Sabouraud Dextrose Broth Medium 3.(In accordance with I.P. 2014)

MM033

Sabouraud Dextrose Broth is for cultivation of yeats , moulds and aciduric microorganisms in accordance with Indian pharmacopoeia 2014

Composition**

Ingredients	Gms / Litre
Peptones(meat and casein)	10.000
Dextrose monohydrate	20.000
Final pH (at 25°C)	5.6±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 28.18 gram(equivalent weight of dehydrated medium per litre) in 1000 ml purified/distilled water. Heat if necessary to dissolve the medium completely. Dispense as desired and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes i.e. validated cycle. DO NOT OVERHEAT.

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. The medium is also recommended by APHA (3). Sabouraud Dextrose Broth is also a modification by Sabouraud (4) and serves the same purpose as Sabouraud Dextrose Agar. Medium 3. Sabouraud Dextrose Broth is in accordance with Indian Pharmacopoeia(6).

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 favours fungal growth and inhibits contaminating bacteria from clinical specimens (5). 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

Colour and Clarity of prepared medium
Light amber coloured clear solution in tubes

Reaction
pH of 2.81% w/v aqueous solution at 25°C. pH : 5.6±0.2

pH
5.40-5.80

Cultural Response
MM033: Cultural characteristics observed after incubation at 20-25 °C for 3-5 days.

Organism	Inoculum (CFU)	Growth	Incubation temperature	Incubation period
Cultural Response				
Candida albicans ATCC 10231	50 -100	luxuriant	20 -25 °C	<=5 d
**Aspergillus brasiliensis ATCC 16404*	50 -100	luxuriant	20 -25 °C	<=5 d

Saccharomyces cerevisiae ATCC 9763	50 -100	luxuriant	20 -25 °C	3 -5 d
Saccharomyces cerevisiae ATCC 2601	50 -100	good-luxuriant	20 -25 °C	3 -5 d
Candida albicans ATCC 2091	50 -100	luxuriant	20 -25 °C	3 -5 d
Escherichia coli ATCC 8739	50 -100	Luxuriant (inhibited on media with low pH)	20 -25 °C	<=5 d
Escherichia coli ATCC 25922	50 -100	good-luxuriant	20 -25 °C	3 -5 d
Escherichia coli NCTC 9002	50 -100	Luxuriant (inhibited on media with low pH)	20 -25 °C	3 -5 d
Lactobacillus casei ATCC 334	50 -100	luxuriant	20 -25 °C	3 -5 d

Storage and Shelf Life

Store below 30°C in a 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. Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., APHA, Washington, D.C.
4. Sabouraud R., Les Teignes, Paris: Masson et Cie, 1910, p 553
5. 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.
6. Indian Pharmacopeia 2014, Ministry of Health and Family welfare, Govt of India, Ghaziabad.

Revision : 1 / 2011