

TMV 033 – BRILLIANT GREEN SULPHA AGAR (BG SULPHA AGAR) (VEG.)

INTENDED USE

For isolation and detection of *Salmonella* species from foods.

PRODUCT SUMMARY AND EXPLANATION

Brilliant Green Sulpha Veg Agar is prepared by replacing proteose peptone with Veg peptone No. 3 which makes the medium BSE/TSE risks free. *Salmonella* species are ubiquitous in the environment. They enter the gastrointestinal tract of animals due to the consumption of contaminated feed. Meat and meat products, eggshell and its contents from these infected animals stands to be the major cause of *Salmonella* pathogenesis. *Salmonella* species are usually the causative agents of a self-limiting gastroenteritis. In some cases they may also cause typhoid fever. Contamination with *Salmonella* is most frequently encountered in the poultry industry. Brilliant Green Sulpha Agar is used for the selective isolation and detection of *Salmonella* species in foods especially from eggs and egg products. It was first formulated by Kristensen, Lester and Jargens. This was further modified by Osborne and Stokes by the addition of 0.1% sodium sulphapyridine. Addition of this helped to increase the selectivity of the medium. B. G. Sulpha HiVeg Agar is the modification of B. G. Sulpha Agar recommended for same purpose. Colonies of *Salmonella* may sometimes vary from red to pink to white depending upon the strain and time of incubation. Do not autoclave the medium for more than 15 minutes as it decreases the selectivity of the medium.

The medium does not support the growth of *Salmonella* Typhi as well as *Shigella*. Since Brilliant Green Sulpha Veg Agar is highly selective, a less inhibitory medium should be simultaneously used to recover organisms from the pre-enriched culture (Selenite Cystine Veg Medium).

COMPOSITION

Ingredients	Gms / Ltr
Yeast extract	3.000
Proteose peptone	10.000
Lactose	10.000
Sucrose	10.000
Sodium sulphapyridine	1.000
Sodium chloride	5.000
Brilliant green	0.0125
Phenol red	0.080
Agar	20.000

PRINCIPLE

Yeast extract and Veg peptone No. 3 provides essential growth nutrients, amino acids and vitamins. Brilliant green used in the medium is inhibitory to gram-positive and most gram-negative lactose/sucrose fermenting bacilli. Sulphapyridine enhances the selectivity of the medium.

INSTRUCTION FOR USE

- Dissolve 59.09 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- To maintain selectivity of the medium, DO NOT OVER STERILIZE OR OVERHEAT the medium.



QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Light yellow to pinkish purple Homogeneous Free flowing powder.
Appearance of prepared medium : Greenish brown clear to slightly opalescent.
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
<i>Enterococcus faecalis</i>	29212	$\geq 10^3$	Inhibited	0%	-	35-37°C	24-48 Hours
<i>Escherichia coli</i>	25922	50-100	None-poor	0-10%	Yellow green surrounded by intense yellow green zone	35-37°C	24-48 Hours
<i>Proteus vulgaris</i>	13315	$\geq 10^3$	Inhibited	0%	-	35-37°C	24-48 Hours
<i>Salmonella</i> Enteritidis	13076	50-100	Good	40-50%	Pink-white, surrounded by a brilliant red zone	35-37°C	24-48 Hours
<i>Salmonella</i> Typhimurium	14028	50-100	Good	40-50%	Pink - white	35-37°C	24-48 Hours
<i>Staphylococcus aureus</i>	25923	$\geq 10^3$	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

1. Doyle M. P., (Ed.), 1989, Foodborne Bacterial Pathogens, Marcel Dekker, Inc., New York. 327- 445
2. DAoust J. Y., 1994, Int. J. Food Microbiol. 24: 11-31.



3. Kristensen M., Lester V., and Jargens A., 1925, Brit. J. Exp. Pathol. , 6:291.
4. Osborne W. W. and Stokes J. L., 1955, Ottawa; Food and Drug Laboratories, 1962.
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6. Forsythe, Ayres and Radlo, 1953, Food Technol., 7:49.
7. Stadelman, Ikeme, Roop and Simmons, 1982, Poultry Sci., 61:388.
8. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams & Wilkins, Baltimore, MD.

 Good Manufacturing Practices Certified	 For In Vitro Diagnostic Use	 Quantity	 Lot / Batch Number	 Catalogue Number	 Manufacturer
 Temperature Unit	 Authorized Representative MedNet GmbH Birkstrasse 10 48163 Münster, Germany	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

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

***For Lab Use Only**
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