

BRAIN HEART INFUSION BROTH

IVD in Class A, EU Reg. 2017/746

 For in vitro diagnostic use **IVD**

Liquid medium for the cultivation of various fastidious organisms and detection of staphylococci, according to ISO 6888.

DESCRIPTION

Brain Heart Infusion Broth is a general-purpose liquid medium used in the cultivation of fastidious and nonfastidious microorganisms, including aerobic and anaerobic bacteria, from a variety of clinical and nonclinical materials. This medium is especially suited for the cultivation of coagulase-positive staphylococci for the plasma coagulase test according to ISO 6888.

PRINCIPLE

Brain Heart Infusion Broth is a nutritious, buffered culture medium that contains infusions of brain and heart tissue and peptones to supply protein and other nutrients necessary to support the growth of fastidious and nonfastidious microorganisms. Sodium chloride maintains the osmotic balance of the medium. Disodium phosphate is the buffering agent.

COMPOSITION	g/L
Enzymatic Digest of Animal Tissues	10.0
Dehydrated Calf Brain Infusion	12.5
Dehydrated Beef Heart Infusion	5.0
Glucose	2.0
Sodium Chloride	5.0
Disodium Hydrogen Phosphate, Anhydrous	2.5

Final pH 7,4 ± 0,2 at 25°C

WARNING AND PRECAUTIONS

For in vitro diagnostic use.

Observe the precautions normally taken when handling laboratory reagents.

Dehydrated medium: HIGHLY HYGROSCOPIC. During the handling, wear dust protection mask. Avoid the eye contact. Do not use beyond the expiration date or if the product shows signs of deterioration, an altered color or has compacted.

Prepared Medium: The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous.

Safety Data Sheet is available on request for professional users.

All waste must be disposed of according to local directives.

STORAGE AND STABILITY

Dehydrated medium:	10-30°C
Prepared medium:	10-25°C

BRAIN HEART INFUSION BROTH is stable until the expiration date indicated on the label under the recommended storage conditions.

PREPARATION

Dehydrated medium: Suspend 37 g of the powder in 1 liter of distilled or deionized water. Mix thoroughly. Heat with frequent agitation and boil for 1 minute to completely dissolve the powder. Autoclave at 121°C for 15 minutes.

Prepared medium (bottles, tubes): ready to use.

PROCEDURE

With liquid specimens, tubed media should be inoculated with 1-2 drops of the specimen using a sterile pipette. Swab specimens may be inserted into broth after inoculation of plated media.

It is recommended that liquid media for anaerobic incubation should be reduced prior to inoculation by placing tubes (with loosened caps) under anaerobic conditions for 18-24 hours. Alternatively, the media may be reduced by bringing the media up to 100°C in a boiling waterbath. Loosen screw caps slightly before heating, and tighten during cooling to room temperature.

To perform plasma coagulase tests, according to ISO 6888, inoculate tubes of Brain Heart Infusion Broth with selected colony from Baird Parker Agar plates. Incubate at 37 ± 1°C for 24 ± 2 hours. Add 0.1 ml of each culture to 0.3 ml of the rabbit plasma. Examine after 4-6 hours incubation at 37°C for clotting of the plasma.

For use in antimicrobial susceptibility testing, refer to appropriate references.

RESULTS

Growth in the tubes is indicated by the presence of turbidity compared to an uninoculated control. If growth appears, cultures should be examined by Gram stain and subcultured onto appropriate media

The coagulase test is considered positive if the clot volume is more than half of the original liquid volume.

QUALITY CONTROL

Dehydrated medium: Light tan, free-flowing, homogeneous.

Prepared medium: Light to medium amber, clear

Typical response after incubation at 35±2°C for 18-48 hours, in aerobiosis:

MICROORGANISM	GROWTH
Staphylococcus aureus WDCM 00034	Good
Neisseria meningitidis ATCC 13090	Good
Streptococcus pneumoniae ATCC 6305	Good
Streptococcus pyogenes ATCC 19615	Good

REFERENCES

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- Pratt-Rippin and Pezzlo. 1992. In Isenberg (ed.), Clinical microbiology procedures handbook, vol. 1. American Society for Microbiology, Washington, D.C.
- Barry. 1976. The antimicrobial susceptibility test: principles and practices. Lea & Febiger, Philadelphia, Pa.
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- Murray, Baron, Jorgensen, Landry and Pfaller, (ed.). 2007. Manual of clinical microbiology, 9th ed. American Society for Microbiology, Washington, D.C.
- Clinical and Laboratory Standards Institute. 2006. Approved Standard: M7-A7, Methods for dilution.
- EN ISO 11133:2020. Microbiology of food, animal feed and water – Preparation, production, storage and performance testing of culture media.
- ISO 6888-1:2021. Microbiology of food and animal feeding stuffs – Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) – Part 1: Technique using Baird-Parker agar medium.

PRESENTATION

Packaging
REF.

Dehydrated medium:

BRAIN HEART INFUSION BROTH

100 g (2.7 L)	11031
500 g (13.5 L)	10031

Prepared medium:

BRAIN HEART INFUSION BROTH

6 x 100 mL bottles	63642
20 x 10 mL tubes	5015/20
100 x 10 mL tubes	5015/100
100 x 3 mL tubes	5271
100 x 5 mL tubes	5272

SYMBOLS


Read the instructions

Biological hazard

CE Mark (product complies with the requirements of Regulation (EU) 746/2017)

Temperature limitation

Use by

For in vitro diagnostic use

Manufacturer