

### Specification

General purpose solid medium for fastidious pathogenic microorganisms.

### Formula \* in g/L

Enzymatic digest of animal tissues, and brain-heart extract .....	27.5
Sodium chloride.....	5.0
Di-sodium phosphate.....	2.5
Dextrose.....	2.0
Agar.....	15.0

Final pH 7,4 ±0,2 at 25 °C

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

### Directions

Suspend 52 g of powder in 1 L of distilled water and bring to the boil. Distribute in tubes or flasks 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 culture medium.

If this medium is to be used for the selective isolation of fastidious fungi (especially of *Histoplasma capsulatum* and *Blastomyces*) add 10% sterile defibrinated blood and for mixed infected samples also add 0,05 µg/mL cycloheximide and 0,5 µg/mL 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±2h

**Inoculum:** Practical range 100 ± 20 CFU. Min. 50 CFU (Productivity) acc. ISO 11133:2014/Amd 1:2018 . Spiral Plate Methods.

Microorganism	Growth	Remarks
<i>Staphylococcus aureus</i> ATCC® 25923	Productivity > 0.70	-
<i>Staphylococcus aureus</i> ATCC® 6538	Productivity > 0.70	-
<i>Enterococcus faecalis</i> ATCC® 19433	Productivity > 0.70	-
<i>Escherichia coli</i> ATCC® 8739	Productivity > 0.70	-
<i>Streptococcus pyogenes</i> ATCC® 19615	Productivity > 0.70	-
<i>Streptococcus pneumoniae</i> ATCC® 49619	Productivity > 0.70	add blood 5%

### References

- AJELLO, L., L.K. GEORG, W. KAPLAN & L. KAUFMAN (1966) Laboratory Manual for Medical Mycology. (CDC) US DHEW, Center for Disease Control. Atlanta.
- APHA-AWWA-AWPC (1998) Standard methods for the examination of water and wastewater. 20th ed. Washington. DC. USA.
- ATLAS, R.M. & L.C. PARKS (1993) Handbook of microbiological Culture Media. CRC Press. London.
- DOWNES, F.P. & K. ITO (2001) Compendium of methods for the microbiological examination of foods. APHA. Washington. DC. USA.
- FDA (Food and Drug Administration) (1998) Bacteriological Analytical Manual. 8th ed. Revision A. AOAC International. Gaithersburg. VA. USA.
- HAYDEN, R.L. (1923) Elective localization in the eye of bacteria from infected teeth. Arch. Int. Med. 32:828 -849.
- HOWELL, A. (1948) The efficiency of methods for the isolation of *Histoplasma capsulatum*. Public Health Reports, 63:173-178.
- ISO 11133:2014/ Amd 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).