Candida BCG Agar Base

M355

Intended Use:

Recommended for primary isolation and identification of *Candida* species.

Composition**

Ingredients	g / L
Peptone	10.000
Yeast extract	1.000
Dextrose (Glucose)	40.000
Bromocresol green	0.020
Agar	15.000
Final pH (at 25°C)	6.1±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 66.02 grams in 1000 ml purified / distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C and add sterile neomycin to a concentration of 500 µg/ml of medium. Mix well before pouring into sterile Petri plates.

Principle And Interpretation

Candida albicans is most frequently isolated from clinical specimens. Species of *Candida*, other than *C. albicans* are normal flora of cutaneous and mucocutaneous surfaces and are only rarely incriminated as agents of clinical disease (1). Of the many media used for isolating and differentiating *Candida*, Pagano Levin Base (M1390) employes TTC (Triphenyl Tetrazolium Chloride) as an indicator. Harold and Snyder (2) observed that the TTC used greatly retards the growth of some *Candida* species, while completely inhibiting the rest. Therefore to overcome this difficulty, they formulated Candida BCG Agar, which employs bromocresol green instead of TTC as the indicator.

Candida BCG Agar Base is used to obtain pure yeast colonies from mixed cultures on the basis of colony morphology (3, 4). Peptone along with yeast extract and dextrose serve as sources of essential nutrients, amino acids and vitamins. Dextrose also serves as a source of energy by being the fermentable carbohydrate. Bromocresol green is non-toxic indicator incorporated to visualize the fermentation reaction. Selectivity is obtained by the addition of neomycin. Neomycin is incorporated to inhibit gram-negative bacteria and some gram-positive bacteria. Neomycin is an aminoglycoside antibiotic that is active against aerobic and facultatively anaerobic gram-negative bacteria and certain gram-positive bacteria. Bromocresol green is the indicator. Acid production due to fermentation lowers the pH of the medium and subsequently the colour of medium changes to yellow, indicated by yellow zones around the dextrose-fermenting colonies. *C.albicans* appears as blunt conical colonies with smooth edges and yellow to blue green colour. Other *Candida* species appear as smooth to rough colonies, with either convex or cone shaped colonies (5). Standard methods should be followed for inoculating the plates of Candida BCG Agar.

Presumptive *Candida* colonies should be further identified by gram staining, biochemical and serological testing (6,7,8).

Type of specimen

Clinical samples - skin scraping from the infected body site.

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (9,10).

After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

In Vitro diagnostic Use only. For professional use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations:

1.Standard methods should be followed for inoculating the plates of Candida BCG Agar.

2.Presumptive Candida colonies should be further identified by gram staining, biochemical and serological testing(6,7,8).

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance

Cream to light green homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Bluish green coloured, clear to slightly opalescent gel forms in Petri plates

Reaction

Reaction of 6.6% w/v aqueous solution at 25°C. pH : 6.1±0.2

pH

5.90-6.30

Cultural Response

Cultural characteristics observed with added sterile Neomycin (500 mcg/ml of medium) after an incubation at 25-30°C for 24-48 hours.

Organism	Inoculum (CFU)	Growth	Recovery	Colour of medium
Candida albicans ATCC 10231 (00054*)	50-100	good-luxuriant	>=50%	yellow
Candida glabrata ATCC 15126	50-100	good-luxuriant	>=50%	yellow
Candida kruisei ATCC 24408	50-100	good-luxuriant	>=50%	yellow
Candida tropicalis ATCC 1369	50-100	good-luxuriant	>50%	yellow
Escherichia coli ATCC 25922 (00013*)	>=10^4	inhibited	0%	
Staphylococcus aureus subsp. aureus ATCC 25923 (00034*)	>=10^4	inhibited	0%	

Key : *Corresponding WDCM numbers.

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 20-30°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (9,10).

Reference

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IVD ***In vitro* diagnostic medical device**

30°C
10°C **Storage temperature**

CE Marking

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