



Corn Meal Agar w/ Dextrose

M150

Intended Use:

Recommended for cultivation of phytopathological and other fungi

Composition**

Ingredients	Gms / Litre
Corn meal, infusion from	50.000
Dextrose (Glucose)	2.000
Agar	15.000
Final pH (at 25°C)	6.0±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 19 grams in 1000 ml purified / distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Corn Meal Agar is a general purpose medium used for the cultivation of fungi and for the study of *Candida* species for the chlamydospore production. Corn Meal Agar with Dextrose is used for the cultivation of commonly occurring as well as phytopathological fungi. The addition of dextrose enhances the chromogenesis of some species of Trichophyton (4). Pollack and Benham (3) have described the usefulness of this medium for studying the morphology of *Candida*.

This is a very simple formulation containing corn meal infusion, dextrose and agar. However this infusion has enough nutrients to enhance the growth of fungi. Addition of dextrose to the medium supports more luxuriant growth of some fungi as compared to the medium without dextrose, but dextrose supplemented Corn Meal Agar should not be used for chlamydospores production. Some *Candida* species lose their ability of chlamydospore formation by repeated sub culturing.

Type of specimen

Plant samples

Specimen Collection and Handling:

For plant samples follow appropriate techniques for handling specimens as per established guidelines (3).

After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. A non-selective and selective medium should be inoculated for isolation of fungi from conceivably contaminated specimens.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance

Cream to yellow homogeneous coarse powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Light amber coloured, opalescent gel forms in Petri plates

Reaction

Reaction of 1.9% w/v aqueous solution at 25°C. pH : 6.0±0.2

pH

5.80-6.20

Cultural Response

Cultural characteristics observed after an incubation at 23- 27°C for upto 4 days . (For observing Chlamydospore formation:Using a straight wire, make a deep cut in the Corn Meal Agar plate with inoculum. Place a flamed sterile coverslip over the line of inoculum. After incubation, the streaks are examined microscopically,through the coverslip,using low and high power objectives, for chlamydospore formation.)

Organism	Inoculum (CFU)	Growth	Chlamydospores	Recovery
# <i>Aspergillus brasiliensis</i> ATCC 16404 (00053*)	50-100	luxuriant	negative	
<i>Candida albicans</i> ATCC 10231 (00054*)	50-100	luxuriant	positive	≥70%
<i>Saccharomyces cerevisiae</i> ATCC 9763 (00058*)	50-100	luxuriant	negative	≥70%
<i>Saccharomyces uvarum</i> ATCC 28098	50-100	luxuriant	negative	≥70%

Key : * Corresponding WDCM numbers.

- Formerly known as *Aspergillus niger*

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 20-30°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition Seal the container tightly after use.

Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques (1,2).

Reference

1. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
2. 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.
3. Pollack and Benham, 1960, J. Lab. Clin. Med., 50:313.
4. Prospero, Magdalene T. and Reyes A. C., 1955, ActaMed, Phillipina 12(2), 69-74

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Disclaimer :

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