

MALT AGAR (7456)

Intended Use

Malt Agar is used for the cultivation of fungi.

Product Summary and Explanation

Malt media for yeasts and molds have been used for many years. In 1919, Reddish prepared a satisfactory substitute for beer wort from malt extract.¹ Thom and Church used Reddish's medium for their studies of aspergilli.² Malt Agar was employed by Fullmer and Grimes during studies of yeasts on synthetic media.³ Malt Agar is specified in standard methods for the examination of yeasts and molds.^{4,5}

Principles of the Procedure

Malt Extract provides carbon, protein, and nitrogen sources required for organism growth. Agar is a solidifying agent. The acidic pH of Malt Agar allows for optimal growth of molds and yeasts while restricting bacterial growth.

Formula / Liter

Malt Extract 30 g

Agar 15 g

Final pH: 5.5 ± 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 45 g of the medium in one liter of purified water.
2. Heat with frequent agitation to boiling to completely dissolve the medium.
3. Autoclave at 121°C for 15 minutes.

Quality Control Specifications

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

Prepared Appearance: Prepared medium is trace to slightly hazy, and beige to tan.

Expected Cultural Response: Cultural response on Malt Agar incubated at appropriate atmosphere and temperature and examined for growth after 48 – 168 hours.

Microorganism	Approx. Inoculum (CFU)	Expected Results
<i>Aspergillus niger</i> ATCC® 16404	Point Inoculation	Growth
<i>Candida albicans</i> ATCC® 10231	10 - 300	Growth
<i>Penicillium roquefortii</i> ATCC® 10110	Point Inoculation	Growth
<i>Trichophyton mentagrophytes</i> ATCC® 9533	Point Inoculation	Growth

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

Test Procedure

Consult appropriate references for recommended test procedures.

Results

Refer to appropriate references and procedures for results.

Storage

Store 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.

Limitations of the Procedure

1. Due to nutritional variation, some strains may be encountered that grow poorly or fail to grow on this medium.
2. Do not heat the medium after addition of acid. The agar will hydrolyze, reducing the agar's solidifying properties.

Packaging

Malt Agar	Code No.	7456A	500 g
		7456B	2 kg
		7456C	10 kg

References

1. **Abs.** 1919. Bact. 3:6.
2. **Thom, C., and M. B. Church.** 1926. The Aspergilli. Williams and Wilkins Co., Baltimore, MD.
3. **Fullmer, E. I., and M. J. Grimes.** 1923. The growth of yeasts on synthetic agar media. Bacteriol. 8:585-588.
4. **Vanderzant, C., and D. F. Splittstoesser (eds.).** Compendium of methods for the microbiological examination of foods, 3rd ed. America Public Health Association, Washington, D.C.
5. **Association of Official Agricultural Chemists.** 1995. Official methods of analysis, 16th ed. AOAC, 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.