PRODUCT INFORMATION

Product Type: Tubes

Cat No. TT286 - DERMATOPHYTE AGAR

Intended Use:

Mycobiotic Agar (also known as Fungobiotic Agar or Mycobio Agar), supplemented with the antibiotics gentamicin, is designed for the selective isolation of pathogenic fungi, particularly dermatophytes, from specimens that may be contaminated with bacteria and saprophytic fungi.

Principles and uses:

Nutrient Base: Mycobiotic Agar contains enzymatic digest of soybean meal (or papaic digest of soybean meal), dextrose as a carbohydrate source, and agar as a solidifying agent.

Standard Inhibitors: Traditionally, this medium includes cycloheximide (to suppress saprophytic fungi) and chloramphenicol (broad-spectrum antibacterial to inhibit Gram-positive and Gram-negative bacteria, including Nocardia), making it highly selective for pathogenic fungi and dermatophytes.

Gentamicin Addition: serves as an additional or alternative antibacterial, broadening inhibition against bacterial contaminants, especially some Gram-negative rods that may be less sensitive to chloramphenicol. The inclusion of gentamicin may further reduce bacterial growth, offering a cleaner background for fungal recovery.

advantage of gentamicin addition:

The primary benefit is enhanced suppression of bacterial contaminants, particularly when samples contain highly resistant Gram-negative bacteria or when broad-spectrum antibacterial activity is necessary. This makes Mycobiotic Agar + gentamicin especially useful for isolating pathogenic fungi from heavily contaminated or clinical sources.

In summary:

Nutrient base: Supports fungal growth
Cycloheximide: Inhibits saprophytic and some non-pathogenic fungi
Chloramphenicol: Inhibits a wide range of bacteria
Gentamicin: Further suppresses bacteria, especially Gram-negatives
Agar: Solidifies medium

Application

Selective Fungal Isolation: Mycobiotic Agar with antibiotics (and optionally gentamicin) is valuable for the primary isolation and cultivation of pathogenic fungi (dermatophytes and dimorphic fungi) from clinical, environmental, or veterinary samples that are likely to carry significant bacterial flora.

Parallel Testing: For some systemic fungi, parallel culture on antibiotic-free media is recommended, as some fungi of interest may be sensitive to cycloheximide or chloramphenicol.

Recommended Incubation: Incubate at 25–30°C for 4–7 days, observing for growth of pathogenic fungi while bacterial and saprophytic fungal contamination is suppressed

Limitations of the Procedure

1. Due to nutritional variation, some strains may be encountered that grow poorly or fail to grow on this medium.
2. Non-selective fungal media should be used concurrently with selective media when isolating fungi due to the sensitivity of some strains to cycloheximide and chloramphenicol.

References

1. Am. J. Public Health. 1951. 41:292.
2. Bull. D. Inst. Sieroteropl., Melan. 1926. 5:173.
3. Am. Rev. Resp. Dis. 1967. 95:1041.
4. Am. J. Clin. Pathol. 1951. 21:684.
5. Am. J. Clin. Pathol. 1954. 24:621.
6. Rev. Latinoam Microbiol. 1958. 1:125.
7. Georg, L. K., E. S. McDonough, L. Ajello, and S. Brinkman. 1960. In vitro effects of antibiotics on yeast phase of Blastomyces dermatitidis and other fungi. J. Lab. & Clin. Med. 55:116-19.

Composition:
Enzymatic Digest of Soybean Meal - 10.0 g/L
Dextrose - 10.0 g/L
Agar - 15.0 g/L
Cycloheximide - 0.5 g/L
Chloramphenicol - 0.05 g/L
Gentamicin – 100mg/L

Storage: 2°-8°C
Package contents: 20 Tubes
Appearance: slightly hazy and light to medium yellow.
pH Range: 6.3 - 6.7
Exp. Date: Printed on label and on the item.
Required materials not supplied: Laboratory equipment as required.

Warning and Precautions:

Warning and Precautions - For professional use only. Follow good microbiological lab practices while handling specimens and culture. Do not use Tubes if they show evidence of microbial contamination, discoloration, drying, cracking, or other signs of deterioration. Avoid freezing and overheating. The Tubes may be used / inoculated up to the expiration date and incubated for the recommended incubation times. After use and prior to discarding, specimen containers and all contaminated material, including the used culture media and contaminated culture containers, must be sterilized or incinerated by validated procedures. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.

Waste Disposal

After interpretation all items should be destroyed by standard incineration methods.

Performance Testing Results:

Streaking from fresh colony culture.

Test	ATCC NO	Incubation Temp. (℃)	Incubation Cond.	Reaction 1	
Candida albicans	10231	20-25 ℃	Aerobic, up to 7 days	Growth	
Trichophyton rubrum	MYA 4438	20-25 ℃	Aerobic, up to 7 days	Growth	White mycelium
Saccharomyces cerevisiae	2338	20-25 ℃	Aerobic, up to 7 days	Inhibited	
Escherichia coli	25922	20-25 ℃	Aerobic, up to 7 days	Partially inhibited	
Staphylococcus aureus	25923	20-25 ℃	Aerobic, up to 7 days	Inhibited	
Pseudomonas aeruginosa	27853	20-25 ℃	Aerobic, up to 7 days	Inhibited	

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