



Oat Meal Agar

M397

Oat Meal Agar is used for cultivation of fungi, particularly for macrospore formation.

Composition**

Ingredients	Gms / Litre
Oat Meal	60.000
Agar	12.500
Final pH (at 25°C)	7.2±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 72.5 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 min. Cool to 45-50°C. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Fungi are multicellular heterotropic members of the plant kingdom that lack roots and stems and are referred to as thallophytes. They are larger than the bacteria and more complex in their morphology. The form of sporulation and the type of spore are important criteria in the identification of various fungi.

Fungi are extremely successful organisms, as evidenced by their ubiquity in nature. Of the estimated 250,000 species, fewer than 150 are known as primary pathogens of humans (1). Identification and classification of fungi is primarily based on the morphologic differences in their reproductive structures. Fungi reproduce sexually or asexually or by both means. Sexual reproduction is associated with the formation of specialized structures that facilitate fertilization and nuclear fission, resulting in the production of specialized spores. Large, multicelled spores are called macroconidia, macroaleuriospores or macrospores and are produced by aerial sporulation (2). Imperfect fungi are those in which no sexual phase has been demonstrated. The spores are produced directly or from the mycelium. Most of the fungi of medical importance belong to the imperfect group.

Oat meal is a source of nitrogen, carbon, protein and nutrients necessary for the growth of fungi.

Quality Control

Appearance

Cream to yellow homogeneous powder or soft lumps which can be easily broken down to powder

Gelling

Firm, comparable with 1.25% Agar gel.

Colour and Clarity of prepared medium

Brownish yellow coloured opaque gel with some suspended particles forms in Petri plates

Reaction

Reaction of 7.25% w/v aqueous solution at 25°C. pH : 7.2±0.2

pH

7.00-7.40

Cultural Response

M397: Cultural characteristics observed after an incubation at 25-30°C for 18-48 hours.

Organism	Inoculum	Growth	Recovery
Cultural Response	(CFU)		
<i>Aspergillus brasiliensis</i> ATCC 16404	50-100	luxuriant	
<i>Candida albicans</i> ATCC 10231	50-100	luxuriant	≥50%
<i>Saccharomyces cerevisiae</i> ATCC 9763	50-100	luxuriant	≥50%

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. Murray P. R., Baron E. J., Jorgensen J. H., Pfaller M. A., Tenover F. C., Tenover F. C., (Eds.), 8th Ed., 2003, Manual of Clinical Microbiology, ASM, Washington, D.C.
2. Koneman E. W., Allen S. D., Janda W. M., Schreckenberger P. C. and Winn W. C. Jr., 1997, Colour Atlas and Textbook of Diagnostic Microbiology, 5th Ed., Lippincott- Raven Publishers, Philadelphia, Pa.

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