Michrom™ E. Coli Agar

Intended Use
Michrom™ E. coli Agar is used for the detection and enumeration of *Escherichia coli* in foods without further confirmation on membrane filter or by indole reagent.

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
Final pH (at 25°C)	7.2 ± 0.2

*Adjusted to suit performance parameters.

Storage and Stability
Store below 8°C in tightly closed container, preferably in dessicators and use freshly prepared medium. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Type of Specimen
Food and Dairy samples; Clinical samples - Faeces; Water samples

Specimen Collection and Handling
Ensure that all samples are properly labelled. Follow appropriate techniques for handling samples as per established guidelines. Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure. The samples must be stored and tested within the permissible time duration. After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions
1. Suspend 36.57 g of the powder in 1000 mL purified / distilled water.
2. Heat to boiling to dissolve the powder completely.
3. Sterilize by autoclaving at 121°C (15 psi) for 15minutes as per validated cycle.
4. Cool to 50°C and pour into sterile petridishes.

Quality Control
Dehydrated Appearance: Cream to yellow coloured, homogeneous, free flowing powder.
Prepared Appearance: Light yellow coloured, clear to slightly opalescent gel forms in petridishes.
Cultural Response: Cultural characteristics observed after an incubation at 44°C for 18-24 hours.

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

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

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 description	Pack Size
201130470100	Dehydrated Culture Media	100 g
201130470500	Dehydrated Culture Media	500 g