

# Technical Specification Sheet



## Malt Extract Agar

**SKU: 700004486, 700004487, 700004488, 700004489**  
**NCM0093**

### Intended Use

Malt Extract Agar is used for the cultivation of fungi and is not intended for use in the diagnosis of disease or other conditions in humans.

### Description

An acidic medium which will support the growth of most yeasts and molds whilst inhibiting most bacteria. It was first described by Thom and Church in 1926 in a study of *Aspergillus* spp. claiming the high carbohydrate content ensured rapid growth. Selectivity can be increased by further lowering the pH with the addition, after sterilization, of Lactic Acid 10% (NCM4011 or 700004875). It should be noted that excess heating of this medium together with its low pH can easily result in hydrolysis of the agar gel producing soft plates.

### Typical Formulation

Malt Extract	30.0 g/L
Peptone	5.0 g/L
Agar	15.0 g/L

pH: 5.4 ± 0.2 at 25°C

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

### Supplement

NCM4011 or 700004875	Lactic Acid 10%
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### Precaution

Refer to SDS

### Preparation

1. Suspend 50 grams 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.
4. Cool to 45-50°C
5. If the addition of NCM4011 or 700004875 Lactic Acid 10% is required, this should be done after sterilization.  
5mL of NCM4011 or 700004875 will lower the pH of 250mL of medium to 3.5-4.0.

### Test Procedure

Consult appropriate references for recommended test procedures.

### Quality Control Specifications

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

**Prepared Appearance:** Prepared medium is clear to slightly hazy, no precipitate and beige to pale tan.

**Expected Cultural Response:** Cultural response on Malt Agar incubated at appropriate atmosphere and temperature and examined for growth after 48 – 120 hours.



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Microorganism	Approx. Inoculum (CFU)	Expected Results
<i>Aspergillus brasiliensis</i> ATCC® 16404	50-200	>50%
<i>Candida albicans</i> ATCC® 10231	50-200	>50%
<i>Bacillus subtilis</i> ATCC® 6633	4 Quad Streak	Good Growth

The organism listed is the minimum that should be used for quality control testing.

### Results

Refer to appropriate references and procedures for results.

### 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.

### Storage

Store dehydrated culture media at 2 – 30°C away from direct sunlight. Once opened and recapped, place the container in a low humidity environment at the same storage temperature. Protect from moisture and light by keeping container tightly closed.

### References

1. Galloway, L.D. and Burgess, R. (1952). Applied Mycology and Bacteriology, Leonard Hill, London. Thom and Church, 1926. The Aspergilli.



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