

# **Technical Data**

# HiCrome Candida Differential Agar Base

# M1297AR

Intended use

HiCrome Candida Differential Agar Base is selective and differential medium for rapid isolation and identification of *Candida* species from mixed cultures from clinical and non-clinical samples

# **Composition\*\***

Ingredients	Gms / Litre
Peptone	4.000
Chromogenic mixture	13.600
Agar	13.600
Final pH ( at 25°C)	$6.0\pm0.2$

\*\*Formula adjusted, standardized to suit performance parameters

# **Directions**

Suspend 15.6 grams in 500 ml purified / 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 (4) reported that *Candida albicans* produces an enzyme b -N-acetyl- galactosaminidase and according to Rousselle et al (5) incorporation of chromogenic or fluorogenic hexosaminidase substrates into the growth medium helps in identification of *C. albicans* isolates directly on primary isolation. HiCrome<sup>TM</sup> Candida Differential Agar Base incorporates two chromogens X-NAG which detects the activity of hexosaminidase and BCIP which detects phosphatase activity.

HiCrome<sup>TM</sup> 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 samples - Blood; Food and dairy samples

# **Specimen Collection and Handling**

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (2,3). For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (1,6). 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. Slight variation in colour for isolates may be observed as the reaction is based on the enzyme present in organism.

# **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 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

#### pН

5.80-6.20

#### **Cultural Response**

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

#### **Cultural Response**

Organism	Inoculum (CFU)	Growth	Recovery	Colour of Colony
Cultural Response				
Candida albicans ATCC	50-100	good-luxuriant	>=50%	light green
10231				
Candida krusei ATCC 24408	8 50-100	good-luxuriant	>=50%	Purple, fuzzy
Candida tropicalis ATCC	50-100	good-luxuriant	>=50%	Blue to purple
750				
Candida kefyr ATCC 66028	50-100	good-luxuriant	>=50%	Cream to white
Candida parapsilosis ATCC	50-100	good-luxuriant	>=50%	Cream to white
22019				
Candida glabrata ATCC	50-100	good-luxuriant	>=50%	Cream to white
15126				
Escherichia coli ATCC	>=103	inhibited	0%	
25922 (00013*)				
Escherichia coli ATCC	>=103	inhibited	0%	
8739 (00012*)				

Key: \*Corresponding WDCM numbers.

#### **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 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. 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 (2,3).

#### Reference

1. American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed., Washington D.C.

2. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2<sup>nd</sup> Edition.

3. 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.

4. Perry J. L. and Miller G. R., 1987, J. Clin. Microbiol., 25: 2424 -2425.

5. Rousselle P., Freydiere A., Couillerot P., de Montclos H. and Gille Y., 1994, J. Clin. Microbiol. 32:3034-3036.

6. 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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Storage temperature

In vitro diagnostic medical

device

CE Marking



Do not use if package is damaged



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