# CHROMagar™ Candida Plus

Instructions For Use
For Research Use Only (RUO)
Not for use in diagnostic procedures.

ENGLISH

Instructions For Use

Chromogenic medium for detection and differentiation of major clinical *Candida* species, including *C. auris*

## REFERENCES

| Pack Size | | Ordering References |
|---|---|---|
| 5000 mL | = 250 Tests of 20 mL | CA242 |
| 25 L | = 1250 Tests of 20 mL | CA243-25 |
| 10 kg | = 9 800 Tests of 20 mL | CA243-10KG |

## INTENDED USE

CHROMagar™ Candida Plus is a selective chromogenic culture medium intended for use in the qualitative direct detection, differentiation and presumptive identification of *Candida* species including *C. auris*. The test is performed with swabs from skin, throat, ears and vaginal specimens as well as sputum, urine and stools samples, in parallel to cultures on Sabouraud agar, to aid in the Candidiasis diagnosis. Results can be interpreted after 24-48 h of aerobic incubation at 35-37 °C.

Further microbiological testing or epidemiological typing are needed. A lack of growth or the absence of colonies on CHROMagar™ Candida Plus does not preclude the presence of *Candida*. CHROMagar™ Candida Plus is not intended to diagnose infection nor to guide nor monitor treatment for infections.

## COMPOSITION

The product is composed of a powder base.

| Product = | Base |
|---|---|
| Total g/L | 50.9 g/L |
| Composition g/L | Agar 15.0<br>Peptones 11.0<br>Chromogenic and selective mix 24.9 |
| Aspect | Powder Form |
| STORAGE | **15-30 °C** |
| FINAL MEDIA pH | 6.1 +/- 0.2 |

**Need some Technical Documents?**

Available for download on www.CHROMagar.com

- Certificate of Analysis (CoA) --> One per Lot
- Material Safety Data Sheet (MSDS)

## PREPARATION **(Calculation for 1 L)**

**Step 1** Preparation

- Suspend CHROMagar™ Candida Plus in the proportion of 50.9 g into 1 L of purified water.
- Stir until agar is well thickened.
- Heat and bring to boiling (100 °C) while swirling or stirring regularly.

DO NOT HEAT TO MORE THAN 100 °C. DO NOT AUTOCLAVE AT 121 °C.
Warning: If using an autoclave, do so without pressure.
Advice: For the 100 °C heating step, mixture may also be brought to a boil in a microwave oven: after initial boiling, remove from oven, stir gently, then return to oven for short repeated bursts of heating until complete fusion of the agar grains has taken place (large bubbles replacing foam).

**Step 2** Pouring

- Cool in a water bath to 45-50 °C, swirling or stirring gently.
- Pour medium into sterile Petri dishes.
- Let it solidify and dry.

**Storage**

- Store in the dark before use.
- Prepared media plates can be kept for one day at room temperature.
- Plates can be stored for up to one month under refrigeration (2/8 °C) if properly prepared and protected from light and dehydration.

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## SPECIMEN COLLECTION AND HANDLING

CHROMagar™ Candida Plus can be used with the following specimens: Swabs from skin, throat, ears, vagina as well as sputum, urine and stools samples.

Sampling and transport equipment must be used in accordance with the recommendations of their suppliers for the conservation of *Candida* strains.

## MATERIAL REQUIRED BUT NOT PROVIDED

Standard microbiological laboratory material for culture media preparation, control, streaking, incubation and waste disposal.

## INOCULATION

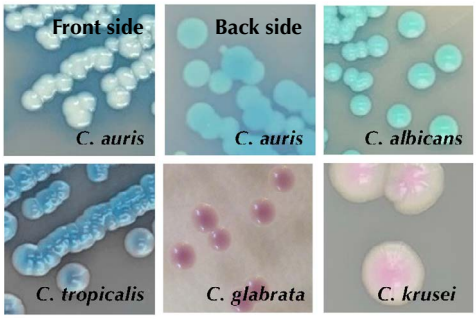
Related samples are inoculated by direct streaking on the plate.
- If the agar plate has been refrigerated, allow to warm to room temperature before inoculation.
- Streak sample onto plate.
- Incubate in aerobic conditions at 30-37 °C for 24-48 hours.

## INTERPRETATION

Qualitative reading and interpretation of the Petri dishes

| Microorganism | Typical colony appearance |
|---|---|
| *C. albicans* | → green-blue |
| *C. auris* | → light blue with blue halo, blue from the back side of the plate |
| *C. tropicalis* | → metallic blue with pink halo |
| *C. krusei* | → pink and fuzzy |
| *C. glabrata* | → mauve |
| Bacteria | → mostly inhibited |

**Typical** colony appearance




The pictures shown are not contractual.

