# CM 22109 - VIOLET RED BILE GLUCOSE AGAR W/O LACTOSE (ISO 21528-1 & 2:2017)

## INTENDED USE

Fordetectionandenumeration of Enterobacteriaceae in raw foods.

## PRODUCT SUMMARY AND EXPLANATION

Violet Red Glucose Bile Agar isused 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 Pepticdigest of animal tissue and yeast extract that serve as sources of carbon, nitrogen, vitamins and other essential growthnutrients. Glucose is the fermentable carbohydrate, utilization of which leads to the production of acids. Neutralredindicator detects the acidity so formed. Crystal violet and bile salts mixture help to inhibit the accompanying gram-positiveand unrelated flora. Sodium chloride maintains the osmotic equilibrium. Violet Red Bile Agar is not completely specificforenteric; other accompanying bacteria may give the same reaction. Further biochemical tests are necessary for positiveidentification.

## 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

Culturalcharacteristics observed after an incubation.

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

#Formerly Known as Enterobacter arogenes

## PACKAGING

In500gmpackaging size.

## STORAGE

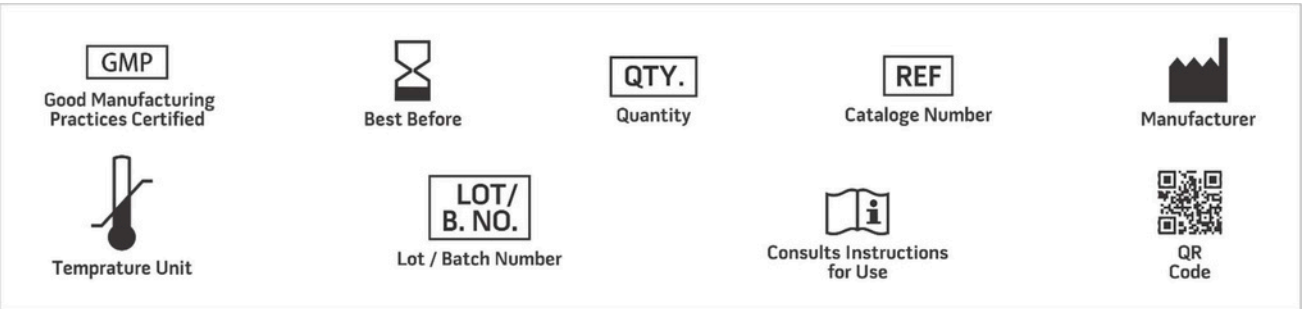
Dehydratedpowder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°C and protect from direct Sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided 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

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

## REFERENCES

1. Eaton A. D., Clesceri L. S. and Greenberg A. E., (Ed.), 1998, Standard Methods for the Examination of Water and Wastewater, 20th Ed., American Public Health Association,
2. Washington, D.C.
Downes F. P. and Ito K., (Ed.), 2001, Compendium of Methods for the Microbiological
3 Examination of Foods, 4th Ed., American Public Health Association, Washington, D.C.
. MacConkey A., 1905, J. Hyg., 5, 333-379
4 Corry J. E. L., Curtis G. D. W. and Baird R. M., (Ed.), 1995, Culture Media for Food
5 Microbiology, Vol. 34, Progress in Industrial Microbiology, Elsevier, Amsterdam.
. Marshall R. T., (Ed.), 1992, Standard Methods for the Examination of Dairy Products,
6 16th Ed., APHA, Washington, D. C.
. International Organization for Standardization (ISO), 1991, Draft ISO/DIS 4382
7 Mossel D. A. A. and Vega C. L., 1973, Hlth. Lab. Sci., 11:303
. Mossel D. A. A., Eclderink I., Koopmans M. and Van Rossem F., 1979, Food Protect.,
8 42 : 470
. Mossel D. A. A. et al, 1986, J. Appl. Bacteriol., 60:289
9
.




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

*ForLab Use Only