

OGYE AGAR BASE (7655)

Intended Use

OGYE Agar Base is used with oxytetracycline in the detection and isolation of yeasts and molds from foods.

Product Summary and Explanation

Mossel, Visser, and Mengerink^{1,2} described Oxytetracycline-Glucose Yeast Extract (OGYE) Agar for the detection and enumeration of yeasts and molds in clinical specimens, foods, and other specimens of sanitary significance. Mossel et al.^{1,2} described improved recovery of yeasts and molds compared to acidified agar. This medium is supplemented with oxytetracycline as a selective agent, rather than relying on the low pH of acidified agar to suppress bacterial growth. Acidified agar is commonly used for detection of yeasts and molds in foods and dairy products, and OGYE Agar Base provides an alternate medium.

Principles of the Procedure

Yeast Extract provides essential vitamins to stimulate the growth of yeasts and molds in OGYE Agar Base. Dextrose is the carbon energy source. Agar is the solidifying agent.

The supplement, Oxytetracycline, is a selective agent used to inhibit bacterial growth.

Formula / Liter

Yeast Extract..... 5 g
 Dextrose..... 20 g
 Agar 12 g

Supplement

100 mg Oxytetracycline,
 10 mL sterile solution

Final pH: 7.0 ± 0.2 at 25°C (with Oxytetracycline supplementation)

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

Precaution

1. For Laboratory Use.

Directions

1. Suspend 37 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.
4. Cool to 45 - 50°C.
5. Aseptically add 10 mL of an aqueous filter sterilized solution containing 100 mg of oxytetracycline.
6. NOTE: pH may need to be further adjusted following supplementation as different manufacturers' oxytetracycline affect pH of media differently.

Quality Control Specifications

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

Prepared Appearance: Prepared medium is trace to slightly hazy, and light to medium amber.

Expected Cultural Response: Cultural response on OGYE Agar Base incubated aerobically at 22 ± 2°C and examined for growth up to 5 days of incubation.

Microorganism	Approx. Inoculum (CFU)	Expected Results
<i>Aspergillus niger</i> ATCC® 16404	10 - 300	Good growth
<i>Saccharomyces cerevisiae</i> ATCC® 9763	10 - 300	Good growth
<i>Candida albicans</i> ATCC® 10231	10 - 300	Good growth
<i>Escherichia coli</i> ATCC® 25922	300 - 1000	Inhibited

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

Test Procedure

Refer to appropriate references for specific procedures on yeast and mold testing in foods.

Results

Refer to appropriate references for test results on the detection and enumeration of yeasts and molds.

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 varying nutritional requirements, some strains may be encountered that grow poorly or fail to grow on this medium.
2. *Bacillus* spp. may grow on OGYE Agar Base if medium is heavily inoculated.³

Packaging

OGYE Agar Base	Code No.	7655A	500 g
		7655B	2 kg
		7655C	10 kg

References

1. **Mossel, D. A. A., A. M. C. Kleynen-Semmeling, H. M. Vincentie, H. Beerens, and M. Catsaras.** 1970. Oxytetracycline-Glucose-Yeast Extract Agar for selective enumeration of moulds and yeasts in foods and clinical materials. *J. Appl. Bacteriol.* **33**:454-457.
2. **Mossel, D. A. A., M. Visser, and W. H. J. Mengerink.** 1962. A comparison of media for the enumeration of moulds and yeasts in food and beverages. *Lab Pract.* **11**:109-112. Compendium of methods for the microbiological examination of foods, 3rd ed. American Public Health Association, Washington, D.C.
3. **MacFaddin, J. F.** 1985. Media for the isolation-cultivation-identification-maintenance of medical bacteria, vol. 1, p. 579-582. Williams & Wilkins, Baltimore, MD.

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.