



Fungal Agar (Mycological Agar)

M094

Fungal Agar (Mycological agar) is recommended for cultivation of fungi. Also used for carrying stock cultures of fungi and for chlamydo spores production.

Composition**

Ingredients	Gms / Litre
Papaic digest of soyabean meal	10.000
Dextrose	10.000
Agar	15.000
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 35 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. For preparing selective media, acidify the media upto pH 3.0-4.0 by the addition of two vials of 10% Lactic Acid Solution (FD095).

Principle And Interpretation

Mycological media are basal media to which antifungal agents may be added for checking their effect on fungi or bacteria to render them selective for isolation and cultivation of fungi. Mycological Agar is used while working with pathogenic fungi.

Earlier media for fungi generally relied on an acidic pH to make the media less suitable for the growth of many bacteria (1). Fungal Agar is prepared according to the formulation suggested by Huppert and Walker (2).

Papaic digest of soyabean meal in the medium provides nitrogen, vitamins and minerals necessary to support bacterial growth. Dextrose is a carbon source required for the growth of fungi. The pH may be adjusted to 4.0 after autoclaving by adding sterile 10% lactic acid sodium (FD195)/acetic acid and used for determining yeast and mould counts of carbonated beverages and food products (3).

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

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

Reaction

Reaction of 3.5% w/v aqueous solution at 25°C. pH : 7.0±0.2

pH

6.80-7.20

Cultural Response

M094: Cultural characteristics observed after an incubation at 25 - 30°C for 48 - 72 hours (For Trichophyton species longer incubation may be required for upto 7days).

Organism	Inoculum (CFU)	Growth	Recovery
Growth Promotion			
<i>Aspergillus brasiliensis</i> ATCC 16404	50-100	luxuriant	
<i>Candida albicans</i> ATCC 10231	50-100	luxuriant	≥70%

<i>Lactobacillus acidophilus</i> ATCC 11506	50-100	luxuriant	>=70%
<i>Saccharomyces cerevisiae</i> ATCC 9763	50-100	luxuriant	>=70%
<i>Saccharomyces uvarum</i> ATCC 28098	50-100	luxuriant	>=70%
<i>Staphylococcus aureus</i> ATCC 25923	50-100	luxuriant	>=70%
<i>Trichophyton</i> <i>mentagrophytes</i> ATCC 9533	50-100	luxuriant	

Storage and Shelf Life

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

Reference

- 1.A. J. Clin. Path., 1951, 21: 684.
- 2.Huppert M., and Walker L. J., 1958, Am. J. Clin. Pathol., 29:291
- 3.Speck M. L., (Eds.), 1984, Compendium of Methods for the Microbiological Examination of Foods, 2nd Ed., APHA, Washington, D.C.

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