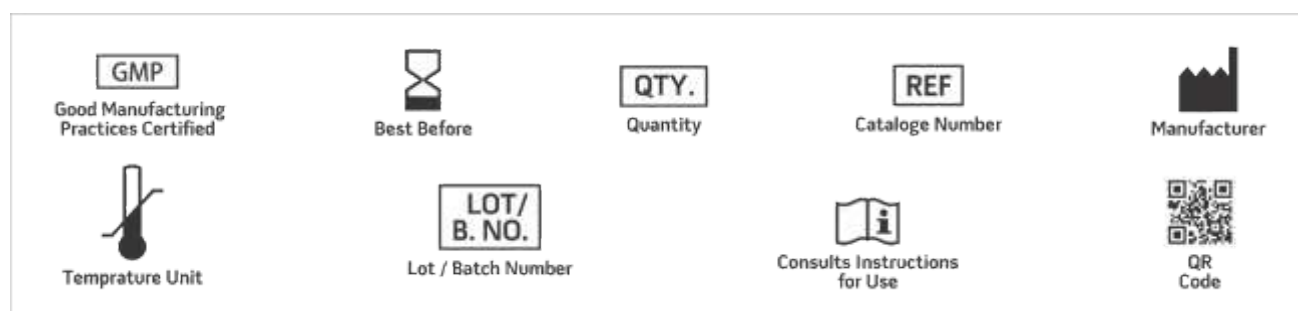
Product Deterioration: Do not use powder if they show evidence of microbial contamination, discoloration, drying, or other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Bureau of Indian Standards, IS: 5401, 1969 (Second reprint - June 1990).
2. Druce R.G. et al, 1957, J. Appl. Bact., 20: 1.
3. Richardson G. (Ed.), 1985, Standard Methods for the Microbiological Examination of Dairy Products, 15th ed., APHA, Washington, D.C.
4. International Organization for Standardization (ISO), 1991, Draft ISO/DIS 4382
5. Mossel D. A. A. and Vega C. L., 1973, Hlth. Lab. Sci., 11:303



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

