



Reference : 02-599

Scharlau Microbiology - Technical data sheet

Product :
BRAIN HEART INFUSION BROTH (BHI Broth)



Specification

Nutrient rich medium suitable for the isolation of pathogenic microorganisms from clinical specimens & ISO standards.

Formula * in g/L

Enzymatic digest of animal tissues, and
brain-heart extract 27.5
Dextrose 2.0
Sodium chloride 5.0
Disodium phosphate (Anhy)..... 2.5

Final pH 7.4 ±0.2 at 25 °C

* Adjusted and /or supplemented as required to meet performance criteria

Directions

Dissolve 37 g of powder in 1 L of distilled water, heating if necessary. Distribute into containers and sterilize in the autoclave at 121°C for 15 minutes.

Description

Brain Heart Infusion is used for the cultivation of fastidious bacteria (streptococci, pneumococci, meningococci, etc.) and is also recommended for the cultivation of pathogenic fungi. Growth of the accompanying bacterial microbiota can be almost completely suppressed by adding 20 IU penicillin and 40 µg streptomycin per mL of culture medium.

If this medium is to be used for the selective isolation of fastidious fungi (especially of *Histoplasma capsulatum* and *Blastomyces*) from mixed infected samples add 10% sterile defibrinated blood and also add 0,05 µg/mL of cycloheximide and 0,5 µg/mL of chloramphenicol.

This medium is not suitable for obtaining characteristic haemolytic reactions even after addition of blood because of its glucose content.

Quality control

Incubation temperature: 37 °C ± 1.0

Incubation time: 24 ± 2 h

Inoculum: Practical range 100±20 CFU. min. 50 CFU (productivity), according to ISO 11133:2014/Amd 1:2018.

| Microorganism | Growth | Remarks |
|---|--------|--------------|
| <i>Staphylococcus aureus</i> ATCC® 25923 | Good | - |
| <i>Staphylococcus aureus</i> ATCC® 6538 | Good | - |
| <i>Clostridium perfringens</i> ATCC® 13124 | Good | - |
| <i>Streptococcus pyogenes</i> ATCC® 19615 | Good | - |
| <i>Streptococcus pneumoniae</i> ATCC® 49619 | Good | add blood 5% |
| <i>Candida albicans</i> ATCC® 10231 | Good | - |
| <i>Escherichia coli</i> ATCC® 8739 | Good | - |
| <i>Enterococcus faecalis</i> ATCC® 19433 | Good | - |



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- DOWNES, F.P. & K. ITO (2001) Compendium of methods for the microbiological examination of foods. 4th ed. APHA. Washington. DC. USA.
- FDA (Food and Drug Administrations) (1998) Bacteriological Analytical Manual. 8th ed. Revision A. AOAC International. Gaithersburg. VA. USA.
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- HOWELL, A. (1948) The efficiency of methods for the isolation of Histoplasma capsulatum. Public Health Reports. 63:173-178.
- EN-ISO 6888-3 Standard (2003) Microbiology of food and animal feeding stuffs. Horizontal method for the enumeration of coagulase positive staphylococci (Staphylococcus aureus and other species). Part 3: Detection and MPN technique for low numbers.
- ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
- ROSENOW, E.C. (1919) Studies on elective localization. Focal infection with special reference to oral sepsis. J. Dental Res. 1:205-249.

Storage

For laboratory use only. Keep tightly closed, away from bright light, in a cool dry place (+4 °C to 30 °C).