Spectrum For Diagnostic Industries

Sabouraud Dextrose Agar

REF.	Pack size
639 01 100	100 gm
639 01 500	500 gm

Intended Use

An acidic medium for the cultivation and isolation of dermatophytes, other fungi such as Aspergillus niger, yeasts and aciduric bacteria in skin and ear swabs and sterile CSF.

Background

Sabouraud Dextrose Agar was formulated by Sabouraud in 1892 for culturing dermatophytes. The pH is adjusted to approximately 5.6 in order to enhance the growth of fungi, and to slightly inhibit bacterial growth in clinical specimens. This medium is recommended for mold and yeast counts by the Association of Official Analytical Chemists.

Principle

Tryptone and peptone provide nitrogenous compounds,carbon and other growth factors.Dextrose is the carbohydrate source . The low PH is favorable for the growth of Fungi, especially dermatophytes and is slightly inhibitory to contaminating bacteria. Various antibiotics can be added to this medium for bacterial inhibition and to make it selective for pathogenic fungi.

Components	gm/Liter
Peptone	5.0
Tryptone	5.0
Dextrose	40.0
Agar	15.0

Final pH (at 25°C) 5.6 ±0.2

Preparation, Storage and Stability

Store the dehydrated medium at 10-30°C and use before the expiry date on the label.Store the prepared medium at 2-8°C After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

Procedure

1. Suspend 65 grams of the powder in one liter of distilled water. Mix well.
2. Boil with frequent agitation to completely dissolve the powder.
3. Autoclave at 121°C for 15 minutes.

Quality Control

Appearance

1- Dehydrated Appearance : yellow homogeneous free flowing powder

2- Prepared Appearance : Light amber coloured clear to slightly opalescent gel

3- Cultural Response : after 48-72 hours at 30± 2°C

Organisms (ATCC)	Growth
Aspergillus niger	Good
Candida albicans	Good
E.coli	Good
Saccharomyces cerevisiae	Good
Lactobacillus casei	Good

Interpretation of the results

1- Identification of fungi is performed by observing various aspects of colony morphology, characteristic microscopic structures, rate of growth, media which supports the growth, and source of specimen. Yeasts are identified by various biochemical tests.

2- For Plate method : Count the number of colonies and express as colony forming units (CFU) per gram or ml of sample , taking into account the applicable dilution factor.

Precautions

1- Some of the pathogenic fungi may produce infective spores, which can be easily dispersed in the laboratory. Examine in a protective cabinet.
2-When used for selective isolation , antimicrobials like Chloramphenicol may inhibit some pathogenic fungi. However, the mycelial phase of some species is not inhibited by these antibiotics when incubated at 30± 2°C .

Bibliography

1. Anderson, N.L., et al. Cumitech 3B; Quality Systems in the Clinical Microbiology Laboratory, Coordinating ed., A.S. Weissfeld. American Society for Microbiology, Washington, D.C.
2. Ajello, et al. 1963. CDC Laboratory Manual for Medical Mycology, PHS Publication No. 994. U.S. Gov't Printing Office, Washington, D.C.
3. Kwon-Chung, K.J. and J.E. Bennett. 1992. Medical Mycology. Lea and Febiger, Malvern, PA.