

Technical Information

BPL Agar

Product Code: DM 2020

Application: - BPL Agar (Brilliant green-Phenol red-Lactose Agar) is used for selective isolation and identification of Salmonellae with the exception of Salmonella Typhi in faeces, urine, meat, milk and other materials.

Composition**

Ingredients	Gms / Litre	
Meat peptone	7.000	
Sodium chloride	5.000	
Lactose	15.000	
Phenol red	0.040	
Brilliant green	0.005	
Agar	13.000	
Final pH (at 25°C)	6.5±0.2	
**Formula adjusted, standardized to suit performance parameters		

Principle & Interpretation

Brilliant green, phenol red, lactose Agar (BPL) is a selective agar medium for the isolation and identification of *Salmonella except Salmonella*Typhi from faeces, urine, meat, milk and other materials of epidemiological importance ⁽¹⁾ .

The medium contains meat peptone, which supplies the nitrogenous nutrients to the organisms. Lactose is the fermentable carbohydrate, which after degradation yields acid production, indicated by the phenol red indicator. In the acidic range, phenol red turns yellow while in alkaline conditions it turns red. Brilliant green inhibits gram-positive organisms and also Salmonella Typhi and Shigella species.

Methodology

Suspend 40.04 grams of powder media in 1000 ml distilled water. Shake well & heat to dissolve the medium completely. Dispense and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and pour into sterile Petri plates.

Quality Control

Physical Appearance

Light yellow to pink homogeneous free flowing powder

Gelling

Firm, comparable with 1.3% Agar gel.

Colour and Clarity of prepared medium

Brownish green coloured, clear to slightly opalescent gel forms in Petri plates.

Reaction

Reaction of 4.0% w/v aqueous solution at 25°C. pH: 6.5±0.2

pH range 6.30-6.70

Cultural Response/Characteristics

DM2020: Cultural characteristics observed in a humid atmosphere after an incubation at 35-37°C for 18-24 hours.





Organism	Inoculum (CFU)	Growth	Recovery	Colour of colony
Bacillus subtilis ATCC 6633	50-100	none-poor	<=10%	
Enterococcus faecalis ATCC 29212	50-100	none-poor	<=10%	
Escherichia coli ATCC 25922	50-100	Poor-good	30-40%	Yellow
Salmonella Choleraesuis ATCC 12011	50-100	good-luxuriant	>=50%	pink-red
Salmonella Enteritidis ATCC 13076	50-100	good-luxuriant	>=50%	pink-red
Salmonella Typhimurium ATCC 14028	50-100	good-luxuriant	>=50%	pink-red
Staphylococcus aureus ATCC 25923	>=10 ³	inhibited	0%	

Storage and Shelf Life

Dried media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label. **Prepared Media:** 2-8° in sealable plastic bags for 2-5 days.

Further Reading

1. Kauffmann F., 1935, Z. Hyg. Infekt. Kr., 117:26.

Disclaimer:

- User must ensure suitability of the product(s) in their application prior to use.
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