

## Chromatic™ CRE Agar Base

Chromogenic selective medium for detection of carbapenem-resistant Enterobacteriaceae directly from clinical specimens.

TYPICAL FORMULA	(g/l)
Peptone Mix	40.0
Chromogenic and Selective Mix	1.8
Agar	15.0
Final pH 7.0 ± 0.2	

### DESCRIPTION

Chromatic™ CRE Agar Base is a chromogenic selective medium used with supplements for detection of carbapenem-resistant Enterobacteriaceae directly from clinical specimens.

Carbapenems (imipenem, meropenem, ertapenem and doripenem) are the last shelter from multi-resistant Gram-negative bacterial infections. Carbapenemase is an enzyme class which can be produced by *Klebsiella pneumoniae* and by other organisms including *Serratia* spp, *Enterobacter* spp, *Escherichia coli* and *Citrobacter freundii*. Early detection of carbapenems resistance is essential in order to limit the spread of these pathogens.

### PRINCIPLE

Peptone mix is a source of amino acids, nitrogen, minerals, vitamins, and other factors which increases the growth of bacteria. Chromogenic and selective mix facilitates the identification of bacteria on the basis of the color and colony morphology. Agar is the solidifying agent.

Supplementation with Chromatic™ CRE Supplement (ref. 81088) inhibits most of the non-Enterobacteriaceae and the carbapenem-sensitive organisms.

### PREPARATION

Suspend 56.8 g of powder in one liter of deionized or distilled water. Bring to boil and shake until completely dissolved. Sterilize at 121°C for 15 minutes. Cool up to 45-50°C. Aseptically, add the contents of 2 vials (10 ml) of Chromatic™ CRE Supplement (ref. 81088) reconstituted as directed in the instructions for use that accompany the product. Pour in Petri dishes.

### TECHNIQUE

Inoculate the medium directly from faecal screening swabs, or using a sterile loop previously dipped in liquid suspension of the sample, by streaking the specimen onto the agar surface. Incubate aerobically at 37°C for 18-24h.

### INTERPRETATION OF RESULTS

*K. pneumoniae* produces blue-violet colonies.

*E. coli* produces red colonies.

*Enterobacter* spp, produces blue-green colonies.

*Citrobacter* spp, produces blue colonies with red halo.

Non-Enterobacteriaceae (if not inhibited) produce white to naturally pigmented colonies.

### STORAGE CONDITIONS

The powder is very hygroscopic, store the powder at 10-30°C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared plates at 2-8°C away from light.

### WARNING AND PRECAUTIONS

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. The product is designed for *in vitro* diagnostic use and must be used only by properly trained operators.

### DISPOSAL OF WASTE

Disposal of waste must be carried out according to the national and local regulations in force.

### REFERENCES

- EUCAST guidelines for detection of resistance mechanisms and specific resistances of clinical and/or epidemiological importance. Version 1.0, 2013.
- Podschun R, Ullman U (1998). *Klebsiella* spp as Nosocomial Pathogens: Epidemiology, Taxonomy, Typing Methods, and Pathogenicity Factors. *Clinical Microbiology Reviews* 11 (4): 589–603.
- Kochar S, Sheard T, Sharma R, Hui A, Tolentino E, Allen G, Landman D, Bratu S, Augenbraun M, Quale J. Success of an infection control program to reduce the spread of carbapenem-resistant *Klebsiella pneumoniae*. *Infect. Control Hosp. Epidemiol.* 2009 30(5):447-52.



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## PRODUCT SPECIFICATIONS

### NAME

Chromatic™ CRE Agar Base

### PRESENTATION

Dehydrated medium

### STORAGE

10-30°C

### PACKAGING

Ref.	Content	Packaging
611619	500 g	500 g of powder in plastic bottle
621619	100 g	100 g of powder in plastic bottle

### pH OF THE MEDIUM

7.0 ± 0.2

### USE

Chromatic™ CRE Agar Base is a chromogenic selective medium used with supplements for detection of carbapenem-resistant Enterobacteriaceae directly from clinical specimens

### TECHNIQUE

Refer to product technical sheet

### APPEARANCE OF THE MEDIUM

#### Powder medium

Appearance: fine, dry, homogeneous, free of extraneous material

Colour: beige

#### Ready-to-use medium

Appearance: slightly opalescent

Colour: amber

### SHELF LIFE











2 years

### QUALITY CONTROL

- Control of general characteristics, label and print
- Microbiological control  
Inoculum for productivity: 50-100 CFU  
Inoculum for selectivity: 10<sup>4</sup>-10<sup>6</sup> CFU  
Incubation Conditions: 18-24 h at 35 ± 2°C, in aerobiosis

Microorganism		Growth	Colony colour
<i>Klebsiella pneumoniae</i> (KPC+)	ATCC® BAA-1705	Good	Blue-violet
<i>Klebsiella pneumoniae</i>	ATCC® BAA-1706	Inhibited	---
<i>Klebsiella pneumoniae</i> (ESBL+)	ATCC® 700603	Inhibited	---
<i>Escherichia coli</i>	ATCC® 25922	Inhibited	---

### TABLE OF SYMBOLS

 <b>LOT</b>	Batch code	 <b>IVD</b>	<i>In vitro</i> Diagnostic Medical Device		Manufacturer		Use by		Fragile, handle with care
 <b>REF</b>	Catalogue number		Temperature limitation		Contains sufficient for <n> tests		Caution, consult instructions for use		Do not reuse



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