



Agar Medium C (Sabouraud-Glucose Agar Medium with Chloramphenicol)

M1067B

Sabouraud Glucose Agar Medium with Chloramphenicol is recommended for selective cultivation of yeasts and moulds in accordance with British Pharmacopoeia.

Composition**

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

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 61.41 grams of dehydrated medium 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.i.e validated cycle. Mix well before pouring into sterile Petri plates.

Principle And Interpretation

Sabouraud Glucose Agar Medium with Chloramphenicol is cited as Medium C and recommended for cultivation of yeasts and moulds by British 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 of 6.14% w/v aqueous solution at 25°C (after sterilization).

pH

5.40-5.80

Growth Promotion Test

Cultural response was observed in accordance with BP, 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
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Cultural Response

Cultural response

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

Key : * - Formely known as *Aspergillus niger*

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. British Pharmacopoeia, 2009, The Stationery office British Pharmacopoeia.
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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