



Sabouraud Dextrose Broth, Modified

M033F

Sabouraud Dextrose Broth, Modified is used for isolation of yeasts and molds from cosmetics in accordance with FDA BAM, 1998.

Composition**

Ingredients	Gms / Litre
Polypeptone	10.000
Dextrose	40.000
Final pH (at 25°C)	5.6±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 50 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and dispense as desired.

Principle And Interpretation

Microorganisms have the ability to grow and reproduce in cosmetics. Through this, they can bring spoilage and chemical changes to the product which in turn can cause even injury to the end user. Most important methods for isolation of microorganisms from cosmetic products include direct colony counts and enrichment culturing. Water insoluble products need to be rendered miscible before the isolation procedures. Dissolved products are further diluted and plated on appropriate broth/ agar. The isolated microorganisms are identified by routine microbiological methods or by commercial identification kits.

Sabouraud Dextrose Broth, Modified is prepared in accordance FDA BAM (1) for the cultivation of yeasts and molds from cosmetics. Sabouraud dextrose media are peptone media supplemented with dextrose to support the growth of fungi. Peptone special provides nitrogen, vitamins, minerals, amino acids and growth factors. Dextrose provides an energy source for the growth of microorganisms. The low pH favors fungal growth and inhibits contaminating bacteria from clinical specimens (2). 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.

10-1dilution of respected sample is prepared in Latheen Broth, Modified (M976), as per the BAM protocol. For enrichments, dilute prepared sample decimally in Sabouraud Dextrose Broth, Modified and incubate at 30±2°C for 48 h. If growth occurs, streak on Sabouraud's dextrose agar (M063), Malt Agar, w/ 2% Agar (M253F) or Potato Dextrose Agar w/2% Agar (M096F) and proceed for identification and confirmation.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Light amber coloured clear solution in tubes

Reaction

pH of 5.0% w/v aqueous solution at 25°C. pH : 5.6±0.2

pH

5.40-5.80

Cultural Response

Cultural characteristics was observed after an incubation at 20-25°C for 3-5 days.

Cultural Response

Organism	Inoculum (CFU)	Growth
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Cultural Response

<i>Candida albicans</i> ATCC 10231	50 -100	luxuriant
* <i>Aspergillus brasiliensis</i> ATCC 16404	50 -100	luxuriant
<i>Saccharomyces cerevisiae</i> ATCC 9763	50 -100	luxuriant
<i>Saccharomyces cerevisiae</i> ATCC 2601	50 -100	good-luxuriant
<i>Candida albicans</i> ATCC 2091	50 -100	luxuriant
<i>Escherichia coli</i> ATCC 25922	50 -100	good-luxuriant

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.FDA, U.S. 1998. Bacteriological Analytical Manual. 8 ed. Gaithersburg, Md. : AOAC International.
- 2.Murray, P. R., Baron, J. H., Pfaller, M. A., Jorgensen, J. H. and Tenover, R. C. 2003. Manual of Clinical Microbiology, 8 ed. Washington, D.C.: American Society for Microbiology.

Revision : 0 / 2013



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