Mycosel™ Agar

Intended Use

Mycosel Agar is a highly selective medium containing cycloheximide and chloramphenicol. It is recommended for the isolation of pathogenic fungi from materials having a large amount of flora of other fungi and bacteria.[1,2] BBL™ prepared plates of **Mycosel** Agar are deep-filled to reduce the effects of drying during prolonged incubation.

Summary and Explanation

Mycosel Agar was developed by using the ingredients of **Mycophil**™ Agar as a nutritive base to which cycloheximide and chloramphenicol were added as selective agents. It is widely used for the isolation of fungi from a variety of sources, and is recommended for the recovery of dermatophytes.[3]

Principles of the Procedure

The nutritive properties of **Mycosel** Agar are supplied by the peptone prepared from soybean meal. Dextrose is an energy source for the metabolism of fungi. Cycloheximide inhibits most saprophytic molds. Chloramphenicol is a broad-spectrum antibiotic which inhibits a wide range of gram-positive and gram-negative bacteria.

Formula

BBL™ Mycosel™ Agar

Approximate Formula* Per Liter

Papaic Digest of Soybean Meal	10.0	g
Dextrose	10.0	g
Agar	15.5	g
Cycloheximide	0.4	g
Chloramphenicol	0.05	g

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

User Quality Control

Identity Specifications

BBL™ Mycosel™ Agar

Dehydrated Appearance:	Fine, homogeneous, free of extraneous material.
Solution:	3.6% solution, soluble in purified water upon boiling. Solution is light to medium, yellow to tan, clear to moderately hazy.
Prepared Appearance:	Light to medium, yellow to tan, clear to moderately hazy.
Reaction of 3.6% Solution at 25°C:	pH 6.9 ± 0.2

Cultural Response

BBL™ Mycosel™ Agar

Prepare the medium per label directions. Inoculate with fresh cultures and incubate at 25 ± 2°C for 7 days.

ORGANISM	ATCC™	RECOVERY
Aspergillus niger	16404	Partial to complete inhibition
Aureobasidium pullulans	9348	Partial to complete inhibition
Blastomyces dermatitidis	56218	Good
Candida albicans	10231	Good
Escherichia coli	25922	Partial to complete inhibition
Microsporum audouinii	9079	Good
Penicillium roquefortii	9295	Partial to complete inhibition
Phialophora verrucosa	10223	Good
Staphylococcus aureus	25923	Complete inhibition
Streptomyces rimosus	10970	Partial to complete inhibition
Trichophyton mentagrophytes	9533	Good

Candida albicans
ATCC™ 10231

Directions for Preparation from Dehydrated Product

1. Suspend 36 g of the powder in 1 L of purified water. Mix thoroughly.
2. Heat with frequent agitation just until the medium boils, to completely dissolve the powder.
3. Autoclave at 118°C for 15 minutes. Avoid overheating.
4. Test samples of the finished product for performance using stable, typical control cultures.

Procedure

Consult appropriate references for information about the processing and inoculation of specimens.[1-3]

For isolation of fungi from potentially contaminated specimens, a nonselective medium should be inoculated along with the selective medium. Incubate the containers at 25-30°C with increased humidity.

For isolation of fungi causing systemic mycoses, two sets of media should be inoculated, with one set incubated at 25-30°C and a duplicate set at 35 ± 2°C. All cultures should be examined at least weekly for fungal growth and should be held for 4-6 weeks before being reported as negative.

Expected Results

After sufficient incubation, the plates and **Mycoflask**™ bottles should show isolated colonies in streaked areas and confluent growth in areas of heavy inoculation.

Examine containers for fungal colonies exhibiting typical color and morphology.[4] Biochemical tests and serological procedures should be performed to confirm findings.

Limitation of the Procedure

Some fungi may be inhibited by the antibiotics in this medium.[5]

References

1. Weitzman, Kane and Summerbell. 1995. *In* Murray, Baron, Pfaller, Tenover and Yolken (eds.), Manual of clinical microbiology, 6th ed. American Society for Microbiology, Washington, D.C.
2. Kwon-Chung and Bennett. 1992. Medical mycology. Lea & Febiger, Philadelphia, Pa.
3. Forbes, Sahm and Weissfeld. 1998. Bailey & Scott's diagnostic microbiology, 10th ed. Mosby, Inc., St. Louis, Mo.
4. Ajello, Georg, Kaplan and Kaufman. 1963. CDC laboratory manual for medical mycology. PHS Publication No. 994, U.S. Government Printing Office, Washington, D.C.
5. Larone. 1995. Medically important fungi: a guide to identification, 3rd ed. American Society for Microbiology, Washington, D.C.

Availability

BBL™ Mycosel™ Agar

BS10 CMPH MCM7

Cat. No. 211462 Dehydrated – 500 g

United States and Canada

Cat. No.	221847	Prepared Plates (Deep Fill) – Pkg. of 20*
	220966	Prepared Tubed Slants (A Tubes) – Pkg. of 10*
	220967	Prepared Tubed Slants (A Tubes) – Ctn. of 100*
	297456	Prepared Tubed Slants (C Tubes) – Ctn. of 100*
	221130	**Mycoflask**™ Bottles – Pkg. of 10*
	221131	**Mycoflask**™ Bottles – Ctn. of 100*
	296233	Prepared 1 oz Bottles – Pkg. of 10*
	295698	Prepared 1 oz Bottles – Ctn. of 100*

Europe

Cat. No. 254417 Prepared Plates – Pkg. of 20*

**Store at 2-8°C.*