TM 1988 – BHI CC AGAR (BRAIN HEART CC AGAR)

INTENDED USE
For selective isolation and cultivation of fastidious pathogenic fungi from specimens heavily contaminated with bacteria.

PRODUCT SUMMARY AND EXPLANATION
Brain Heart CC Agar is formulated as per Ajello et al. and McDonough, et al. This medium is recommended for selective isolation of pathogenic fungi. 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.
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 capsulatumextreme* 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.

COMPOSITION

Ingredients	Gms / Ltr
Calf brain infusion from	9.000
Beef heart infusion from	8.500
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

PRINCIPLE
This medium contains Calf brain infusion powder and Beef heart 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.

INSTRUCTION FOR USE
- Dissolve 52.5 grams in 1000 ml purified / distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi 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

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Light amber coloured, clear to slightly opalescent gel forms in Petri plates.
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
Aspergillus brasielensis	16404	10-100	Inhibited	0%	25-35°C	40-96 Hours
Blastomyces dermatidis	14112	10-100	Good	40-50%	25-35°C	40-96 Hours
Candida tropicalis	1369	10-100	Inhibited	0%	25-35°C	40-96 Hours
Candida albicans	26790	10-100	Fair-good	20-40%	25-35°C	40-96 Hours
Escherichia coli	25922	50-100	Inhibited	0%	25-35°C	40-96 Hours
Histoplasma capsulatum	10230	10-100	Good	40-50%	25-35°C	40-96 Hours
Trichophyton megninii	12106	10-100	Good-luxuriant	>=50%	25-35°C	1-2 Weeks
Trichophyton mentagrophytes	9533	10-100	Good-luxuriant	>=50%	25-35°C	1-2 Weeks
Trichophyton tonsurans	10220	10-100	Good-luxuriant	>=50%	25-35°C	1-2 Weeks

PACKAGING:

In pack size of 100 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 2-8°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.

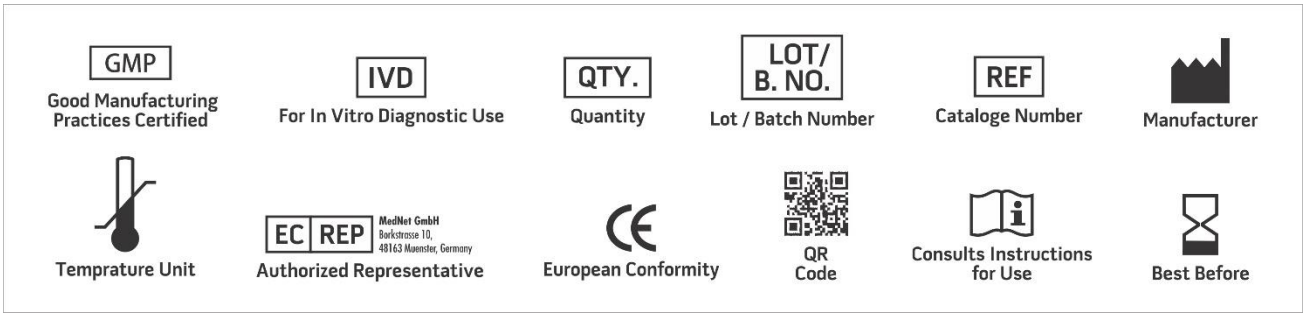
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

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.



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

***For Lab Use Only**

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