

Brain-Heart Infusion Broth (BHI-T)

IVD

Culture of fastidious bacteria

SUMMARY AND EXPLANATION

This broth is particularly suited to the growth of fastidious aerobic microorganisms.

PRINCIPLE

This broth is composed of a rich nutritive base.

CONTENT OF THE KIT

	Ready-to-use medium
REF 42 081	20 x 9 ml tubes

COMPOSITION**Theoretical formula**

This medium can be adjusted and/or supplemented according to the performance criteria required:

Dehydrated extract of brain (bovine or porcine).....	12.5 g
Dehydrated extract of heart (bovine or porcine).....	5 g
Meat peptone (bovine or porcine).....	10 g
Sodium chloride.....	5 g
Buffer.....	2.5 g
Glucose.....	2 g
Purified water.....	1 l

pH 7.4

MATERIAL REQUIRED BUT NOT PROVIDED

- Controlled atmosphere generators.
- Jars.
- Bacteriology incubator.
- or
- Thermoregulated chambers with a controlled atmosphere.

WARNINGS AND PRECAUTIONS

- **For *in vitro* diagnostic use and microbiological control.**
- **For professional use only.**
- This kit contains products of animal origin. Certified knowledge of the origin and/or sanitary state of the animals does not totally guarantee the absence of transmissible pathogenic agents. It is therefore recommended that these products be treated as potentially infectious and handled observing the usual safety precautions (do not ingest or inhale).
- All specimens, microbial cultures and inoculated products should be considered infectious and handled appropriately. Aseptic technique and usual precautions for handling the bacterial group studied should be observed throughout this procedure. Refer to "CLSI® M29-A, *Protection of Laboratory Workers from Occupationally Acquired Infections; Approved Guideline - Current Revision*". For additional information on handling precautions, refer to "Biosafety in Microbiological and Biomedical Laboratories – CDC/NIH – Latest edition", or the current regulations in the country of use.

- Culture media should not be used as manufacturing material or components.
- Do not use reagents past the expiry date.
- Do not use tubes which show signs of contamination.
- Before use, check that the cap is intact.
- Microscopic elements, possibly coming from dead micro-organisms, may be observed in the broth, but this does not alter the performance of the medium.
- The performance data presented were obtained using the procedure indicated in this package insert. Any change or modification in the procedure may affect the results.

STORAGE CONDITIONS

- **Store the tubes at 2-25°C in their box until the expiry date.**

SPECIMENS

All types of specimens may be used.

This medium may also be used to subculture bacterial strains (1).

Good laboratory practices for collection and transport should be respected and adapted to the type of specimen.

INSTRUCTIONS FOR USE

1. Inoculate the specimen to be analyzed or the strain to be subcultured directly into the tube.
2. Place the tube in a suitable atmosphere, if necessary using a controlled atmosphere generator.
3. Incubate at 37°C with the cap loosened. The user is responsible for choosing the appropriate temperature for the intended use, in accordance with current standards. The cultures are generally examined after 24-48 hours of incubation. Incubation time varies according to the type of specimen and the microorganisms being tested for.

READING AND INTERPRETATION

After incubation, observe the bacterial growth associated with turbidity of the broth.

Subculture the broth on an appropriate pre-plated medium.

QUALITY CONTROL**For use in medical bacteriology****Protocol:**

The nutrient capacity of the medium can be tested using the following strain:

- *Staphylococcus aureus* ATCC® 25923

Range of expected results:

At 33-37°C, the test strain should develop after 24 hours of incubation.

Note:

It is the responsibility of the user to perform Quality Control taking into consideration the intended use of the medium, and in accordance with any local applicable regulations (frequency, number of strains, incubation temperature, etc...).

For use in industrial bacteriology

For food products, the quality control is performed according to the recommendations of the standard XP CEN ISO/TS 11133-2 (2).

LIMITATIONS OF THE METHOD

- Growth depends on the requirements of each individual microorganism. It is therefore possible that certain strains which have specific requirements may not develop.
- As the medium contains neither factor X nor factor V, certain *Haemophilus* species do not develop on this medium.

PERFORMANCE

Performance was evaluated at 37°C using 17 bacterial strains (*Neisseria*, *Brucella*, streptococci, staphylococci, *Listeria*, enterobacteria and *Pseudomonas*) and 1 yeast (*Candida*).

Nutrient capacity:

Fifteen of the 17 bacterial strains tested as well as the yeast grew within 24 hours.

One strain of *Neisseria meningitidis* grew within 48 hours. The strain of *Brucella abortus* showed weak growth within 48 hours.

WASTE DISPOSAL









Dispose of used or unused reagents as well as any other contaminated disposable material following procedures for infectious or potentially infectious products.

It is the responsibility of each laboratory to handle waste and effluents produced according to their nature and degree of hazardousness and to treat and dispose of them (or have them treated and disposed of) in accordance with any applicable regulations.

LITERATURE REFERENCES

1. MURRAY P.R., BARON E.J., PFALLER M.A. et al. - 1995 – *Manual of clinical microbiology, 6th ed.* - American Society for Microbiology, Washington, D.C. – ISBN 1-55581-086-1.
2. BES M., FRENEY J., BRUN Y. et al. – Identification des staphylocoques au laboratoire de microbiologie clinique – *Lyon Pharm.*, 1990, vol. 41, n°1, p. 37-46.
3. XP CEN ISO/TS 11133-2 (Janvier 2004) - Microbiology of food and animal feeding stuffs - Guidelines on preparation and production of culture media - Part 2 : practical guidelines on performance testing of culture media.

INDEX OF SYMBOLS

Symbol	Meaning
	GB : Catalogue number US : Catalog number
	In Vitro Diagnostic Medical Device
	Manufacturer
	Temperature limitation
	Use by
	Batch code
	Consult Instructions for Use
	Contains sufficient for <n> tests

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