Oatmeal Agar

Intended Use

Oatmeal Agar is used for cultivating fungi, particularly for macrospore formation.

Summary and Explanation

Fungi are extremely successful organisms, as evidenced by their ubiquity in nature. Of the estimated 250,000 species, fewer than 150 are known primary pathogens of humans.[1]

Identification and classification of fungi is primarily based on the morphologic differences in their reproductive structures.[2] Fungi reproduce by producing spores.[2] Large, multi-celled spores are called macroconidia, macroaleuriospores or macrospores and are produced by aerial sporulation.[2]

The detection of fungi is a great concern in the pharmaceutical, food and cosmetic industry.

Principles of the Procedure

Oatmeal is a source of nitrogen, carbon, protein and nutrients. Agar is the solidifying agent.

Formula

Difco™ Oatmeal Agar

Approximate Formula* Per Liter

Oatmeal	60.0	g
Agar	12.5	g

**Adjusted and/or supplemented as required to meet performance criteria.*

Directions for Preparation from Dehydrated Product

1. Suspend 72.5 g of the powder in 1 L of purified water. Mix thoroughly.
2. Heat with frequent agitation and boil for 1 minute to completely dissolve the powder.
3. Autoclave at 121°C for 15 minutes.
4. Test samples of the finished product for performance using stable, typical control cultures.

Procedure

Consult appropriate references for specific procedures on the isolation and cultivation of fungi.

User Quality Control

Identity Specifications

Difco™ Oatmeal Agar

Dehydrated Appearance:	Beige, nonhomogeneous, may be slightly lumpy.
Solution:	7.25% solution, soluble in purified water upon boiling with frequent agitation. Solution is off-white, opaque with nonhomogeneous particles.
Prepared Appearance:	Off-white, opaque appearance with nonhomogeneous particles.
Reaction of 7.25% Solution at 25°C:	pH 6.0 ± 0.2

Cultural Response

Difco™ Oatmeal Agar

Prepare the medium per label directions. Inoculate and incubate at 30 ± 2°C for 18-72 hours.

ORGANISM	ATCC™	INOCULUM CFU	RECOVERY
Aspergillus brasiliensis (niger)	16404	10^2-10^3	Good
Candida albicans	10231	10^2-10^3	Good
Saccharomyces cerevisiae	9763	10^2-10^3	Good

Expected Results

Refer to appropriate references and procedures for results.

References

1. Dixon, Rhodes and Fromtling. 1999. *In* Murray, Baron, Pfaller, Tenover and Yolken (ed.). Manual of clinical microbiology, 7th ed. American Society for Microbiology, Washington, D.C.
2. Koneman, Allen, Janda, Schreckenberger and Winn. 1997. Color atlas and textbook of diagnostic microbiology, 5th ed. Lippincott-Raven Publishers, Philadelphia, Pa.

Availability

Difco™ Oatmeal Agar

Cat. No. 255210 Dehydrated – 500 g