

TMP 035 – BRAIN HEART INFUSION AGAR PLATE W/BLOOD

INTENDED USE

For cultivation of fastidious pathogenic bacteria requiring blood for growth.

PRODUCT SUMMARY AND EXPLANATION

Microbiological method. Brain Heart Infusion has proven to be effective in the cultivation of a wide variety of microorganisms, including many types of pathogens. It has served as the base medium for new culture media formulations when supplemented with sheep blood. BHI Agar currently is recommended as a universal medium for aerobic bacteriology and for the primary recovery of fungi and Actinomycetales from clinical specimens.1-3 Brain Heart Infusion Agar with 10% Sheep Blood can be used to isolate a wide variety of fastidious organisms requiring blood which may grow poorly on the nonenriched medium. 1-4 However, this medium is not recommended for the detection of hemolytic reactions since the high blood concentration often does not allow a complete clearing of the medium surrounding colonies by the hemolytic factors of the organisms.

COMPOSITION

Ingredients	Gms / Ltr
Calf brain infusion solids	15.000
Proteose peptone	12.500
Beef heart, infusion from	10.000
Sodium chloride	5.000
Disodium hydrogen phosphate	5.000
Dextrose	2.500
Agar	2.000
Sheep Blood, defibrinated	10%

PRINCIPLE

Proteose peptone and infusions used in the media serves as sources of carbon, nitrogen, vitamins, amino acids, along with essential growth factors. Dextrose is the energy source. Sodium chloride maintains the osmotic equilibrium of the medium while disodium phosphate buffers the medium. Defibrinated sheep blood added to the basal medium provides essential growth factors for the more fastidious fungal organisms.

INSTRUCTION FOR USE

Either streak, inoculate or surface spread the test inoculum aseptically on the plate.

QUALITY CONTROL SPECIFICATIONS

Appearance	: Light Amber coloured medium
Quantity of Medium	: 25ml of medium in 90mm plates.
pH (at 25°C)	: 7.4± 0.2
Sterility Check	: Passes release criteria

INTERPRETATION

Cultural characteristics observed after an incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	25922	50-100	luxuriant	>=70%	35-37°C	18-24 Hours
<i>Staphylococcus aureus</i>	25923	50-100	luxuriant	>=70%	35-37°C	18-24 Hours
<i>Shigella flexneri</i>	12022	50-100	luxuriant	>=70%	35-37°C	18-24 Hours
<i>Candida albicans</i>	26790	50-100	luxuriant	>=70%	35-37°C	18-24 Hours
<i>Streptococcus pneumoniae</i>	6303 Strin No?	50-100	luxuriant	>=70%	35-37°C	18-24 Hours

PACKAGING:

Doubled layered packing containing 5 No. of plates with one silica gel desiccant bag packed inside it.

STORAGE

On receipt, store the plates at 2-8°C. Avoid freezing and overheating. Do not open until ready to use. Prepared plates stored in their original sleeve wrapping until just prior to use may be inoculated up to the expiration date and incubated for recommended incubation times. Allow the medium to warm to room temperature before inoculation.

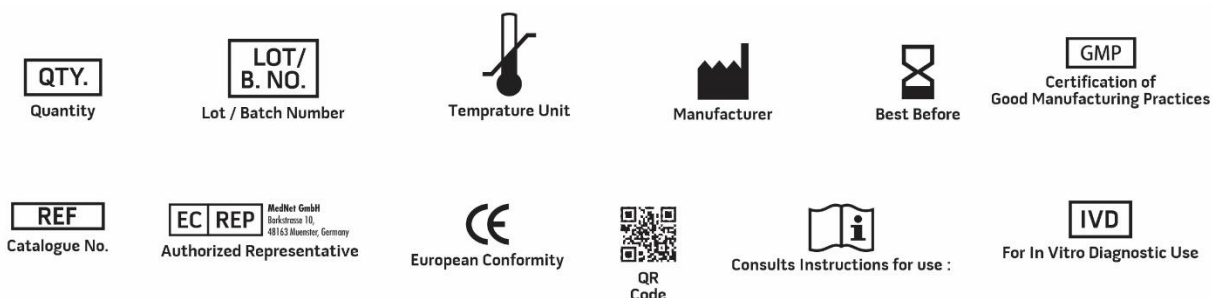
Product Deterioration: Do not use plates if they show evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

- Roseburg T. et al, 1944, J. Infect. Dis., 74:131.
- Conant N. F., 1950, Diagnostic Procedures and Reagents, 3rd Ed., APHA Inc.
- MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.
- Creitz and Puckett, 1954, Am. J. Clin. Pathol., 24:1318.
- Murray P. R., Baron J. H., Pfaller M. A., Jorgensen J. H. and Tenover F. C., (Eds.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.
- Ajello L., Georg L., Kaplan W. and Kaufman L., 1963, CDC Laboratory Manual for Medical Mycology, PHS Publication No. 994, U.S. Govt. Office, Washington, D.C.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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