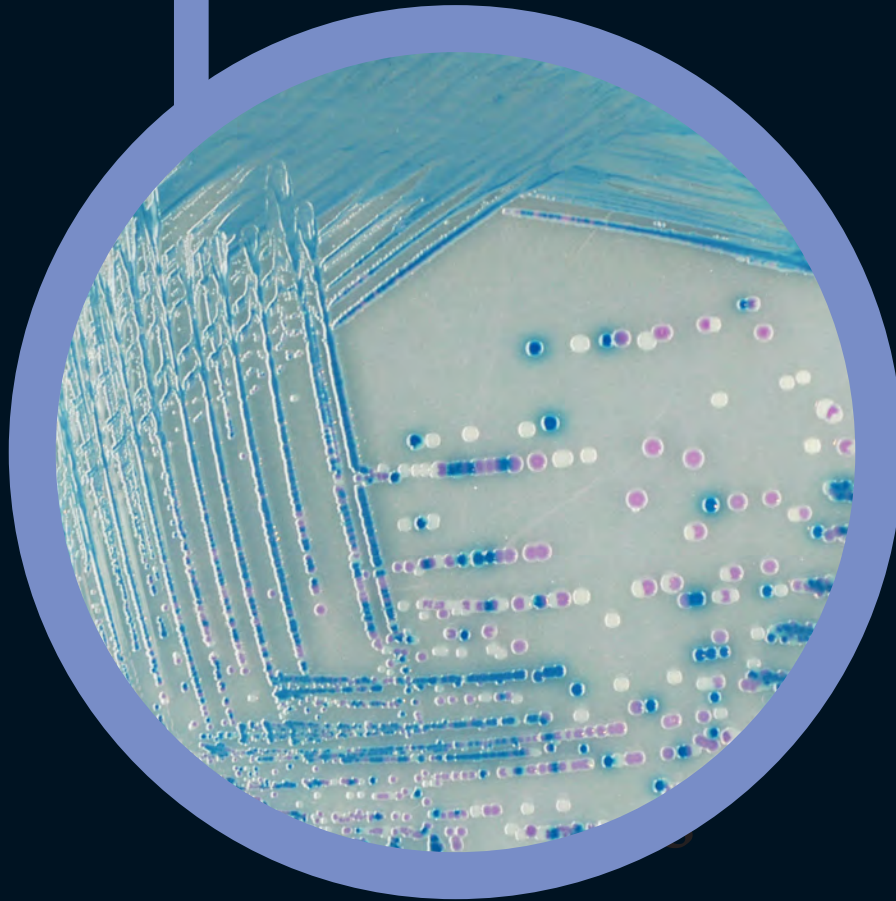


● CHROMagar™
O157



**For the selective isolation and differentiation
of *E.coli* O157**

For the selective isolation and differentiation of *E. coli* O157 in food samples

Background

Escherichia coli (*E. coli*) are bacteria commonly found in the gut of humans and warm-blooded animals. Most strains of *E. coli* are harmless. Some strains, however, such as Verocytotoxigenic *E. coli* (VTEC), also known as Shiga-toxigenic *E. coli* (STEC) can cause severe foodborne diseases. Enterohaemorrhagic *E. coli* (EHEC) are a subset of VTEC, which can cause severe disease in humans such as Haemolytic Uraemic Syndrome (HUS). VTEC have been isolated from the gut contents of many animals, including cattle and sheep. VTEC are mainly transmitted to humans primarily through consumption of contaminated foods, but can also be transmitted through handling animals carrying these bacteria. Symptoms appearing a few hours and up to 10 days after ingestion are: stomach cramps, often bloody diarrhoea, vomiting, urinary tract infections, fever, and they can lead to fatal complications such as HUS. This infection is especially severe in the young and the elderly.

The *E. coli* serotype O157:H7 or its non-motile variant O157:H- is the most common VTEC serotype in relation to public health. Its significance was recognized in 1982, following two outbreaks in the USA. Since then, more than 180 outbreaks have been reported worldwide, with an estimated W.H.O figure of 70,000 infections per year.

Medium Performance

1 EASIER DETECTION COMPARED TO SMAC

E. coli O157 is detected by a characteristic mauve colour after only 24h of incubation, while most other *E. coli* are blue.

The conventional medium for the detection of *E. coli* O157 is Sorbitol MacConkey (SMAC) Agar, which has very poor specificity, thus exhibiting an abundance of false positives (*Proteus*, *E. hermannii*, etc.). Sorbitol MacConkey Agar is also difficult to read because there is a change of colouration in the case of prolonged incubation.

2 HIGH SENSITIVITY

E. coli* O157 → 98%

*Sensitivity from scientific study: K.A. Bettelheim, 1998. Reliability of CHROMagar O157 for the detection of enterohaemorrhagic *E. coli* (EHEC) O157 but not EHEC belonging to other serogroups. J.Appl.Microbiol.85:425-428.

3 POLYVALENCE

This medium can also be used with clinical specimens.

Medium Description

Powder Base	Total	29.2 g/l
	Agar	15.0
	Peptone and Yeast extract	13.0
	Chromogenic mix	1.2
	Storage at 15/30°C - pH: 6.9 ± 0.2	
Shelf Life	3 years	

Usual Samples	food, meat trimmings, animal or human faecal samples
Procedure	Direct streaking or after an appropriate enrichment step of the sample. Incubation 24h at 37°C.

Scientific Publications on this product: available on www.CHROMagar.com
For detailed preparation procedure, please refer to our IFU.

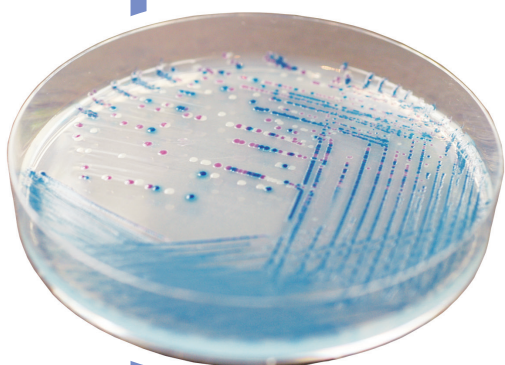
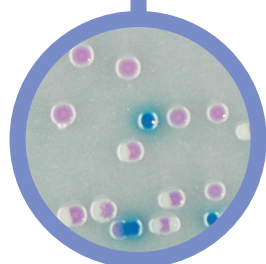


Plate Reading

- *E. coli* O157
→ mauve
- Other bacteria
→ steel blue, colourless or inhibited



Quality Control Strains

E. coli O157:H7 ATCC® 35150 mauve
E. coli ATCC® 25922 metallic blue
Klebsiella ATCC® 13883 metallic blue
E. faecalis ATCC® 29212 inhibited

ATCC® is a registered trademark of the American Type Culture Collection

Order References

Please use these product references when contacting your local distributor:

1000 ml pack EE220
 5000 ml pack EE222
 25 L pack EE223-25
 Bulk on request

CHROMagar
 4 place du 18 juin 1940
 75006 Paris - France

Find your nearest distributor on
www.CHROMagar.com/contact