

CANDIDA BCG AGAR

INTENDED USE

Remel Candida BCG Agar is a solid medium recommended for use in qualitative procedures for selective isolation and presumptive identification of *Candida* species.

SUMMARY AND EXPLANATION

Harold and Snyder determined that TTC (triphenyltetrazolium chloride) in Pagano-Levin medium was inhibitory to some species of *Candida*.^{1,2} They formulated Candida BCG Agar which contains BCG (brom cresol green) in place of TTC. This medium was found to be nontoxic to *Candida* spp. and did not inhibit its growth. Candida BCG Agar is recommended in *Laboratory Methods in Medical Mycology* for the isolation and presumptive identification of *Candida* spp. on the basis of colony morphology.³

PRINCIPLE

Gelatin peptone supplies nutrients in the form of amino acids and peptides. Yeast extract supplies B complex vitamins and amino acids necessary to stimulate growth. Dextrose is a carbohydrate fermented by *Candida* spp. causing a reduction in pH in the agar and an indicator change. Brom cresol green is an indicator which changes from green to yellow when dextrose is fermented. On Candida BCG Agar, colonies of *Candida* are yellow to yellow-green with a yellow zone in the medium. Neomycin is a selective agent which inhibits aerobic and facultative anaerobic gram-negative bacteria and some gram-positive species. Agar is a solidifying agent.

REAGENTS (CLASSICAL FORMULA)*

Dextrose.....	40.0 g	Neomycin.....	0.5 g
Gelatin Peptone.....	10.0 g	Brom Cresol Green	0.02 g
Yeast Extract.....	1.0 g	Agar.....	15.0 g
		Deminerlized Water.....	1000.0 ml

pH 6.1 ± 0.2 @ 25°C

*Adjusted as required to meet performance standards.

PROCEDURE

1. Inoculate and streak the specimen as soon as possible after it is received in the laboratory.
2. If material is being cultured directly from a swab, roll the swab over a small area of the agar surface and streak for isolation.
3. Incubate the plate in ambient air for 48-72 hours at 25-30°C.
4. Examine plate for typical colony morphology. On Candida BCG Agar, *Candida* spp. form colonies that are convex to cone-shaped, smooth to rough, and yellow to yellow-green in color with a yellow zone around the colonies.^{1,3}

QUALITY CONTROL

All lot numbers of Candida BCG Agar have been tested using the following quality control organisms and have been found to be acceptable. Testing of control organisms should be performed in accordance with established laboratory quality control procedures. If aberrant quality control results are noted, patient results should not be reported.

CONTROL

Candida albicans ATCC® 10231
Escherichia coli ATCC® 25922
Staphylococcus aureus ATCC® 25923

INCUBATION

Ambient, up to 72 h @ 25-30°C
Ambient, up to 72 h @ 25-30°C
Ambient, up to 72 h @ 25-30°C

RESULTS

Growth, yellow zone
Inhibition (partial to complete)
Inhibition (partial to complete)

LIMITATIONS

1. Organisms other than yeast may grow on Candida BCG Agar. A microscopic examination (e.g., Gram stain, wet mount, etc.) is required for presumptive identification of the test isolate as a yeast.³
2. This test is only part of the overall scheme for identification of *Candida* spp. Additional testing may be required for definitive identification. Consult appropriate references for further instructions.³⁻⁵

BIBLIOGRAPHY

1. Difco Manual. 1984. Dehydrated Culture Media and Reagents for Microbiology. 10th ed. Difco Laboratories, Detroit, MI.
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3. Haley, L.D. and C.S. Callaway. 1978. Laboratory Methods in Medical Mycology. 4th ed. U.S. Dept. of H.H.S., CDC, Atlanta, GA.
4. Versalovic, J., K.C. Carroll, G. Funke, J.H. Jorgensen, M.L. Landry, and D.W. Warnock. 2011. Manual of Clinical Microbiology. 10th ed. ASM Press, Washington, D.C.
5. Garcia, L.S. 2010. Clinical Microbiology Procedures Handbook. 3rd ed. ASM Press, Washington, D.C.

Refer to the front of Remel *Technical Manual of Microbiological Media* for **General Information** regarding precautions, product storage and deterioration, specimen collection, storage and transportation, materials required, quality control, and limitations.

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