Technical Information

Sabouraud Agar Glucose 4%

Product Code: DM 2744

Application: - Sabouraud Agar Glucose 4% is used 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

Principle & 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.

Methodology

Suspend 65 grams of dehydrated powder media in 1000 ml distilled water. Mix thoroughly & heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Shake well before pour in sterile Petri plates.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder.

Gelling

Firm, comparable with 1.5% Agar gel.

Colour and Clarity

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 Range

5.40-5.80

Cultural Response

DM 2744: Cultural characteristics observed after an incubation at 25-30°C for 48- 72 hours.

Organism	Inoculum (CFU)	Growth	Recovery
**Aspergillus brasiliensis ATCC 16404*	50-100	luxuriant	-
Candida albicans ATCC 10231	50-100	luxuriant	>=70%
Escherichia coli NCTC 9002	50-100	luxuriant (inhibited on media with lower pH)	>=70%
Escherichia coli ATCC 25922	50-100	luxuriant (inhibited on media with lower pH)	>=70%
Lactobacillus casei ATCC 334	50-100	luxuriant	>=70%
Saccharomyces cerevisiae ATCC 9763	50-100	luxuriant	>=70%
Trichophyton rubrum ATCC 28191	50-100	luxuriant	-
Escherichia coli ATCC 8739	50-100	luxuriant (inhibited on media with lower pH)	>=70%
Trichophyton mentagrophytes ATCC 18748	50-100	Fair-good	-

***Key: *** *- Formerly known as Aspergillus niger*

Storage and Shelf Life

Dried Media: Store below 30°C in a tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.
Prepared Media: 2-8° in sealable plastic bags for 2-5 days.

Further Reading

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, Yolken RH (editors) 2003, Manual of clinical Microbiology, 8th ed., ASM, Washington, D.C.

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