

TM 1954 – AGAR MEDIUM L (BRILLIANT GREEN, PHENOL RED, LACTOSE MONOHYDRATE, SUCROSE AGAR) (as per BP)

INTENDED USE

For selective isolation of Salmonellae other than Salmonella Typhi from faeces, foods, dairy products.

PRODUCT SUMMARY AND EXPLANATION

Brilliant Green, Phenol Red, Lactose Monohydrate, Sucrose Agar is used as a primary plating medium for isolation of Salmonella species was first described by Kristensen et al as medium for differentiation of paratyphoid B from other Gram negative enteric bacteria. It was further modified by Kauffmann for isolation of Salmonella from stool samples. This medium is employed in testing clinical specimens. Heavy inocula and heavily contaminated samples can be analyzed due to the outstanding selectivity of this medium. Brilliant Green Agar is used in the microbial limits test and with novobiocin for testing food samples.

COMPOSITION

Ingredients	Gms / Ltr		
Pancreatic digest of Casein	10.000		
Yeast extract	3.000		
Lactose monohydrate	10.000		
Sucrose	10.000		
Sodium chloride	5.000		
Phenol red	0.080		
Brilliant green	0.0125		
Agar	20.000		

PRINCIPLE

The medium contains pancreatic digest of casein and yeast extract supplies essential amino acids and long chains of peptides for enhanced growth. Sodium chloride maintains the osmotic equilibrium. Lactose monohydrate and sucrose are the fermentable carbohydrate sources. Phenol red serves as an acid base indicator giving yellow colour to lactose and or sucrose fermenting bacteria. This medium also contains brilliant green, which inhibits growth of majority of Gramnegative and Gram-positive bacteria. Salmonella Typhi, Shigella species, Escherichia coli, Proteus species, Pseudomonas species, and Staphylococcus aureus are mostly inhibited.

INSTRUCTION FOR USE

- Dissolve 57.58 grams (the equivalent weight of dehydrated medium per litre) in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi (121°C) for 15 minutes. AVOID OVERHEATING.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Light yellow to light pink homogeneous free flowing powder
Appearance of prepared medium	: Greenish brown coloured clear to slightly opalescent gel forms in Petri plates
pH (at 25°C)	: 6.9±0.2

INTERPRETATION

Cultural characteristics observed after incubation.

PRODUCT DATA SHEET



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of colony	Incubation Temperature	Incubation Period
Salmonella Typhimurium	14028	50 -100	Luxuriant	>=70 %	Pinkish white	35-37°C	18-72 Hours
Salmonella Enteritidis	13076	50 -100	Luxuriant	>=70 %	Pinkish white	35-37°C	18-72 Hours
Salmonella Typhi	6539	50 -100	Fair-good	20 -40 %	Reddish pink	35-37°C	18-72 Hours
Escherichia coli	8739	50 -100	None to poor	0 -10 %	yellowish green	35-37°C	18-72 Hours
Escherichia coli	25922	50 -100	None to poor	0 -10 %	yellowish green	35-37°C	18-72 Hours
Staphylococcus aureus subsp. aureus	6538	>=10 ³	Inhibited	0%	-	35-37°C	18-72 Hours
Staphylococcus aureus subsp. aureus	25923	>=10 ³	Inhibited	0%	-	35-37°C	18-72 Hours

PACKAGING:

In pack size of 100 gm and 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°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.

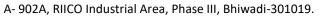
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

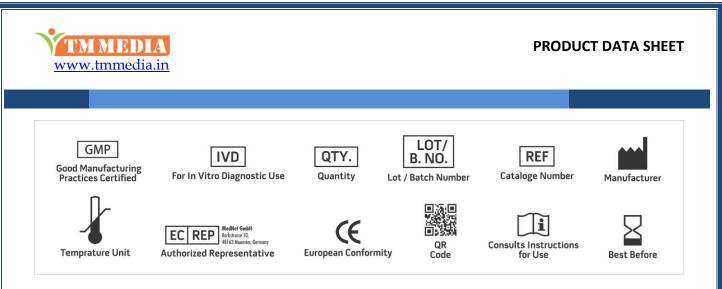
After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

- 1. Kauffman F., 1935, Seit F. Hyg. 177:26.
- 2. British Pharmacopoeia, 2009, The Stationery office British Pharmacopoeia.
- 3. Kristensen M., Lester V, and Jurgens A., 1925, Brit.J.Exp.Pathol.,6:291.







NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices. *For Lab Use Only Revision: 08 Nov., 2019

