



Sabouraud Agar Glucose 4%

M1744

Sabouraud Agar Glucose 4% is recommended for cultivation of yeasts, moulds and aciduric microorganisms.

Composition**

Ingredients	Gms / Litre
Peptone from casein	5.000
Peptone from meat	5.000
D(+) Glucose	40.000
Agar	15.000
Final pH (at 25°C)	5.6±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 65 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and pour in sterile Petri plates.

Principle And Interpretation

Sabouraud Agar Glucose 4% is a modification of Sabouraud Dextrose Agar which is described by Sabouraud (1) 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 clinical specimens (2).

Peptone from casein and peptone from meat provides nitrogenous compounds. Glucose provides an energy source. High glucose concentration and low pH favours fungal growth and inhibits contaminating bacteria from test samples (3).

Some pathogenic fungi may produce infective spores which are easily dispersed in air, so examination should be carried out in safety cabinet. For heavily contaminated samples, the plate must be supplemented with inhibitory agents for inhibiting bacterial growth with lower pH.

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

Reaction

Reaction of 6.5% w/v aqueous solution at 25°C. pH : 5.6±0.2

pH

5.40-5.80

Cultural Response

M1744: Cultural characteristics observed after an incubation at 25-30°C for 48- 72 hours

Organism	Inoculum (CFU)	Growth	Recovery
Cultural Response			
* <i>Aspergillus brasiliensis</i> ATCC 16404	50-100	luxuriant	
<i>Candida albicans</i> ATCC 10231	50-100	luxuriant	>=70%
<i>Escherichia coli</i> NCTC 9002	50-100	luxuriant (inhibited on media with lower pH)	>=70%

<i>Escherichia coli</i> ATCC 25922	50-100	luxuriant (inhibited on media with lower pH)	>=70%
<i>Lactobacillus casei</i> ATCC 334	50-100	luxuriant	>=70%
<i>Saccharomyces cerevisiae</i> ATCC 9763	50-100	luxuriant	>=70%
<i>Trichophyton rubrum</i> ATCC 28191	50-100	luxuriant	
<i>Escherichia coli</i> ATCC 8739	50-100	luxuriant (inhibited on media with lower pH)	>=70%
<i>Trichophyton mentagrophytes</i> ATCC 18748	50-100	Fair-good	

Key : * - Formerly known as *Aspergillus niger*

Storage and Shelf Life

Store below 30°C in a tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.

Reference

- 1.Sabouraud K., 1892, Ann. Dermatol. Syphilol, 3:1061.
- 2.Bacteriological Analytical Manual, 8th Edition, Revision A, 1998. AOAC, Washington D.C.
- 3.Murray PR, Baren EJ, Jorgensen JH, Pfaller MA, Tenover FC, Tenover FC (editors) 2003, Manual of clinical Microbiology, 8th ed., ASM, Washington, D.C.

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