

Sabouraud Dextrose Maltose HiVeg™ Agar

MV1313

Intended Use:

Recommended for the cultivation of molds, yeasts and aciduric organisms as well as testing antimycotic substances.

Composition**

Ingredients	g / L
HiVeg™ hydrolysate	5.000
HiVeg™ peptone	5.000
Dextrose (Glucose)	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 purified/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.** Cool to 45-50°C. Mix well and pour into 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. Sabouraud Dextrose Maltose HiVeg™ Agar is prepared by using vegetable peptones in place of animal based peptones which make the media free of BSE/TSE risks. HiVeg™ hydrolysate and HiVeg™ peptone 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.

Type of specimen

Water samples

Specimen Collection and Handling:

For water samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards.(7) After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. For isolation of fungi from contaminated specimens, a selective medium should be inoculated simultaneously.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

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

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

Organism	Inoculum (CFU)	Growth	Recovery
# <i>Aspergillus brasiliensis</i> ATCC 16404 (00053*)	50-100	good-luxuriant	
<i>Candida albicans</i> ATCC 10231 (00054*)	50-100	good-luxuriant	>=70%
<i>Escherichia coli</i> ATCC 25922 (00013*)	50-100	good-luxuriant (Inhibited on media with low pH)	>=70%
<i>Lactobacillus casei</i> ATCC 9595	50-100	good-luxuriant	>=70%
<i>Saccharomyces cerevisiae</i> ATCC 9763 (00058*)	50-100	good-luxuriant	>=70%
<i>Trichophyton rubrum</i> ATCC 28191	50-100	good-luxuriant	
<i>Penicillium notatum</i> ATCC 10108	50-100	Good-luxuriant	
<i>Trichophyton gallinae</i> ATCC 22243	50-100	Good-luxuriant	
** <i>Trichophyton interdigitale</i> ATCC 9533	50-100	Good-luxuriant	
<i>Trichophyton ajelloi</i> ATCC 24885	50-100	Good-luxuriant	

Key: *Corresponding WDCM numbers.

#Formerly known as *Aspergillus niger*

**Formerly known as *Trichophyton mentagrophyte*

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 20-30°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques (8,9).

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

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