

# CHROMagar™ Enterobacteria



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## MEDIUM PURPOSE

Chromogenic medium for detection and enumeration of *Enterobacteriaceae*.

«The Enterobacteriaceae and coliform bacteria within this family represent two of the most common groups of indicator organism used by the food industry. In some countries, depending on regulatory requirements, the food industry has moved towards testing for Enterobacteriaceae». ILSI Europe (International Life Sciences Institute)

## COMPOSITION

The product is composed of one powder Base (B). Two supplements (S1 + S2) are available to be used with ready-to-use bottles.

Product	=	Base (B)	+ TO BE USED WITH READY-TO-USE BOTTLES			
			Supplement (S1)	Supplement (S2)		
Total	=	42.3 g/L	+	1 ml/L	+	0,01 g/L
Composition		Agar 11.0 Peptones and yeast extract 22.0 Mineral salts 4.9 Chromogenic and selective mix 0.7 Growth factors 3.7		Chromogenic mix		Selective mix
Aspect		Powder Form		Liquid Form		Powder Form
STORAGE		15-30 °C		2-8 °C		2-8 °C
FINAL MEDIA pH		7.4* +/- 0.2				

\* Classical formula adjusted and/or supplemented as required to meet performance criteria

## PREPARATION (Calculation for 1L)

### Step 1

Preparation of the mix

- Disperse slowly 42.3 g of powder base in 1 L of purified water.
- Stir until agar is well thickened.
- Heat and bring to boil (100 °C) while swirling or stirring regularly.

**Advice 1:** For the 100°C heating step, mixture may also be brought to a boil in a microwave oven: after initial boiling, remove from oven, stir gently, then return to oven for short repeated bursts of heating until complete fusion of the agar grains has taken place (large bubbles replacing foam).

DO NOT HEAT TO MORE THAN 100°C. DO NOT AUTOCLAVE AT 121°C.

**Warning:** If using an autoclave, do so without pressure.

### Step 2

Cooling

- Cool in a water bath to 45-50 °C.
- Swirl or stir gently to homogenize.

### Step 3

Pouring in plates or bottles

- Pour medium into Petri dishes or 200 ml bottles.
- Let solidify.
- If pouring in plates, let them dry.

### Storage

- Store in the dark before use.
- Prepared media plates and bottles can be kept for one day at room temperature.
- Plates can be stored for up to 1 month under refrigeration (2/8 °C) if properly prepared and protected from light and dehydration.
- Bottles can be stored for up to 2 months under refrigeration (2/8 °C) if properly prepared and protected from light and dehydration.

### Step 4

Addition of S1 and S2 Supplements  
(If using pouring technique with 200ml ready-to-use bottles)

- Heat the bottle at 100°C until complete melting of the media (30 minutes to 2 hours). DO NOT HEAT TO MORE THAN 100°C.

**Warning:** If using an autoclave, do so without pressure.

- Cool in a water bath to 45/50°C.
- Add before pouring 200 µL of CHROMagar™ Enterobacteria supplement S1.
- Rehydrate one freeze dried vial of CHROMagar™ Enterobacteria supplement S2 with 6ml of sterile water and add 2.4 ml of this rehydrated freeze dried vial into the bottle.
- Stir well the bottle

**Note 1 :** CHROMagar™ Enterobacteria Supplement S1 can be stored for up to 6 months after opening.

**Note 2 :** Reconstituted CHROMagar™ Enterobacteria Supplement S2 solution can be stored for up to two weeks under refrigeration (2/8°C).

FOR 200 ml BOTTLES

# CHROMagar™ Enterobacteria

Instructions For Use

ENGLISH

Instructions For Use

## INOCULATION

### IF USING POURING TECHNIQUE PROCEDURE

• Prepare 90mm Ø sterile Petri dishes and add 1ml of inoculum in each. Then pour 10ml of melted medium. Mix and let solidify. Add an overlay of the same medium and let solidify. Invert and incubate at 37 °C for 24 hours. If searching for psychotropic Enterobacteriaceae, incubate at 30 °C.

