Candida BCG Agar Base Candida Bromcresol Green Agar

Intended Use

Candida Bromcresol Green (BCG) Agar is a differential and selective medium used for primary isolation and detection of *Candida* species from clinical specimens.

Summary and Explanation

Candida BCG medium employs the formula devised by Harold and Snyder.¹ They demonstrated that the triphenyltetrazolium

chloride (TTC) being used as an indicator in Pagano Levin medium retarded the growth of some species of *Candida* and completely inhibited the growth of others. To overcome this, they replaced TTC with bromcresol green, a non-toxic indicator, to develop Candida BCG Agar. Neomycin is incorporated to inhibit gram-negative and some gram-positive bacteria.

User Quality Control

Identity Specifications Difco[™] Candida BCG Agar Base

Dehydrated Appearance:	Beige to blue-green, free-flowing, homogeneous.
Solution:	6.6% solution, soluble in purified water upon boiling. Solution is blue-green to green-blue, slightly opalescent to opalescent, may have a precipitate.
Prepared Appearance:	Blue-green to green-blue, slightly opalescent to opalescent.
Reaction of 6.6% Solution at 25°C:	pH 6.1 ± 0.1

Cultural Response Difco™ Candida BCG Agar Base

Prepare the medium per label directions. Inoculate and incubate at $30 \pm 2^{\circ}$ C for 24-72 hours.

ORGANISM	ATCC™	INOCULUM CFU	RECOVERY	COLOR OF MEDIUM
Candida albicans	10231	10 ² -10 ³	Good	Yellow
Candida tropicalis	9968	10 ² -10 ³	Good	Yellow
Escherichia coli	25922	10 ³	Inhibition	Green





Principles of the Procedure

This medium consists of peptone agar base supplemented with yeast extract and dextrose to provide the nutrients necessary to support growth. Neomycin is an aminoglycoside antibiotic that is active against aerobic and facultatively anaerobic gramnegative bacteria and certain gram-positive species. Bromcresol green aids in differentiation and identification of Candida species based on dextrose fermentation. A change in the pH causes the medium to become a yellow color around the colonies of organisms that ferment dextrose.

Formula

Difco[™] Candida BCG Agar Base

Approximate Formula* Per Liter		
Peptone	10.0	g
Yeast Extract	1.0	g
Dextrose	40.0	g
Agar	15.0	g
Bromcresol Green	0.02	g
*Adjusted and/or supplemented as required to meet performance criteria.		

Directions for Preparation from Dehydrated Product

- 1. Suspend 66 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. Add sterile neomycin (500 µg/mL) to the medium at 50-55°C. Mix well.
- 5. Test samples of the finished product for performance using stable, typical control cultures.

Procedure

Use standard procedures to obtain isolated colonies from specimens. Incubate the plates in an inverted position (agar side up) at $30 \pm 2^{\circ}$ C for up to 72 hours.

Expected Results

Candida species produce convex to cone-shaped, smooth to rough colonies. The color of the medium around the colonies becomes yellow, usually within 72 hours.

Gram staining, biochemical tests and serological procedures should be performed to confirm findings.2-4

References

- Harold and Snyder. 1968. Personal communication. Kwon-Chung and Bennett. 1992. Medical mycology. Lea & Febiger, Philadelphia, Pa. Forbes, Sahm and Weissfeld. 2007. Bailey & Scott's diagnostic microbiology, 12th ed. Mosby, Inc., 3.
- St. Louis, Mo. Louis, Mo.
 Murray, Baron, Jorgensen, Landry and Pfaller (ed.). 2007. Manual of clinical microbiology, 9th ed. American Society for Microbiology, Washington, D.C.

Availability

Difco[™] Candida BCG Agar Base

Cat. No. 283510 Dehydrated - 500 g

BBL[™] Candida Bromcresol Green Agar

Cat. No. 296241 Prepared Plates (complete) - Pkg. of 20* *Store at 2-8°C.

