TM 1953 – AGAR MEDIUM L (BRILLIANT GREEN, PHENOL RED, LACTOSE MONOHYDRATE,SUCROSE AGAR) (AS PER EP)

INTENDED USE

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

PRODUCT SUMMARY AND EXPLANATION

The composition of medium is cited as Agar medium L. 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. Brilliant green agar is also recommended by APHA FDA. 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
Meat and 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 peptone 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 Gram-negative and Gram-positive bacteria. *Salmonella typhi, Shigella* species, *Escherichia coli*, Proteus species, Pseudomonas species, and Staphylococcus aureus are mostly inhibited. Clinical specimens can be directly plated on this medium. However, being highly selective, it is recommended that this medium should be used along with a less inhibitory medium to increase.

INSTRUCTION FOR USE

- Dissolve 57.59 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 clear to slightly opalescent gel forms in Petri plates
pH (at 25°C) : 6.9±0.2

INTERPRETATION

Cultural response observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Color of the colony	Incubation Temperature	Incubation Period
Salmonella Typhimurium	14028	50-100	Good-luxuriant	>=50 %	Pinkish white	30-35°C	24-48 Hours
Salmonella Enteritidis	13076	50 -100	Luxuriant	>=70 %	Pinkish white	30-35°C	24-48 Hours
Salmonella Typhi	6539	50 -100	Fair-good	20 -40 %	Reddish pink	30-35°C	24-48 Hours
Escherichia coli	25922	50 -100	None-poor	0 -10 %	Yellowish green	30-35°C	24-48 Hours
Escherichia coli	8739	50 -100	None-poor	0 -10 %	Yellowish green	30-35°C	24-48 Hours
Staphylococcus aureus	25923	>=10^3	Inhibited	0%	-	30-35°C	24-48 Hours

PACKAGING:

In pack size of 100 gm and 500 gm bottles.

STORAGE

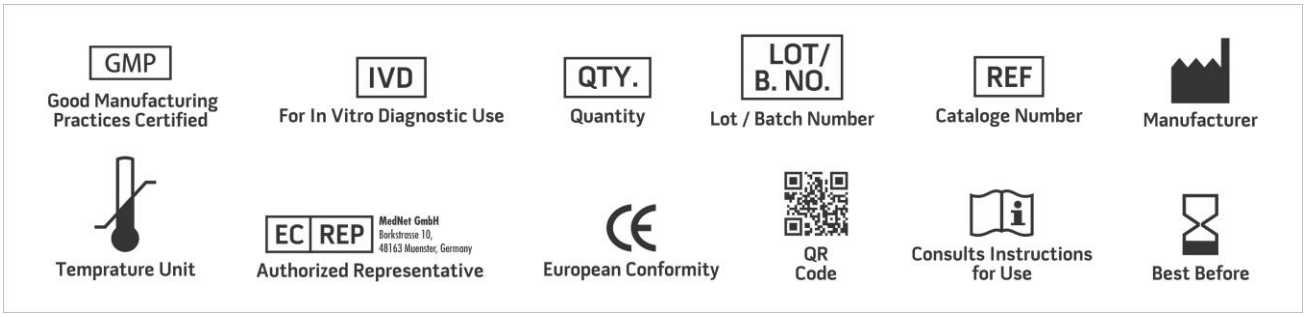
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided 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.Kristensen M., Lester V, and Jurgens A., 1925, Brit.J.Exp.Pathol.,6:291.
3. Salfinger Y., and Tortorello M.L., 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
4. Wehr H M and Frank J H., 2004, Standard Methods for the Examination of Dairy Products, 17th ed., APHA Inc., Washington, D.C.
5. European Pharmacopoeia 2008, European Dept. for the quality of Medicines.
6. FDA Bacteriological Analytical Manual, 2005, 18th ed., AOAC, Washington, DC



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

***For Lab Use Only**

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