

OGYE Agar Base (NCM0132)

Intended Use

OGYE Agar Base is used with oxytetracycline in the detection and isolation of yeasts and molds from foods. OGYE Agar Base is not intended for use in the diagnosis of disease or other conditions in humans.

Description

A selective medium for the enumeration of yeasts and molds in food, introduced by Mossel in 1970. Unlike many selective media for yeasts OGYE has a neutral pH and it has been shown to give better recovery rates than those media with a low pH. Oxytetracycline is used to inhibit bacteria and certain high protein foods may reduce the effectiveness of this antibiotic as a selective agent. Rose Bengal Chloramphenicol Agar (NCM0135) is recommended in these instances.

Typical Formulation

Yeast Extract	5.0 g/L
Dextrose	20.0 g/L
Agar	12.0 g/L

Final pH: 7.0 ± 0.2 at 25°C

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

Supplement

NCM4024 Oxytetracycline (100 mg/L)

Precaution

Refer to SDS

Preparation

1. Suspend 37 grams 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 115°C for 10 minutes.
4. Cool to 45-50°C and aseptically add 2 vials of NCM4024-0.5* Oxytetracycline, each reconstituted using 5mL sterile deionized/RO water.
5. Mix thoroughly and pour into Petri dishes.

*Larger vials may be available. Please see appropriate supplement data sheet for availability and preparation instructions.

Test Procedure

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

Quality Control Specifications

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

Prepared Appearance: Prepared medium is trace to slightly hazy with no precipitate, and yellow.

Expected Cultural Response: Cultural response on OGYE Agar Base incubated aerobically at 25 ± 1°C and examined for growth to 3-5 days of incubation.

Technical Specification Sheet



Mircoorganism	Approx. Inoculum (CFU)	Recovery
<i>Aspergillus brasiliensis</i> ATCC® 16404	50-200	>50%
<i>Bacillus subtilis</i> ATCC® 6633	>10 ⁴	Complete Inhibition
<i>Candida albicans</i> ATCC® 10231	50-200	>50%
<i>Escherichia coli</i> ATCC® 25922	>10 ⁴	Complete Inhibition
<i>Saccharomyces cerevisiae</i> ATCC® 9763	50-200	>50%

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

Results

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

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

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. Banks, J.G. Board, R.G. (1987). Some factors influencing the recovery of yeasts and moulds from chilled foods. *Int. J. Food Microbiol.* 4:197-206.
2. Mossel, D.A.A. *et al.* (1970). O.G.Y.E. for Selective Enumeration of Moulds and Yeast in Foods and Clinical Material. *J. Appl. Bact.* 35:454-457.
3. 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.
4. 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, 4th ed. American Public Health Association, Washington, D.C.
5. MacFaddin, J. F. 1985. Media for the isolation-cultivation-identification-maintenance of medical bacteria, vol. 1, p. 579-582. Williams & Wilkins, Baltimore, MD.

