

### Specification

General purpose medium for isolation and culture of pathogenics microorganisms

### Presentation

20 Prepared Plates  
90 mm  
with:  $21 \pm 2$  ml

### Packaging Details

1 box with 2 packs of 10 plates/pack. Single cellophane.

### Shelf Life

3 months

### Storage

2-14°C

### Composition

Composition (g/l):

Brain extract.....	12.5
Heart extract.....	5.0
Proteose peptone.....	10.0
Sodium chloride.....	5,0
Di-sodium phosphate.....	2.5
Dextrose.....	2.0
Agar.....	15.0

### Description /Technique

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.

Collect, dilute and prepare samples and volumes as required according to specifications, directives, official standard regulations and/or expected results.

Spread the plates by streaking methodology or by spiral method.

Incubate the plates right side up aerobically at  $37+/-1^{\circ}\text{C}$  for 24-48h.

(Incubation times greater then those mentioned above or different incubation temperatures may be required depending on the sample, on the specifications,... This medium can be inoculated directly or after enrichment broth).

After incubation, enumerate all the colonies that have appeared onto the surface of the agar.

Each laboratory must evaluate the results according to their specifications.

Calculate total microbial count per ml of sample by multiplying the average number of colonies per plate by the inverse dilution factor if streaked a diluted sample. Report results as Colony Forming Unit (CFU's) per ml or g along with incubation time and temperature.

## Quality control

### Physical/Chemical control

Color : yellow

pH: 7.4 ± 0.2 at 25°C

### Microbiological control

Inoculate: Practical range 100±20 CFU; Min. 50 CFU (Productivity).

Microbiological control according to ISO 11133:2014/ Adm 1:2018.

Aerobiosis. Incubation at 37 °C±1, reading after 24-48±2h

### Microorganism

*Stph. aureus* ATCC® 25923, WDCM 00034*Staphylococcus aureus* ATCC® 6538, WDCM 00032*Streptococcus pyogenes* ATCC® 19615*Streptococcus pneumoniae* ATCC® 49619*Enterococcus faecalis* ATCC® 19433, WDCM 00009*Escherichia coli* ATCC® 8739, WDCM 00012

### Growth

Good (≥70 %)

Good (≥70 %)

Good (≥70 %)

Good (≥70 %)

Good (≥70 %)

Good (≥70 %)

### Sterility Control

Incubation 48 hours at 30-35°C and 48 hours at 20-25°C: NO GROWTH

Check at 7 days after incubation in same conditions

## Bibliography

- 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. 20<sup>th</sup> 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 Administrations) (1998) Bacteriological Analytical Manual. 8<sup>th</sup> 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/ 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.