

Michrom™ Candida Differential Agar

Intended Use

Michrom™ Candida Differential Agar is recommended for rapid isolation and identification of *Candida* species from mixed cultures.

Summary

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. Michrom™ 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.

Principle

Peptone special and yeast extract provides nitrogenous, carbonaceous compounds and other essential growth nutrients. Phosphate buffers the medium well. Chloramphenicol suppresses the accompanying bacterial flora.

Formula*

Ingredients	g/L
Peptone, Special	15.0
Yeast Extract	4.0
Dipotassium Hydrogen Phosphate	1.0
Chromogenic Mixture	7.22
Chloramphenicol	0.5
Agar	15.0
Final pH (at 25°C)	6.3 ± 0.2

*Adjusted to suit performance parameters.

Storage and Stability

Store below 8°C in tightly closed container, preferably in dessicators and use freshly prepared medium. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Type of Specimen

Clinical samples

Specimen Collection and Handling

Ensure that all samples are properly labelled. Follow appropriate techniques for handling samples as per established guidelines. Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure. The samples must be stored and tested within the permissible time duration. After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions

1. Suspend 42.72 g of the powder in 1000 mL purified / distilled water.
2. Heat to boiling to dissolve the powder completely. DO NOT AUTOCLAVE.
3. Cool to 50°C and pour into sterile petridishes.

Quality Control

Dehydrated Appearance: Cream to beige coloured, homogenous free flowing powder.

Prepared Appearance: Light amber coloured, clear to slightly opalescent gel forms in petridishes.

Cultural Response: Cultural characteristics observed after an incubation at 30°C for 40-48 hours.

Organism (ATCC)	Growth	Colour of Colony
<i>Candida albicans</i> 3147 (10231)	Good	Light green
<i>Candida glabrata</i> (15126)	Good	Light purple
<i>Candida krusei</i> (24408)	Good	Cream fuzzy
<i>Candida tropicalis</i> (750)	Good	Blue - purple
<i>Escherichia coli</i> (25922)	Inhibited	-
<i>Staphylococcus aureus</i> subsp. <i>aureus</i> (25923)	Inhibited	-

Interpretation of results

C. albicans appear as light green coloured smooth colonies, *C. tropicalis* appear as blue to purple coloured raised colonies, *C. glabrata* colonies appear as light purple smooth colonies, while *C. krusei* appear as cream fuzzy colonies.

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Precautions / Limitations

1. Variations in colour intensity may be observed for *Candida* isolates depending on the presence of enzymes.
2. Other *Candida* species may produce light mauve coloured colonies which is also produced by other yeast cells. This must be confirmed by further biochemical tests.
3. Other filamentous fungi also exhibit colour on this medium.

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

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. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201130430100	Dehydrated Culture Media	100 g
201130430500	Dehydrated Culture Media	500 g

Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.