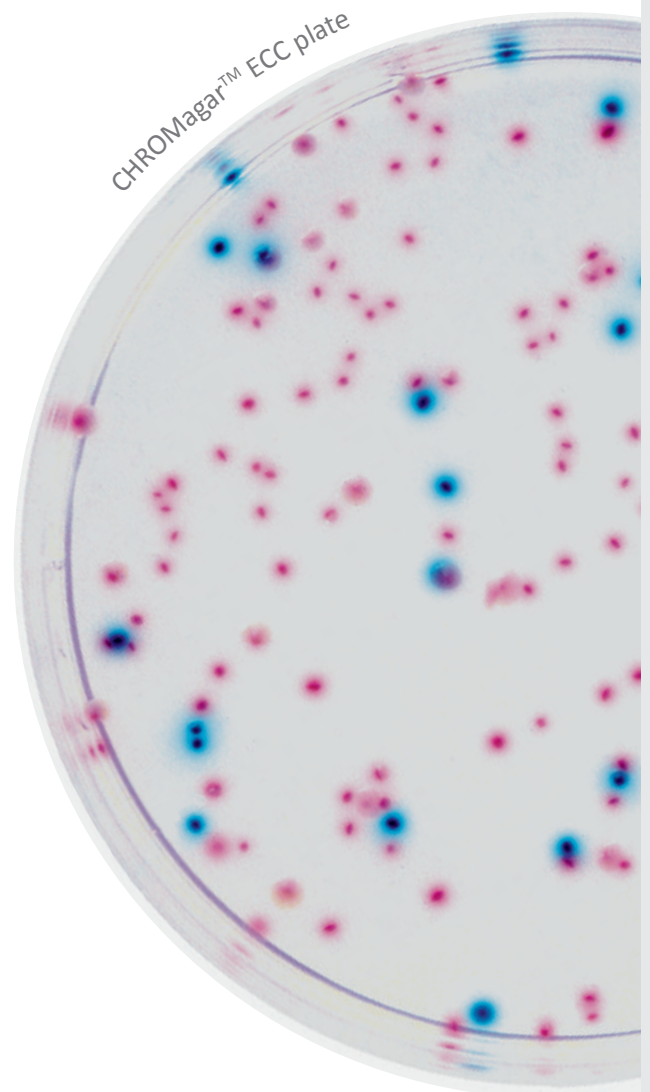


CHROMagar™ ECC



MEDIUM PURPOSE

Chromogenic medium for the detection and enumeration of β-glucuronidase positive *E.coli* and coliforms in food and water samples.

Coliforms, Enterobacteriaceae able to ferment lactose (lactose positive Enterobacteriaceae), are bacteria present in human and warm blooded animals intestinal flora, in the soil and water. Coliforms are proof of organic, environmental or faecal contamination. Faecal contamination, due to coliforms coming from animal waste, consists mainly of *Escherichia coli* and thermotolerant *Klebsiella*. Strict regulations exist for *E.coli*/Coliform presence in water and food samples.

This can be explained by the importance of these germs in determining water and food safety.

COMPOSITION

The product is composed of a single powder medium.

Product	=	Pack
Total g/L		32.8 g/L
Composition g/L		Agar 15.0 Peptone and yeast extract 8.0 NaCl 5.0 Chromogenic mix 4.8
Aspect		Powder Form
STORAGE		15/30°C
FINAL MEDIA pH		7.2 +/- 0.2

PREPARATION (Calculation for 1L)

Step 1

Preparation

- Disperse slowly 32.8g of powder in 1L of purified water.
- Stir until agar is 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).

Advice 2: in case of product samples containing a high load of *Pseudomonas* and/or *Aeromonas*, cefsulodin can be added at 7.5 mg/L.

Step 2

Pour plates

- Cool in a water bath to 48°C.
- Swirl or stir gently to homogenize.
- Pour medium into Petri dishes.
- Let it solidify and dry.

If using pouring technique procedure, please refer to Inoculation part.

Storage

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

*Some tiny white crystals can appear after storage at 2/8°C but **do not interfere** with the performances of the media and will vanish as soon as the plates are warmed at room temperature.*

INOCULATION

Related samples (e.g. Processed food, raw materials, water, milk & environment) can be processed by direct streaking on the plate, as well as prior appropriate enrichment step.

--> IF USING SURFACE TECHNIQUE PROCEDURE:

- If the agar plate has been refrigerated, allow to warm to room temperature before inoculation.
- Streak the sample or place the inoculated membranes on plate surface.
- Incubate in aerobic conditions at 37°C during 24h.

--> IF USING POURING TECHNIQUE PROCEDURE:

- Prepare 90mm Ø sterile Petri dishes and add 1 ml of inoculum in each.
- Then pour 10ml of melted medium. Mix and let it solidify.
- Incubate in aerobic conditions at 37°C during 24h.

Advice 3: Incubation possibilities:

If research is focused on faecal coliform bacteria

Incubate at 44°C, 24h

If research is targeted to maximise total coliform detection

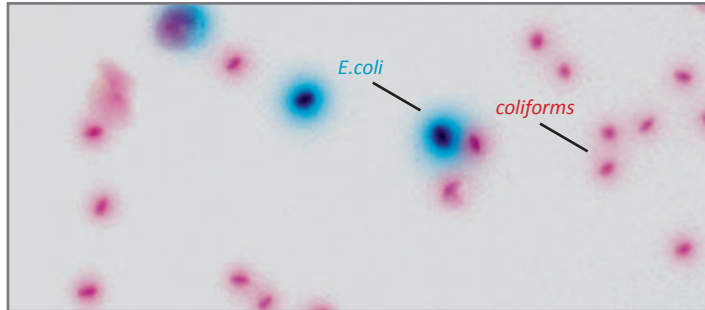
Incubate at 30°C, 24h

CHROMagar™ ECC

INTERPRETATION

Microorganism	Typical colony appearance
<i>E. coli</i>	→ blue
Other (faecal*) coliform bacteria	→ mauve
Other gram negative bacteria	→ colourless

Typical colony appearance



The pictures shown are not contractual.

PERFORMANCE & LIMITATIONS

- Sensitivity for *E. coli* is 97% (Ogden et al. 1991).
- Rare β -glucuronidase negative *E. coli* strains are false negative on this medium (typically O157 *E. coli*). *If research is focused on rare pathogenic strains such as O157 E. coli : please refer to CHROMagar O157 product.*
- If your research is focused on total coliform, few *Hafnia* are false negative and have a colourless appearance.

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 ATCC strains below:

Microorganism	Typical colony appearance
<i>E. coli</i> ATCC® 25922	→ blue
<i>C. freundii</i> ATCC® 8090	→ mauve
<i>E. cloacae</i> ATCC® 35030	→ mauve
<i>E. aerogenes</i> ATCC® 13048	→ mauve
<i>K. pneumoniae</i> ATCC® 13883	→ mauve
<i>S. aureus</i> ATCC® 25923	→ 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.
- 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

Pack Size

1000 ml

50 Tests
of 20ml

=

Ordering References

EF320

Weight: 32,8gr

5000 ml

250 Tests
of 20ml

=

EF322

Weight: 164gr

25 L

1250 Tests
of 20ml

=

EF323-25

Weight: 820gr

Bulk size

=

on request

Need some Technical Documents?

Available for download on www.CHROMagar.com

- Certificate of Analysis (CoA) --> One per Lot
- Material Safety Data Sheet (MSDS)

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