



Puritan Brain Heart Infusion (BHI) Broth Transport Medium

INTENDED USE

Puritan Brain Heart Infusion (BHI) Transport Medium is an enrichment medium that facilitates growth of fastidious aerobic bacteria.

SUMMARY AND EXPLANATION

BHI Broth is essentially a buffered infusion broth that was discovered by Rosenow to be useful in the cultivation of streptococci by adding brain tissue to Dextrose Broth.¹ Further modifications to the formula by various researchers found the medium was also effective in the recovery of dental pathogens.² BHI Broth allows for the isolation and cultivation of fastidious aerobic bacteria including *Streptococcus spp*, *Neisseria spp*, and other fastidious organisms. Proteose peptone and brain and heart infusions serve as sources of carbon, nitrogen, essential growth factors, amino acids and vitamins. Dextrose serves as a source of energy. Disodium phosphate helps in maintaining the buffering action of the medium whereas sodium chloride maintains the osmotic equilibrium of the medium.

REAGENTS

Brain Infusion Solids	Sodium Chloride
Beef Heart Infusion	Disodium Phosphate
Proteose Peptone	Demineralized Water
Dextrose	

pH 7.4 ± 0.2 @ 25°C

PRECAUTIONS

For *In Vitro* Diagnostic Use

- For single use only.
- Clinical specimens are considered biohazard and must be handled in a manner to protect laboratory personnel.
- To be used by trained and qualified personnel using aseptic technique.
- Clinical samples may contain human pathogens including hepatitis virus and Human Immunodeficiency Virus. Institutional and universally recognized guidelines should be followed when handling items contaminated with blood and other body fluids.³
- Specimen vials and other contaminated materials must be sterilized by autoclave before discarding.
- Do not use if the vial is damaged or detected evidence of contamination, discoloration or leakage.
- Do not ingest the medium.
- Do not use beyond expiry date.

STORAGE

For optimum performance, store at 2-25°C. Avoid freezing and overheating.^{4,5}

MATERIALS SUPPLIED

Puritan BHI Broth Transport Medium is available in product configurations indicated in the table below:

Item Number	Product Descriptions	Pack Size
BHI-300	Purple polypropylene screw-cap tube with 3 mL of BHI Broth Medium.	50 / Box

SPECIMEN COLLECTION AND HANDLING

Specimens suitable for culture may be handled using various techniques. For detailed guidance, refer to appropriate references.^{6,7} Specimens should be obtained before antimicrobial agents have been administered.

LABORATORY SPECIMEN PROCESSING

BHI Broth Collected Sample

1. Vortex for 5-10 seconds at 2000/2500 rpm to create a homogeneous mixture of the inoculated medium.
2. Incubate inoculated BHI Broth transport medium at 35 ± 2°C.
3. Examine the BHI Broth transport medium for growth after 18-24 hours. If negative, re-incubate for an additional 24 hours.
4. Aseptically remove aliquots the BHI Broth and inoculate onto an appropriate selective agar plate.

Opti-Swab® Liquid Amies Collected Sample

1. Vortex the Opti-Swab Liquid Amies sample for 5-10 seconds at 2000/2500 rpm to create a homogeneous mixture of the inoculated medium.
2. Unscrew the cap and transfer the swab from the Opti-Swab Liquid Amies tube to the BHI Broth tube by using sterile forceps. Alternatively, inoculate the BHI Broth with 100µL of the inoculated Opti-Swab Liquid Amies medium using a sterile pipette.
3. Replace the cap on the Opti-Swab Liquid Amies sample.
4. Follow the procedures stated above for BHI Broth Collected Sample.

QUALITY CONTROL

All batches of Puritan BHI Broth Transport Medium are tested prior to release for pH and further evaluated for their ability to promote growth of fastidious aerobic bacteria. All bacterial test isolates and testing procedures were established using criteria outlined in the Clinical and Laboratory Standards Institute's M22-A3 document and dehydrated media manufacturer recommendations where applicable.^{3, 8, 9}

Control	Incubation	Results
<i>Escherichia coli</i> ATCC 25922	Aerobic, 18-24 hr @ 35-37°C	Growth
<i>Staphylococcus aureus</i> ATCC 25923	Aerobic, 18-24 hr @ 35-37°C	Growth
<i>Streptococcus pneumoniae</i> ATCC 6305	Aerobic, 18-24 hr @ 35-37°C	Growth

LIMITATIONS

1. Some fastidious strains, including some *Haemophilus* species, do not grow on this medium due to specific requirements for growth.
2. Condition, timing, and volume of specimen collected for culture are significant variables in obtaining reliable culture results. Follow recommended guidelines for specimen collection.

REFERENCES

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