

Product Insert

BRAIN HEART INFUSION BROTH (BHI BROTH)

Products

AS-872	Brain Heart Infusion Broth (BHI BROTH)	10 Tubes / pkg
AS-8721	Brain Heart Infusion Broth (BHI BROTH) – 100 mL Bottle	1 Bottle / pkg
AS-8722	Brain Heart Infusion Broth (BHI BROTH) – 250 mL Bottle	1 Bottle / pkg
AS-8725	Brain Heart Infusion Broth (BHI BROTH) – 500 mL Bottle	1 Bottle / pkg

Intended Use

Brain Heart Infusion Broth (BHI BROTH) is an enriched non-selective media intended for the cultivation of most anaerobic bacteria and other fastidious microorganisms.

Summary

BHI BROTH is a general-purpose enriched non-selective broth media that is useful in the cultivation of fastidious and non-fastidious microorganisms from a variety of clinical and non-clinical specimens. It is also used for the preparation of inocula for identification and susceptibility tests, and is especially useful as a blood culture medium. The basic nutritive properties of this media are brain heart infusion from solids and meat peptone. It is supplemented with vitamin K₁ and hemin as growth factors for most anaerobes. This media is prepared, dispensed, and packaged under oxygen-free conditions to prevent the formation of oxidized products prior to use.

Formulation*

Brain Heart Infusion	17.50	g
Proteose Peptone	10.00	g
Dextrose	2.00	g
Sodium Chloride	5.00	g
Disodium Phosphate	2.50	g
Yeast Extract	5.00	g
Hemin (0.1% solution)	5.00	mL
Vitamin K ₁ (1.0% solution)	0.20	mL
Resazurin (0.025% solution)	4.00	mL
L-Cysteine Hydrochloride (25.0% solution)	2.00	mL
DI Water	1.00	L

Final pH: 7.3 ± 0.3 at 25° C

Final volume: 5.0 mL ± 0.5 mL

*Approximate formula. Adjusted and/or supplemented as required to meet performance criteria.

Precautions

For *IN VITRO DIAGNOSTIC USE* only. Utilize approved biohazard precautions and aseptic technique when using this product. This product is for use only by properly-trained and qualified personnel. Sterilize all biohazard waste prior to disposal.

Storage and Shelf Life

Storage: Upon receipt, store at room temperature in original package until used. Avoid overheating or freezing. Do not use media if there are signs of deterioration (shrinking, cracking, or discoloration due to oxidation of media) or contamination. The expiration date applies to the product in its original packaging and stored as directed. Do not use product past the expiration date shown on the label.

Shelf Life: 1 year from date of manufacture.

Procedure

Specimen Collection: Specimens for anaerobic culture should be protected from oxygen during collection, transportation, and processing. Consult appropriate references for detailed instructions concerning collection and transportation of anaerobes.

Methods for Use: Inoculate BHI BROTH directly with clinical specimen. Inoculated tubes should be immediately placed into an anaerobic atmosphere and incubated at 35-37°C for 18-48 hours. Extended periods of incubation may be required to recover some anaerobes. Detailed instructions for processing anaerobic cultures can be found in the listed references.

Materials Required, But Not Provided

Standard microbiological supplies and equipment such as loops, saline blanks, slides, staining supplies, microscope, incinerator / autoclave, incubators, anaerobic chamber / anaerobic jars, disinfectant, other culture media, and serological / biochemical reagents.

Interpretation of Results

This media supports good growth of many fastidious and non-fastidious anaerobes isolated from clinical specimens.

Limitations

BHI BROTH will not provide complete information for identification of bacterial isolates. Additional test procedures and media are required for complete identification. Consult reference materials for additional information.

Quality Control

The following organisms are routinely used for quality control testing at Anaerobe Systems.

Organism Tested	ATCC #	Results	Time
<i>Bacteroides fragilis</i>	25285	Growth	24 hrs
<i>Prevotella melaninogenica</i>	25845	Growth	24 – 48 hrs
<i>Bacteroides vulgatus</i>	8482	Growth	24 hrs
<i>Fusobacterium nucleatum</i>	25586	Growth	24 hrs
<i>Fusobacterium necrophorum</i>	25286	Growth	24 – 48 hrs
<i>Clostridium perfringens</i>	13124	Growth	24 hrs
<i>Clostridium novyi</i>	7659	Growth	24 – 48 hrs
<i>Peptostreptococcus anaerobius</i>	27337	Growth	24 hrs
<i>Clostridium difficile</i>	9689	Growth	24 hrs
<i>Staphylococcus aureus</i>	25923	Growth	24 hrs

User Quality Control: The final determination to the extent and quantity of user laboratory quality control must be determined by the end user.

If sterility testing is to be performed on this product, a representative sample of the lot(s) should be incubated anaerobically and aerobically for 48 – 96 hours.

If the nutritive capacity of this media is to be tested for performance, it is recommended that the following ATCC organisms be evaluated for growth.

Organism	ATCC #	Expected Growth
B. fragilis	25285	24 hrs
C. perfringens	13124	24 hrs
P. melaninogenica	25845	48 hrs
S. aureus	25923	24 hrs
F. necrophorum	25286	48 hrs

Physical Appearance: BHI BROTH should appear as a clear, yellow liquid.

References

1. Dowell, V. R., Jr., G. L. Lombard, F. S. Thompson and A. Y. Armfield. 1977. *Media for the Isolation, Characterization and Identification of Obligately Anaerobic Bacteria*. USDHHS, CDC. Atlanta, GA 30333.
2. Engelkirk, P. G., Duben-Engelkirk, J. and Dowell, V. R. 1992. *Principles and Practices of Clinical Anaerobic Bacteriology*. Star Publishing Co., Belmont, CA 94002.
3. Holdeman, L. V., F. P. Cato and W. E. C. Moore. 1987. *Anaerobe Laboratory Manual*. Virginia Polytechnic Institute and State University. Blacksburg, VA 24061
4. Jousimeis-Somer, H. R., Summanen, P., Citron, D. M., Baron, E. J., Wexler, H. M. and S. M. Finegold. 2002. *Wadsworth – KYL Anaerobic Bacteriology Manual*. Star Publishing Co., Belmont, CA 94002.
5. CLSI. *Quality Control for Commercially Prepared Microbiological Culture Media; Approved Standard- Third Edition*. (2004). CLSI document M22-A3. CLSI, 940 West Valley Road, Suite 1400, Wayne, PA 19087-1898.

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