

Instructions for Use

OATMEAL AGAR

Cat. no. W54	Oatmeal Agar, 15x100mm plate, 24ml	10 plates/bag
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INTENDED USE

Hardy Diagnostics Oatmeal Agar is recommended for the cultivation of fungi, particularly for macrospore formation.

This product is not intended to be used for the diagnosis of human disease.

SUMMARY

Fungi are ubiquitous in nature and extremely successful microorganisms. They're comprised of eukaryotic cells, which are much more complex than bacteria. They can reproduce sexually and/or asexually, and reproduction is associated with the formation of specialized structures to facilitate fertilization and nuclear fission, resulting in the formation of distinctive spores. The method of sporulation and the type of spore formed by fungal cells is critical in their identification. Large, multicellular spores are called macroconidia, macroaleuriospores, or macrospores. These are produced by aerial sporulation.^(2,3) Members of the imperfect fungi are those in which no sexual phase has been observed. In this group, spores are produced directly from mycelium.

Fungi are of great importance to the food industry, particularly in preserved foods or stored grains.⁽¹⁾ Grains or cereals may become contaminated with alkaloids or ergoline derivatives, chemicals produced by certain types of fungi (e.g. *Claviceps purpurea*), which may cause ergotism or poisoning due to their toxigenic effects. Of the estimated 250,000 species of fungi, it's believed fewer than 150 are considered primary pathogens of humans. Members of the imperfect fungi make up the largest group considered to be of medical importance.⁽¹⁻³⁾

Oatmeal Agar contains oatmeal as a source of nitrogen, carbon, and protein necessary for the growth and sporulation of fungi. Agar is the solidifying agent.

FORMULA

Ingredients per liter of deionized water:*

Oatmeal	60.0g
Agar	12.5g

Final pH 6.0 +/- 0.2 at 25°C.

* Adjusted and/or supplemented as required to meet performance criteria.

STORAGE AND SHELF LIFE

Storage: Upon receipt, store away from direct light at 2-8 °C. away from direct light. Media should not be used if there

are any signs of deterioration (shrinking, cracking, or discoloration), contamination, or if the expiration date has passed. Product is light and temperature sensitive; protect from light, excessive heat, moisture, and freezing.

The expiration date on the product label applies to the product in its intact packaging when stored as directed. The product may be used and tested up to the expiration date on the product label and incubated for the recommended incubation times as stated below.

Refer to the document "[Storage](#)" for more information.

PRECAUTIONS

This product may contain components of animal origin. Certified knowledge of the origin and/or sanitary state of the animals does not guarantee the absence of transmissible pathogenic agents. Therefore, it is recommended that these products be treated as potentially infectious, and handle observing the usual universal blood precautions. Do not ingest, inhale, or allow to come into contact with skin.

This product is for laboratory use only. It is to be used only by adequately trained and qualified laboratory personnel. Observe approved biohazard precautions and aseptic techniques. All laboratory specimens should be considered infectious and handled according to "standard precautions." Refer to the document "[Guidelines for Isolation Precautions](#)" from the Centers for Disease Control and Prevention.

For additional information regarding specific precautions for the prevention of the transmission of all infectious agents from laboratory instruments and materials, and for recommendations for the management of exposure to infectious disease, refer to CLSI document M29: *Protection of Laboratory Workers from Occupationally Acquired Infections*.

Sterilize all biohazard waste before disposal.

Refer to the document "[Precautions When Using Media](#)" for more information.

PROCEDURE

Sample Collection: Consult reference methods for information on sample collection.⁽¹⁻³⁾ Samples should be submitted directly to the laboratory without delay and protected from excessive heat and cold. If there is to be a delay in processing, the sample should be inoculated onto an appropriate transport medium and refrigerated until inoculation.

Method of Use: Consult references for information concerning inoculation procedures.⁽¹⁻³⁾ Allow medium to warm to room temperature prior to inoculation.

INTERPRETATION OF RESULTS

Consult listed references for appropriate interpretation of results.⁽¹⁻³⁾ Biochemical testing and microscopic observation of the conidia are recommend for further identification. Lactophenol Cotton Blue ([Cat. no. Z68](#)) can be be used for staining slides for microscopic examination.

Microscopic examination:

1. Remove a fragment of the fungal colony 2-3mm from the colony edge using an inoculating or teasing needle or MycoMount™ adhesive strips ([Cat. no. MM40](#)).
2. Place the fragment in the drop of stain and tease gently.
3. Apply a coverslip. Do not push down or tap the cover slip as this may dislodge the conidia from the conidiophores.
4. Examine the preparation under low and high, dry magnification for the presence of characteristic mycelia and fruiting structures. Consult appropriate references for characteristic features.⁽¹⁻³⁾

LIMITATIONS

It is recommended that biochemical, immunological, molecular, or mass spectrometry testing be performed on colonies from pure culture for complete identification of bacteria and/or fungi.

Some fastidious microorganisms may fail to grow on this medium.

Refer to the document "[Limitations of Procedures and Warranty](#)" for more information.

MATERIALS REQUIRED BUT NOT PROVIDED

Standard microbiological supplies and equipment such as loops, swabs, applicator sticks, other culture media or testing supplies (Cat. no. [Z68](#) or [MM40](#)), incinerators, incubators, etc., as well as serological and biochemical reagents, are not provided.

QUALITY CONTROL

Hardy Diagnostics tests each lot of commercially manufactured media using appropriate quality control microorganisms and quality specifications as outlined on the Certificate of Analysis (CofA) and the CLSI document M22-A3 *Quality Assurance for Commercially Prepared Microbiological Culture Media*. The following microorganisms are routinely used for testing at Hardy Diagnostics:

Test Organisms	Inoculation Method*	Incubation			Results
		Time	Temperature	Atmosphere	
<i>Candida albicans</i> ATCC® 10231	A	24-48hr	25°C	Aerobic	Growth
<i>Aspergillus brasiliensis</i> ATCC® 16404	G	24-48hr	25°C	Aerobic	Growth

* Refer to the document "[Inoculation Procedures for Media QC](#)" for more information.

USER QUALITY CONTROL

End users of commercially prepared culture media should perform QC testing in accordance with applicable government regulatory agencies, and in compliance with accreditation requirements. Hardy Diagnostics recommends end users check for signs of contamination and deterioration and, if dictated by laboratory quality control procedures or regulation, perform quality control testing to demonstrate growth or a positive reaction and to demonstrate inhibition or a negative reaction, if applicable. Hardy Diagnostics quality control testing is documented on the certificate of analysis (CofA) available from Hardy Diagnostics [Certificate of Analysis](#) website. Also refer to the document "[Finished Product Quality Control Procedures](#)," and the CLSI document M22-A3 *Quality Assurance for Commercially Prepared Microbiological Culture Media* for more information on the appropriate QC procedures. See the references below.

PHYSICAL APPEARANCE

Oatmeal Agar should be off-white and opaque in color, and contain non-homogeneous particles.

REFERENCES

1. APHA Technical Committee on Microbiological Methods for Foods. *Compendium of Methods for the Microbiological Examination of Foods*, APHA, Washington, D.C.
2. Jorgensen et al. *Manual of Clinical Microbiology*. American Society for Microbiology, Washington, D.C.
3. Koneman, E.W., et al. *Color Atlas and Textbook of Diagnostic Microbiology*. J.B. Lippincott Company, Philadelphia, PA.

ATCC is a registered trademark of the American Type Culture Collection.

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[Ordering Information](#)

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