Sabouraud Dextrose Maltose Agar

M1313

Sabouraud Dextrose Maltose Agar is used for the cultivation of moulds, yeasts and aciduric organisms as well as testing antimycotic substances.

Composition**

Ingredients	Gms / Litre
Casein enzymic hydrolysate	5.000
Peptic digest of animal tissue	5.000
Dextrose	10.000
Maltose	10.000
Agar	15.000
Final pH (at 25°C)	5.4±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 45.0 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. DO NOT OVERHEAT. Mix well and pour in sterile Petri plates.

Principle And Interpretation

Sabouraud Dextrose Agar is Carliers modifications (1) of the formulation described by Sabouraud (2) for the cultivation of fungi, particularly those associated with skin infections. Sabouraud Dextrose Maltose Agar is used for the cultivation of yeast, moulds and other aciduric organisms (3, 4, 5).

Sabouraud dextrose media are peptone media supplemented with dextrose to support the growth of fungi. Casein enzymic hydrolysate and peptic digest of animal tissue provide nitrogen, vitamins, minerals, amino acids and growth factors. Dextrose and maltose provide an energy source for the growth of microorganisms. The low pH favours fungal growth and inhibits contaminating bacteria from clinical specimens (6). The acid reaction of the final medium is inhibitory to a large number of bacteria making it particularly useful for cultivating fungi and aciduric microorganisms. For isolation of fungi from contaminated specimens, a selective medium should be inoculated simultaneously. Incubate cultures for 4 to 6 weeks before reporting as negative.

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 4.5% w/v aqueous solution at 25°C. pH : 5.4±0.2

pH
5.20-5.60

Cultural Response
M1313: Cultural characteristics observed after an incubation at 25 - 30°C for upto 5 days.

Organism	Inoculum (CFU)	Growth	Recovery
Cultural Response			
**Aspergillus brasiliensis* ATCC 16404	50-100	good-luxuriant	

Candida albicans ATCC 10231	50-100	good-luxuriant	>=70%
Escherichia coli ATCC 25922	50-100	good-luxuriant(Inhibited on media with low pH)	>=70%
Lactobacillus casei ATCC 9595	50-100	good-luxuriant	>=70%
Saccharomyces cerevisiae ATCC 9763	50-100	good-luxuriant	>=70%
Trichophyton rubrum ATCC 28191	50-100	good-luxuriant	
Penicillium notatum ATCC 10108	50-100	Good-luxuriant	
Trichophyton gallinae ATCC 22243	50-100	Good-luxuriant	
Trichophyton mentagrophytes ATCC 9533	50-100	Good-luxuriant	
Trichophyton ajelloi ATCC 24885	50-100	Good-luxuriant	

**Key: Formerly known as Aspergillus niger*

Storage and Shelf Life

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

Reference

1. Carlier G. I. M., 1984, Brit. J. Derm. Syph., 60:61
2. Sabouraud R., 1892, Ann. Dermatol. Syphil. 3 : 1061.
3. Merkblatt 18: Verpackgs- Rdsch, 1974, 25/1: Techn- Wiss. Beilage, 5-8
4. Merkblatt 19: Verpackgs- Rdsch, 1974, 25/6: Techn- Wiss. Beilage, 569-575
5. Merkblatt 21: Verpackgs- Rdsch, 1974, 25/7: Techn- Wiss. Beilage, 53-55
6. Murray P. R., Baron J. H., Pfaller M. A., Jorgensen J. H. and Yolken R. H., (Ed.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.

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