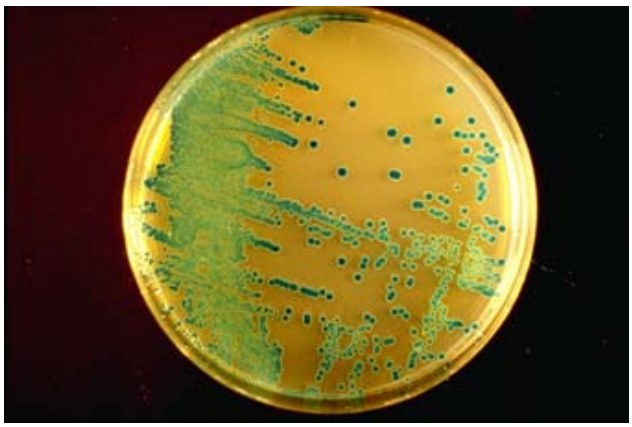
EC X - GLUC AGAR
(CHROMOGENIC E. COLI AGAR)

Ready to use medium in plates
for the detection of *E. coli* in water and foodstuffs



EC X-GLUC Agar: *E.coli* ATCC 25922

TYPICAL FORMULA (g/l)

Tryptone	20.00
Yeast Extract	5.00
Bile Salts n. 3	1.50
Disodium Hydrogen Phosphate	5.00
Potassium Dihydrogen Phosphate	1.50
Sodium Chloride	5.00
X-GLUC	0.06
Tryptophan	1.00
Agar	12.00

Final pH 7.0 ± 0.2

DESCRIPTION

EC X-GLUC Agar (Chromogenic E. coli), is a selective differential medium for the enumeration and immediate identification of *Escherichia coli* mainly in water samples by means of MF technique. It is also useful for the detection of *E.coli* in foodstuffs with surface inoculated plate or with poured plate technique.
The medium contains bile salts for the complete inhibition of Gram-positive bacteria and X-GLUC (5-bromo-4-chloro-3-indolyl-β-D-glucuronide) for the detection of β–glucuronidase enzyme. Among the *Enterobacteriaceae* only *E. coli*, together with some strains of *Salmonella* and *Shigella*, is β - glucuronidase positive, so cultivates on the plates with green-blue colonies. β-glucuronidase negative bacteria grow with colourless colonies. It is also possible to carry out the rapid indole test by leaving a drop of Kovacs' reagent (code 19171000) onto the medium and observing the reagent turning to red. Natali et al. evaluated Biolife EC X-GLUC Agar with water samples. The results show a good applicability of this medium to water analysis. EC X-GLUC Agar is recommended by Italian UNICHIM method n° 1185 for the rapid detection of *E.coli* in water for human consumption.

TECHNIQUE

Membrane filtration method :

1. Filter the sample on a 0,45µ membrane and settle the last over the medium surface.
2. Tightly close the plate and incubate at 44 (+/- 0,5)°C for 24 (+/-2) hours.
3. Count as *E. coli* all the blue or blue-green colonies, confirmed by indole test.

Surface spread plate method:

1. Pour 0,1ml of the decimal dilutions of the sample onto the plates.
2. Incubate at 44 (+/- 0,5)°C for 24 (+/-2) hours
3. Count as *E. coli* all blue or blue-green colonies, confirmed by indole test
4. Report the results as UFC/g considering the "dilution factor"

STORAGE

Store at 2-8° - When stored as directed the plates remain stable until the expiry date shown on the label. Do not use beyond stated expiry date.

REFERENCES

- Bonadonna L. *Escherichia coli* nelle acque significato sanitario e metodologie di analisi. ISSN:1125-2464, 2001
- Delisle, G.J., Ley, A. (1989) J. Clin. Microbiol. 27, 778
- Frampton, E.W., Restaino, L., Blazko, N. (1988) J. Food Proct. 51,402
- Natali, P., Neri, A. Rossi, P., Ferrari, M. (1999) Biologi Italiani, n° 10/99, 20-22
- Unichim n° 1185: 2000.

PACKAGING

497102 EC X-GLUC Agar (Chromogenic E. coli Agar) 30 ready to use plates, 55 mm diam.
541968 EC X-GLUC Agar (Chromogenic E. coli Agar) 20 ready to use plates, 90 mm diam.