Michrom™ E. Coli Agar Plate

Intended Use
Michrom™ E. coli Agar Plate is used for the simultaneous detection of *Escherichia coli* and total coliforms in water and food samples.

Summary
Michrom™ E. coli Agar is based on Tryptone Bile Agar to detect *Escherichia coli* in foods, where recovery of *E. coli* is faster, more reliable and accurate. Most of the *E. coli* strains can be differentiated from other coliforms by the presence of enzyme glucuronidase, which is highly specific for *E. coli*. The chromogenic agent X-glucuronide used in this medium helps to detect glucuronidase activity of *E. coli*. *E. coli* cells absorb X-glucuronide and the intracellular glucuronidase enzyme splits the bond between the chromophore and the glucuronide. The released chromophore gives bluish green colouration to the *E. coli* colonies.

Principle
Casein enzymic hydrolysate and peptone special provide the essential growth nutrients to the organisms. Bile salts mixture inhibits Gram-positive organisms. Sodium chloride and phosphates maintain osmotic balance and buffering action respectively.

Formula*
Ingredients	**g/L**
Casein Enzymic Hydrolysate	14.0
Peptone, Special	5.0
Bile Salts Mixture	1.5
Disodium Hydrogen Phosphate	1.0
Sodium Dihydrogen Phosphate	0.60
Sodium Chloride	2.4
X-Glucuronide	0.075
Agar	12.0

*Adjusted to suit performance parameters.

Additional Material Required
Bacteriology Incubator.

Instructions for use
1. Open the sterile pack and remove the respective plate aseptically.
2. Inoculate/streak the plate as per standard procedure.
3. Incubate the plates in inverted position as per standard guidelines.

Reading and interpretation
1. After incubation, observe the microbial growth and count the colonies.
2. Interpretation is assured by user.
3. User is responsible to define the action limits as per standard guidelines and alert limits on the basis of trend analysis & other relevant data.

Quality Control
Appearance: Gel with smooth and even surface, without any cracks, bubbles and drying or shrinking of media.
Colour of Medium: Light yellow coloured, very slightly opalescent gel in petriplates.
Quantity of Medium: 26 ± 2 g in 90 mm petriplate.
pH at 25°C ± 2°C: 7.2 ± 0.2

Organism (ATCC)	**Growth**	**Colour of Colony**
Escherichia coli (25922)	Good	Bluish green
Salmonella Enteritidis (13076)	Good	Colourless
Inhibitory		
Staphylococcus aureus subsp. *aureus* (25923)	Inhibited	-

Storage and Shelf Life

1. Store between 2°C-8°C to avoid water condensation. Condensation can be prevented by avoiding quick temperature shifts and mechanical stress.
2. Under optimal conditions, the medium has a shelf life of 3 months. Use before expiry mentioned on the label.

Reference

1. Anderson J.M. and Baird-Parker A.C., 1975, J. Appl. Bacteriol., 39:111.
2. Hansen W. and Yourassawsky E., 1984, J. Clin. Microbiol., 20:1177.
3. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product	Pack Size
205131520100	Michrom™ E. coli Agar Plate	100 Plates