

Instructions for Use

CRITERION™ CORN MEAL AGAR

Cat. no. C5490	CRITERION™ Corn Meal Agar	36gm
Cat. no. C5491	CRITERION™ Corn Meal Agar	500gm
Cat. no. C5492	CRITERION™ Corn Meal Agar	2kg
Cat. no. C5493	CRITERION™ Corn Meal Agar	10kg
Cat. no. C5494	CRITERION™ Corn Meal Agar	50kg

INTENDED USE

Hardy Diagnostics CRITERION™ Corn Meal Agar is recommended for use in the cultivation of fungi and for the inducement of chlamydospore formation by *Candida albicans*.

This dehydrated culture medium is a raw material intended to be used in the making of prepared media products, which will require further processing, additional ingredients, or supplements.

SUMMARY

CRITERION™ Corn Meal Agar is useful in the morphologic differentiation of many yeast-like organisms and in the cultivation of fungi. It suppresses vegetative growth of many fungi while stimulating sporulation.⁽¹⁾ *Candida albicans* forms chlamydospores on certain media and this production of chlamydospores is the most important diagnostic criterion for identifying *C. albicans*.⁽²⁾ Corn meal has shown to be successful in stimulating the production of chlamydospores by *C. albicans*. Kelly and Funigeillo reported that enhanced chlamydospore formation by *C. albicans* can be achieved by the addition of 1% Tween® 80.⁽³⁾ Corn Meal Agar, with the addition of Tween® 80, may be the most accurate routine tool available for identifying *C. albicans*.⁽⁴⁾

CRITERION™ Corn Meal Agar consists of corn meal infusion and agar. Growth nutrients are provided by the infusion product.

FORMULA

Gram weight per liter:*	18.0gm/L
Corn Meal Infusion from Solids	2.0gm
Agar	15.0gm

Final pH 6.0 +/- 0.2 at 25°C.

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

STORAGE AND SHELF LIFE

Store the sealed bottle(s) containing dehydrated culture medium at 2-30°C. Dehydrated culture medium is very hygroscopic. Keep lid tightly sealed. Protect dehydrated culture media from moisture and light. The dehydrated culture media should be discarded if it is not free-flowing or if the color has changed from its original yellow.

Store the prepared culture media at 2-8°C.

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.

METHOD OF PREPARATION FOR DEHYDRATED CULTURE MEDIA

1. Suspend 18.0gm of the dehydrated culture media in 1 liter of distilled or deionized water.
2. Heat to boiling to dissolve completely.
3. Add 10ml of Tween[®] 80 if desired.
4. Autoclave at 121°C. for 15 minutes.

PROCEDURE AND INTERPRETATION OF RESULTS

For information on procedures and interpretation of results, consult listed references or refer to the prepared media Instructions for Use (IFU) for Cat. No. W10.

LIMITATIONS

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

Some formulations may require a settling period before pH testing of the prepared medium. If the pH is tested immediately after preparation and is out of specification, retest the medium after 24 hours to obtain final pH results. Always take pH reading at room temperature.

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

Repeated subculturing of some *Candida* strains result in a loss of their ability to produce chlamydo spores.

C. stellatoidea and *C. tropicalis* also produce chlamydo spores on Corn Meal Agar with the addition of 1% Tween® 80.

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

MATERIALS REQUIRED BUT NOT PROVIDED

Standard microbiological supplies and equipment such as autoclaves, incinerators, and incubators, etc., 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	C	24-72hr	15-30°C	Aerobic	Growth; hyphae, budding cells and chlamydo spores seen
<i>Aspergillus brasiliensis</i> ATCC® 16404	C	24-72hr	15-30°C	Aerobic	Growth; no chlamydo spores seen
<i>Saccharomyces cerevisiae</i> ATCC® 9763	C	24-72hr	15-30°C	Aerobic	Growth; no chlamydo spores seen

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

USER QUALITY CONTROL

Users of dehydrated 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. In addition, refer to the following document "[Finished Product Quality Control Procedures](#)," for more information on QC or see the reference(s) for more specific information.

PHYSICAL APPEARANCE

CRITERION™ Corn Meal Agar powder should appear homogeneous, free-flowing, and yellow in color. The prepared media should appear clear, with a slight opalescence, and light amber in color.

REFERENCES

1. Tille, P., et al. *Bailey and Scott's Diagnostic Microbiology*, C.V. Mosby Company, St. Louis, MO.
2. Duncan, J. and J. Floeder. 1963. A comparison of media for the production of chlamydo spores by *Candida albicans*. *Am. J. Med. Tech.*; 29:199-206.

3. Kelly, J.P. and F. Funigiello. 1959. *Candida albicans*: A study of media designed to promote chlamydospore production. *J. Lab. & Clin. Med.*; 53:807-809.
4. Fordon, M.A. and G.N. Little. 1963. Effective dehydrated media with surfactants for identification of *Candida albicans*. *J. of Int. Soc. for Human and Animal Mycol.*; 2:171-175.
5. Koneman, E.W., et al. *Color Atlas and Textbook of Diagnostic Microbiology*, J.B. Lippincott Company, Philadelphia, PA.
6. Campbell, M.C. and J.L. Stewart. 1980. *The Medical Mycology Handbook*, John Wiley and Sons, New York.
7. McGinnins. 1980. *Laboratory Handbook of Medical Mycology*, Academic Press, New York.

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

Tween is a registered trademark of ICI Americas, Inc.

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[Ordering Information](#)

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