SABHI Agar Base

M409

Intended Use:

For cultivation and isolation of pathogenic fungi especially dermatophytes..

Composition**

Ingredients	g / L
HM Infusion powder#	4.000
BHI powder ##	5.25
Proteose peptone	5.000
Peptone, special	5.000
Dextrose (Glucose)	21.000
Sodium chloride	2.500
Disodium Hydrogen phosphate	1.250
Agar	15.000
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters
Equivalent to Calf brain, infusion from
Equivalent to Beef heart, infusion from

Directions

Suspend 29.5 grams in 500 ml of 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 and aseptically add rehydrated contents of one vial of Chlor Selective Supplement (FD033). Mix well and dispense into sterile tubes or Petri plates and allow it to solidify. Let the tubes solidify in slanted position. To prepare blood agar, add and mix 10% v/v sterile sheep or human blood before dispensing into sterile tubes or Petri plates.

Principle And Interpretation

Sabouraud Dextrose Agar, formulated by Sabouraud (1) is the medium of choice for cultivation of fungi. Majority of dermatophytes can be isolated on Sabouraud Dextrose Agar. Brain Heart Infusion Agar is a highly nutritious media used for the isolation of fastidious organisms. SABHI Agar Base, formulated by Gorman (2) is a combination of Sabouraud Dextrose Agar and Brain Heart Infusion Agar. This nutritious medium is used for the cultivation and isolation of pathogenic fungi like dermatophytes and also non-pathogenic fungi from clinical and non-clinical specimens (3). It is useful for maximum recovery of *Blastomyces dermatidis* and *Histoplasma capsulatum* from body tissues and fluids. Addition of blood improves recovery of *H. capsulatum* and helps conversion of *H. capsulatum* and *B. dermatidis* to yeast phase (4). While handling *H. capsulatum* extreme care should be taken to avoid dissemination of its infective spores. The culture should be examined in closed filtered air cabinet.

HM Infusion powder, BHI powder, proteose peptone, peptone special provide nitrogenous nutrients, carbon, sulphur and trace elements essential for fungal growth. Dextrose provides energy to the microorganisms. Sodium chloride maintains osmotic balance. Incorporation of a broad spectrum antibiotic like chloramphenicol inhibits many gram-negative bacteria. Some fungi may be inhibited by the antibiotics in the selective medium (4).

Type of specimen

Clinical samples - hair, nail scrapings, skin scrapings

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (5,6).
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 :

A non-selective and selective medium should be inoculated for isolation of fungi from probably contaminated specimens.

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

Basal medium forms yellow coloured, clear gel. With the addition of 10% v/v sterile defibrinated blood cherry red coloured opaque gel forms in Petri plates

Reaction

Reaction of 5.9% w/v aqueous solution at 25°C. pH : 7.0±0.2

pH

6.80-7.20

Cultural Response

Cultural characteristics observed after an incubation at 25-30°C for 40-48 hours with added 10%w/v sterile defibrinated blood and Chlor Selective Supplement(FD033).

Organism	Growth w/o blood	Growth w/ blood
* *Aspergillus brasiliensis* ATCC 16404 (00053*)	good	luxuriant
Candida albicans ATCC 10231 (00054*)	good-luxuriant	luxuriant
Escherichia coli ATCC 25922 (00013*)	inhibited	inhibited
Saccharomyces cerevisiae ATCC 9763 (00058*)	good-luxuriant	luxuriant
Saccharomyces uvarum ATCC 28098	good-luxuriant	luxuriant
Staphylococcus aureus subsp. aureus ATCC 25923 (00034*)	inhibited	inhibited
Blastomyces dermatidis ATCC 14112	good	good
Histoplasma capsulatum ATCC 10230	good	good

Key : *Corresponding WDCM numbers.

Storage and Shelf Life

Store between 10-30°C in a tightly closed container 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 (5,6).

Reference

1. Sabouraud R., 1982, Ann. Dermatol. Syphilol. 3:1061
2. Gorman, 1967, Am. J. Med. Technol., 33:151.
3. Murray P. R., Baron J. H., Pfaller M. A., Jorgensen J. H. and Yolken R. H., (Ed.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.
4. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, BaltimoreIsenberg, 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. (2019) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

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

30°C / 10°C **Storage temperature**

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CE Marking

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