

IVD solutions through partnership



CHROMagar™ KPC

For detection of carbapenem-resistant
Enterobacteria (CRE)



CHROMagar™
The Chromogenic Media Pioneer

● CHROMagar™ KPC

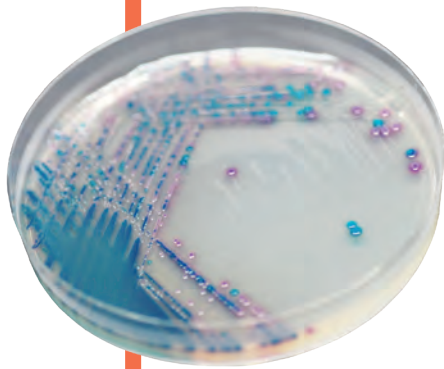

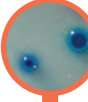



Plate Reading

-  • *E. coli* Carbapenem^R
→ dark pink to reddish
-  • *Klebsiella*, *Enterobacter*,
Citrobacter Carbapenem^R
→ metallic blue (+/- red halo)
-  • *Pseudomonas* Carbapenem^R
→ translucent
cream to blue
- *Acinetobacter* Carbapenem^R
→ cream opaque
- Carbapenem^S strais
→ inhibited

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™ KPC Supplement (included in the pack)	Selective mix (Powder form) 0.4 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:

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For detection of carbapenem-resistant Enterobacteria (CRE)

Background

Worldwide reports of resistance to carbapenems found in enterobacteriaceae are a major health concern, specially in the case where the reducing susceptibility mechanism is the production of enzymes like KPC, OXA or MBL (ex: the recently reported NDM-1).

Carbapenems are the last resort in treating many serious gram-negative infections. However, production of these enzymes results in resistance to penicillins, cephalosporins (i.e., cefepime, ceftriaxone), carbapenems (i.e., meropenem, ertapenem), and aztreonam, thereby making these pathogens truly multidrug-resistant and making their treatment very challenging.

« KPC-producing bacteria have demonstrated a remarkable ability to disseminate with inter-facility, interstate, and international transmission having been documented. » CDC 2008-R-24. Thus, in order to limit the spread of these serious pathogens, rapid detection, followed by implementation of adequate infection control methods, is essential.

Intended Use

CHROMagar™ KPC is a selective and differential chromogenic culture medium, intended for use in the qualitative direct detection of gastrointestinal colonization with carbapenem-resistant Enterobacteria (CRE) to aid in the prevention and control of CRE in healthcare settings. The test is performed with rectal swab and stools from patients to screen for CRE colonization. Results can be interpreted after 18-24 h of aerobic incubation at 35-37 °C.

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. This use does not replace the institution's protocols.

CHROMagar™ KPC is not intended to diagnose CRE infection nor to guide nor monitor treatment for infections. A lack of growth or the absence of colonies on CHROMagar™ KPC does not preclude the presence of CRE. Further identification, susceptibility testing, and epidemiological typing is needed on suspect colonies.

Medium Performance

1

Detection after overnight incubation

Detection of gram-negative bacteria expressing a reduced susceptibility to antibiotics of the carbapenem family.

2

Time and workload savings

There is no need for a selective pre-enrichment medium. Direct plating of the sample is possible.

3

Short incubation

Requires only 18-24 h of incubation.

4

Flexibility

CHROMagar™ KPC supplement is supplied with a more than 18 months shelf-life. This allows for flexibility of use, whether in an epidemic situation with many patients to screen, or whether for random surveillance of cultures.

	Analytical data*	Clinical data**	
		CHROMagar™ KPC	Reference medium (MacConkey Agar)
Sensitivity	97.8 %	100 %	92.7 %
Specificity	100 %	98.4 %	95.9 %

* Data obtained after a 16-24 h incubation at 37 °C in aerobic conditions in the study "Rapid identification of OXA-48-like, KPC, NDM, and VIM carbapenemase-producing Enterobacteriaceae from culture: Evaluation of the RESIST-4 O.K.N.V. multiplex lateral flow assay. Song et al., 2020. Ann. Lab. Med.

** Data obtained by testing 122 rectal swabs, being positive 41, on plates incubated at 37 °C for 24 h in aerobic conditions. "Evaluation of CHROMagar™ KPC for rapid detection of carbapenem-resistant Enterobacteriaceae". Samra et al., 2008. J. Clin. Microbiol.

Ordering Information

Product	Order Code
CHROMagar™ KPC dry media, 5 liter	15KPRT2
CHROMagar™ KPC ready to use plates, 20 pcs.	201471

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