HiCrome™ Candida Differential Agar Base

Recommended as a selective and differential medium for rapid isolation and identification of *Candida* species from mixed cultures.

M1297AR

Composition **

Ingredients	Grams/Litre
Peptone	4.000
Chromogenic mixture	13.600
Agar	13.600

Final pH (at 25°C) 6.0±0.2

** Formula adjusted, standardized to suit performance parameters

Directions

Suspend 15.6 grams in 500 ml distilled water. Add the rehydrated contents of one vial of HiCrome™ Candida Differential Selective Supplement (FD283R). Heat to boiling with frequent agitation to dissolve the medium completely. DO NOT AUTOCLAVE. Cool to 45-50°C. Mix well and pour into sterile Petri plates.

Principle and Interpretation

Perry and Miller (1) reported that *Candida albicans* produces an enzyme β -N-acetyl- galactosaminidase and according to Rousselle et al (2) incorporation of chromogenic or fluorogenic hexosaminidase substrates into the growth medium helps in identification of *C. albicans* isolates directly on primary isolation. HiCrome™ Candida Differential Agar Base incorporates two chromogenes X-NAG which detects the activity of hexosaminidase and BCIP which detects phosphatase activity.

HiCrome™ Candida Differential Agar Base 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.

Peptone provides nitrogenous, carbonaceous compounds and other essential growth nutrients. Chloramphenicol from the supplement suppresses the accompanying bacterial flora. *C.albicans* appear as light green coloured smooth colonies, *C.tropicalis* appear as blue to metallic blue coloured raised colonies. *C.glabrata*, *C.kefyr*, *C.parapsilosis* colonies appear as cream to white, beige/yellow due to natural pigmentation and some alkaline phosphatase activity, while *C.krusei* appear as pink-purple, fuzzy, dry colonies.

Type of specimen

Clinical, Food samples

Specimen Collection and Handling

For clinical samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards (3, 4).

Food samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards (5).

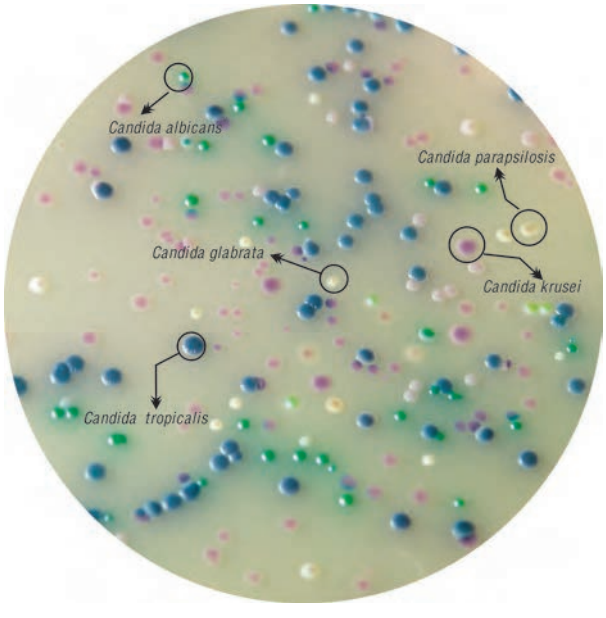
After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

In Vitro diagnostic 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. Due to variable nutritional requirements, some strains may show poor growth on this medium.
2. Slight colour variation may be observed depending on the presence of enzyme in the organism and substrate utilization provided in the medium.



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Performance and Evaluation

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

Quality Control

Appearance of Powder : Cream to beige homogeneous free flowing powder

Gelling : Firm, comparable with 1.36% Agar gel

Colour and Clarity of prepared medium : Light amber coloured, opaque gel forms in Petri plates

Reaction : Reaction of 3.12% w/v aqueous solution at 25°C. pH : 6.0±0.2

Cultural Response : Cultural characteristics observed with added HiCrome™ Candida Differential Selective Supplement (FD283R) after an incubation at 20-25°C for 40-48 hours.

Organism (ATCC	Inoculum (CFU)	Growth	Recovery	Colour of Colony
Candida albicans (10231) (00054*)	50-100	good-luxuriant	≥50%	light green
Candida krusei (24408)	50-100	good-luxuriant	≥50%	Purple, fuzzy
Candida tropicalis (750)	50-100	good-luxuriant	≥50%	Blue to purple
Candida kefyr (66028)	50-100	good-luxuriant	≥50%	Cream to white
Candida parapsilosis (22019)	50-100	good-luxuriant	≥50%	Cream to white
Candida glabrata (15126)	50-100	good-luxuriant	≥50%	Cream to white
Escherichia coli (25922) (00013*)	$\geq 10^3$	inhibited	0%	
Escherichia coli (8739) (00012*)	$\geq 10^3$	inhibited	0%	

Key : * : Corresponds to WDCM number

Storage and Shelf-life

Store between 2-8°C in a tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle inorder 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. Use before expiry date on the label.

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 (3, 4).

References

1. Perry J. L. and Miller G. R., 1987, J. Clin. Microbiol., 25: 2424 -2425.
2. Rousselle P., Freydiere A., Couillerot P., de Montclos H. and GilleY., 1994, J. Clin. Microbiol. 32:3034-3036.
3. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
4. 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
5. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.

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