

BacterLab Division



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CHROMOGENIC AGAR MEDIUM

BacterChrom™ CARBA Agar

Ready-to-use chromogenic medium on 90mm plates for detecting and isolating carbapenem-resistant Enterobacteriaceae (CRE).

Code: 01011



1. INTENDED USE

BacterChrom™ CARBA Agar is a selective and differential chromogenic culture medium, intended for use in the qualitative direct detection of gastrointestinal colonization with carbapenem-resistant *Enterobacteria* (CRE), including OXA-48 producers, to aid in the prevention and control of CRE in healthcare settings.

The packaging with semi-permeable Cellophane film helps balance the humidity of the environment during storage.

2. PRINCIPLES

This medium operates based on chromogenic substrates that allow easy differentiation of CRE.

Carbapenemase-producing Enterobacteriaceae (CPE): Enzymatic activity is detected through chromogenic reactions.

Specificity: Differentiates CRE based on colony colors:

- *E. coli* (CPE): Dark pink to reddish.
- Coliforms (CPE): Metallic blue.
- Other Gram-negative organisms (CPO): Cream or translucent colonies.

3. TYPICAL COMPOSITION

For 1 liter of medium

Agar	15,0 g
Peptone	20,0 g
Salt	5,0 g
Chromogenic and selective mix	0,8 g
Growth factors	1,7 g
Supplement (S1)	2,0 mL
Supplement (S2)	0,25 g

pH of the ready-to-use medium at 25°C: 7,2 ± 0,2

4. PREPARATION

The environmental plates are ready-to-use, no preparation required.

5. INSTRUCTIONS FOR USE

- Allow to warm to room temperature before inoculation, dry the plates in an incubator with the covers partially removed.
- Direct streaking sample onto the plate
- Incubate in aerobic conditions at 35 – 37 °C for 18 – 24 hour

6. RESULTS

Qualitative reading and interpretation of the plates:

Microorganism	Typical colony appearance
CPE* <i>E. coli</i>	dark pink to reddish
CPE <i>Coliforms</i>	metallic blue

CPO* <i>Pseudomonas</i>	translucent, +/- natural pigmentation cream to green
CPO <i>Acinetobacter</i>	cream
Other Gram (-) CPO	colourless, natural pigmentation
Non-CPE <i>E. coli</i> /Coliforms	inhibited
Other Gram (-) non-CPO	inhibited
Gram (+) bacteria	inhibited

*CPE: carbapenemase-producing-Enterobacteriaceae

*CPO: carbapenemase-producing organism

7. QUALITY CONTROL

BacterLab ensures the quality of each product batch by testing with ATCC reference strains.

Reference strains	Incubation conditions	Expected results
<i>E. coli</i> IMP NCTC 13476	Incubate for 18 – 24 hours at 35 – 37 °C	Dark pink to red colonies
<i>K. pneumoniae</i> ATCC BAA 1705		Metallic blue colonies
<i>K. pneumoniae</i> KPC NCTC 13438		Metallic blue colonies
<i>E. faecalis</i> ATCC 29212		Inhibited
<i>K. pneumoniae</i> ESBL ATCC 700603		Partially inhibited

8. STORAGE AND TRANSPORT CONDITIONS

- Storage: 2 – 8°C.
- Transportation: Ambient temperature.

9. PACKAGING

- Packaging: 10 plates/ box or as per customer request.

10. SHELF LIFE

- Expiration Date: 03 months from the manufacturing date.

11. BIBLIOGRAPHY

- CHROMagar. (2021). *CHROMagar™ Technical Data Sheet: NT-EXT-089 V8.1*. Retrieved from <https://www.chromagar.com/wp-content/uploads/2021/11/NT-EXT-089-V8.1.pdf>