Sabouraud Dextrose Broth

M033B

Sabouraud Dextrose Broth is used for cultivation of yeasts, moulds and aciduric microorganisms from pharmaceutical products in accordance with the microbial limit testing by harmonized methodology of BP.

Composition**

Ingredients	Gms / Litre
Mixture of peptic digest of animal tissue & pancreatic digest of casein (1:1)	10.000
Dextrose	20.000
pH after sterilization (at 25°C)	5.6±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 30 grams 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 or as per validated cycle.

Principle And Interpretation

Fungi were among the first microorganisms recognized because some of the fruiting structures, such as the mushrooms, are large enough to be seen without a microscope. Fungi can be grouped simply on the basis of morphology as either yeasts or moulds (1). Fungal diseases that occur on the skin, hair and mucous membrane are called superficial mycoses, and the organism that cause them, the dermatophytes (2). Where fungi are to be isolated, it is good practice to use a medium that favors their growth but is not optimal for the growth of bacteria.

Sabouraud Dextrose Broth is a modification of Dextrose Agar described by Sabouraud (3). It is useful for the cultivation of fungi. This medium is as per the formulation described in BP (5) and is in accordance with the harmonized method of USP/ EP/BP/JP (4,5,6,7) and is recommended for microbiological examination of non-sterile products.

Peptic digest of animal tissues and pancreatic digest of casein provides nitrogenous compounds essential for the growth of fungi. Dextrose acts as the energy source

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Light amber coloured clear solution in tubes

pH

5.40-5.80

Growth Promotion Test

Growth Promotion was observed in accordance with the harmonized method of BP after an incubation at 30-35°C for 3-5 days.

Growth promoting properties

Clearly visible growth of microorganism comparable to that previously obtained with previously tested and approved lot of medium occurs at the specified temperature for not more than the shortest period of time specified inoculating 100 cfu (at 30-35°C for 3-5 days).

Cultural Response

M033B: Cultural characteristics observed after incubation at 20-25 °C for 3-5 days.

Organism	Inoculum (CFU)	Growth	Incubation temperature	Incubation period
Growth promoting				

Candida albicans ATCC 10231	50 -100	luxuriant	20 -25 °C	<=5 d
Growth Promotion + Total Yeast and Mould count				
Candida albicans ATCC 10231	50 -100	luxuriant	20 -25 °C	2-3 days
**Aspergillus brasiliensis ATCC 16404*	50 -100	luxuriant	20 -25 °C	<=5 d
Additional Microbiological Testing				
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

**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.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.
2.Pelczar M. J., Jr., Reid R. D., Chan E. C. S., 1977, Microbiology, 4th Edi, Tata McGraw-Hill Publishing Company Ltd, New Delhi
3.Sabouraud, 1892, Ann. Dermatol. Syphilol, 3:1061.
4.The United States Pharmacopoeia, 2011, The United States Pharmacopoeial Convention. Rockville, MD.
5.British Pharmacopoeia, 2011, The Stationery office British Pharmacopoeia
6.European Pharmacopoeia, 2011, European Dept. for the quality of Medicines.
7.Japanese Pharmacopoeia, 2008.

Revision : 1 / 2011