TM 047 – BRILLIANT GREEN AGAR BASE W/ 1.2% AGAR

INTENDED USE

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

PRODUCT SUMMARY AND EXPLANATION

Salmonella species cause many types of infections, from mild self-limiting gastroenteritis to life threatening typhoid fever. The most common form of *Salmonella* disease is self-limiting gastroenteritis with fever lasting less than 2 days and diarrhoea lasting less than 7 days. Brilliant Green Agar as a primary plating medium for isolation of *Salmonella* species was first described by Kristensen et al and further modified by Kauffmann and recommended by APHA, FDA and USP. These media contain brilliant green which inhibits growth of majority of gram-negative and gram-positive bacteria. *Salmonella* Typhi, *Shigella* species, *Escherichia coli*, *Proteus* species, *Pseudomonas* species *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 the chances of recovery. Often cultures enriched in Selenite or Tetrathionate Broth are plated on Brilliant Green Agar as well as Bismuth Sulphite Agar, SS Agar and MacConkey Agar.

COMPOSITION

Ingredients	Gms / Ltr
Proteose peptone	10.000
Yeast extract	3.000
Lactose	10.000
Sucrose	10.000
Sodium chloride	5.000
Phenol red	0.080
Brilliant green	0.0125
Agar	12.000

PRINCIPLE

Proteose peptone and yeast extract provides nitrogeneous and carbonaceous compounds, long chain amino acids, vitamins and other essential nutrients. Phenol red serves as an acid base indicator giving yellow colour to lactose and or sucrose fermenting bacteria. Lactose non-fermenting bacteria develop white to pinkish red colonies within 18-24 hours of incubation.

INSTRUCTION FOR USE

- Dissolve 25 grams in 500 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. AVOID OVERHEATING.
- For more selectivity, aseptically add rehydrated contents of one vial of Sulpha Supplement.
- Mix well before pouring into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Beige to light pink coloured 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.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of colony	Incubation Temperature	Incubation Period
Salmonella Typhimurium	14028	50 -100	Good-luxuriant	>=50 %	Pinkish white	35-37°C	24-48 Hours
Salmonella Enteritidis	13076	50 -100	Good-luxuriant	>=50 %	Pinkish white	35-37°C	24-48 Hours
Salmonella Typhi	6539	50 -100	Poor-good	10-40%	Reddish-pink	35-37°C	24-48 Hours
Escherichia coli	25922	50 -100	None-poor	0-10%	Yellowish-green	35-37°C	24-48 Hours
Escherichia coli	8739	50 -100	None-poor	0-10%	Yellowish-green	35-37°C	24-48 Hours
Staphylococcus aureus	25923	>=10^3	Inhibited	0%	-	35-37°C	24-48 Hours
Staphylococcus aureus	6538	>=10^3	Inhibited	0%	-	35-37°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

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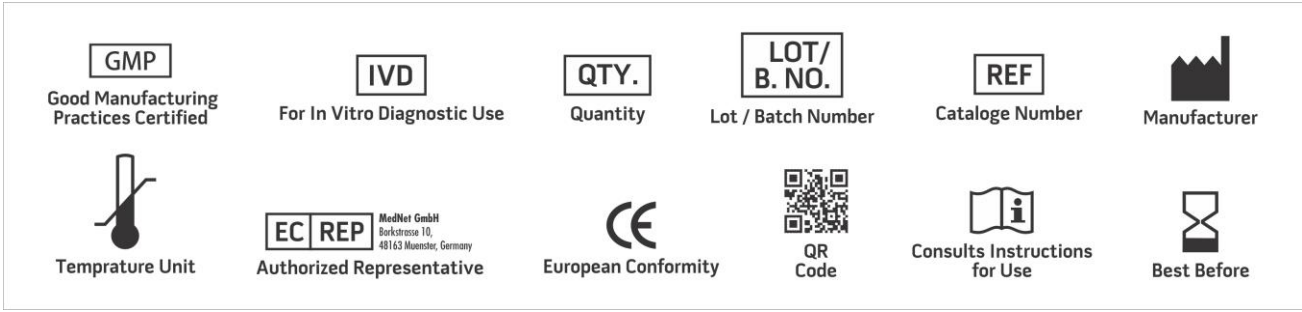
5.Bacteriological Analytical Manual, 1988, AOAC, Washington D.C.
6.The United States Pharmacopoeia, 2016., USP Convention, Rockville MD.
7.Murray P.R., Baron J.H., Pfaller M.A., Jorgensen J.H., and Yolken R.H., (Ed.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.



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

***For Lab Use Only**

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