

IVD solutions through partnership



CHROMagar™ ESBL

For overnight detection
of Gram-negative bacteria producing
Extended Spectrum Beta-Lactamase

● CHROMagar™ ESBL

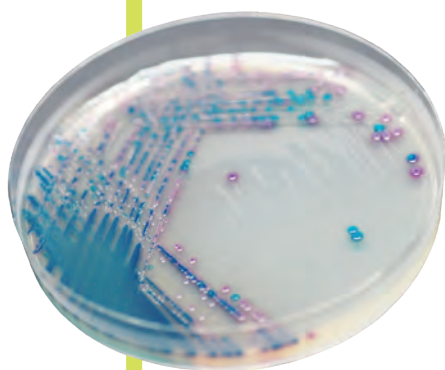





Plate Reading

-  • *E.coli* ESBL
→ dark pink to reddish
-  • *Klebsiella*, *Enterobacter*,
Citrobacter ESBL
→ metallic blue (+/- red halo)
-  • *Proteus* ESBL
→ brown halo
-  • *Pseudomonas* ESBL
→ translucent cream to blue
-  • *Acinetobacter* ESBL
→ cream opaque
- Other
→ inhibited

For overnight detection of Gram-negative bacteria producing Extended Spectrum Beta-Lactamase

Background

ESBL (Extended Spectrum β -Lactamases) are enzymes that mediate resistance to penicillins, extended-spectrum third generation cephalosporins (C3G) and monobactams. ESBL-producing Enterobacteriaceae started to appear in the 1980s, and have since emerged as some of the most significant hospital-acquired infections with *Escherichia coli* and *Klebsiella* spp. being the main actors, but other Gram-negative species have also been observed. Emergence of ESBL-producing isolates has important clinical and therapeutic implications:

- resistance determinants for ESBL production are carried on plasmids that can be easily spread from organism to organism.
- the spread of resistance toward extended-spectrum cephalosporins may lead to increased prescription of more broad-spectrum and expensive drugs.
- these resistant isolates may escape detection with routine susceptibility testing performed by a clinical microbiology laboratory, which can result in adverse therapeutic outcomes.

Therefore, the early detection of ESBL-producing bacteria carriers is important to minimise their impact and the spread of infections and customise therapeutic patient treatment.

Medium Performance

CHROMagar™ ESBL allows the detection of ESBL-producing bacteria while inhibiting the growth of other bacteria, including most of those carrying AmpC type resistance. This is an important feature because intrinsic AmpC resistance has less epidemic relevance, but often leads to ESBL false positive reading in the classical testing methods.

Detection of resistant isolates is difficult based on routine susceptibility testing performed by a clinical microbiology laboratory, while with CHROMagar™ ESBL:

- 1 **Fast Results**
Detection after overnight incubation.
- 2 **Species Differentiation**
thanks to the chromogenic performances of supplemented CHROMagar™ Orientation. Indeed, the product is composed of a powder base CHROMagar™ Orientation and a supplement to enhance ESBL-producing bacteria.
- 3 **High Sensitivity (98 %*) High Specificity (97%*)**
*«Detection of Extended-spectrum β -Lactamase producing Enterobacteriaceae» G.Klysova and al., ECC-MID 2016..
- 4 **Time and workload savings**
Direct culture from specimen. There is no need of a selective pre-enrichment.
- 5 **Flexibility**
CHROMagar™ ESBL is supplied with more than 18 months shelf-life. This allows flexibility of use, whether in an epidemic situation with many patients to screen, or whether for random surveillance of cultures.

Medium Description

Powder Base CHROMagar™ Orientation	Total	33 g/L
	Agar	15.0
	Peptones and yeast extract.....	17.0
	Chromogenic mix	1.0
	Storage at 15/30 °C - pH: 7.0 +/-0.2	
	Shelf Life	> 18 months
+ CHROMagar™ ESBL Supplement (included in the pack)	Selective mix (Powder form)	0.57 g/L
	Storage at 2/8 °C	
	Shelf Life	> 18 months

Usual Samples	stools, urine
Procedure	Direct Streaking. Incubation 18-24 h at 35-37 °C. Aerobic conditions

Scientific Publications on this product: available on www.CHROMagar.com
Please read carefully the instructions for use (IFU document) available on www.CHROMagar.com



Manufacturer:

CHROMagar
4 place du 18 juin 1940 75006 Paris - France
e-mail: CHROMagar@CHROMagar.com
www.CHROMagar.com

Distributed by:
Mast Diagnostica GmbH
Feldstraße 20
DE-23858 Reinfeld

Tel: +49 (0)4533 2007 0
Fax: +49 (0)4533 2007 68
e-mail: mast@mast-diagnostica.de
www.mast-group.com

Ordering Information

Product	Order Code
CHROMagar™ ESBL dry media, 5 liter	15ESRT2
CHROMagar™ ESBL ready to use plates, 20 pcs.	201470