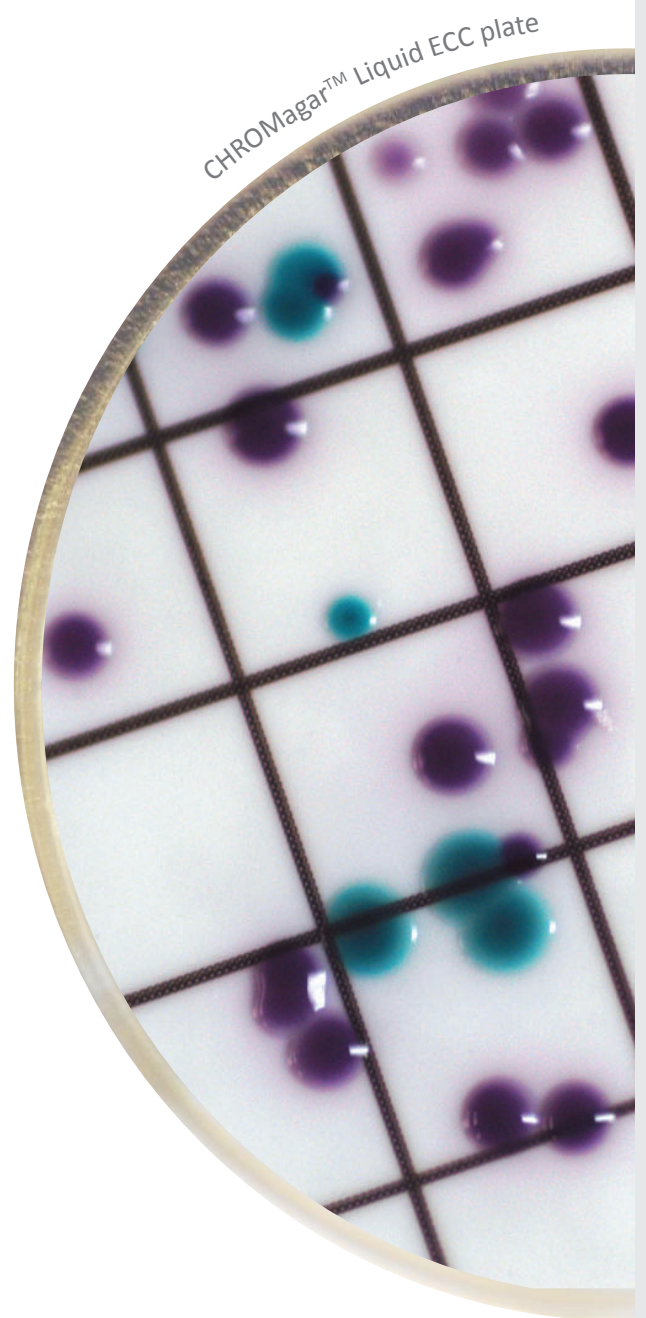


# CHROMagar™ Liquid ECC



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## MEDIUM PURPOSE

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

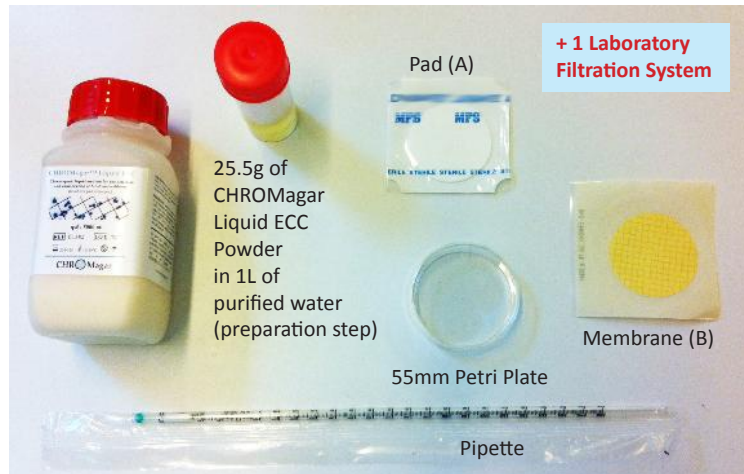
Coliforms, Enterobacteriaceae able to ferment lactose (lactose positive Enterobacteriaceae), are bacteria present in human and warm blooded animals intestinal flora, in the soil and water. Coliforms are proof of organic, environmental or faecal contamination. Faecal contamination, due to coliforms coming 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 powder medium.

| Product               | = | Pack  |
|-----------------------|---|---|
| Total g/L             |   | 25.5 g/L  |
| Composition g/L       |   | Peptone and yeast extract 16.0<br>NaCl 5.0<br>Chromogenic mix 4.5 |
| Aspect                |   | Powder Form   |
| <b>STORAGE</b>        |   | <b>15-30°C</b>  |
| <b>FINAL MEDIA pH</b> |   | <b>7.1 +/- 0.2</b>  |

## TYPICAL NECESSARY KIT



## PREPARATION (Calculation for 1L)

### Step 1 Preparation

- Disperse slowly 25.5g of powder base in 1L of purified water.
- Swirl or stir gently to homogenize.
- Heat and bring to boil (100°C) while swirling or stirring regularly. DO NOT HEAT TO MORE THAN 100°C. DO NOT AUTOCLAVE AT 121°C.

