HIMEDIA

Technical Data

Sabouraud-Glucose Agar w/ Antibiotics (Agar Medium C) (Sabouraud Dextrose Agar w/Tetracycline Medium)

MAP1472

(ME1472/M1472B/MM1472)

Intended Use:

Recommended for selective cultivation of yeasts and moulds in accordance with EP/BP/IP.

Composition**

Ingredients	g / L
HMC peptone#	10.000
Dextrose monohydrate (Glucose monohydrate)	40.000
Agar	15.000
pH after sterilization	5.6±0.2

**Formula adjusted, standardized to suit performance parameters

Equivalent to Peptone (meat and casein)

Directions

Suspend 61.36 grams (the equivalent weight of dehydrated medium per litre) in 995 ml distilled/purified water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Add aseptically 5 ml of rehydrated TR Selective Supplement (FD196). Mix well and pour into sterile Petri plates.

Principle And Interpretation

Sabouraud Glucose agar w/antibiotics is cited as Medium C and recommended for cultivation of yeasts and moulds by EP, BP, IP (1,2,3). This medium was described originally by Sabouraud (4) for the cultivation of fungi, particularly useful for the fungi associated with skin infections. The medium is used with antibiotics such as tetracycline and benzylpenicillin (5) for the isolation of pathogenic fungi from materials containing large numbers of fungi or bacteria. HMC peptone provides nitrogenous compounds. Glucose monohydrate provides an energy source. Tetracycline and benzyl penicillin inhibits a wide range of Gram-positive and Gram-negative bacteria which makes the medium selective for fungi (6). The low pH favours fungal growth and inhibits contaminating bacteria from clinical specimens (7). Some pathogenic fungi may produce infective spores which are easily dispersed in air, so examination should be carried out in safety cabinet.

Type of specimen

Pharmaceutical samples

Specimen Collection and Handling:

For pharmaceutical samples, follow appropriate techniques for sample collection, processing as per guidelines (1,2,3). 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. 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

Cream to yellow homogeneous free flowing powder

Gelling
Firm, comparable with 1.5% Agar gel
Colour and Clarity of prepared medium
Light amber coloured clear to slightly opalescent gel forms in Petri plates
pH
5.40-5.80
Growth Promotion Test
Growth Promotion was carried out in accordance with the harmonized method of EP/BP/IP, after an incubation at 20-25°C with added TR Selective Supplement (FD196) for <=5 days. Recovery rate is considered as 100% for bacteria growth on Soybean Casein Digest Agar and fungus growth on Sabouraud Dextrose Agar

Organism	Inoculum (CFU)	Growth	Observed Lot value (CFU)	Recovery	Incubation temperature	Incubation period
Candida albicans ATCC 10231 (00054*)	50 -100	Luxuriant (white colonies)	25 -100	>=50 %	20 -25 °C	<=5 d
#*Aspergillus brasiliensis* ATCC 16404 (00053*)	50 -100	luxuriant	25 -100	>=50 %	20 -25 °C	<=5 d
Candida albicans ATCC 2091 (00055*)	50 -100	luxuriant	25 -100	>=50 %	20 -25 °C	<=5 d
Saccharomyces cerevisiae ATCC 9763 (00058*)	50 -100	luxuriant	35 -100	>=50 %	20 -25 °C	<=5 d
Escherichia coli ATCC 25922 (00013*)	>=10^3	inhibited	0	0 %	20 -25 °C	<=5 d
Escherichia coli ATCC 8739 (00012*)	>=10^3	inhibited	0	0 %	20 -25 °C	<=5 d
Trichophyton rubrum ATCC 28191	50-100	inhibited	0	0 %	20 -25 °C	<=5 d
$*Lactobacillus paracasei* ATCC 334	>=10^3	inhibited	0	0 %	20 -25 °C	<=5 d

Key: *Corresponding WDCM numbers,
#Formerly known as *Aspergillus niger* $ Formerly known as *Lactobacillus casei*

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. 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).

Reference

1.European Pharmacopoeia, 2022, European Dept. for the quality of Medicines.
2.British Pharmacopoeia, 2022, The Stationery office British Pharmacopoeia
3.Indian Pharmacopoeia, 2022, Indian Pharmacopoeia Commission, Ministry of Health and Family Welfare Government of India.
4.Sabouraud K., 1892, Ann. Dermatol. Syphilol, 3:1061.
5.Ajello L., 1957, J. Chron. Dis., 5:545.
6.Lorian (Ed.),1980, Antibiotics In Laboratory Medicine, Williams and Wilkins, Baltimore.
7.Murray, P. R 2005, In Manual of Clinical Microbiology, 7th ed., ASM, 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.

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