

Sabouraud Dextrose Agar Plate w/Penicillin & Streptomycin

MP5334

Intended Use:

Recommended for selective cultivation of yeasts, moulds and aciduric microorganisms.

Composition**

Ingredients	g / L
Dextrose (Glucose)	40.000
Mycological, peptone	10.000
Penicillin	0.0024
Streptomycin	0.0400
Agar	15.000
Final pH (at 25°C)	5.6±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Either streak, inoculate or surface spread the test inoculum (50-100 CFU) aseptically on the plate.

Principle And Interpretation

Sabouraud Dextrose Agar is Carliers modification (1) of the formulation described by Sabouraud (2) for the cultivation of fungi (yeasts, moulds), particularly useful for the fungi associated with skin infections. This medium is also employed to determine microbial contamination in food, cosmetics, and clinical specimens (3).

Mycological peptone provides nitrogenous compounds. Dextrose (Glucose) provides an energy source. High dextrose concentration and low pH favours fungal growth and inhibits contaminating bacteria from test samples (4). The addition of antibiotics such as streptomycin, and penicillin inhibits bacterial contaminants. Some pathogenic fungi may produce infective spores which are easily dispersed in air, so examination should be carried out in safety cabinet. For heavily contaminated samples, the plate must be supplemented with inhibitory agents for inhibiting bacterial growth with lower pH.

Type of specimen

Clinical samples; Food samples

Specimen Collection and Handling

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

For food samples, follow appropriate techniques for sample collection and processing as per guidelines (7).

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

Warning and Precautions :

In Vitro diagnostic 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. Individual strain of a microorganism may have unique growth requirements with respect to nutrients and physical conditions. Based on which the growth pattern of each varies on a medium and some even may display significant delay.
2. Some pathogenic fungi may produce infective spores which are easily dispersed in air, so examination should be carried out in safety cabinet.
3. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.
4. Further biochemical tests should 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

Sterile Sabouraud Dextrose Agar w/Penicillin & Streptomycin in 90mm disposable plate with smooth surface and absence of black particles/cracks/bubbles.

Colour

Light amber coloured, clear to slightly opalescent medium.

Quantity of Medium

25ml of medium in 90mm disposable plates

pH

5.40-5.80

Growth Promotion Test

Growth Promotion was carried out in accordance with the standard method and growth was observed after a specified period. Recovery rate is considered as 100% for fungus growth on Sabouraud Dextrose Agar.

Sterility check

Passes release criteria

Cultural Response

Cultural characteristics observed after incubation at 22-28°C for 48-72 hours.

Organism	Inoculum (CFU)	Growth	Recovery
<i>Candida albicans</i> ATCC 10231 (00054*)	50 -100	good to luxuriant	≥50 %
<i>Trichophyton interdigitale</i> ATCC 9533	50 -100	good to luxuriant	≥50 %
<i>Escherichia coli</i> ATCC 25922 (00013*)	50 -100	none-poor	≤10 %
<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC 25923 (00013*)	50 -100	none-poor	≤10 %

Key : (*) Corresponding WDCM numbers.

(\$) Formerly known as *Trichophyton mentagrophytes*.

Storage and Shelf Life

Store between 2-8°C. Use before expiry date on the label. 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. Carlier G. I. M., 1948, Brit. J. Derm. Syph., 60:61.
2. Sabouraud K., 1892, Ann. Dermatol. Syphilol, 3:1061.
3. Bacteriological Analytical Manual, 8th Edition, Revision A, 1998. AOAC, Washington D.C.
4. Murray PR, Baren EJ, Jorgensen JH, Pfaller MA, Tenover FC, Tenover FC (editors) 2003, Manual of clinical Microbiology, 8th ed., ASM, Washington, D.C.
5. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
6. 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.
7. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.

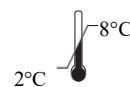
Revision : 01/2024



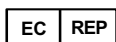
HiMedia Laboratories Pvt. Limited,
Plot No.C-40, Road No.21Y,
MIDC, Wagle Industrial Area,
Thane (W) -400604, MS, India



In vitro diagnostic
medical device



Storage temperature



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



CE Marking



Do not use if
package is damaged

Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.