

MYCOLOGICAL AGAR (7309)

Intended Use

Mycological Agar is used for the cultivation of fungi.

Product Summary and Explanation

The value of selective media for initial cultivation of pathogenic fungi has been demonstrated by numerous investigators.¹⁻³ Historically, media for fungi generally relied on an acid pH to make the media less suitable for growth of many bacteria.⁴ Recently, media have been developed using neutral or slightly alkaline reactions, antibiotics, bile salts, and dyes as selective agents against bacteria.^{5,6} Mycological Agar is an excellent basal medium and antifungal agents may be added to study their affect on fungi.

Mycological Agar is prepared according to the formulation suggested by Huppert and Walker.⁷ Mycological Agar has a lower dextrose content than Sabouraud Dextrose Agar, and recommended for the isolation and cultivation of fungi from clinical specimens, foods,⁸ and cosmetics.⁹ This medium may be adjusted to pH 4.0 after autoclaving by adding sterile lactic acid or acetic acid.

Principles of the Procedure

The nitrogen, vitamin, and carbon sources are provided by Enzymatic Digest of Soybean Meal in Mycological Agar. Dextrose is the carbohydrate source. Agar is the solidifying agent.

Formula / Liter

Enzymatic Digest of Soybean Meal 10 g
 Dextrose..... 10 g
 Agar 16 g

Final pH: 7.0 ± 0.2 at 25°C

Formula may be adjusted and/or supplemented as required to meet performance specifications.

Precaution

1. For Laboratory Use.

Directions

1. Suspend 36 g of the medium in one liter of purified water.
2. Heat with frequent agitation and boil for one minute to completely dissolve the medium.
3. Autoclave at 121°C for 15 minutes.

Quality Control Specifications

Dehydrated Appearance: Powder is homogeneous, free flowing, and light beige.

Prepared Appearance: Prepared medium is trace to slightly hazy, and yellowish - tan in color.

Expected Cultural Response: Cultural response on Mycological Agar at 25-30°C after 2 - 7 days incubation.

| Microorganism | Approx. Inoculum (CF) | Expected Results |
|--------------------------------------|-----------------------|------------------|
| <i>Aspergillus niger</i> ATCC® 16404 | Point Inoculation | Growth |
| <i>Candida albicans</i> ATCC® 10231 | 10 - 300 | Growth |
| <i>Mycosporum canis</i> ATCC® 36299 | Point Inoculation | Growth |

The organisms listed are the minimum that should be used for quality control testing.

Test Procedure

Refer to appropriate references for specific procedures on the isolation and identification of fungi.

Results

Refer to appropriate references and procedures for results.

Storage

Store the sealed bottle containing the dehydrated medium at 2 - 30°C. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light by keeping container tightly closed.

Expiration

Refer to expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

Limitation of the Procedure

Due to nutritional variation, some strains may be encountered that grow poorly or fail to grow on this medium.

Packaging

| | | | |
|-------------------------|-----------------|--------------|--------------|
| Mycological Agar | Code No. | 7309A | 500 g |
| | | 7309B | 2 kg |
| | | 7309C | 10 kg |

References

1. **Am. J. Public Health.** 1951. **41**:292.
2. **Bull. D. Inst. Sieroteropl., Melan.** 1926. **5**:173.
3. **Am. Rev. Resp. Dis.** 1967. **95**:1041.
4. **Am. J. Clin. Pathol.** 1951. **21**:684.
5. **Am. J. Clin. Pathol.** 1954. **24**:621.
6. **Rev. Latinoam Microbiol.** 1958. **1**:125.
7. **Huppert, M., and L. J. Walker.** 1958. The selective and differential effects of cycloheximide on many strains of *Coccidioides immitis*. *Am. J. Clin. Pathol.* **29**:291.
8. **MacFaddin, J. D.** 1985. Media for isolation-cultivation-identification-maintenance of medical bacteria, vol. 1, p. 65-68. Williams & Wilkins, Baltimore, MD.
9. **Curry, A. S., J. G. Graf, and G. N. McEwen, Jr.** 1993. CTFA Microbiology Guidelines. The Cosmetic, Toiletry, and Fragrance Association, Washington, D.C.

Technical Information

Contact Acumedia Manufacturers, Inc. for Technical Service or questions involving dehydrated culture media preparation or performance at (517)372-9200 or fax us at (517)372-2006.