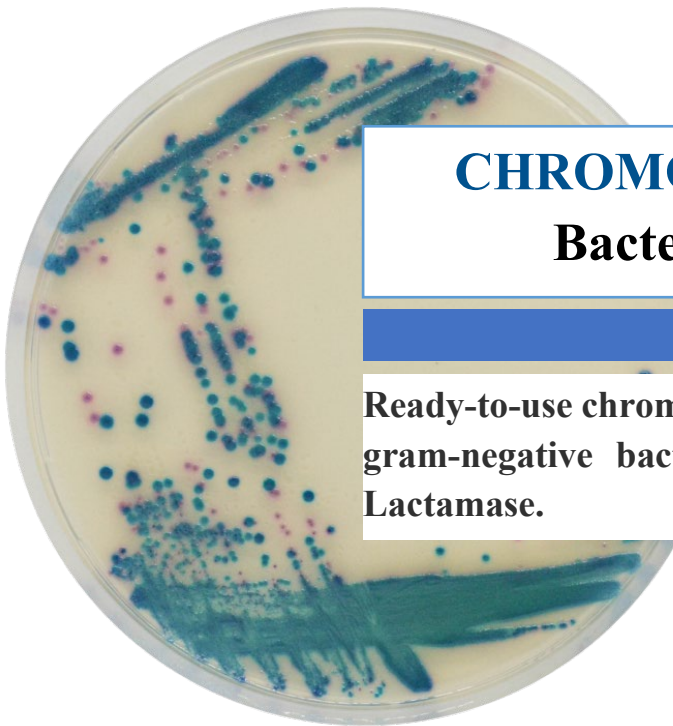


BacterLab Division



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CHROMOGENIC AGAR MEDIUM

BacterChrom™ ESBL Agar

Ready-to-use chromogenic medium on 90mm plates for detecting gram-negative bacteria producing Extended-Spectrum Beta-Lactamase.

Code: 01009

1. INTENDED USE

BacterChrom™ ESB� Agar is a selective and differential chromogenic culture medium, intended for use in the qualitative direct detection of gastrointestinal colonization with Extended-spectrum-beta-lactamase-resistant *Enterobacteria* (ESBL) to aid in the prevention and control of ESBL in healthcare settings.

The medium can also be used as an early warning indicator for diagnostic tests of infections to signal the possible presence of multi drug-resistant bacteria.

BacterChrom™ ESB� Agar is not intended to diagnose ESBL infection nor to guide nor monitor treatment for infections.

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

2. PRINCIPLES

BacterChrom™ ESB� Agar contains a nutrient-rich base, selective agents, and chromogenic substrates for differentiation:

Antibiotic mix (e.g., cefpodoxime): Inhibits non-ESBL-producing bacteria while allowing selective growth of ESBL-producing strains.

Chromogenic and natural substrates: Facilitate direct identification of common ESBL-producing bacteria:

- *Escherichia coli*: Pink to reddish colonies (β-glucuronidase activity).
- *Klebsiella*, *Enterobacter*, *Serratia*, *Citrobacter* (KESC group): Green, olive-brown, or blue colonies (β-glucosidase activity).
- Proteaceae (*Proteus*, *Providencia*, *Morganella*): Dark to light brown colonies (deaminase activity).

3. TYPICAL COMPOSITION

For 1 liter of medium

Peptone and yeast extract	17,0 g
Chromogenic mix	1,0 g
Selective mix	0,57 g
Agar	15,0 g

pH of the ready-to-use medium at 25°C: 7,9 ± 0,2

4. PREPARATION

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

5. INSTRUCTIONS FOR USE

- **BacterChrom™ ESB� Agar** can be used with the following specimens: Rectal swab and stools.
- Allow plates to reach room temperature before inoculation.
- Streak the specimen directly onto the agar surface for isolation.
- Incubate in aerobic conditions at 35 – 37 °C for 18 – 24 hours.

6. RESULTS

Qualitative reading and interpretation of the plates:

Microorganism	Typical colony appearance
ESBL <i>E. coli</i>	dark pink to reddish
ESBL KEC (<i>Klebsiella</i> , <i>Enterobacter</i> , <i>Citrobacter</i>)	metallic blue (+/- reddish halo)
ESBL <i>Proteus</i>	brown halo
ESBL <i>Acinetobacter</i>	cream
ESBL <i>Pseudomonas</i>	translucent, (+/- natural pigmentation cream to green)
<i>Stenotrophomonas</i>	colourless
Gram (+) strains	inhibited
Non Resistant Other Gram (-) strains	inhibited
Yeasts	mostly inhibited

7. QUALITY CONTROL

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

Reference strains	Incubation conditions	Expected results
ESBL <i>E.coli</i> CIP 103982	Incubate for 18 – 24 hours at 35 – 37 °C	Good growth, small reddish colonies
ESBL <i>K. Pneumoniae</i> ATCC 700603		Good growth, blue colonies
<i>E.faecalis</i> ATCC 29212		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. *Technical Data Sheet: CHROMagar™ ESBL*. Accessed December 25, 2024. <https://www.chromagar.com/wp-content/uploads/2021/11/NT-EXT-034-V7.1.pdf>.