



## Violet Red Bile Agar w/ Glucose and Lactose

M1684

### Intended use

For selective isolation and enumeration of coliaerogenes bacteria in water, milk, other dairy food products and clinical samples.

### Composition\*\*

Ingredients	g/ L
Peptone	7.000
Yeast extract	3.000
Sodium chloride	5.000
Bile salts mixture	1.500
Glucose	10.000
Lactose	10.000
Neutral red	0.030
Crystal violet	0.002
Agar	12.000
Final pH ( at 25°C)	7.4±0.2

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

Suspend 48.53 grams in 1000 ml purified/ distilled water. Heat to boiling to dissolve the medium completely. **DO NOT AUTOCLAVE**. Cool to 45-50°C. Mix well and pour into sterile Petri plates.

### Principle And Interpretation

Violet Red Bile Agar w/ Glucose and Lactose is a selective medium recommended for detection of *Enterobacteriaceae* species. Mossel et al (1-4) added glucose to the medium and observed an improved detection of coliforms. Incubation can be carried out at different temperatures and incubation time depending upon the group of *Enterobacteriaceae* to be recovered (3).

Peptone and yeast extract provide nitrogenous and carbonaceous compounds, long chain amino acids, vitamins and other nutrients essential for bacterial metabolism. This media is selective due to presence of the inhibitors; bile salts mixture and crystal violet. Crystal violet inhibits gram-positive organisms especially staphylococci. Neutral red indicator helps to detect lactose and glucose fermentation. Lactose and glucose fermenting strains grow as red or pink coloured colonies and may be surrounded by a zone of acid precipitated bile. Sodium chloride maintains the osmotic equilibrium in the medium. The red colour is due to absorption of neutral red and a subsequent colour change of the dye when the pH of medium falls below 6.8.

### Type of specimen

Clinical samples : faeces, Food and dairy samples; Water samples.

### Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (5,6).

For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (7,8,9).

For water samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards.(10)

After use, contaminated materials must be sterilized by autoclaving before discarding.

### Warning and Precautions :

In Vitro diagnostic Use. For professional use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

### Limitations :

1. Further biochemical tests must be carried out for confirmation.

## Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

## Quality Control

### Appearance

Light yellow to pink homogeneous free flowing powder

### Gelling

Firm, comparable with 1.2% Agar gel.

### Colour and Clarity of prepared medium

Reddish purple coloured clear to slightly opalescent gel forms in Petri plates.

### Reaction

Reaction of 4.85%w/v aqueous solution at 25°C. pH : 7.4±0.2

### pH

7.20-7.60

### Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours .

Organism	Inoculum (CFU)	Growth	Recovery	Colour of colony
# <i>Klebsiella aerogenes</i> ATCC 13048 (00175*)	50-100	good-luxuriant	≥50%	pink-red
<i>Escherichia coli</i> ATCC 25922 (00013*)	50-100	good-luxuriant	≥50%	pink-red with bile precipitate
<i>Salmonella</i> Enteritidis ATCC 13076 (00030*)	50-100	good-luxuriant	≥50%	light pink
<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC 25923 (00034*)	≥10 <sup>4</sup>	inhibited	0%	
<i>Escherichia coli</i> ATCC 8739 (00012*)	50-100	good-luxuriant	≥50%	pink-red with bile precipitate
<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC 6538 (00032*)	≥10 <sup>4</sup>	inhibited	0%	

Key : (\*)Corresponding WDCM numbers,

(#) Formerly known as *Enterobacter aerogenes*

## Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 20-30°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition Seal the container tightly after use. Product performance is best if used within stated expiry period.

## Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques (5,6).

## References

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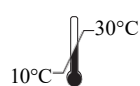
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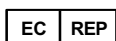
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Plot No.C-40, Road No.21Y,  
MIDC, Wagle Industrial Area,  
Thane (W) -400604, MS, India



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**Storage temperature**



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