B.A.G.G. Broth Base (Buffered Azide Glucose Glycerol Broth Base) M220

Intended Use

B.A.G.G. Broth Base (Buffered Azide Glucose Glycerol Broth Base) is used for selective cultivation and detection of faecal Streptococci (group D) from clinical and sanitary samples.

Composition**

Ingredients	Gms / Litre
Tryptose	20.000
Dextrose (Glucose)	5.000
Dipotassium hydrogen phosphate	4.000
Monopotassium hydrogen phosphate	1.500
Sodium chloride	5.000
Sodium azide	0.500
Bromo cresol purple	0.015
Final pH (at 25°C)	6.9±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 36.01 grams in 1000 ml 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 lbs pressure) for 15 minutes. Note: Autoclaving at 15 lbs 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.

Principle And Interpretation

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 (1) 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 (2) 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).
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 mediumtoyellow.Added glycerol serves as an additional source of energy.
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 (3).

Type of specimen

Clinical samples - faeces, sanitary samples

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (4,5).
After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

In Vitro diagnostic Use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Saftey guidelines may be referred in individual safety data sheets

Limitations :

1. Some strains may show poor growth due to variable nutritional requirement.
2. Further Biochemical testing is required for confirmation of species.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance

Light yellow to light purple homogeneous free flowing powder

Colour and Clarity of prepared medium

Purple coloured, clear solution without any precipitate

Reaction

Reaction of 3.6% w/v aqueous solution containing 0.5% v/v glycerol at 25°C. pH : 6.9±0.2

pH

6.70-7.10

Cultural Response

M220: Cultural characteristics observed after an incubation at 45°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth	Acid
Escherichia coli ATCC 25922 (00013*)	>=10³	inhibited	
# Klebsiella aerogenes ATCC 13048 (00175*)	>=10³	inhibited	
Enterococcus faecalis ATCC 29212 (00087*)	50-100	luxuriant	positive reaction, yellow colour
Streptococcus pyogenes ATCC 19615	>=10³	inhibited	
Streptococcus bovis ATCC 27960	50-100	luxuriant	positive reaction, yellow colour
Enterococcus faecium ATCC 27270	50-100	good	positive reaction, yellow colour

Key : *Corresponding WDCM numbers.
Formerly known as *Enterobacter aerogenes*

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 15-25°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle inorder to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition Seal the container tightly after use. Use before expiry date on the label.
Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (4,5).

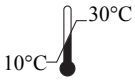
Reference

1. Hajna A. A. and Perry C. A., 1943, Am. J. Public Health, 33:550.
2. Hajna A. A., 1951, Public Health Lab., 9:80.
3. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, Baltimore.
4.Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
5. 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.

Revision :04/ 2018

IVD — In vitro diagnostic medical device

CE Marking



Storage temperature

Do not use if package is damaged

HiMedia Laboratories Pvt. Limited,
23 Vadhani Industrial Estate,
LBS Marg,Mumbai-86,MS,India

EC REP

CE Partner 4U ,Esdoornlaan 13, 3951
DB Maarn The Netherlands,
www.cepartner 4u.eu