CM 20286 – BRAIN HEART INFUSION AGAR (VEG.)

INTENDED USE

For cultivation of fastidious pathogenic bacteria, yeasts and molds.

PRODUCT SUMMARY AND EXPLANATION

BrainHeart Infusion Agar is a general purposeplating medium used for the isolation, cultivation, and maintenance of a variety of fastidious and nonfastidious microorganisms. Brain Heart Infusion Agar is a modification of the medium described by ROSENOW in which the brain tissue has been replaced by brain extract and the calcium carbonate by di- sodium hydrogen phosphate. BHI Agar supplemented with (5 to 10%) defibrinated sheep blood is used extensively for the recovery of dimorphic fungi such as Histoplasma capsulatum and other pathogenic fungi such as Coccidioides immitis. A more selective formulation containing chloramphenicol and cycloheximide is also available that will allow the recovery of pathogenic fungi while inhibiting a wide range of bacteria and saprophytic fungi. McDonough et al. demonstrated that the temperature of incubation may alter the sensitivity of some pathogenic fungi to antibiotics; it is therefore recommended that both an antimicrobic containing medium and non-selective medium be used on primary isolates at both 25°C and 35°C.

COMPOSITION

Ingredients	Gms / Ltr
Veg. peptone	10.000
Veg. infusion	10.000
Special infusion	7.500
Sodium chloride	5.000
Disodium phosphate	2.500
Dextrose	2.000
Agar	15.000

PRINCIPLE

Themixture of Veg peptone and veg infusions provides organic nitrogen, carbon, and vitamins. Dextrose is the carbohydrate source. A low concentration of dextrose is used to stimulate early growth. Sodium chloride maintains the osmotic environment. Disodium phosphate is the buffering agent in this medium. With the addition of 7% defibrinated blood the medium will support the growth of a wide range of fastidious and non-fastidious organisms, the phosphate buffer will help neutralize the acids produced from the utilization of dextrose and thus maintain viability. BHI agar can be supplemented with antibiotics, varying amounts varying amounts of Sodium chloride, Yeast extract, and serum to provide arich medium for bacteria, yeasts and pathogenic fungi.

INSTRUCTION FORUSE

Dissolve 52.50 gmsin 1000ml distilled water.
Gently heat to boiling with gentle swirling and dissolve the medium completely.
Sterilize by autoclaving at 15 psi (121°C) for 15 minutes.
Cool to 45-50°C and then pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Basal medium: Light amber colour, clear to slightly opalescent gel.
After addition of 5% v/v sterile defibrinated blood: Cherry red colour, opaque gel.
pH (at 25°C) : 7.4±0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Escherichia coli	25922	50-100	Luxuriant	>=70%	35-37°C	18-24 Hours
Streptococcus pneumoniae	49616	50-100	Luxuriant	>=70%	35-37°C	18-24 Hours
Staphylococcus aureus	25923	50-100	Luxuriant	>=70%	35-37°C	18-24 Hours
Shigella flexneri	12022	50-100	Luxuriant	>=70%	35-37°C	18-24 Hours
Candida albicans	10231	10-100	Luxuriant	>=70%	35-37°C	18-24 Hours

PACKAGING:

Inpacksizeof100 gm and 500 gm bottles.

STORAGE

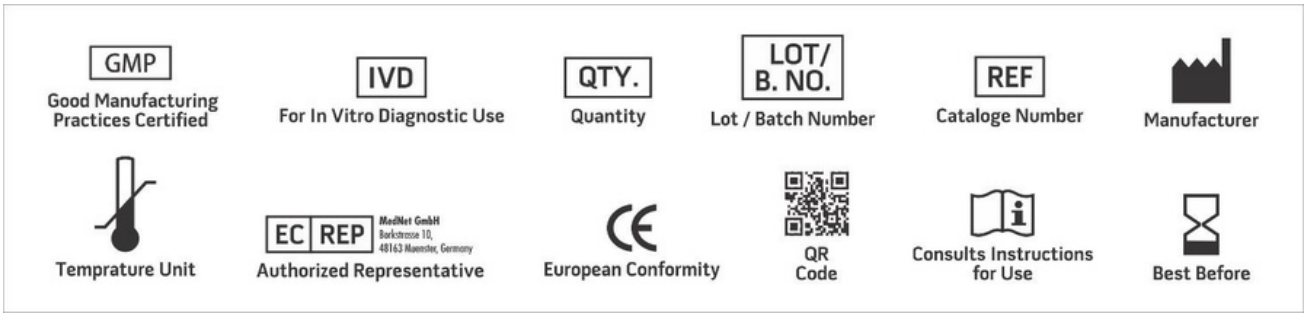
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Rosenow, E.C. 1919. Studies on elective localization. Focal infection with special reference to oral sepsis. The Journal of Dental Research, Vol. 1, No. 3: 205 - 267.
2. Atlas, R.M. 1997. Handbook of microbiological media, 2nd ed., p. 195 - 198, CRC Press, Boca Raton, USA.
3. MacFaddin, J.F. 1985. Media for isolation-cultivation-identification-maintenance of medical bacteria, Vol. 1, p. 92 - 95, Williams & Wilkins, Baltimore, USA.
4. McDonough E., Geoge L., Ajello L. and Brinkman S., Mycopathol. Mycol. Appl.; 13, 113 (1960).



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

*For LabUse Only