

## TM 1340-CHROMOGENIC ECC AGAR

### INTENDED USE

For presumptive identification of *Escherichia coli* and other coliforms in food and environmental samples.

### PRODUCT SUMMARY AND EXPLANATION

*Escherichia coli*, a member of the family Enterobacteriaceae is a part of normal flora of the intestinal tract of humans and a variety of animals. Although most of *E. coli* does not cause gastrointestinal illnesses, certain groups of *E. coli* can cause life-threatening diarrhoea and severe sequelae or disability. Chromogenic ECC Agar is a differential medium recommended for the presumptive identification of *E. coli* and other coliforms in food and environmental samples. The medium contains two chromogens. One of the chromogen is cleaved by the enzyme glucuronidase produced by *E. coli* to give blue to purple coloured colonies whereas the other chromogen is cleaved by the enzyme galactosidase, produced by majority of coliforms, resulting in the formation of rose-pink coloured colonies.

### COMPOSITION

Ingredients	Gms / Ltr
Chromogenic mixture	20.300
Agar	15.000
Peptone, special	5.000
Sodium chloride	5.000
Disodium hydrogen phosphate	3.500
Yeast extract	3.000
Lactose	2.500
Monopotassium dihydrogen phosphate	1.500
Neutral red	0.030

### PRINCIPLE

Peptone special, yeast extract provide nitrogenous substances, vitamin B complex and other essential growth nutrients. Lactose is the fermentable carbohydrate, which aids in detecting lactose fermenters with neutral red as an indicator. Disodium hydrogen phosphate and potassium dihydrogen phosphate buffers the medium well. Sodium chloride maintains the osmotic equilibrium. Dry the surface of plate medium.

### INSTRUCTION FOR USE

- Dissolve 55.83 grams in 1000 ml distilled water.
- Heat to boiling with swirling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C.
- Mix well and pour into sterile Petri plates.

### QUALITY CONTROL SPECIFICATIONS

Appearance of powder	:	Light yellow to pink colour homogeneous free flowing powder
Appearance of prepared medium	:	Reddish pink colour, opaque gel
pH (at 25°C)	:	6.8± 0.2

### INTERPRETATION

Cultural characteristics observed after incubation. Recovery rate is considered 100% for bacteria growth on Soya Agar.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Colour of colony	Recovery	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	25922	50-100	Luxuriant	blue/purple	≥ 70%	35-37°C	18-24 Hours
<i>Klebsiella pneumoniae</i>	13883	50-100	Luxuriant	rose/pink	≥ 70%	35-37°C	18-24 Hours
<i>Pseudomonas aeruginosa</i>	27853	50-100	Good-Luxuriant	straw	≥ 70%	35-37°C	18-24 Hours

### PACKAGING

In pack size of 100gm & 500gm bottles.

### STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 2-8°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.













**Product Deterioration:** Do not use if powder show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

### DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

### REFERENCES

1. Doyle M. P., (Ed.), 1989, Foodborne Bacterial Pathogens, Marcel Dekker, New York
2. Frampton E.W., Restaino L. and Blaszkowski N., 1988, J. Food Prot., 51:402.
3. Kilian M. and Bülow P., 1976, Acta. Pathol. Microbiol. Scand., Sect. B, 84:245.
4. Kilian M. and Bülow P., 1979, Acta. Pathol. Microbiol. Scand., Sect. B, 87:271.

 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 LOT/ B. NO. Lot / Batch Number	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 EC REP Authorized Representative MedNet GmbH Barkstrasse 10, 49163 Muenster, Germany	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

**\*For Lab Use Only**

Revision: 15 June, 2023