



Technical Data

Sabouraud Dextrose Agar Plate w/ LTHTh (Lockable Plate, γ -irradiated, Triple Pack)

MP1995LGT

Intended Use:

Recommended for cultivation of yeasts, moulds and aciduric microorganisms. It can also be used to enumerate the organisms from water insoluble products and fatty products containing preservatives or antimicrobials.

Composition**

Ingredients	g / L
Dextrose (Glucose)	40.000
Mycological, peptone	10.000
Lecithin	0.700
Polysorbate 80 (Tween 80)	5.000
Histidine	0.500
Sodium thiosulphate	0.500
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 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 pharmaceutical 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).

Lecithin, polysorbate 80 (Tween 80) and thiosulphate act as neutralizing agents reported to neutralize the activity of antimicrobial agents. Lecithin and polysorbate 80 neutralizes quaternary ammonium compounds and parahydroxy benzoates. Sodium thiosulphate neutralizes mercurial, halogens, aldehydes etc. Histidine acts as a reducing agent (5).

Type of specimen

Food & Dairy samples; Cosmetics

Specimen Collection and Handling

For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines(6-8). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

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 requirements.

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

Colour of medium

Light amber coloured medium

Quantity of medium

32 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	Incubation temperature	Incubation period
<i>Candida albicans</i> ATCC 10231 (00054*)	50 -100	Luxuriant (white colonies)	≥70 %	20 -25 °C	48hrs
# <i>Aspergillus brasiliensis</i> ATCC 16404 (00053*)	50 -100	luxuriant		20 -25 °C	≤5 d
<i>Candida albicans</i> ATCC 2091 (00055*)	50 -100	luxuriant	≥70 %	20 -25 °C	48 hrs
<i>Saccharomyces cerevisiae</i> ATCC 9763 (00058*)	50 -100	luxuriant	≥70 %	20 -25 °C	48hrs
<i>Escherichia coli</i> ATCC 8739 (00012*)	50 -100	luxuriant	≥70 %	20 -25 °C	48hrs
<i>Escherichia coli</i> ATCC 25922 (00013*)	50 -100	luxuriant	≥70 %	20 -25 °C	48hrs
\$ <i>Lactobacillus paracasei</i> 334	50 -100	luxuriant	≥70 %	20 -25 °C	48hrs
<i>Trichophyton rubrum</i> ATCC 28191		luxuriant		20 -25 °C	≤5 d

Key : *Corresponding WDCM numbers.

Formerly known as *Aspergillus niger* .

\$ Formerly known as *Lactobacillus casei*.

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 (9,10).

Reference

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5. Hall and Hartnett, 1964, Public Hlth. Rep., 79:1021.
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9. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
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