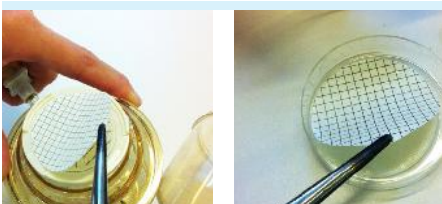
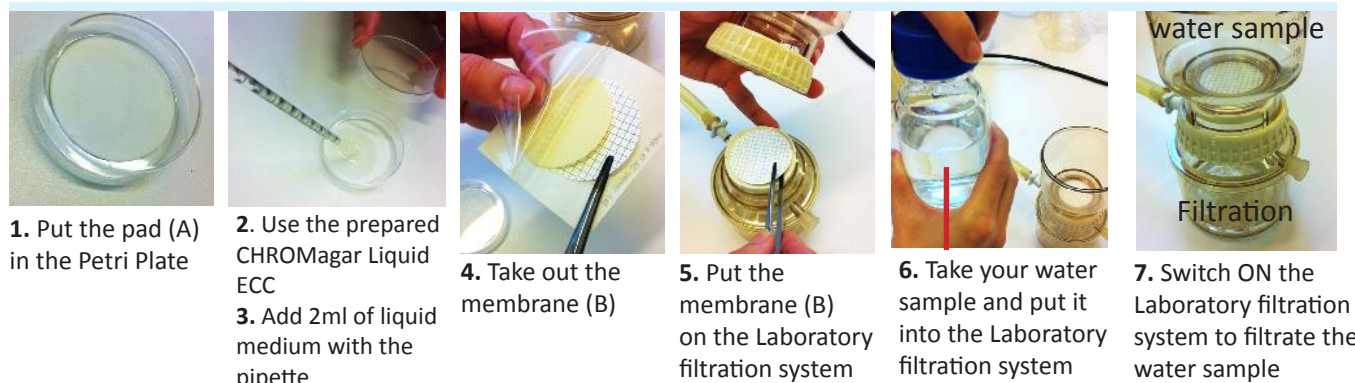
**Warning 1: If using an autoclave, use it without pressure.**

**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 large bubbles replacing foam.**

- Cool down to room temperature.

## INOCULATION

Related samples (e.g. water) can be processed as follow:



8. Take OFF the membrane of the Laboratory filtration System
9. Put the membrane (B) on the Pad (A) on the Petri dish

10. Incubate the Petri Dish at 37°C for 18-24h in aerobic conditions. **Do not turn upside down the plate.**
11. Read the results.

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

## Storage

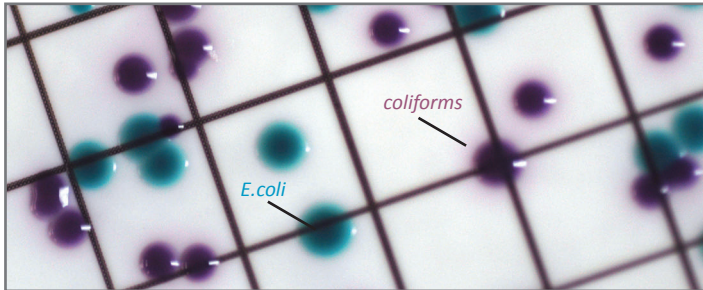
- Prepared broth can be kept for up to 2 weeks under refrigeration (2/8°C) if properly prepared and protected from light and contamination.

# CHROMagar™ Liquid ECC

## INTERPRETATION

| Microorganism                | Typical colony appearance |
|------------------------------|---------------------------|
| <i>E. coli</i>               | → blue                    |
| other coliform bacteria      | → purple                  |
| other Gram negative bacteria | → colourless or inhibited |

### Typical colony appearance



The pictures shown are not contractual.

## PERFORMANCE & LIMITATIONS

- Sensitivity and specificity for *E. coli* are 99.1% and 96.9% respectively (Ho and Tam 1997).
- 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    | → purple                  |
| <i>E. cloacae</i> ATCC® 35030    | → purple                  |
| <i>E. aerogenes</i> ATCC® 13048  | → purple                  |
| <i>K. pneumoniae</i> ATCC® 13883 | → purple                  |
| <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/vials 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

### Need some Technical Documents?

Available for download on [www.CHROMagar.com](http://www.CHROMagar.com)

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

 Pack Size

5000 ml

Equivalent to 2500 Tests of 2ml

Ordering References

EL382

Weight: 127.5gr

CHROMagar™ and Rambach™ are trademarks created by Dr A. Rambach  
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NT-EXT-038 V3 / 21-Oct-13