

Mycobiotic Agar (Fungal Selective Agar)

Cat. 1072

For the isolation of fungal pathogens in highly contaminated samples

Practical information

| Applications | Categories |
|---------------------|------------------|
| Selective isolation | Pathogenic fungi |

Industry: Clinical



Principles and uses

Mycobiotic Agar is a medium for the selective cultivation of fungal pathogens from diverse clinical samples and other materials contaminated with a mixed associated flora. This medium is basically a mycological agar to which chloramphenicol and cycloheximide have been added. Chloramphenicol is an antibiotic that helps isolate pathogenic fungi from highly contaminated samples, since it inhibits most contaminating bacteria. It is an antibiotic recommended for use in media due to its thermal stability and its broad bacterial spectrum. Cycloheximide is an antibiotic that inhibits saprophytic fungi but allows the growth of pathogenic fungi.

Soy peptone provides nitrogen, vitamins, minerals and amino acids essential for growth. Dextrose is the fermentable carbohydrate which is a carbon and energy source. Bacteriological agar is the solidifying agent.

Dermatophytes and other numerous groups of pathogenic fungi grow quickly in the Mycobiotic Agar as it inhibits most of the bacteria and fungal saprophytes or commensal contaminants.

Formula in g/L

| | | | |
|----------------------|------|-----------------|------|
| Bacteriological agar | 15,5 | Chloramphenicol | 0,05 |
| Cycloheximide | 0,4 | Dextrose | 10 |
| Soy peptone | 10 | | |

Preparation

Suspend 36 grams of the medium in one liter of distilled water. Mix well. Dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Sterilize in autoclave at 118°C for 15 minutes. Cool to 50°C, mix well and dispense into plates. Use it immediately. Once cold, remelt only once with the minimum heat. DO NOT OVERHEAT.

Instructions for use

»For clinical diagnosis, the type of sample is skin, nails or those that come from bronchial and gastric lavages.

- Inoculate on the surface by parallel striations with a sterile handle or swab to obtain isolated colonies. It is recommended to inoculate several plates with the same sample.
- Incubate at 22-25 °C and at 35 °C for 3-7 days.
- It is recommended to inoculate other culture media at the same time, such as Biggy Agar (Cat. 1006), in order to obtain a greater number of isolates.

Quality control

| Solubility | Appearance | Color of the dehydrated medium | Color of the prepared medium | Final pH (25°C) |
|------------|-------------|--------------------------------|------------------------------|-----------------|
| w/o rests | Fine powder | Beige | Amber, slightly opalescent | 6,9±0,2 |

Microbiological test

Incubation conditions: (22-25 °C, 35 °C / 3-7 days).

Microorganisms

Penicillium spp

Aspergillus brasiliensis ATCC 16404

Candida albicans ATCC 2091

Escherichia coli ATCC 25922

Staphylococcus aureus ATCC 25923

Trichophyton rubrum CECT 2794

Trychophyton mentagrophytes ATCC 9533

Specification

Total inhibition

Total-partial inhibition

Good growth

Total inhibition

Total inhibition

Good growth

Good growth

Storage

Temp. Min.:2 °C

Temp. Max.:25 °C

Bibliography

Dean and Halley, Public Health Reports, 77:61. 1972. Hupper and Walker, A.J. Clin. Path. 29:291. 1958. McDonough Ajello, Georg, and Brinkman J. Lab. and Clin. Med. 55:116. 1960.