BHI CC Agar (Brain Heart CC Agar)

M209

Intended Use:

Recommended for selective isolation and cultivation of fastidious pathogenic fungi and saprophytic fungi from specimens heavily contaminated with bacteria.

Composition**

Ingredients	g/ L
HM Infusion powder $	9.00
HM peptone B #	8.50
Proteose peptone	10.000
Dextrose (Glucose)	2.000
Sodium chloride	5.000
Disodium hydrogen phosphate	2.500
Chloramphenicol	0.050
Cycloheximide	0.500
Agar	15.000
Final pH (at 25°C)	7.4±0.2

$ Equivalent to Calf brain infusion from # Equivalent to Beef heart infusion from

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 52.5 grams in 1000 ml purified / distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Avoid excess heat as it may reduce the selectivity of the medium. Mix well and pour into sterile Petri plates.

Warning : Cycloheximide is very toxic. Avoid skin contact or aerosol formation and inhalation.

Principle And Interpretation

Brain Heart CC Agar is formulated as per Ajello et al. (1) and McDonough, et al. (2). This medium is recommended for selective isolation of pathogenic fungi (3). Chloramphenicol is a broad-spectrum antibiotic, which inhibits the growth of wide range of gram-positive and gram-negative bacteria. Cycloheximide inhibits most saprophytic moulds and enhances the isolation of pathogenic fungi.

This medium contains HM Infusion powder and HM peptone B infusion and proteose peptone to supply the necessary nutrients to support the growth of fastidious pathogenic fungi. Dextrose is a carbohydrate source and disodium phosphate buffers the medium. The medium may be further enriched with 10% sheep blood to isolate systemic fungi that grow poorly on non-enriched medium. Also the addition of Gentamicin, 50 mcg/ml of medium, improves the selectivity. The antibiotics in this medium may inhibit some fungi. The addition of blood makes Brain Heart Infusion CC Agar suitable for the isolation of the tissue phase of *Histoplasma capsulatum* and other pathogenic fungi, including *Coccidioides immitis.* While handling *Histoplasma capsulatum*extreme care should be taken to avoid dissemination of its infective spores. The culture should be examined in a closed filtered air cabinet. Isolation of fungi from contaminated specimens can be done by inoculating selective medium along with nonselective medium and incubated at 25-30°C. For isolation of fungi causing systemic mycoses two sets of media should be inoculated with one set incubated at 23-30°C and a duplicate set at 35-37°C. Examine the plates for at least a week.

Type of specimen

Clinical samples - pathological material like skin scrappings.

Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (4,5).

After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

In Vitro diagnostic use only. For professional use only. Read the label before opening the container. Wear protective gloves/ protective clothing/eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations

1. Further biochemical tests must be carried out for complete identification.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance
Cream to yellow homogeneous free flowing powder
Gelling
Firm,comparable with 1.5% Agar gel
Colour and Clarity of prepared medium
Light amber coloured, clear to slightly opalescent gel forms in Petri plates.
Reaction
Reaction of 5.25% w/v aqueous solution at 25°C. pH : 7.4±0.2
pH
7.20-7.60
Cultural Response
Cultural characteristics observed after an incubation at 25-35°C for 40-96 hours.(*Trichophyton* species incubated for 1 - 2 weeks)

Organism	Growth
Aspergillus brasielensis ATCC 16404 (00053*)	inhibited
Blastomyces dermatidis ATCC 14112	good
Candida tropicalis ATCC 1369	inhibited
Candida albicans ATCC 26790	fair-good
Escherichia coli ATCC 25922 (00013*)	inhibited
Histoplasma capsulatum ATCC 10230	good
Trichophyton megninii ATCC 12106	good-luxuriant
Trichophyton mentagrophytes ATCC 9533	good-luxuriant
Trichophyton tonsurans ATCC 10220	good-luxuriant

Key : *Corresponding WDCM numbers.

Storage and Shelf Life

Store dehydrated and the prepared medium at 2 - 8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition Seal the container tightly after use. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (4,5).

Reference

1. Ajello L., George L., Kaplan W., and Kaufman L., 1966, CDC Laboratory Manual of Medical Mycology, Atlanta, Ga: US. DHEW, Center for Disease Control.

2. McDonough E., George L., Ajello L., and Brinkman S., 1960, Mycopathol. Mycol. Appl; 13:113.

3. Murray P. R., Baron E. J., Jorgensen J. H., Pfaller M. A., Yolken R.H. (Eds.), 8th ed., 2003, Manual of Clinical Microbiology, ASM, Washington, D.C.

4.Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.

5.Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

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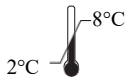
IVD ***In vitro* diagnostic medical device**



Storage temperature

EC REP CEpartner4U, Esdoornlaan 13,
3951DB Maarn, NL
www.cepartner4u.eu

CE Marking

Do not use if package is damaged

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