CHROMagar™ E.coli

MEDIUM PURPOSE

Chromogenic medium for detection and enumeration of ß-glucuronidase positive *E.coli* in food and water samples.
The presence of *E.coli* indicates faecal contamination and potential presence of dangerous pathogens such as bacteria like *Vibrio cholerae, Salmonella, Pseudomonas* etc..., or viruses and intestinal parasites. The infections resulting from ingestion of contaminated matter can be dangerous and life-threatening.

COMPOSITION

The product is composed of one single powder medium.

Product =	Pack
Total g/L	37.3 g/L
Composition g/L	Agar 15.0 Peptone and yeast extract 8.3 Sodium chloride 5.0 Chromogenic mix 9.0
Aspect	Powder Form
STORAGE	**15/30°C**
FINAL MEDIA pH	6.0 +/- 0.2

PREPARATION **(Calculation for 1L)**

Step 1
Preparation of the mix

- Disperse slowly 37,3g of powder base in 1L 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).
Advice 2: If preferred, it is also possible to autoclave at 121°C, 15 min.

Step 2
Pour plates

- Cool in a water bath to 45-50°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 two months under refrigeration (2/8°C) if properly prepared and protected from light and dehydration.

INOCULATION

Related samples can be processed by direct streaking on the plate.

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 for 24h.

Advice 3: For greater inhibition of commensal flora and/or detection of thermotolerant *E.coli*, incubate at 44°C.

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 for 24h.

Typical Samples
e.g. Processed food, raw materials, water, milk & environment samples *** Direct streaking or spreading technique

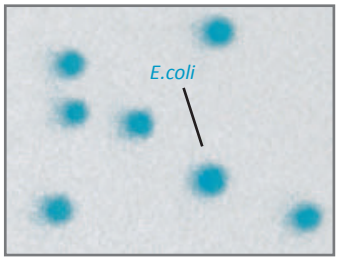
CHROMagar™ E.coli

INTERPRETATION

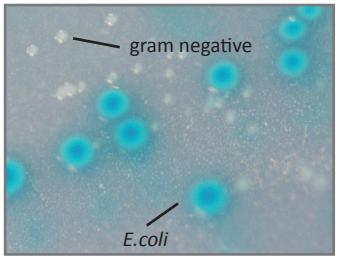
Microorganism	Typical colony appearance
E.coli	→ blue
Other gram negative bacteria	→ colourless

Typical colony appearance

Pouring technique



Surface/Streaking technique



The pictures shown are not contractual.

PERFORMANCE & LIMITATIONS

• Sensitivity for *E.coli* is 97% (Ogden *et al.* 1991).

• Rare ß-glucuronidase negative *E.coli* strains are false negative on this medium (typically 0157 *E.coli*). *If research is focused on rare pathogenic strains such as O157 E.coli : please refer to CHROMagar O157 product.*

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
E.coli ATCC® 25922	→ blue
E.coli ATCC® 51446	→ blue
C.freundii ATCC®8090	→ colourless
E.aerogenes ATCC®13048	→ colourless
S.aureus ATCC®25923	→ inhibited
E.faecalis 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 propriate 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			Ordering References	
1000 ml	=	50 Tests of 20ml	EC166	Weight: 37.3gr
5000 ml	=	250 Tests of 20ml	EC168	Weight: 186.5gr
25 L	=	1250 Tests of 20ml	EC169-25	Weight: 932.5gr
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)

NT-EXT-015 V4.1 / 21-Dec-16

CHROMagar
The Chromogenic Media Pioneer

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