



Sabouraud Dextrose Agar Plate (γ -irradiated)

MP063G

Intended Use:

Recommended for cultivation of yeasts, moulds and aciduric microorganisms.

Composition**

Ingredients	Gms / Litre
Dextrose (Glucose)	40.000
Mycological, peptone	10.000
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 Carlier's modification (1) of the formulation described by is a modification of Sabouraud Dextrose Agar which is 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 provides an energy source. High dextrose concentration and low pH favors fungal growth and inhibits contaminating bacteria from test samples (4).

Type of specimen

Clinical samples- skin scrapping, nail scrapping, Food & Dairy samples; Cosmetics;

Specimen Collection and Handling

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

For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines(7,8,9).

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 pack. 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 specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations

- 1.Individual organisms differ in their growth requirement and may show variable growth patterns on the medium.
- 2.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.
- 3.Some pathogenic fungi may produce infective spores which are easily dispersed in air, so examination should be carried out in safety cabinet
- 4.Further biochemical tests should be carried out for confirmation.
- 5.It is recommended to store the plates at 24-30°C to avoid minimum condensation.

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 Plate in 90 mm disposable plates with smooth surface and absence of black particles/bubbles and cracks.

Colour of medium

Light amber coloured medium

Quantity of medium

30 ml of medium in 90 mm disposable plates.

pH

5.40-5.80

Sterility Check

Passes release criteria

Dose of irradiation (Kgy)

13.00- 20.00

Cultural Response

Growth Promotion was carried out in accordance with the (USP/EP/BP/JP), after an incubation at 20-25°C for 24-48 hours. Recovery rate is considered as 100% for bacteria growth on Soybean Casein Digest Agar and fungus growth on Sabouraud Dextrose Agar.

Cultural Response

Organism	Inoculum (CFU)	Growth	Recovery
<i>Candida albicans</i> ATCC 10231 (00054*)	50 -100	Luxuriant (white colonies)	>=70 %
<i>Aspergillus brasiliensis</i> ATCC 16404 (00053*)	50 -100	luxuriant	
<i>Candida albicans</i> ATCC 2091 (00055*)	50 -100	luxuriant	>=70 %
<i>Saccharomyces cerevisiae</i> ATCC 9763 (00058*)	50 -100	luxuriant	>=70 %
<i>Escherichia coli</i> ATCC 8739 (00012*)	50 -100	luxuriant	>=70 %
<i>Escherichia coli</i> ATCC 25922 (00013*)	50 -100	luxuriant	>=70 %
<i>Escherichia coli</i> NCTC 9002	50 -100	luxuriant	>=70 %
<i>Lactobacillus casei</i> ATCC 334	50 -100	luxuriant	>=70 %
<i>Trichophyton rubrum</i> ATCC 28191		luxuriant	

Key : *Corresponding WDCM numbers.

Storage and Shelf Life

On receipt store between 20-30°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

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4. Murray PR, Baren EJ, Jorgensen JH, Pfaller MA, Tenenbaum BC, Tenenbaum BC (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.
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8. Salfinger Y., and Tortorello M.L., 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
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