

## BRAIN HEART INFUSION BROTH (BHI BROTH)

### CAT Nº: 1400

For the growth of pathogenic cocci and other microorganisms including aerobic and anaerobic bacteria from a variety of clinical and nonclinical materials

### FORMULA IN g/l

Gelatin Peptone	10.00	Sodium Chloride	5.00
Beef Heart Infusion	10.00	Disodium Phosphate	2.50
Calf Brain Infusion	7.50	Dextrose	2.00

**Final pH 7.4 ± 0.2 at 25°C**

### PREPARATION

Suspend 37 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Dispense into appropriate containers and sterilize at 121°C for 15 minutes. The prepared medium should be stored at 2-8°C. The color is amber. For best results, the medium should be used on the same day or, if not, heated in a boiling water bed to expel the dissolved oxygen and left to cool before using.

The dehydrated medium should be homogeneous, free-flowing and light toasted in color. If there are any physical changes, discard the medium.

### USES

BRAIN HEART INFUSION BROTH (BHIB) is a liquid medium rich in nutrients, suitable for the cultivation of several fastidious strains of bacteria, such as streptococci, meningococci and pneumococci, fungi and yeasts. BHIB is recommended in Standard Methods for water testing and in antimicrobial susceptibility tests.

Tubes of 0.5 ml BHI broth are used to cultivate bacteria used in the preparation of inocula for use in microdilution minimal inhibitory concentration (MIC) and identification (ID) test panels.

The nutritionally rich base of Beef heart and Calf brain infusions and Peptone mixture provide nitrogen, vitamins, minerals and amino acids essential for growth of a variety of microorganisms. Dextrose is the carbon energy source and Sodium chloride maintains the osmotic balance.

This medium is very versatile and supports the growth of many fastidious organisms. With the addition of 0.1% agar, the medium is used for the cultivation of anaerobes. Adding 0.1% agar reduces the flow of oxygen convection currents and encourages the development of anaerobes and microorganisms.

BHI Broth is recommended for the preparation of the culture of *S.aureus* for use in coagulase tests.

Inoculate and incubate at 35 ± 2°C for 18-24 hours.

### MICROBIOLOGICAL TEST

The following results were obtained in the performance of the medium from type cultures after incubation at a temperature of 35 ± 2°C and observed after 18- 24 hours.

Microorganisms	Growth
<i>Neisseria meningitidis</i> ATCC 13090	Good with turbidity
<i>Streptococcus pneumoniae</i> ATCC 6303	Good with turbidity
<i>Streptococcus pyogenes</i> ATCC 19615	Good with turbidity

*Brucella abortus* ATCC 4315

Moderate

## BIBLIOGRAPHY

Chapman. Trans. N.Y. Acad. Science. 9:52. 1946. Newman. J. Milk and Food Technol. 13:226. 1950.

Roseburg, Epps, and Clark. J. Infection Diseases, 74:131. 1944. APHA Diagnostic Procedures and Reagents. 3rd Edition, 1951.

## STORAGE

Once opened keep powdered medium closed to avoid hydration.

