

Brain Heart Infusion Broth (BHI)**(M1500)**

A qualitative test for detection of microorganisms in blood and Body fluids. Sterile, in glass bottles.

Composition

Ingredients	g/ L
Beef Heart, Infusion from 250g	9.8
Calf Brain, Infusion from 200g	7.7
Proteose Peptone	10.0
Sodium Chloride	5.0
Dextrose	2.0
Disodium Phosphate	2.5

Description

BHI Broth is useful for cultivating a wide variety of microorganisms since it is a highly nutritive medium. It is also used for antimicrobial susceptibility testing. BHI Broth is a modification of the original formulation of Rosenow, where he added pieces of brain tissues to dextrose broth. BHI Broth is also the preferred medium for anaerobic bacteria, yeasts and moulds. This medium is nutritious and well buffered to support the growth of wide variety of organisms. Proteose peptone and BHI powder serve as sources of carbon, nitrogen, essential growth factors, amino acids and vitamins. Dextrose (Glucose) 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.

Type of specimen

Clinical sample: Blood, Body Fluids and other pathological samples.

Specimen Collection and Handling

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

Warning and Precautions

In Vitro diagnostic use only. For professional 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.

Limitations

1. As organisms differ in their nutritional requirements, some fastidious organisms may be inhibited or may show poor growth.
2. Biochemical characterization is carried out from pure isolates 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**Physical/Chemical control**

Color : Clear BHI Broth pH: 6.80-7.20

Quantity of Medium

20 ml of medium in glass bottle.

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours.

Microbiological activity

Organisms	Inoculum CFU/ml	Growth
Staphylococcus aureus ATCC 25923	50-100	Good growth
Streptococcus pneumonia ATCC 49619	50-100	Good growth
Escherichia coli ATCC 25922	50-100	Good growth
Pseudomonas aeruginosa ATCC 27853	50-100	Good growth
Candida albicans ATCC 10231	50-100	Good growth
Aspergillus brasiliensis ATCC 16404	50-100	Good growth

Storage and Shelf Life ,

Store between 2-25°C. 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 sample must be decontaminated and disposed of in accordance with current laboratory techniques.

Reference

1. Rosenow, 1919, J. Dental Research, 1:205.
2. Atlas R. M., 1993, Handbook of Microbiological Media, 147-153, CRC Press, Boca Raton, FL.
3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
4. 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.