### IF USING SURFACE TECHNIQUE PROCEDURE:

• Pour into sterile Petri dishes and allow to solidify and dry. If the agar plate has been refrigerated, allow to warm to room temperature before inoculation. Streak the sample into plate and incubate in aerobic conditions at 37 °C for 24h. If searching for psychotropic Enterobacteriaceae, incubate at 30 °C.

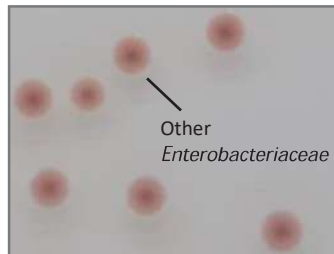
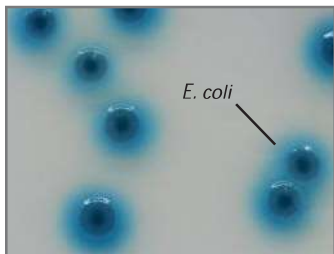
### Typical Samples

e.g. food, foodstuff, environment samples  
\*\*\*  
Pouring, streaking or spreading techniques

## INTERPRETATION

Microorganism	Typical colony appearance
<i>E. coli</i>	• blue with or without blue halo
<i>Proteus</i>	• red with swarming
Other <i>Enterobacteriaceae</i>	• pink to red
Gram positive	• inhibited

### Typical colony appearance



The pictures shown are not contractual.

## PERFORMANCE & LIMITATIONS

• Definite identification may require additional testing.  
• Some strains of *Pseudomonas* may appear as pink colonies. However, they can be differentiated by an Oxidase test.

## QUALITY CONTROL

Please perform Quality Control according to the use of the medium and the local QC regulations and norms. Good preparation of the medium can be tested, isolating the following ATCC strains:

Microorganism	Typical colony appearance
<i>E. coli</i> ATCC® 25922	→ blue
<i>K. pneumoniae</i> ATCC® 13883	→ pink
<i>P. aeruginosa</i> ATCC® 9027	→ inhibited
<i>E. faecalis</i> ATCC® 29212	→ inhibited

## WARNINGS

- Do not use plates if they show any evidence of contamination or any sign of deterioration.
- Do not use the product beyond its expiry date or if product shows any evidence of contamination or any sign of deterioration.
- For Laboratory use. This laboratory product should be used only by trained personnel in compliance with good laboratory practices.
- Any change or modification in the procedure may affect the results.
- Any change or modification of the required storage temperature may affect the performance of the product.
- Unappropriate storage may affect the shelf life of the product.
- Recap the bottles tightly after each preparation and keep them in a low humidity environment, protected from moisture and light.
- For a good microbial detection: collection and transport of specimen should be well handled and adapted to the particular specimen according to good laboratory practices.

## DISPOSAL OF WASTE

After use, all plates and any other contaminated materials must be sterilized or disposed of by appropriate internal procedures and in accordance with local legislations. Plates can be destroyed by autoclaving at 121°C for at least 20 minutes.

## REFERENCES

Please refer to our website page «Publications» for scientific publications about this particular product.

Web link: <http://www.chromagar.com/publication.php>

## IFU/LABEL INDEX

- Quantity of powder sufficient for X liters of media
- Expiry date
- Required storage temperature
- Store away from humidity

TO BE USED WITH READY-TO-USE BOTTLES

Pack Size

5000 ml

=

250 Tests  
of 20ml

Ordering References

EB042

Base (B)

EB042  
Weight: 211.5 g

+

Supplement (S1)

TT100L  
Volume:100 ml\*

Supplement (S2)

CV702  
10 x 500ml vials

\*To manufacture 100 L of media

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**CHROMagar™**  
The Chromogenic Media Pioneer

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