Candida Chromogenic Agar

Cat. 2207

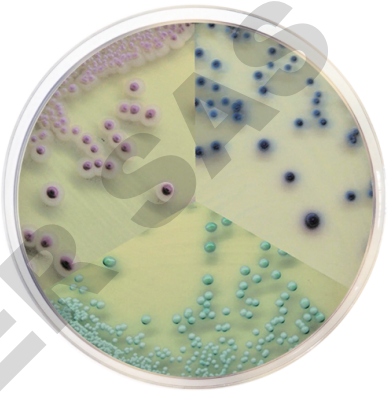
Differential and selective chromogenic medium for the isolation and quick identification of Candida spp. of clinical importance.

Practical information

Aplications	Categories
Selective isolation	Candida

Industry: Clinical

CE
IVD



Principles and uses

Candida Chromogenic Agar is an alternative chromogenic formulation to the traditional media for the detection and isolation of Candida spp.

The different species of Candida produce different kinds of infections. Candidiasis, the most common opportunistic fungal infection is frequently caused by Candida albicans. Candida tropicalis and Candida glabrata infections occur less often. Candida spp. are present in clinical specimens due to environmental contamination, colonization, or a disease process. Candida albicans is the most common and is usually susceptible to the antigfungal agents' azole group. However, Candida glabrata, Candida tropicalis and Candida krusei are azole tolerant, thus the rapid identification of the different species of Candida is essential for its correct diagnosis and treatment. Candida auris is an emerging multidrug-resistant yeast. Infection with C. auris is associated with high mortality rates, and it is often resistant to multiple classes of antifungal drugs.

Candida Chromogenic Agar allows the detection of Candida auris.

In the medium Glucose is the fermentable carbohydrate providing carbon and energy. Peptone provides nitrogen, vitamins, minerals and amino acids essential for growth. Chloramphenicol is an antibiotic which aids in isolating pathogenic fungi from heavily contaminated material, as it inhibits most contaminating bacteria. It is a recommended antibiotic for use with media due to its heat stability and wide bacterial spectrum. The chromogenic mixture allows the identification and differentiation of all three species of Candida albicans, Candida tropicalis and Candida krusei by producing easy-to-read results in one plate, since they present different colored colonies, Bacteriological agar is the solidifying agent.

Formula in g/L

Glucose	12,2	Bacteriological agar	15
Chromogenic mixture	0,2	Peptone	9
Inhibitors	0,5		

Typical formula g/L * Adjusted and/or supplemented as required to meet performance criteria.

Preparation

Suspend 36,9 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. AVOID OVERHEATING. DO NOT AUTOCLAVE. Dispense into Petri dishes.

Instructions for use

For clinical diagnosis, use any type of clinical sample (saliva, vagina ... etc.).

- Inoculate on the surface. Parallel striae with the handle or hyssop.

- Incubate in aerobic conditions at 35±2 °C for 24, 48 and 72 hours.
- Reading and interpretation of the results.
- Colonies of Candida albicans are green, those of Candida krusei and Candida auris are purple-pink and those of Candida tropicalis are blue.

Quality control

Solubility	Appareance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25ºC)
w/o rests	Fine powder	Light beige	Clear amber, slightly opalescent	6,1±0,2

Microbiological test

Incubation conditions: (35-37 ºC / 24-48-72 h).

Microorganisms	Specification	Characteristic reaction
Candida albicans ATCC 10231	Good growth	Green colony
Candida tropicalis ATCC 1369	Good growth	Blue colony
Candida glabrata ATCC 2001	Good growth	White whit brown centre colony
Candida auris DSM 21092	Good growth	Purple-pink colony
Candida krusei ATCC 34135	Good growth	Purple-pink colony

Storage

Temp. Min.:2 ºC
Temp. Max.:25 ºC

Bibliography

Sheehan, D.J. et. al.(1999) Current and Emerging Azole Antifungal Agents Clinical Microbiology Reviews, 12 (1): 40-79
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Ibrahim E.H. et al. (2001) The influence of inadequate antimicrobial treatment of bloodstream infections on patient outcomes in the ICU setting. Chest, 118 (1): 146-55