TM 030 – B.A.G.G BROTH BASE (BUFFERED AZIDE GLUCOSE GLYCEROL BROTH BASE)

INTENDED USE

For detection of faecal Streptococci from various clinical and non-clinical samples.

PRODUCT SUMMARY AND EXPLANATION

Enterococci are commensals of the gut and are low-grade pathogens. However, in rare cases they cause urinary tract infections in catheterized patients, abdominal wound infections following gut surgery and endocarditis. Hajna and Perry developed *Streptococcus faecalis* Broth for the detection of faecal Streptococci, in water, milk and other materials. SF Broth is used for identification of Enterococci based on carbohydrate fermentation. Subsequently Hajna modified the medium by incorporating glycerol as additional growth factor to improve the fermentation ability of Enterococci. Also in the modified medium the concentration of the indicator dye i.e. bromocresol purple was decreased to aid easier detection and colour change within 24 hours. This modified medium is referred to as B.A.G.G Broth Base (Buffered Azide Glucose Glycerol Broth Base).

The test sample can be directly inoculated into the medium. Depending upon the quantity of the test water sample, either single strength or double strength medium can be used. Presumptive faecal streptococci contained in B.A.G.G. Broth Base should be further tested for confirmation.

COMPOSITION

Ingredients	Gms / Ltr
Tryptose	20.000
Dextrose (Glucose)	5.000
Dipotassium hydrogen phosphate	4.000
Potassium dihydrogen phosphate	1.500
Sodium chloride	5.000
Sodium azide	0.500
Bromo cresol purple	0.015

PRINCIPLE

Tryptose serve as source of carbon, nitrogen, long chain amino acids, vitamins and other essential nutrients. The phosphates buffer the medium well. Sodium chloride helps to maintain the osmotic equilibrium of the medium. Sodium azide inhibits the accompanying gram-negative flora. Dextrose serves as the source of energy by being the fermentable carbohydrate. Utilization of dextrose liberates acid, indicated by bromocresol purple indicator, by changing the colour of the medium to yellow. Added glycerol serves as an additional source of energy.

INSTRUCTION FOR USE

- Dissolve 36.01 grams in 1000 ml purified/ distilled water containing 5 ml glycerol.
- Heat if necessary to dissolve the medium completely and dispense in test tubes in 10 ml amounts.
- Sterilize by autoclaving at 115°C (10 psi pressure) for 15 minutes.

Note: Autoclaving at 15 psi pressure (121°C) is not recommended. The concentration of the medium must be adjusted to suit sample volume. For smaller inocula such as clinical specimens, faeces and small sanitary specimens like water, single strength medium is used but for larger inocula such as larger sanitary and water specimens double strength medium is necessary.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Light yellow to light purple homogeneous free flowing powder.
Appearance of prepared medium : Purple coloured, clear solution without any precipitate.
pH (at 25°C) : 6.9±0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Escherichia coli	25922	>=10^3	Inhibited	45°C	18-24 Hours
Klebsiella aerogenes	13048	>=10^3	Inhibited	45°C	18-24 Hours
Enterococcus faecalis	29212	50-100	Luxuriant	45°C	18-24 Hours
Streptococcus pyogenes	19615	>=10^3	Inhibited	45°C	18-24 Hours
Streptococcus bovis	27960	50-100	Luxuriant	45°C	18-24 Hours
Enterococcus faecium	27270	50-100	Good	45°C	18-24 Hours

PACKAGING:

In pack size of 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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2. Hajna A. A., 1951, Public Health Lab., 9:80.
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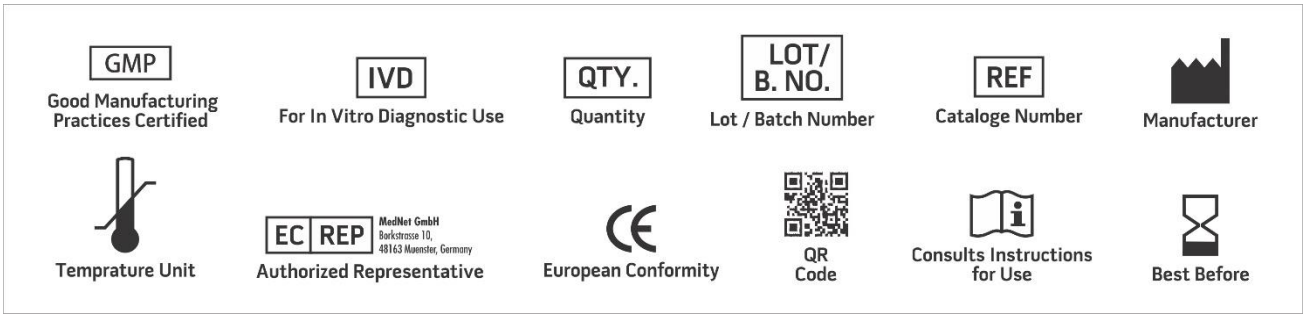
4. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
5. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, Baltimore.



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

***For Lab Use Only**

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