Agar Medium C (Sabouraud-Glucose Agar w/ Chloramphenicol)

ME1067

Sabouraud Glucose Agar w/Chloramphenicol is recommended for selective cultivation of yeasts and moulds in accordance accordance with European Pharmacopoeia.

Composition**

Ingredients	Gms / Litre
Peptones (meat and casein)	10.000
Glucose monohydrate	40.000
Chloramphenicol	0.050
Agar	15.000
pH after sterilization(at 25°C)	5.6±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 61.41 grams (the equivalent weight of dehydrated medium per litre) in 1000 ml purified/distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes or as per validated cycle. Mix well before pouring into sterile Petri plates.

Principle And Interpretation

Sabouraud Glucose Agar w/Chloramphenicol is cited as Medium C and recommended for cultivation of yeasts and moulds by European Pharmacopoeia (1). This medium was described originally by Sabouraud (2) for the cultivation of fungi, particularly useful for the fungi associated with skin infections. The medium is often used with antibiotics such as Chloramphenicol (3) for the isolation of pathogenic fungi from materials containing large numbers of fungi or bacteria. Peptones (from meat and casein) provide nitrogenous compounds. Glucose monohydrate provides an energy source. Chloramphenicol inhibits a wide range of Gram-positive and Gram-negative bacteria which makes the medium selective for fungi (4). The low pH favours fungal growth and inhibits contaminating bacteria from clinical specimens (5).

Some pathogenic fungi may produce infective spores which are easily dispersed in air, so examination should be carried out in safety cabinet.

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, after an incubation at 20-25 °C for <=5 days. 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	Observed Lot value (CFU)	Recovery	Incubation temperature	Incubation period
Cultural response						

Candida albicans ATCC 10231	50 -100	Luxuriant (white colonies)	25 -100	>=50 %	20 -25 °C	<=5 d
**Aspergillus brasiliensis ATCC 16404*	50 -100	luxuriant	25 -100	>=50 %	20 -25 °C	<=5 d
Candida albicans ATCC 2091	50 -100	luxuriant	25 -100	>=50 %	20 -25 °C	<=5 d
Saccharomyces cerevisiae ATCC 9763	50 -100	luxuriant	35 -100	>=50 %	20 -25 °C	<=5 d
Escherichia coli ATCC 25922	>=10^3	inhibited	0	0%	20 -25 °C	<=5 d
Escherichia coli ATCC 8739	>=10^3	inhibited	0	0%	20 -25 °C	<=5 d
Escherichia coli NCTC 9002	>=10^3	inhibited	0	0%	30 -35 °C	<=5 d
Trichophyton rubrum ATCC 28191	50-100	good			20 -25 °C	<=7 d
Lactobacillus casei ATCC 334	>=10^3	inhibited	0	0%	20 -25 °C	<=5 d

Storage and Shelf Life

Store between 15-25°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.

Reference

1. European Pharmacopoeia, 2008, European Department for the Quality of Medicines.
2. Sabouraud K., 1892, Ann. Dermatol. Syphilol, 3:1061.
3. Ajello L., 1957, J. Chron. Dis., 5:545.
4. Lorian (Ed.),1980, Antibiotics In Laboratory Medicine, Williams and Wilkins, Baltimore.
5. Murray, P. R 2008, In Manual of Clinical Microbiology, 7th ed., ASM, Washington, D.C.

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