

# Mycobiotic Agar (Fungal Selective Agar)

For the isolation of moulds in highly contaminated samples

## Formula in grams per liter:

Soy Peptone	10,00	Dextrose	10,00
Cycloheximide (Actidione)	0,40	Chloramphenicol	0,05
Bacteriological Agar	15,50		

Final pH: 6,9 ± 0,2 at 25 °C

## Preparation:

Suspend 36 grams of the medium in one liter of distilled water. Mix well until a uniform suspension is obtained. Soak for 10-15 minutes. Heat with frequent agitation and boil for one minute. Distribute and sterilize at 118°C (15 lbs. sp) for 15 minutes. Cool and use immediately. Once cold, remelt just one time with the minimum heat. **DO NOT OVERHEAT.**

## Uses:

For the cultivation and selective isolation of pathogenic fungi. 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. Basically this medium is Mycology Agar to which has been added chloramphenicol which inhibits bacterial development and cycloheximide which inhibits the growth of saprophytic fungi. Mycobiotic Agar is very useful to isolate pathogenic fungi from diverse types of highly samples highly contaminated with different types of accompanying flora, such as those of the head, skin scrapings, nails, bronchial lavages, gastric juices, soil, etc.

It is recommended to inoculate several plates or tubes with the same sample in study and incubate them at ambient temperature (22-25°C) and at 35°C. The toxic effect of the antimicrobial mixture is greater in the ambient temperature, for which reason the number of positive isolates is higher at temperatures below 35°C incubation than at 25°C.

It is recommended to inoculate at the same time other culture media like Littman Bile Agar, Biggy Agar, etc., with the object to obtain a greater number of isolates. The dermatophytes and other numerous groups of pathogenic fungi grow quickly in the Mycobiotic Agar which inhibits most of the bacteria and the fungal saprophytes or commensal contaminants.

Nevertheless, it should be noted that *Allescheria boydii*, *Aspergillus fumigatus*, *Cryptococcus neoformans*, *Actinomyces bovis*, and *Nocardia asteroides*, are inhibited by the antibiotics present in the medium. The first three can be isolated on Littman Bile Agar with the addition of streptomycin, and *Nocardia asteroides* on Mycological Agar or in Trypticasein Soy Agar with added cycloheximide. *Actinomyces bovis* grow well on the plates of Anaerobic Agar and in Thioglycollate Medium without Indicator.

## Microbiological Tests:

Microorganisms	Growth
<i>Escherichia coli</i> ATCC 25922	Inhibited
<i>Staphylococcus aureus</i> ATCC 25923	Inhibited
<i>Trichophyton mentagrophytes</i>	Satisfactory
<i>Trichophyton rubrum</i>	Satisfactory
<i>Candida albicans</i> ATCC 2091	Satisfactory
<i>Aspergillus niger</i>	Inhibited/Light
<i>Penicillium spp.</i>	Inhibited/Light

