Sabouraud Dextrose Agar with Chloramphenicol and Cycloheximide

Cat. 1089

For the selective cultivation and isolation of pathogenic fungi.

Practical information

Aplications	Categories
Selective isolation	Pathogenic fungi
Selective isolation	Dermatophytes

Industry: Cosmetics / Clinical / Food

CE
IVD

Principles and uses

Sabouraud Dextrose Agar with Chloramphenicol and Cycloheximide can be used for cultivating yeasts and pathogenic fungi, particularly those associated with skin infections, and aciduric microorganisms.

This medium is a modification of the Dextrose Agar described by Sabouraud, with the addition of Chloramphenicol and Cycloheximide. Chloramphenicol is an antibiotic which aids in isolating pathogenic fungi from heavily contaminated material, as it inhibits most contaminating bacteria. It is a recommended antibiotic for use with media due to its heat stability and wide bacterial spectrum. Cycloheximide is an antibiotic which inhibits saprophytic fungi but allows for the growth of pathogenic fungi: Cryptococcus neoformans, Aspergillus fumigatus and some species of Candida (albicans, krusei).

Dextrose is the fermentable carbohydrate providing carbon and energy. Peptone mixture provides nitrogen, vitamins, minerals and amino acids essential for growth. Bacteriological agar is the solidifying agent. The high dextrose concentration and acidic pH make this medium selective for fungi.

Formula in g/L

Bacteriological agar	15	Chloramphenicol	0,5
Cycloheximide	0,4	Dextrose	40
Peptone mixture	10		

Preparation

Suspend 65,9 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Distribute and sterilize in autoclave at 118-121ºC for 15 minutes. AVOID OVEARHEATING.

Instructions for use

» For clinical diagnosis, the type of samples are all kind of samples (hair, skin,nails, etc). If the samples are formed by scrapes of skin, hair or nails, place the material in the center of the surface of the medium.

- Spread a plate with loop or swab
- Incubate in aerobic conditions at 30±2 °C for 18-48 hours ans until 7 days if neccesary.
- Reading and interpretation of results.

» For other uses not covered by the CE marking:

- Inoculate sample and incubate at 30 °C and observe after 3-7 days if necessary.

Quality control

Solubility	Appareance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25ºC)
w/o rests	Fine powder	Beige	Amber, slightly opalescent	5,6±0,2

Microbiological test

Incubation conditions: (30ºC) y (3-7 days)

Microrganisms	Specification
Penicillium spp	Partially inhibited growth
Candida albicans ATCC 10231	Good growth
Escherichia coli ATCC 25922	Partially inhibited growth
Candida tropicalis ATCC 750	Partially inhibited growth
Trychophyton mentagrophytes ATCC 9533	Good growth

Storage

Temp. Min.:2 ºC
Temp. Max.:25 ºC

Bibliography

Sabouraud R. 1892. Ann. Dermatol. Syphilol. 3:1061.
Jarett, L., and A.C. Sonnenwirth (ed) 1980. Gradwohl's clinical laboratory methods and diagnosis, 8th ed. CV Mosby.
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