TM 057 – CANDIDA BCG AGAR BASE

INTENDED USE

For primary isolation and identification of *Candida* species.

PRODUCT SUMMARY AND EXPLANATION

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. Of the many media used for isolating and differentiating *Candida*, Pagano Levin Base employes TTC (Triphenyl Tetrazolium Chloride) as an indicator. Harold and Snyder 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.

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. 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.

COMPOSITION

Ingredients	Gms / Ltr
Peptone	10.000
Yeast extract	1.000
Dextrose (Glucose)	40.000
Bromocresol green	0.020
Agar	15.000

PRINCIPLE

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.

INSTRUCTION FOR USE

- Dissolve 66.02 grams in 1000 ml purified / distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi 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.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to light green homogeneous free flowing powder.
Appearance of prepared medium : Bluish green coloured, clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 6.1±0.2

INTERPRETATION

Cultural characteristics observed after incubation with added sterile Neomycin (500 mcg/ml of medium).

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of colony	Incubation Temperature	Incubation Period
Candida albicans	10231	10-100	Good-luxuriant	>=50%	Yellow	25-30°C	24-48 Hours
Candida glabrata	15126	10-100	Good-luxuriant	>=50%	Yellow	25-30°C	24-48 Hours
Candida kruisei	24408	10-100	Good-luxuriant	>=50%	Yellow	25-30°C	24-48 Hours
Candida tropicalis	1369	10-100	Good-luxuriant	>=50%	Yellow	25-30°C	24-48 Hours
Escherichia coli	25922	>=10^4	Inhibited	0%	-	25-30°C	24-48 Hours
Staphylococcus aureus subsp. aureus	25923	>=10^4	Inhibited	0%	-	25-30°C	24-48 Hours

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

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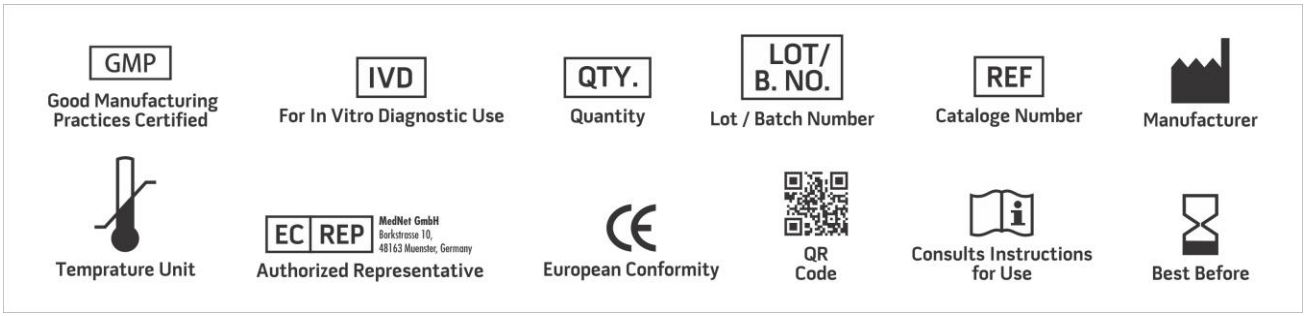

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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