



Inhibitory Mold Agar, Ulrich(Mold Inhibitory Agar, Ulrich)

M246

Inhibitory Mould Agar, Ulrich is used for selective isolation of pathogenic fungi.

Composition**

Ingredients	Gms / Litre
Casein enzymic hydrolysate	3.000
Peptic digest of animal tissue	2.000
Yeast extract	5.000
Dextrose	5.000
Starch, soluble	2.000
Dextrin	1.000
Sodium phosphate	2.000
Ferrous sulphate	0.040
Magnesium sulphate	0.800
Sodium chloride	0.040
Manganese sulphate	0.160
Chloramphenicol	0.125
Agar	15.000
Final pH (at 25°C)	6.7±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 36.17 grams in 1000 ml distilled water. Mix thoroughly and heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 118 - 121°C (12-15 lbs prssure) for 15 minutes. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Pathogenic fungi constitute a very small group among the vast number of organisms that belong to the Kingdom Fungi. Fungi with the potential to cause human diseases belong to the genera *Aspergillus*, *Candida*, *Cryptococcus*, *Histoplasma* and *Pneumocystis*. Members of pathogenic fungi group are scattered throughout four taxonomic classes based on their methods of reproduction viz. *Zygomycetes*, *Basidiomycetes*, *Ascomycetes* and *Deuteromycetes* (Fungi Imperfecti) (2). To confirm the existence and nature of infection by fungi and yeasts, direct methods are more important than indirect methods; identification of the organisms is much more useful than demonstrating the humoral and cellular responses of the host (1). Inhibitory Mould Agar formulated as per Ulrich (3) is used as a general-purpose medium for the selective isolation and cultivation of pathogenic fungi.

Casein enzymic hydrolysate and peptic digest of animal tissue provide essential growth nutrients. Yeast extract is a rich source of vitamin B complex. Dextrose, starch and dextrin are energy sources for the metabolism of fungi. Sodium chloride and metallic salts provide essential ions and minerals. Chloramphenicol inhibits a wide variety of gram-positive and gram-negative bacteria. Potential contaminants of cosmetics and toiletries like *Pseudomonas aeruginosa* and *Serratia marcescens* are effectively inhibited by chloramphenicol. Sodium phosphates buffer the medium.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Amber coloured, clear to slightly opalescent gel forms in Petri plates.

Reaction

Reaction of 3.62% w/v aqueous solution at 25°C. pH : 6.7±0.2

pH

6.50-6.90

Cultural Response

M246: Cultural characteristics observed after an incubation at 25-30°C for upto 7 days ii) Bacterial cultures are incubated at 35-37°C.

Organism	Inoculum (CFU)	Growth	Recovery
Cultural Response			
<i>Candida albicans</i> ATCC 10231	50-100	luxuriant	>=50%
<i>Escherichia coli</i> ATCC 25922	>=10 ³	inhibited	0%
<i>Staphylococcus aureus</i> ATCC 25923	>=10 ³	inhibited	0%
<i>Trichophyton mentagrophytes</i> ATCC 9533	50-100	luxuriant	

Storage and Shelf Life

Store between 15-25°C in tightly closed container and the prepared medium at 2-8°C. Use before expiry period on the label.

Reference

1. Cruikshank R., Marmion B. P., Duguid J. P., Swain R.H.A., (Eds.), Medical Microbiology, 12th Edition, Vol. II, Churchill Livingstone
2. Frey D., Oldfield R. J., Bridger R. C., A Colour Atlas of Pathogenic Fungi, Wolfe Medical Publications, London.
3. Ulrich J. A., 1956, Bact. Proc., S.A.B., M75: 87.

Revision : 3 / 2015

Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.