Brain Heart Infusion with PABA and Agar

Intended Use
Brain Heart Infusion (BHI) with para-aminobenzoic acid (PAB or PABA) is a medium used for the examination of blood from patients who have received sulfonamide therapy. Improved growth of anaerobes is seen on addition of agar.

Summary
Meat infusions were utilized as the growth-supporting components in a large number of culture media. Although they were cumbersome to prepare, lacked consistency from batch to batch and were undefined as to their nutritive content, they enabled the cultivation of microorganisms in both solid and liquid media. Peptones currently are the major nutritional additives to culture media formulations, but infusions are still utilized in specific media. Brain Heart Infusion Agar with 10% Sheep Blood can be used to isolate systemic fungi that may grow poorly on the nonenriched medium. BHI agar is recommended by APHA for the examination of foods and is included in the Bacteriological Analytical Manual Testing of Cosmetics.

Principle
Unsupplemented BHI broth supports the growth of a broad spectrum of microorganisms, including bacteria and fungi, because of nutritive ingredients, including MX Nutrients 1, MX Nutrients 2, peptones and dextrose. Sodium chloride maintains osmotic equilibrium and inclusion of agar reduces oxygen distribution by restricting convection currents. PABA neutralizes, by competitive inhibition, the effect of sulfonamides in the inoculum.

Formula*

Ingredients	**g/L**
MX Nutrients 2#	7.7
MX Nutrients 1##	9.8
Proteose Peptone	10.0
Dextrose	2.0
Sodium Chloride	5.0
Disodium Phosphate	2.5
p-Aminobenzoic Acid	0.050
Agar	1.0
Final pH (at 25°C)	7.4 ± 0.2

*Adjusted to suit performance parameters.
Equivalent to Calf brain, Infusion from 200 g
Equivalent to Beef heart, Infusion from 250 g

Storage and Stability
Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2ºC-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Type of specimen
Clinical samples – Blood

Specimen Collection and Handling
Ensure that all samples are properly labelled.
Follow appropriate techniques for handling samples as per established guidelines.
Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure.
The samples must be stored and tested within the permissible time duration.
After use, contaminated materials must be sterilized by autoclaving before discarding

Directions

1. Suspend 38.05 g of the powder in 1000 mL purified / distilled water and mix thoroughly.
2. Boil with frequent agitation to dissolve the powder completely.
3. Dispense as desired.
4. Sterilize by autoclave at 121°C (15 psi) for 15 minutes as per validated cycle.

Quality Control

Dehydrated Appearance: Cream to yellow homogenous free flowing powder
Prepared Appearance: Light amber coloured, clear to slightly opalescent solution without any precipitate.
Cultural Response: Cultural characteristics observed with added 0.5g of sulphadiazine per litre after an incubation

i) Bacteria at 35°C-37°C for 18-24 hours.
ii) Fungal at 25°C-30°C for 24-48 hours.
iii) Bacteroides species anaerobically for 18-48 hours.

Organisms (ATCC)	**Growth**
Bacteroides fragilis (25285)	Good
Candida albicans 3147 (10231)	Good
Neisseria meningitidis (13090)	Good
Streptococcus pneumoniae (6303)	Good
Streptococcus pyogenes Strain Bruno (19615)	Good

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Warranty

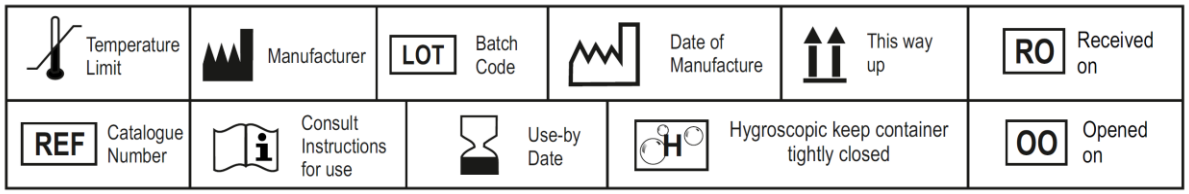
This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

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., Pfaller M. A., Yolken R. H., (Eds.), 8th (Eds.), 2003, Manual of Clinical Microbiology, ASM, Washington, D.C.
3. Mirick G. S., 1943, Exp. Med., 78:255.
4. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	**Product description**	**Pack Size**
201020250500	Dehydrated Culture Media	500 g



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Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.