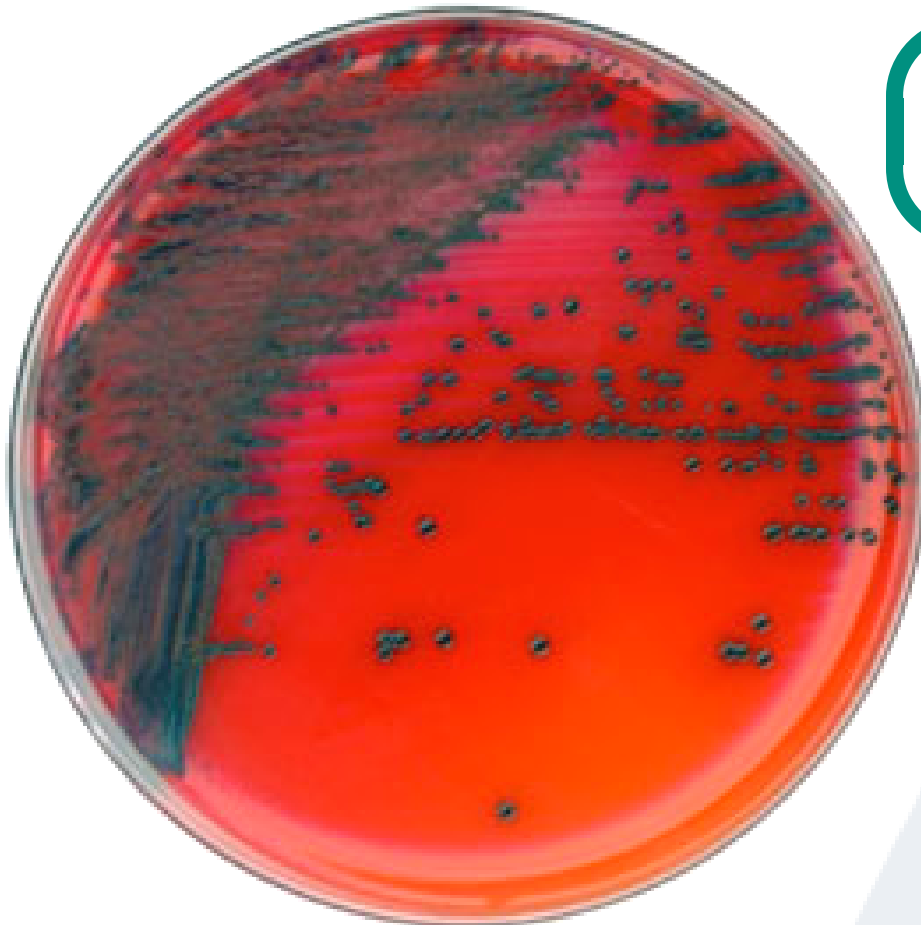


ESCHERICHIA COLI 0157:H7 CHROMOGENIC DETECTION SYSTEM

A Differential/Selective Chromogenic Plating Medium For The Rapid Identification And Isolation Of Presumptively Positive Colonies Of Escherichia coli O157:H7



**Listed in
FDA's BAM**

Presumptively positive colonies of Escherichia coli O157:H7 appear as blue-black domed colonies 1.5 to 2.5 mm in diameter with a black precipitate after 20-24 hours incubation at 35°C.

ESCHERICHIA COLI O157:H7 CHROMOGENIC DETECTION SYSTEM

at 35°C for 20-24 hours ...

Bacteria	Number of Strains	Colonial Morphology
<i>Escherichia coli</i> O157:H7 Typical strains	38	Domed to raised colony, 1.5-2.0 mm diameter, dark blue to black, with a black precipitate
<i>Escherichia coli</i> O157:H7 β -glucuronidase positive	1	Domed to raised colony, 2.0 mm diameter, dark blue to black, with a black precipitate
<i>Escherichia coli</i> O157:H7 sorbitol positive	1	Domed to raised colony, 2.0 mm diameter, dark blue to turquoise, with a black precipitate
<i>Escherichia coli</i> O26	3	Domed colony, green with brownish center
<i>Escherichia coli</i> O111	2	Domed colony, green with brownish center
<i>Escherichia hermannii</i>	2	Domed; pinpoint to < 1 mm diameter, clear to light blue color
<i>Escherichia coli</i> (generic)	11	3 strains no growth, pinpoint to 2 mm diameter, clear to green
<i>Salmonella</i> sp.	5	minimal growth < 1 to 1 mm diameter, clear color
<i>Pseudomonas</i> sp.	3	Domed; pinpoint to 1 to 2 mm diameter, clear color
<i>Providencia stuartii</i>	1	Domed; pinpoint to < 1 mm diameter, clear to white color
<i>Klebsiella</i> sp. <i>Enterobacter</i> sp. <i>Proteus</i> sp. <i>Morganella</i> sp. <i>Citrobacter</i> sp. <i>Acinetobacter calco- aceticus</i> <i>Providencia alcafaciens</i> <i>Yersinia enterocolitica</i>	15	No growth for all strains tested

ESCHERICHIA COLI O157:H7 CHROMOGENIC DETECTION SYSTEM

key advantages...

- A selective plating medium that differentiates Escherichia coli O157:H7 from most other strains of Escherichia coli
- Differential characteristics based on positive chemical attributes of Escherichia coli O157:H7
- Isolates β -glucuronidase positive and slow fermenting sorbitol positive Escherichia coli O157:H7 variants
- Simple preparation of plates that remain stable for at least 45 days stored in the dark at 2-8°C
- Differentiation based on β -galactosidase reaction and 4 carbohydrate fermentations coupled with a pH indicator

References...

- Onoue, Y., H. Konuma, H. Nakagawa, Y. Hara-kudo, T. Fujita, and S. Kumagai. 1999. Collaborative evaluation of detection methods for Esch- erichia coli O157:H7 from radish sprouts and ground beef. *International Journal of Food Microbiology* 46: 27-36.
- Reissbrodt, R. 1998. Enterohemorrhagic Escherichia coli O157:H7 isolation and identification. *Biotest Bulletin* 6: 65-74.
- Restaino, L. 1996. Accentuate the positive. *Food Quality (USA) Nov./ Dec.:* 68-70.
- Restaino, L., E.W. Frampton, K.N. Turner, and D.R.K. Allison. 1999. A chromogenic plating medium for isolating Escherichia coli O157:H7 from beef. *Letters in Applied Microbiology*. 29: 26-30.