



Violet Red Bile Agar with Glucose and Lactose

MU1684

Violet Red Bile Agar with Glucose and Lactose is recommended for selective isolation and enumeration of bile tolerant gram negative bacteria in accordance with United States Pharmacopoeia.

Composition**

Ingredients	Gms / Litre
Pancreatic digest of gelatin	7.000
Yeast extract	3.000
Lactose	10.000
Bile salts	1.500
D-Glucose monohydrate	10.000
Sodium chloride	5.000
Neutral red	0.030
Crystal violet	0.002
Agar	15.000
pH after sterilization (at 25°C)	7.4±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 50.62 grams (the equivalent weight per litre) of dehydrated medium in 1000 ml purified /distilled water. Heat to boiling to dissolve the medium completely. DO NOT AUTOCLAVE. Mix well and pour into sterile Petri plates.

Principle And Interpretation

This medium is a selective medium, recommended for detection and enumeration of gram negative bile-tolerant bacteria in accordance with United States Pharmacopoeia, 2008 from food and dietary supplement preparations(1).

Pancreatic digest of gelatin and yeast extract provide nitrogenous compounds and other nutrients essential for bacterial metabolism. This media is selective due to presence of the inhibitors; bile salts and crystal violet. Crystal violet inhibits gram positive organisms especially *Staphylococci*. Neutral red indicator helps to detect lactose and glucose monohydrate fermentation. Lactose and glucose monohydrate fermenting strains grow as red or pink 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.

Quality Control

Appearance

Light yellow to pinkish beige homogeneous free flowing powder

Gelling

Firm,comparable with 1.5% Agar gel.

Colour and Clarity of prepared medium

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

pH

7.20-7.60

Growth Promotion Test

Growth Promotion is carried out in accordance with USP. Cultural response was observed after an incubation at 30-35°C for 18-24 hours. Recovery rate is considered as 100% for bacteria growth on Soyabean Casein Digest Agar.

Cultural Response

Organism	Inoculum (CFU)	Observed Lot value (CFU)	Recovery	Colour of colony	Incubation temperature	Incubation period
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Test for
Enterobacteriaceae

<i>Escherichia coli</i> ATCC 8739	50 -100	25 -100	>=50 %	pink-red with bile precipitate	30 -35 °C	18 -24 hrs
<i>Pseudomonas aeruginosa</i> ATCC 9027	50 -100	25 -100	>=50 %	pink to purple	30 -35 °C	18 -24 hrs
Additional Microbiological Testing						
<i>Escherichia coli</i> NCTC 9002	50 -100	25 -100	>=50 %	pink to red with bile precipitate	30 -35 °C	18 -24 hrs
<i>Escherichia coli</i> ATCC 25922	50 -100	25 -100	>=50 %	pink-red	30 -35 °C	18 -24 hrs
<i>Salmonella Enteritidis</i> ATCC 13076	50 -100	25 -100	>=50 %	light pink	30 -35 °C	18 -24 hrs
<i>Enterobacter aerogenes</i> ATCC 13048	50 -100	25 -100	>=50 %	pink-red	30 -35 °C	18 -24 hrs
<i>Staphylococcus aureus</i> ATCC 25923	>=10 ³	0	0%		30 -35 °C	18 -24 hrs
<i>Staphylococcus aureus</i> ATCC 6538	>=10 ³	0	0%		30 -35 °C	18 -24 hrs

Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.

Reference

1. The United States Pharmacopoeia, 2009 Convention. Rockville, MD.
2. Davis J.G., 1951, Milk Testing, dairy Industries Limited, London; pg.131.

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Disclaimer :

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