

TM 1398 - MOLD INHIBITORY AGAR, ULRICH

INTENDED USE

For isolation of pathogenic fungi.

PRODUCT SUMMARY AND EXPLANATION

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). 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. Inhibitory Mould Agar formulated as per Ulrich is used as a general-purpose medium for the selective isolation and cultivation of pathogenic fungi.

COMPOSITION

Ingredients	Gms / Ltr
Tryptone	3.000
Peptone	2.000
Yeast extract	5.000
Dextrose (Glucose)	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

PRINCIPLE

Tryptone and Peptone 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.

INSTRUCTION FOR USE

- Dissolve 36.17 grams in 1000 ml purified/distilled water.
- Mix thoroughly and heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 118 - 121°C (12-15 psi pressure) for 15 minutes.
- Cool to 45-50°C. Mix well and pour into sterile Petri plates.



QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Amber coloured, clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 6.7±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Candida albicans</i>	10231	10-100	Luxuriant	≥70 %	25-30°C	Upto 7 days
<i>Escherichia coli</i>	25922	≥10 ³	Inhibited	0%	35-37°C	Upto 7 days
<i>Staphylococcus aureus subsp. aureus</i>	25923	≥10 ³	Inhibited	0%	35-37°C	Upto 7 days
<i>Trichophyton mentagrophytes</i>	9533	10-100	Luxuriant	≥70 %	25-30°C	Upto 7 days

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

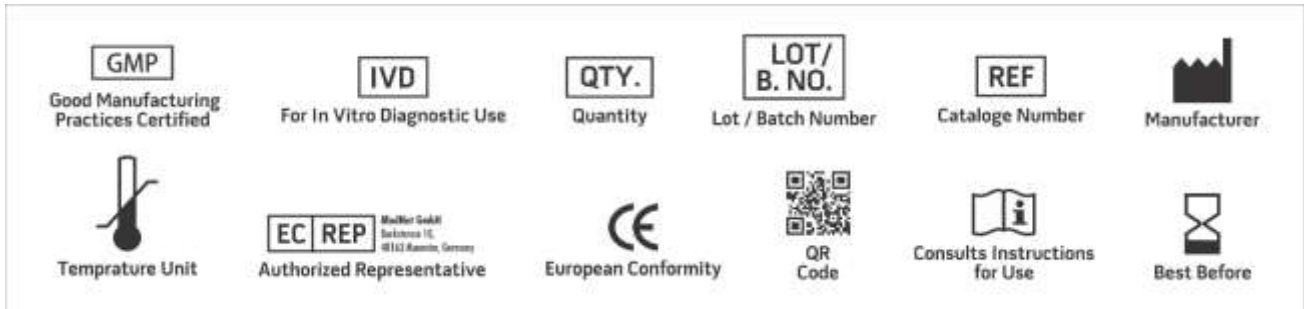
After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

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. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
4. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.



5. Ulrich J. A., 1956, Bact. Proc., S.A.B., M75: 87.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**
Revision: 08 Nov., 2019