CM 20428 - CHROMOGENIC CANDIDA AGAR (CHROMOGENIC CANDIDA DIFFRENTIAL AGAR)

INTENDED USE

For fast isolation and identification of Candida species from mixed flora.

PRODUCT SUMMARY AND EXPLANATION

Candidiasis has emerged itself as analarming opportunistic disease due to increase in the number of immunocompromised, aged, receiving prolonged antibacterial and aggressive cancer chemotherapy or undergoing invasive surgical procedures and organ transplantation patients. Among Candida species, Candida albicans is generally considered as the major pathogen. An increase in the prevalence of non-albicans Candida species has been noted during the last decades.

Perry and Miller reported that Candida albicans produces an enzyme b-N-acetyl- galactosaminidase and according to Rousselle et al incorporation of chromogenic or fluorogenic hexosaminidase substrates into the growth medium helps in identification of C. albicans isolates directly on primary isolation. Chromogenic Candida Differential Agar is a selective and differential medium, which facilitates rapid isolation of yeasts from mixed cultures and allows differentiation of Candida species namely C. albicans, C. krusei, C. tropicalis and C. glabrata on the basis of colouration and colony morphology. On this medium, results are obtained within 48 hours and it is useful for the rapid and presumptive identification of common yeasts in Mycology and Clinical Microbiology Laboratory.

COMPOSITION

Ingredients	Gms / Ltr
Agar	15.000
Peptone	15.000
Chromogenic mixture	7.220
Yeast extract	4.000
Dipotassium hydrogen phosphate	1.000
Chloramphenicol	0.500

PRINCIPLE

Peptone and yeast extract provide nitrogenous, carbonaceous compounds and other essential growth nutrients. Phosphate buffers the mediumwell. Chloramphenicol suppresses the accompanying bacterial flora. C. albicans appear as light green coloured smoothcolonies, C. tropicalis appear as blue to metallic blue coloured raised colonies. C. glabrata colonies appear as creamtowhite smooth colonies, while C.krusei appear as purple fuzzy colonies.

INSTRUCTION FOR USE

Dissolve 42.72 gramsin1000 ml of distilled water.

Gently heat to boilingwith gentle swirling, to dissolve the medium completely.

DO NOT AUTOCLAVE

Cool the medium to45-50 °C.

Mix well and pour intosterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	:	Cream to beige colored, homogeneous free flowing powder
Appearance of prepared medium	:	Light amber coloured, clear to slightly opalescent gel
pH (at 25°C)	:	6.3± 0.2

INTERPRETATION

Cultural characteristics observed after incubation. Recovery rate is considered 100% for fungal growth on Sabouraud Dextrose Agar.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Appearance of colony	Recovery	Incubation Temp.	Incubation Period
Candida albicans	10231	50-100	Good-Luxuriant	Light green	>=50%	25-30°C	40-48 Hours
Candida glabrata	15126	50-100	Good-Luxuriant	Cream to white	>=50%	25-30°C	40-48 Hours
Candida krusei	24408	50-100	Good-Luxuriant	Purple, fuzzy	>=50%	25-30°C	40-48 Hours
Candida tropicalis	750	50-100	Good-Luxuriant	Blue to purple	>=50%	25-30°C	40-48 Hours
Escherichia coli	25922	≥1000	Inhibited	-	0%	25-30°C	40-48 Hours
Staphylococcus aureus	25923	≥1000	Inhibited	-	0%	25-30°C	40-48 Hours

PACKAGING

Inpacksizeof100gm & 500gm bottles.

STORAGE

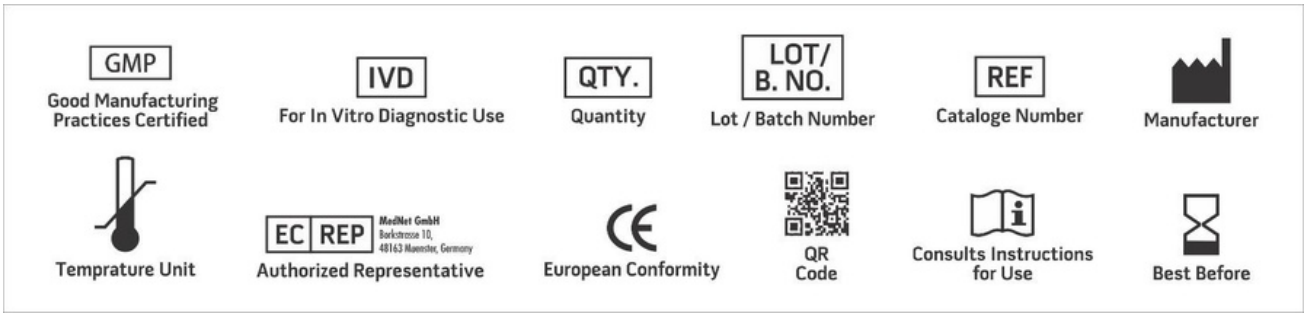
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 10-25°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided 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 powder show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Perry J. L.and Miller G. R., 1987, J. Clin. Microbiol., 25: 2424 -2425.
2. Jaya S, Harita V. Candida Species Isolated from Various Clinical Samples and Their Susceptibility Patterns to Antifungals. J Med Microbiol Infec Dis 2013;1: 22-26.
3. Shivprakasha S, Radhakrishan K, Karim PMS. Candida spp other than Candida albicans. A major cause of fungemia in a tertiary care centre. Ind J Med Microbiol 2007;25: 405-407.
4. Mokaddas EM, Al-Sweih NA, Khan ZU. Species distribution and antifungal susceptibility of Candida bloodstream isolates in Kuwait: A 10- year study. J Med Microbiol 2007;56: 255-9.
5. Rousselle P., Freydiere A., Couillerot P., de Montclos H. and GilleY., 1994, J. Clin. Microbiol. 32:3034-3036.
6. Isenberg, H.D. Clinical Microbiology Procedures Handb0ook. 2nd Edition.
7. Jorgensen, J.H., Pfaller , M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.



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

*ForLab Use Only