

Instructions for Use

CZAPEK YEAST AGAR

Cat. no. W117	Czapek Yeast Agar, 15x100mm Plate, 26ml	10 plates/bag
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INTENDED USE

Hardy Diagnostics Czapek Yeast [Extract] Agar is recommended for the cultivation and maintenance of heat-resistant filamentous fungi from foods or environmental sources.

SUMMARY

Aspergillus brasiliensis is ubiquitous in the environment and is particularly common in soil. It is one of the most common species in the genus *Aspergillus*. Members of this genus are filamentous fungi present in oxygen-rich and mesophilic environments. *Aspergillus brasiliensis* also has xerophilic characteristics (growth in dry conditions), and is capable of growth in areas with very low water content.⁽³⁾ Other species of filamentous fungi are able to utilize sodium nitrate as the sole nitrogen source, making this group a common inhabitant of the environment and useful for industrial applications.

Czapek Yeast Agar, also known as Czapek Yeast Autolysate Agar, is recommended for the cultivation and maintenance of filamentous fungi, and is useful for studies involving members of the genus *Aspergillus*, *Penicillium*, and *Actinomyces*.⁽¹⁾ The medium is also useful for chlamydospore production in *Candida albicans*.⁽⁴⁾ Czapek Yeast Agar contains sucrose, which serves as the sole carbon source. Yeast extract provides essential amino acids, vitamins, and other critical nutrients. Sodium nitrate provides nitrogen, and metal sulfates serve as mineral sources for growth and pigment production. Phosphates and salts help to buffer the medium, and agar is the solidifying agent.

FORMULA

Ingredients per liter of deionized water:*

Sucrose	30.0gm
Yeast Extract	5.0gm
Sodium Nitrate	3.0gm
Dipotassium Phosphate	1.0gm
Potassium Chloride	0.5gm
Magnesium Sulfate	0.5gm
Ferrous Sulfate	1.0mg
Agar	15.0gm

Final pH 7.3 +/- 0.2 at 25°C.

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

STORAGE AND SHELF LIFE

Storage: Upon receipt store 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

Note: Use the appropriate temperature and time designation according to the legal specification of the prescribed analysis method or regulation.

1. Inoculate by spreading a thin sample of the material on the surface of the medium.
2. Incubate at 15-30°C for 48-72 hours.

INTERPRETATION OF RESULTS

Consult references for interpretation of the results.⁽¹⁻⁴⁾

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.

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, incinerators, and incubators, etc., as well as serological and biochemical reagents, are not provided.

QUALITY CONTROL

Test Organisms	Inoculation Method*	Incubation			Results
		Time	Temperature	Atmosphere	
<i>Aspergillus brasiliensis</i> ATCC® 16404	G	48-72hr	15-30°C	Aerobic	Growth
<i>Candida albicans</i> ATCC® 10231	A	48-72hr	15-30°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

Czapek Yeast Agar should appear slightly opalescent, and light amber in color; may have a slight precipitate.

REFERENCES

1. Atlas R. M., *Handbook of Microbiological Media*, CRC Press.
2. Thom and Raper, *A Manual of the Aspergilli*, Williams & Wilkins Co., Baltimore, MD.
3. Schuster, E., N. Dunn-Coleman, J. Frisvad, P. van Dijck. On the safety of *Aspergillus niger*--A review. *Applied Microbiology and Biotechnology*. 2002. Volume 59. p426-435.
4. Dawson and Christine O., *Sabouraudia*. 1962. 1:214.

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