

TM 1205 - INHIBITORY MOLD AGAR, ULRICH

INTENDED USE

For selective 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.

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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.

A- 902A, RIICO Industrial Area, Phase III, Bhiwadi-301019.



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 |
|--|-------|----------------------|-----------|----------|---------------------------|----------------------|
| Candida albicans | 10231 | 10-100 | Luxuriant | >=70% | 25-30°C | 7 days |
| Escherichia coli | 25922 | >=10 ³ | Inhibited | 0% | 35 - 37℃ | 7 days |
| Staphylococcus aureus subsp. aureus | 25923 | >=10 ³ | Inhibited | 0% | 35 - 37°C | 7 days |
| Trichophyton mentagrophytes | 9533 | 10-100 | Luxuriant | >=70% | 25-30°C | 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 2-8°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.





PRODUCT DATA SHEET

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

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