



BHI w/PABA (Brain Heart Infusion w/ PABA)

M212

Intended Use:

Recommended for examination of blood from patients under Sulphonamide therapy.

Composition**

Ingredients	Gms / Litre
HM infusion from ##	12.50
BHI Powder#	250.000
Peptone	10.000
Sodium chloride	5.000
Dextrose (Glucose)	2.000
Disodium hydrogen phosphate	2.500
p-Amino benzoic acid (PABA)	0.050
Final pH (at 25°C)	7.4±0.2

Equivalent to Calf brain infusion from

Equivalent to Beef heart infusion from

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 37.05 grams in 1000 ml purified / distilled water. Heat if necessary to dissolve the medium completely. Dispense as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C.

Principle And Interpretation

Brain Heart Infusion w/ PABA is a highly nutritious medium which can support luxuriant growth of wide variety of microorganisms including bacteria, yeasts and moulds (1) and is often used for isolation of pathogens from clinical specimens especially blood (2).

Para amino benzoic acid is an active inhibitor of the bacteriostasis produced by the sulfonamide drugs; also it serves as an accessory growth factor for several species of bacteria (3). Therefore para amino benzoic acid incorporated in the medium helps to neutralize the effect of antimicrobials present in the blood of patients under sulphonamide therapy making isolation of organisms from blood easier.

Peptone and HM infusion from and BHI Powder provides carbon, nitrogen, amino acids and vitamins. Dextrose serves as a source of energy. Sodium chloride helps in maintaining the osmotic equilibrium

Type of specimen

Clinical samples -blood.

Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (2,3).

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. Safety guidelines may be referred in individual safety data sheets.

Limitations

1. Further biochemical tests must be carried out for complete identification.

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

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Light amber coloured, clear to very slightly opalescent solution without any precipitate

Reaction

Reaction of 3.7% w/v aqueous solution at 25°C. pH: 7.4±0.2

pH

7.20-7.60

Cultural Response

Cultural characteristics observed with added 0.5 grams of sulphadiazine per litre after an incubation i) Bacteria at 35-37°C for 18-24 hours ii) Fungal at 25-30°C for 24-48 hours. iii) Bacteroides species anaerobically for 24-48 hours.

Organism	Inoculum (CFU)	Growth
<i>Bacteroides fragilis</i> ATCC 25285	50-100	good-luxuriant
<i>Candida albicans</i> ATCC 10231	50-100	good-luxuriant
<i>Neisseria meningitidis</i> ATCC 13090	50-100	good-luxuriant
<i>Streptococcus pneumoniae</i> ATCC 6303	50-100	good-luxuriant
<i>Streptococcus pyogenes</i> ATCC 19615	50-100	good-luxuriant

Key : *Corresponding WDCM numbers.

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 in order 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 (2,3).

Reference

1. MacFaddin J. F., 1985, Media for the Isolation-Cultivation-Identification- Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, Baltimore
2. Murray P. R., Baron E. J., Jorgensen J. H., Tenover F. C., Tenover P. C., (Eds.), 2003, Manual of Clinical Microbiology, ASM, Washington, D.C.
3. Mirick G. S., 1943, Exp. Med., 78:255

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