

AquaCHROM™ ECC

Instructions For Use

Available in english

NT-EXT-36

Version 7.0

Click below for:

ENGLISH



MEDIUM PURPOSE

Chromogenic medium for the detection and enumeration of *E. coli* and coliforms in water samples.

Coliforms, *Enterobacteriaceae* able to ferment lactose, are bacteria present in human and warm blooded animals intestinal flora, in the soil and water. Coliforms are indicators of organic, environmental or faecal contamination.

Strict regulations exist for *E. coli*/coliform absence in water and food samples. This can be explained by the importance of these germs in determining water and food safety.

Worldwide, water and food quality control for human consumption are based on detecting the presence/absence of *E. coli* and coliforms.

COMPOSITION

The product is composed of a powder medium.

Product	=	Pack
Total g/L		22.3 g/L
Composition g/L		Peptone and growth regulators 20.0 Chromogenic and selective mix 2.3
Aspect		Powder Form
STORAGE		15-30 °C
FINAL MEDIA pH		7.1 +/- 0.2

PREPARATION

Preparation

- This product is supplied ready to use, in pre-weighed doses.
- Each dose is for a 100 mL water sample.

Storage

- Store in the dark before use.
- The product can be stored until the shelf life indicated on the label.

INOCULATION

Water samples are to be processed as follows:

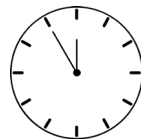
Presence/absence



1. Add 1 vial of AquaCHROM™ ECC in a sterile transparent vessel containing the 100 mL water sample



2. Close and shake until dissolution

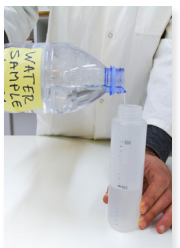


3. Incubate 35-37 °C for 18-24 h.



4. Read the results (*E. coli*/coliforms).

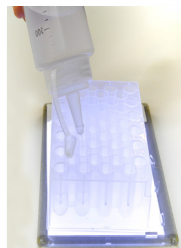
MPN method



1. Pour 100 mL of water sample in a dispenser



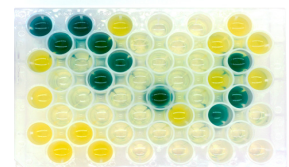
2. Add 1 vial of AquaCHROM™ ECC and swirl



3. Dispense into each well (approx. 3/4 of well capacity)



4. Incubate 35-37 °C for 18-24 h or 25°C for 36h

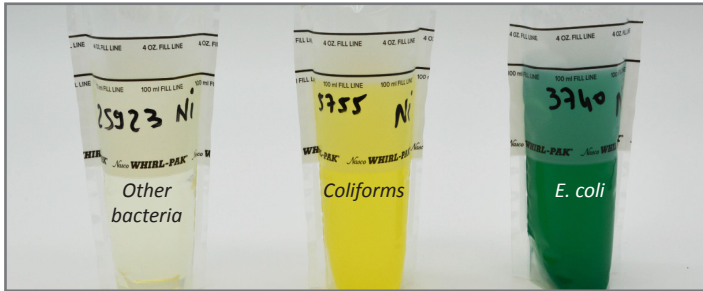


5. Ready for counting!
Green wells: *E. coli*
Yellow wells: Coliforms

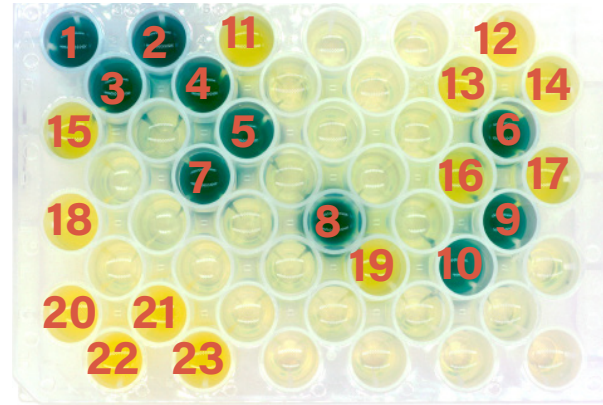
INTERPRETATION

Microorganism	Typical appearance
<i>E. coli</i>	→ green to blue-green
Other coliform bacteria	→ yellow
Other bacteria	→ colorless or inhibited

Typical appearance



The pictures shown are not contractual.



PERFORMANCE & LIMITATIONS

- Some rare strains of *E. coli*, like *E. coli* O157, may display yellow coloration.
- Some rare strains of *Salmonella* can give a dark blue coloration.
- Colorless results can be obtained with some atypical strains of coliforms.
- AquaCHROM™ ECC (Presence/absence and MPN methods) has been validated by the AOAC RI under the Performance Tested MethodsSM Program for the analysis of water samples, including tap water, well water, lake water, bottled water,...
- Bacterial identification can be confirmed by biochemical tests.
- The dispenser and the 48-well plate can be sterilized by autoclaving after each test to be used again and again!

- **Presence of *E. coli***: Count only green wells (in this example 10 green wells).
- **Presence of *E. coli* and coliforms** : Count green and yellow wells (in this example, 23 colored wells).

Positive wells	MPN	Lower 95 %	Upper 95 %
0	0	0	3.8
1	1.1	0.14	7.8
2	2.1	0.52	8.8
3	3.2	1	10
4	4.4	1.6	12
5	5.5	2.2	13
6	6.7	2.9	15
7	7.9	3.7	17
8	9.1	4.5	19
9	10	5.3	20
10	12	6.2	22
11	13	7.1	24
12	14	8.1	26
13	16	9	28
14	17	10	30
15	19	11	31
16	20	12	34
17	22	13	36
18	24	15	38
19	25	16	40
20	27	17	42
21	29	18	45
22	31	20	47
23	33	21	50
24	35	23	53

Refer to AquaCHROM™ ECC MPN table

Positive wells	MPN	Lower 95 %	Upper 95 %
25	37	24	55
26	39	26	58
27	41	28	61
28	44	30	65
29	46	32	68
30	49	34	72
31	52	36	76
32	55	38	80
33	58	40	84
34	62	43	89
35	65	45	94
36	69	48	99
37	74	51	110
38	78	55	110
39	84	58	120
40	90	62	130
41	96	67	140
42	100	72	150
43	110	78	160
44	120	85	180
45	140	93	210
46	160	100	250
47	190	120	320
48	>190	120	-

QUALITY CONTROL

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

Microorganism	Typical appearance
<i>E. coli</i> ATCC® 25922	→ green blue
<i>C. freundii</i> ATCC® 8090	→ yellow
<i>S. aureus</i> ATCC® 25923	→ inhibited

WARNINGS

- Do not use the product beyond its expiry date or if it shows any evidence 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.
- 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 containers and any other contaminated materials must be sterilized or disposed of by appropriate internal procedures and in accordance with local legislations. Containers 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/>

IFU/LABEL INDEX

-  Catalogue reference
-  Consult instructions for use
-  Quantity of powder sufficient for X liters of media
-  Expiry date
-  Required storage temperature
-  Store away from humidity
-  Protect from light
-  Manufacturer

 Pack Size

100 doses of 100 mL

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Ordering References

AQ056

Weight: 100 x 2.23 g

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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