microgen
Ready Prepared Media

Technical Information

Sabouraud Dextrose Agar Plate w/Chloramphenicol & Gentamicin

Product Code: PM 6332

Application: Recommended for selective cultivation of yeasts and moulds .

Composition**

Ingredients	Gms / Litre
Dextrose (Glucose)	40.000
Mycological, peptone	10.000
Agar	15.000
Gentamicin	0.040
Chloramphenicol	0.400
Final pH (at 25°C)	5.6±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Sabouraud Dextrose Agar is is described by Sabouraud (1) for the cultivation of fungi (yeasts, moulds), particularly useful for the fungi associated with skin infections. Sabouraud Dextrose Agar is Carlier's modification (2). This medium is also employed to determine microbial contamination in food, cosmetics, and clinical specimens (3). Mycological peptone provides nitrogenous compounds. Dextrose provides an energy source. High dextrose concentration and low pH favors fungal growth and inhibits contaminating bacteria from test samples (4). Chloramphenicol and Gentamicin inhibits most of the bacterial contaminants.

Type of specimen

Clinical samples: skin scrapings, nail scrapings, etc; Food samples; Cosmetics samples.

Specimen Collection and Handling

For food samples, follow appropriate techniques for sample collection and processing as per guidelines (5,6,7). For clinical samples follow appropriate techniques for handling specimens as per established guidelines (8,9). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

In Vitro diagnostic use. 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. 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.

Methodology

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

Quality Control

Appearance
Sterile Sabouraud Dextrose Agar w/Chloramphenicol & Gentamicin in 90mm disposable plate with smooth surface and absence of black particles/cracks/bubbles
Colour of medium
Light amber coloured medium
Quantity of medium
25 ml of medium in 90 mm disposable plates.
pH
5.40-5.80
Sterility Test
Passes release criteria
Cultural response
Cultural characteristics was observed after an incubation at 30-35°C for 48-72 hours.

Organism	Inoculum (CFU)	Growth	Recovery
Candida albicans ATCC10231 (00054*)	50-100	Good to luxuriant (white colonies)	>=50%
# Aspergillus brasiliensis ATCC 16404 (00053*)	50-100	Good to luxuriant	>=50%
Trichophyton rubrum ATCC 28191	50-100	Good to luxuriant	>=50%
Escherichia coli ATCC25922 (00013*)	10^3	Inhibited	0%
Sachharomyces cerevisiae ATCC 9763	50-100	Good to luxuriant	>=50%
Escherichia coli ATCC8739 (00012*)	10^3	Inhibited	0%
Lactobacillus caseiATCC 9595	50-100	luxuriant	>=50%

Key : (*) - Corresponding WDCM numbers, (#) - Formerly known as *Aspergillus niger*

Storage and Shelf Life

- On receipt 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 sample must be decontaminated and disposed of in accordance with current laboratory techniques (8,9).

Further Reading

1. Sabouraud K., 1892, Ann. Dermatol. Syphilol, 3:1061.
2. Carlier G. I. M., 1948, Brit. J. Derm. Syph., 60:61.
3. Bacteriological Analytical Manual, 8th Edition, Revision A, 1998. AOAC, Washington D.C.
4. Murray PR, Baren EJ, Jorgensen JH, Pfaller MA, Yolken RH (editors) 2003, Manual of clinical Microbiology,8th ed.,ASM, Washington, D.C.
5. Salfinger Y., and Tortorello M.L., 2015, Compendium of Methods for the Microbiological Examination ofFoods, 5th Ed., American Public Health Association, Washington, D.C.
6. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.
7. American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed., Washington D.C.
8. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
9. 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.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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