## PERFORMANCE

| | Analytical data * | Clinical data ** |
|---|---|---|
| Sensitivity | 100 % | 100 % |
| Specificity | 100 % | 100 % |

Percents calculated for *C. albicans, C. tropicalis,* C. krusei and *C. auris*

* Data obtained after a 48 h incubation at 37 °C in aerobic conditions in the study « Evaluation of a novel chromogenic medium for *Candida* spp. identification and comparison with CHROMagar™ Candida for the detection of *Candida auris* in surveillance samples. Mulet Bayona *et al.*, 2020. *Diag. Microbiol. Inf. Dis.*

** Data obtained after a 24-48 h incubation at 37 °C in aerobic conditions with 364 patients surveillance samples and 212 environmental samples in the study «Novel chromogenic medium CHROMagar™ Candida Plus for detection of *Candida auris* and other *Candida* species from surveillance and environmental samples: A multicenter study. Mulet Bayona *et al.*, 2022. *J. of Fungi.*

## LIMITATIONS AND COMPLEMENTARY TESTS

- The final identification must be confirmed by biochemical tests or by mass spectrophotometry (eg. MALDI-TOF). They can be done directly from the suspicious colonies observed on the medium.
- Some strains of *C. auris* may display colonies with a pink center. They keep their blue halo. The blue color is visible from the back side of the plate.

## QUALITY CONTROL

Please perform Quality Control according to the use of the medium and the local QC regulations and norms.
Good preparation of the medium can be tested, isolating the following ATCC strains:

| Microorganism | Typical colony appearance |
|---|---|
| *C. albicans* ATCC® 60193 | → green-blue |
| *C. auris* ATCC® MYA-5001 | → light blue with blue halo, blue from the back side of the plate |
| *C. tropicalis* ATCC® 1369 | → metallic blue with pink halo |
| *C. krusei* ATCC® 14243 | → pink and fuzzy |
| *C. glabrata* ATCC® 2001 | → mauve |
| *E. coli* ATCC® 25922 | → inhibited |

## WARNINGS AND PRECAUTIONS

- For Research Use Only (RUO). Not for use in diagnostic procedures.
- This laboratory product should be used only by trained personnel (healthcare professional, etc). Wear appropriate protective clothing, gloves and eye/face protection and handle appropriately with procedures and good laboratory practices.
- Use of the medium may be difficult for people who have problems recognising colours.
- Culture media should not be used as manufacturing material or components.
- Do not ingest or inhale the product.
- Do not use the product after the expiry date.
- Do not use the product if it shows any evidence of contamination or any sign of deterioration (compacted powder, color change, ...).
- Do not use the product if the packaging is damaged.
- Any change or modification in the production procedure may affect the results.
- Any change or modification of the required storage temperature may affect the performance of the product.
- Unappropriate storage may affect the shelf life of the product.
- Recap the bottles tightly after each preparation and keep them in a low humidity environment, protected from moisture and light.
- Do not re-use the culture medium poured into a Petri dish after a first use.
- After opening the bottles and with an appropriate conservation, open bottles can be used under the same conditions until each product's expiry date.
- Reading and interpretation should be performed using isolated colonies.
- Interpretation of the test results should be made taking into consideration colonial and microscopic morphology and if necessary, the results of any other tests performed.

• Laboratory, chemical or biohazardous wastes must be handled and discarded in accordance with all local and national regulations.
• For hazard and precaution recommendations related to some chemical components in this medium, please refer to the pictogram(s) mentioned on the labels. The Safety Data Sheet (SDS) is available on www.chromagar.com
• Any incident or complaint related to the environment must be declared to the manufacturer at the following email address: chromagar@chromagar.com
• Any serious incident occurring in connection with the environment must be declared to the competent authorities and to the manufacturer at the following email address:
chromagar@chromagar.com

## DISPOSAL OF WASTE

After use, all plates and any other contaminated materials must be sterilized or disposed of by appropriate internal procedures and in accordance with local legislations. Plates can be destroyed by autoclaving at 121 °C for at least 20 minutes.

## LITERATURE REFERENCES

Please refer to our website page «Publications» for scientific publications about this particular product.
Web link: http://www.chromagar.com/publication.php

## IFU/LABEL INDEX

Catalogue reference


Consult instructions for use

Quantity of powder sufficient for X liters of media


Expiry date


Required storage temperature


Store away from humidity


Protect from light


Manufacturer

## REVISION HISTORY

This is version V3.1 of this document.

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CHROMagar™
The Chromogenic Media Pioneer

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