Technical Data

Sabouraud Dextrose HiCynth™ Agar

MCD063

Sabouraud Dextrose HiCynth™ Agar is used for the cultivation of yeasts, moulds and aciduric bacteria.

Composition**

Ingredients	Gms / Litre
HiCynth™ Peptone No.1*	10.000
Dextrose	40.000
Agar	15.000
Final pH (at 25°C)	5.6±0.2

**Formula adjusted, standardized to suit performance parameters

*Chemically defined peptone

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. Cool to 45-50°C. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Sabouraud Dextrose Agar is Carlier's modification (1) of the formulation described by Sabouraud (2) for the cultivation of fungi (yeasts, moulds), particularly useful for the fungi associated with skin infections. Sabouraud Dextrose HiCynth™ Agar is a modification of Sabouraud Dextrose Agar and is prepared by completely replacing animal or vegetable peptones with chemically defined peptone to avoid BSE/TSE risks associated with animal peptones. It is recommended for the growth of fungal cultures. This medium is also employed to determine microbial contamination in food, cosmetics, and clinical specimens (3).

HiCynth™ Peptone No.1 provides nitrogenous and carbonaceous compounds, long chain amino acids, vitamins and other growth nutrients. Dextrose provides an energy source. High dextrose concentration and low pH favours fungal growth and inhibits contaminating bacteria from test samples (4).

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

Cultural response was carried out after an incubation at 20-25°C for 24-48 hours. 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	Recovery
Cultural Response			
Candida albicans ATCC 10231	50 -100	luxuriant	>=70 %

**Aspergillus brasiliensis ATCC 16404*	50 -100	luxuriant	>=70 %
Candida albicans ATCC 2091	50 -100	luxuriant	>=70 %
Saccharomyces cerevisiae ATCC 9763	50 -100	luxuriant	>=70 %
Escherichia coli ATCC 25922	50 -100	luxuriant	>=70 %
Escherichia coli ATCC 8739	50 -100	luxuriant	>=70 %
Escherichia coli NCTC 9002	50 -100	luxuriant	>=70 %
Trichophyton rubrum ATCC 28191		luxuriant	
Lactobacillus casei ATCC 334	50 -100	luxuriant	>=70 %

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. Carlier G. I. M., 1948, Brit. J. Derm. Syph., 60:61.
2. Sabouraud K., 1892, Ann. Dermatol. Syphilol, 3:1061.
3. Bacteriological Analytical Manual, 8th Edition, Revision A, 1998. AOAC, Washington D.C.
4. 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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