

## TM 483-VIOLET RED BILE GLUCOSE AGAR W/O LACTOSE (ISO 21528-1 & 2:2017)

### INTENDED USE

For detection and enumeration of Enterobacteriaceae in raw foods.

### PRODUCT SUMMARY AND EXPLANATION

Violet Red Glucose Bile Agar is used for the detection and enumeration of Enterobacteriaceae in food, animal feed and environmental samples. This medium is a modified form of Violet red bile lactose agar, which was formulated by Mossel et al by replacing lactose with glucose to improve the recovery of all Enterobacteriaceae. In this medium, Enterobacteriaceae rapidly ferment glucose and so reduce the pH of the medium, which produces purple/pink coloured colonies due to the inclusion of the neutral red indicator and crystal violet in the medium. The composition & performance criteria of this medium are as per the specifications laid down in ISO 21528.

### COMPOSITION

Ingredients	Gms / Ltr
Agar	12.000
Glucose	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. Glucose 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.

### INSTRUCTION FOR USE

- Dissolve 38.53 grams in 1000ml distilled water.
- Gently heat to boiling with swirling to dissolve the medium completely. Do Not Autoclave.
- Cool to 45-50°C.
- Mix well 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 an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of colony	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	25922	50 -100	Luxuriant	>=50 %	Pinkish red with bile ppt	35-37°C	18-24 Hours
<i>Escherichia coli</i>	8739	50 -100	Luxuriant	>=50 %	Pinkish red with bile ppt	35-37°C	18-24 Hours
<i>Pseudomonas aeruginosa</i>	9027	50 -100	Luxuriant	>=50 %	Pink to red	35-37°C	18-24 Hours
<i>Salmonella Enteritidis</i>	13076	50 -100	Luxuriant	>=50 %	Light pink	35-37°C	18-24 Hours
<i>Klebsiella aerogenes</i>	13048	50 -100	Luxuriant	>=50 %	Pink-red	35-37°C	18-24 Hours
<i>Staphylococcus aureus</i>	25923	≥1000	Inhibited	0%	-	35-37°C	18-24 Hours

#Formerly Known as *Enterobacter aerogenes*

## PACKAGING

In 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, if powder 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

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4. Corry J. E. L., Curtis G. D. W. and Baird R. M., (Ed.), 1995, Culture Media for Food Microbiology, Vol. 34, Progress in Industrial Microbiology, Elsevier, Amsterdam.
5. Marshall R. T., (Ed.), 1992, Standard Methods for the Examination of Dairy Products, 16th Ed., APHA, Washington, D. C.
6. International Organization for Standardization (ISO), 1991, Draft ISO/DIS 4382
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 GMP Good Manufacturing Practices Certified	 Best Before	 Quantity	 Catalogue Number	 Manufacturer
 Temperature Unit	 Lot / Batch Number	 Consults Instructions for Use	 QR Code	

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

**\*For Lab Use Only**

**Revision: 05<sup>th</sup> Oct. 2019**