

Sabouraud Dextrose Agar Plate w/ Lecithin and Polysorbate 80 (γ-irradiated, Triple Pack) MP1659GT

Intended Use:

for the cultivation of yeasts, moulds and aciduric bacteria and can be used for determining efficiency of sanitization of containers, equipment surfaces, water miscible cosmetics etc.

Composition**

Ingredients	g / L
Dextrose (Glucose)	40.000
Mycological peptone	10.000
Lecithin	0.700
Polysorbate 80 (Tween 80)	5.000
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 with Soya Lecithin and Polysorbate 80 is the modification of formulation described by Sabouraud for determining efficiency of sterilization of container etc with respect to yeast moulds and aciduric bacteria(1).

Mycological peptone provides nitrogenous compounds. Dextrose provides an energy source. The low pH favours fungal growth and inhibits contaminating bacteria from specimens (2).Some pathogenic fungi may produce infective spores which are easily dispersed in air, so examination should be carried out in safety cabinet.

Lecithin and polysorbate 80 are neutralizers reported to inactivate residual disinfectants from where the sample is collected (3). Lecithin neutralizes quaternary ammonium compounds and polysorbate 80 neutralizes phenolic disinfectants, hexachlorophene formalin, and with lecithin neutralizes ethanol (4). Collection of samples from areas before and after the treatment with disinfectant evaluates cleaning procedures in environmental sanitation. The presence and number of fungi is determined by the appearance of colonies on the agar surface.

Type of specimen

Environmental samples

Specimen Collection and Handling

For samples, follow appropriate techniques for sample collection and processing as per guidelines (5,6).

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

Warning and Precautions

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 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. It is recommended to store the plates at 24-30°C to avoid minimum condensation.
4. Some pathogenic fungi may produce infective spores which are easily dispersed in air, so examination should be carried out in safety cabinet.

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/ Lecithin & Polysorbate 80 in 90 mm disposable plates with smooth surface and absence of black particles/cracks/bubbles (γ irradiated, Triple pack)

Colour of the medium

Light amber coloured medium.

Quantity of Medium

30ml of medium in 90mm disposable plates

pH

5.40-5.80

Dose of Irradiation (Kgy)

13.00- 20.00

Sterility Check

Passes release criteria

Cultural Response

Cultural characteristics observed after an incubation at 25-30°C for 48-72 hours.

Organism	Inoculum	Growth	Recovery
# <i>Aspergillus brasiliensis</i> ATCC 16404 (00053*)	50-100	luxuriant	$\geq 50\%$
<i>Candida albicans</i> ATCC 10231 (00054*)	50-100	luxuriant	$\geq 50\%$
<i>Escherichia coli</i> ATCC 25922 (00013*)	50-100	luxuriant	$\geq 50\%$
<i>Lactobacillus casei</i> ATCC 9595	50-100	luxuriant	$\geq 50\%$
<i>Saccharomyces cerevisiae</i> ATCC 9763 (00058*)	50-100	luxuriant	$\geq 50\%$
<i>Trichophyton rubrum</i> ATCC 28191	50-100	luxuriant	$\geq 50\%$

Key : (*) - Corresponding WDCM numbers.

- Formerly known as *Aspergillus niger*

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 sample must be decontaminated and disposed of in accordance with current laboratory techniques (5,6).

Reference

- Sabouraud K., 1892, Ann. Dermatol. Syphilol, 3:1061.
- Murray PR, Baren EJ, Jorgensen JH, Pfaller MA, Tenover FC, Tenover FC (editors) 2003, Manual of clinical Microbiology, 8th ed., ASM, Washington, D.C.
- Brummer; 1976 appl Environ. Microbiol 32:80.
- Favero (Claim); 1967, Biological Contamination Control Committee, a state of the art report., Am Assoc. for contamination control.
- Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
- 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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Disclaimer :

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