



## Mycological Agar, Modified

M1422

Mycological Agar, Modified is used for cultivation of fungi.

### Composition\*\*

Ingredients	Gms / Litre
Papaic digest of soyaben meal	10.000
Dextrose	10.000
Agar	16.000
Final pH ( at 25°C)	7.0±0.2

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

Suspend 36 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and pour into sterile Petri plates.

### Principle And Interpretation

Fungal media are of relatively simpler composition, when compared to bacterial media. Mycological Agar, Modified is recommended for the cultivation of fungi (1). This medium can also be employed as a basal medium for cultivation of fungi from foods by the addition of antimicrobial agents (2).

The pH may be adjusted to 4.0 after autoclaving by adding sterile 10% lactic acid/acetic acid and used for determining yeast and mould counts of carbonated beverages and food products (1).

Papaic digest of soyabean meal serves as source of carbon, nitrogen and other essential growth nutrients. Dextrose is the source of energy. When the medium is used with the addition of antimicrobial agents, a non-selective medium should also be used in parallel. Refer appropriate references for standard procedures for isolation of fungi (3, 4).

### Quality Control

#### Appearance

Cream to yellow homogeneous free flowing powder

#### Gelling

Firm, comparable with 1.6% Agar gel.

#### Colour and Clarity of prepared medium

Light amber coloured clear to slightly opalescent gel forms in Petri plates

#### Reaction

Reaction of 3.6% w/v aqueous solution at 25°C. pH : 7.0±0.2

#### pH

6.80-7.20

#### Cultural Response

M1422: Cultural characteristics observed after an incubation at 25-30°C for 48-72 hours.

Organism	Inoculum (CFU)	Growth on Agar w/ low pH	Growth	Recovery	Recovery on Agar w/ low pH
<b>Cultural Response</b>					
* <i>Aspergillus brasiliensis</i> ATCC 16404	50-100	good			
<i>Candida albicans</i> ATCC 10231	50-100	good	good	40-50%	40-50%
<i>Lactobacillus acidophilus</i> ATCC 11506	50-100	good	good	40-50%	40-50%

<i>Staphylococcus aureus</i> ATCC 25923	50-100	inhibited	good	40-50%	0%
<i>Saccharomyces cerevisiae</i> ATCC 9763	50-100	good	good	40-50%	40-50%

\*Key: Formerly known as *Aspergillus niger*

## Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.

## Reference

1. Speck M. L., (Ed.), 1984, Compendium of Methods for the Microbiological Examination of Foods, 2nd Ed., APHA, Washington, D.C.
2. Atlas R. M., 2004, Handbook of Microbiological Media, Lawrence C. Parks (Ed.), 3rd Edition, CRC Press
3. Murray P. R., Baron J. H., Pfaller M. A., Tenover J. C. and Tenover F. C., (Eds.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.
4. Ajello L., Georg L. K., Kaplan W. and Kaufman L., 1963, CDC Laboratory Manual for Medical Mycology, PHS Publication No. 994, U.S. Govt. Printing Office, Washington, D.C.

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