



BRAIN HEART INFUSION BROTH

TM 362

INTENDED USE

For cultivation of fastidious microorganisms associated with blood culture.

COMPOSITION

Ingredients	Gms/Ltr
Calf Brain infusions from 200 gm	12.500
Peptone	10.000
Beef heart Infusion from 250 gms	5.000
Sodium chloride	5.000
Disodium hydrogen phosphate	2.500
Dextrose	2.000

PRODUCT SUMMARY AND EXPLANATION

BHI Medium is useful for cultivating a wide variety of microorganisms since it is a highly nutritive medium. This medium is recommended by Food and Drug Administration. This culture medium complies with the specifications given by EN ISO 6888 and APHA. It is also used to prepare the inocula 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. With the addition of 10% defibrinated sheep blood, it is useful for isolation and cultivation of *Histoplasma capsulatum* and other fungi. For selective isolation of fungi, addition of gentamicin and/or chloramphenicol is recommended. This medium is not suitable for obtaining characteristic haemolytic reactions even after addition of blood because of its glucose content.

PRINCIPLE

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. Disodium phosphate helps in maintaining the buffering action of the medium.

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



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PRODUCT DATA SHEET

the flow of oxygen convection currents and encourages the development of anaerobes and microorganisms.

INSTRUCTIONS FOR USE

1. Dissolve 37.0gms in 1000ml distilled water.
2. Gently heat to boiling with gentle swirling and dissolve the medium completely.
3. Sterilize by autoclaving at 15 psi (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance Dehydrated powder: Cream to yellow colour, homogeneous free flowing powder

Appearance of the prepared medium: Light to medium amber colour, clear solution

pH (at 25°C): 7.4 ± 0.2

INTERPRETATION

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

Microorganisms	ATCC	Inoculum (CFU)	Growth
<i>Staphylococcus aureus</i>	25923	50 - 100	Luxuriant
<i>Neisseria meningitidis</i>	13090	50 - 100	Luxuriant
<i>Streptococcus pyogenes</i>	19615	50 - 100	Luxuriant
<i>Clostridium perfringens</i>	13124	50 - 100	Luxuriant
<i>Streptococcus pneumoniae</i>	6303	50 - 100	Luxuriant
<i>Enterococcus faecalis</i>	29212	50 - 100	Luxuriant

STORAGE & STABILITY

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°C and protect from direct Sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

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REFERENCES

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NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.